

Content

Abstracts

Wednesday, 5 June 2013 2

Thursday, 6 June 2013 6

Friday, 7 June 2013 71

Saturday, 8 June 2013 126

Poster Session I 145

Poster Session II 175

Index 207

Please note, that all abstracts, titles, authors & institutions have been published as uploaded by the authors in the abstract management system!

0380

Elizabeth Jane Costello¹,
William Copeland¹, Lilly Shanahan²,
Adrian Angold¹

¹Duke University School of Medicine,
Department of Psychiatry and
Behavioral Sciences, Durham, NC,
USA, United States

²University of North Carolina at Chapel
Hill, Psychology, Chapel Hill, NC,
United States

Current trends in childhood mental health

We review both positive and negative trends in the identification, prevention, and treatment of mental disorders of childhood and adolescence.

On the positive side: First, we are developing and adapting for children methods for getting “under the skin”. These include genetics and epigenetics, neuroimaging, eye tracking, and biomarkers of stress. Second, more attention is being paid to prevention of early mental disorders. Efforts include: (1) primary prevention of basic causes, such as poor perinatal care; (2) secondary prevention following exposure to risky events, such as parental bereavement; (3) tertiary prevention of relapse or exposure to comorbid conditions, via wrap-around programs. Third, both epidemiologic and clinical research has paid far more attention to very young children. Reliable and valid measures of psychopathology have been developed for use with children as young as 2.

On the negative side: First, still far too few children with mental disorders receive any treatment, and most treatments fall short of the highest standard of care. In particular, there is clear evidence of overmedication of some children, even at young ages. Second, there is evidence of “diagnostic creep” leading to many children receiving psychiatric diagnoses of dubious validity (e.g., childhood bipolar disorder). Third, it is often difficult to get health systems or insurance companies to pay for adequate and appropriate treatment.

We propose some initiatives that will improve the quality of diagnosis, prevention, and treatment of child and adolescent mental disorders in the next decade. First, longitudinal studies need to be nurtured; they are expensive and difficult but irreplaceable for understanding the precursors of adult psychopathology. New epigenetic approaches in particular will need them. Second, most countries need to improve the quality of data collection and record sharing so that we can understand more about, for example, what care young people are getting and how it affects both medical and psychiatric outcomes. It is also important to understand more about the costs and benefits of different interventions (for example, that the most expensive “treatment” is incarceration). Third, we need to recognize that parental mental illness is a major risk factor for children, and treat the whole family as a unit.

0024

Hans Grabe¹, Alexander Teumer²,
Claudia Schurmann², Georg Homuth²,
Uwe Völker², Henry Völzke³,
Christian Schwahn⁴

¹University of Greifswald, Psychiatry,
Greifswald, Germany

²University of Greifswald, Interfaculty
Institute for Genetics and Functional
Genomics, Greifswald, Germany

³University of Greifswald, Institute of
Community Medicine, Greifswald,
Germany

⁴University of Greifswald, Center of
Oral Diseases, Greifswald, Germany

Gene-environment interaction in depressive disorders

Question: The vulnerability-stress-model has gained much attention in mental disorders as it nicely captures the multifactorial nature of the disorders. During the last years, research activities have aimed to identify those biological and genetic components that operate in interaction with stressful life-events within this model increasing or lowering ones vulnerability for mental disorders. Empirical evidence strongly suggests that adverse psychosocial experiences like childhood abuse and neglect as well as stressful life conditions in adulthood are strongly associated with an increased risk of depressive disorders. The research of the interaction between environmental and genetic factors (G x E) offers new insights into the vulnerability to MDD. One major candidate gene for GxE in depressive disorders is the brain-derived neurotrophic factor (BDNF). BDNF was found to promote neuronal survival, neurogenesis and synaptic plasticity. It has been shown that acute and chronic experimental stress can decrease BDNF expression in the brain of animals. Numerous studies have investigated the BDNF Val66Met polymorphism (rs6265). Despite of the well documented neurobiological importance of BDNF in the adaptation to stressful events the known genetic risk markers of BDNF are less promising. Many genetic association studies on rs6265 have yielded inconsistent results. The aim is to identify new candidate SNPs of the BDNF gene that impact on depressive disorders.

Methods: Based on our general population sample from the Study of Health in Pomerania (SHIP-TREND) we aimed to identify new cis-acting eQTLs from whole blood genome-wide gene expression arrays (n=970) that impacted on the mRNA expression of the BDNF gene. GxE analyses were performed in a second independent sample (LEGEND).

Results: One marker was identified that significantly interacted with childhood abuse in our SHIP-LEGEND study (n=2400) and thereby increasing the risk of depressive disorders. The risk genotype of this novel marker has a 5-fold higher frequency than the rare MET/MET genotype of rs6265 and may therefore represent an important new candidate for affective disorders and gene-environment interaction.

Conclusion: The finding of the novel marker should be replicated in independent samples. Biological mechanisms of the action of the novel marker should be elucidated. Further methodological issues will be discussed.

Early detection of Alzheimer's disease: Signals and shibboleths

Dementia is among the gravest threats to the health of the elderly. The large majority of dementia in old age is caused, at least in part, by what we call Alzheimer's disease (AD). Increasingly, however, we have learned that the dementia of AD is the end stage of a chronic illness. We don't know when this illness begins, but we can see evidence of it decades before individuals develop cognitive difficulty.

At some point, the detection of such "pre-clinical" or "pre-symptomatic" AD (my preferred term) will become important as we learn to measure its progress in quantitative terms. That sort of measurement will give us the means to assess the effects of treatments that may slow or stop the disease process.

Then, we will no longer be forced to rely on symptoms to measure disease (obviously, impossible when the disease is still pre-symptomatic). Instead, we must develop other kinds of signals to show the effects of candidate prevention strategies.

But a word of caution is in order. Modern dogma holds that detection of pre-symptomatic or even early-symptomatic AD is a good thing. I suggest we need to examine this idea more closely to ask how much of it is myth or shibboleth. It is true that we now benefit enormously from early detection of chronic conditions such as cancer, coronary heart disease, or even diabetes. But the crucial difference for AD is how little we understand today about its etiology and pathophysiology. We prevent heart disease or cancer by measuring their risk factors or their early, "silent" manifestations. We then have methods to halt or reverse the progression of these conditions. But, we know little about how to do that for AD.

At best, we try to diminish risk factors, hoping (as seems likely) that such risk factor intervention will help with disease control. But we should not deceive ourselves: almost all strategies for AD risk factor reduction are behavioral in nature, be they changing diet, exercising more, or doing one's best to "maintain your brain." Getting people to change their behavior is difficult. I suggest that the key to controlling AD will lie instead in the discovery of safe and efficient preventive treatments. Until we have such treatments, the early detection of AD will have limited value except in research.

Epidemiology in a changing global context: Implications for mental health research

Introduction and objectives: Population-based research on mental disorders needs to keep pace with trends in mainstream epidemiology. Currently this requirement is complicated by uncertainty within the parent discipline about its future development in a changing global context. The present study examines proposals by leading epidemiologists for new directions in concepts, strategy and methods and considers their significance for psychiatric epidemiology.

Material and method: Narrative review supplemented by literature search for the period from 2000 onward.

0460

John Breiter¹¹McGill University, Montreal, Canada

0032

Brian Cooper¹¹retired, Heidelberg, Germany

Results: The main proposals can be divided into three groups according to the locus of action suggested by each:

- A new research paradigm of ‘eco-epidemiology’, with greater complexity in research design and analysis
- Improved ‘translation’ of research findings; i.e. more rapid and effective implementation of epidemiological evidence into public policy.
- A return to the public-health origins and vision of epidemiology, combined with stronger regulation of its ethical basis and resources in the era of globalisation.

Conclusion: Publications in each of the above groups carry important messages for mental health epidemiology. On the other hand, some problems which preoccupy workers in the latter field, notably those concerned with nosology and classification, are given little attention in any of the proposals. It seems that these issues are largely characteristic for psychiatry as a medical specialty and will have to be resolved within it.

0461

Matthias Angermeyer¹

¹Center of Public Mental Health,
Gösing am Wagram, Austria

Evolution of public attitudes about mental disorders over the last two decades

Over the last decades, psychiatry has changed in many respects: due to the acceleration of advances in neuroscience and genetics our understanding of the biological nature of mental disorders has increased, the treatment of mental disorders has improved and the provision and organization of mental healthcare underwent profound changes. The question arises as to whether these changes are reflected in similar changes of attitudes of the public towards mentally ill people and mental healthcare. It was hoped that the recognition of mental disorders as brain disorders, the increasing closeness of psychiatry to the rest of medicine, advancements in treatment and the reform of mental healthcare have a greatly beneficial impact on both the stigma attached to people with mental illness and the stigma surrounding psychiatry. The expectation was that, in consequence, the public will reject less those suffering from mental disorders and accept more the help offered by mental health services. Data from population surveys conducted in Germany provide the opportunity to examine how public attitudes have developed since 1990 and to what extent the expected changes for the better have occurred.

0107

Bruce Link¹

¹Columbia University, New York,
United States

Introducing stigma power

Stigma is a form of power that allows stigmatizers to achieve desired ends. Phelan, Link and Dovidio (2008b) proposed three ends that people can attain by stigmatizing others:

- (1) exploitation/domination or keeping people down;
- (2) enforcement of social norms or keeping people in; and
- (3) avoidance of disease or keeping people away.

Stigma is a useful and very flexible instrument that can be used to accomplish these ends -- it is a source of power. We identify multiple mechanisms through which “stigma power” is exercised and we note that many of these are “misrecognized,” that is buried in taken-for-granted aspects of culture that allow the goals of stigmatizers to be achieved in ways that are hidden from view. Social science can be useful because it makes the misrecognized recognizable. The concept of stigma power is exemplified in understanding stigma processes as they apply to people with psychosis.

Mental-illness stigma: Implicit and explicit measures

In recent years, social psychologists have developed measures of implicit (not fully conscious) attitudes, such as the Implicit Association Test (IAT). These measures are particularly useful in the measurement of attitudes that are difficult to ascertain with direct questions because of social desirability bias. IATs have been widely used to measure attitudes toward racial, ethnic, national and religious groups, and implicit attitudes are often more negative than explicit attitudes. Attitudes toward people with mental illness are a prime candidate for implicit measurement, yet few studies have measured implicit attitudes toward people with mental illness, and those that have examined only a few attitude dimensions, such as goodness and competence. We will present data on implicit and explicit attitudes toward mentally ill people, probing several dimensions of mental-illness stigma: good vs. bad; normal vs. deviant; us vs. them; high status vs. low status; whole vs. defective; contagious vs. sanitary and violent vs. peaceful. Data come from a large sample of research volunteers who visited Harvard University's Project Implicit website.

Jo Phelan¹

¹Columbia University, Sociomedical Sciences, New York, United States

Causal attributions and social acceptance of persons with mental illness: A comparative analysis of schizophrenia, depression and alcoholism.

Background: There is an ongoing debate whether biological illness explanations improve tolerance towards persons with mental illness or not. Several theoretical models have been proposed to predict the relationship between causal beliefs and social acceptance. This study uses a multiple mediator path model to compare different theoretical predictions regarding attitudes towards persons with schizophrenia, depression and alcohol dependence.

Methods: In a representative population sample in Germany (n=3642), we elicited causal beliefs regarding a vignette describing a person with schizophrenia, depression or alcohol dependence, potentially mediating attitudes (onset responsibility, offset responsibility, alienation, dangerousness, treatability) and social acceptance of the person described. We calculated a multiple mediator path model simultaneously containing the three vignette conditions and all potentially mediating attitudes.

Results: Factor analysis of causal beliefs revealed three factors: Belief in biogenetic causes, childhood adversities, and current stress. Biogenetic beliefs were associated with lower social acceptance in schizophrenia and depression, and with higher acceptance in alcohol dependence. In schizophrenia and depression, alienation and perceived dangerousness mediated the largest indirect effects. Psychosocial causal beliefs had differential effects in depression and schizophrenia: Belief in current stress as a cause was associated with higher acceptance in schizophrenia, while belief in childhood adversities resulted in lower acceptance of a person with depression.

Conclusion: Biological causal explanations seem to be beneficial in alcohol dependence, but harmful in schizophrenia and depression. In depression and schizophrenia, the consequences of biogenetic causal explanations were in accordance with the predictions of genetic essentialism, while we found overall little evidence for associations predicted by attribution theory or genetic optimism. The negative correlates of believing in childhood adversities as a cause of depression merit further exploration.

0149

Georg Schomerus¹,
Herbert Matschinger²,
Matthias Angermeyer³

¹University Medicine Greifswald, Psychiatry, Stralsund, Germany

²Leipzig University, ISAP, Leipzig, Germany

³Center for Public Mental Health, Gösing am Wagram, Germany

0401

Harvey A. Whiteford¹,
Louisa Degenhardt¹, Amanda J. Baxter¹,
Alize J. Ferrari¹, Holly Erskine¹,
Fiona Charlson¹

¹University of Queensland, School of
Population Health, Brisbane, Australia

The global burden of mental disorders in 2010

Objective: The primary goal of the current Global Burden of Disease (GBD) study is to derive internationally comparable measures of health over time and across populations and disease, including for complex health issues such as mental disorders. While previous GBD studies found mental disorders responsible for a high proportion of disease burden, notably absent were very common disorders (eg. GAD and phobias) and childhood disorders, lack of empirical studies to inform model input (eg. disability weights and some epidemiological parameters), and consideration of burden attributable to subsequent health issues. New burden of disease estimates, informed by systematic reviews of the empirical data, were recently finalized. Mental disorders included depressive disorders (MDD and dysthymia), anxiety disorders, bipolar disorder, schizophrenia, eating disorders (anorexia and bulimia), childhood behavioural disorders (ADHD and conduct disorder) and autistic spectrum disorders (autism and asperger's disorder). We provide an overview of these findings in this session.

Method: Epidemiological data (prevalence, incidence, remission and case fatality) were collated, and strength of evidence for mental disorders as risk factors evaluated, through a series of systematic reviews. Disease parameters were developed for each disorder using improved modeling approaches. New population-based disability weights and mortality estimates were developed by the IHME for use in revised estimates of disease burden. Population-attributable fractions were derived for relevant outcomes of mental disorders within the Comparative Risk Assessment framework.

Results: The systematic reviews for mental disorders were the most comprehensive ever conducted and revealed important inconsistencies in study methodology and gaps in the available research. Strategies for addressing lack of data and multiple sources reporting highly variable data will be presented. We present findings around the global burden of mental disorders for 1990 and 2010, including the burden of suicide attributable to mental disorders and that of CHD due to depression. These results will be reported within the context of regional differences.

Conclusion: New findings around the global burden of mental disorders will be highly relevant in considering priorities for the future global health agenda.

0400

Louisa Degenhardt¹, Harvey Whiteford¹,
Theo Vos¹, Wayne Hall¹, Alize
J. Ferrari¹, Amanda Baxter¹,
Fiona Charlson¹

¹University of Queensland, Queensland
Centre for Mental Health Research,
Queensland, Australia

The estimated burden of disease attributed to illicit drug use in GBD2010

Objective: The work estimating the burden of disease attributable to illicit drug use in the Global Burden of Disease (GBD) 2010 study involves two major spheres of work: burden attributable to illicit drug dependence, and drug use as a risk factor for other diseases and injuries. The project produced separate estimates for cannabis, cocaine, amphetamine and opioid dependence. Furthermore, a number of consequences of drug use were considered: HIV/AIDS, suicide, and viral hepatitis as a risk of injecting drug use (IDU), and schizophrenia as a risk of regular cannabis use. The new estimates are informed by systematic reviews of peer reviewed and grey literature, ongoing expert review, and will benefit from improved modelling approaches. We will present the results of GBD 2010 in this presentation.

Method: Systematic reviews were conducted to identify studies, and collate datasets, for epidemiological parameters (prevalence, incidence, remission and case fatality) for each form of drug dependence: cannabis, cocaine, amphetamines and opioids. IDU and regular cannabis use were also modelled based upon systematic reviews of their prevalence. Modelling is being conducted using DisMod3, an updated version of software developed by WHO for the original GDB project.

Results: The work being conducted for the new GBD is based upon the most extensive round of systematic reviews of basic epidemiological parameters ever undertaken. The

reviews of illicit drug epidemiology have revealed significant gaps in our knowledge of the prevalence of drug use and dependence, and variations in the way in which data are collected and reported; these will add to the uncertainty around estimates of disease burden. Nonetheless, we will be able to present data for the first time on the estimated extent of cannabis dependence worldwide, and in particular, contrast this with estimates for other forms of drug dependence.

Conclusion: Our estimates will be important in framing upcoming estimates of burden across drug types and across the different outcomes of drug use.

The global burden of conduct disorder: A case study in the Global Burden of Disease 2010 Study

Objective: Conduct disorder is a disruptive behaviour disorder occurring in children up to 18 years of age and characterised by a pattern of antisocial behaviour that violates the basic rights of others or major age-appropriate societal norms. The new Global Burden of Disease study (GBD 2010) is the first to quantify burden for childhood-onset mental disorders including pervasive development disorders (Asperger's Syndrome and Autism) and childhood behavioural disorders (attention-deficit/hyperactivity disorder (ADHD) and conduct disorder). This has significant implications given that 44% of the world's population is aged under 25 years. Our aim is to summarise the burden quantification process and findings for conduct disorder, one of the more prevalent childhood-onset disorders.

Method: In order to calculate burden for conduct disorder, we first reviewed the available epidemiological literature and aggregated the resulting epidemiological estimates using DisMod-MR, a Bayesian meta regression tool developed specifically for GBD 2010. This was done to ascertain prevalence estimates for all 21 GBD regions, by age, year and sex which was necessary for calculating years of life lived with a disability (YLD). This, in turn, was used to calculate disability adjusted life years (DALYs) for conduct disorder

Results: Conduct disorder presented a unique challenge in terms of epidemiology as the lack of epidemiological data and arbitrary cut off in prevalence at 18 years of age necessitated adjustments during the modelling process. We will discuss the implications of this while presenting final burden (DALY) estimates for conduct disorder.

Conclusion: Quantifying burden for conduct disorder is a necessary step in increasing our understanding of the impact of mental disorders in childhood.

0399

Holly Erskine¹, Alize J. Ferrari¹, James G. Scott¹, Paul Nelson¹, Theo Vos¹, Harvey Whiteford¹

¹University of Queensland, School of Population Health, Brisbane, Australia

What's missing in the global epidemiology of mental disorders?

Objective: Population based studies provide the understanding of health need required for effective public health policy and service-planning. Mental disorders are an important but until recently neglected area in on the global health agenda. Here we describe the coverage and limitations in global epidemiological data for mental disorders within the context of data available to inform new global estimates for burden of mental disorders.

Method: Systematic reviews were conducted for population-based epidemiological studies in common mental disorders (depressive disorders and anxiety disorders), low prevalence disorders (bipolar disorder, schizophrenia and eating disorders) and childhood-onset disorders (autism, Asperger's, conduct disorder and ADHD). To provide a sense of data completeness, estimates of population coverage for prevalence data were calculated and adjusted for study parameters (age, gender and sampling frames) to quantify regional coverage. Coverage of prevalence data for children (0-17 years) and adults (18-80 years) are reported for seven classes of mental disorders.

Results: Of the nearly 100,000 data sources identified, fewer than 1% could be used

0402

Amanda J. Baxter¹, Holly Erskine¹, George Patton¹, Kate M. Scott¹, Louisa Degenhardt¹, Harvey A. Whiteford¹

¹University of Queensland, School of Population Health, Brisbane, Australia

for deriving national estimates of prevalence, incidence, remission and mortality in mental disorders. The two major limitations we identified were 1) highly variable regional coverage, and 2) inconsistent methodological approaches which prevented synthesis across studies, including the use of varying case definitions, use of samples that did not allow generalization, lack of standardized indicators and incomplete reporting. We found the most complete prevalence data for North America and Australia while coverage was highly variable across Europe, Latin America and Asia Pacific, and poor in other regions of Asia and Africa. Nationally-representative data for incidence, remission and mortality were sparse across most of the world.

Conclusion: Recent calls to action for global mental health were predicated on the high prevalence and disability of mental disorders. However, the global picture of mental disorders is inadequate for planning especially for children. Global data coverage is not commensurate with other important health problems and as such will remain a low priority for public policy.

0347

Francis Chabaud¹, Imane Benradia¹,
Roland Bouet², Aude Caria¹, Jean-
Luc Roelandt¹

¹WHO Collaborating Centre for
Research and Training in Mental
Health, Lille, France, France

²Department for Medical Information,
Centre Hospitalier Henri Laborit,
Poitiers, France, France

Decision support for mental health policy: Contribution of the “Mental Health in General Population (MHGP)” survey at the international level

Background: The “Mental Health in General Population: Images and Realities” survey has been carried out since 1997 by the Septentrional Association of Psychiatric Epidemiology and the WHO Collaborating Centre in 83 sites in France, in French overseas departments and territories and abroad. This research aims at describing the representations related to mental health and different modes of assistance and care, and secondly, at assessing the prevalence of major mental disorders in the general population. Additionally, this research aims at raising awareness about the importance of Mental Health issues among health, social, political partners, in order to promote the development of community psychiatry and participate in the definition of local and national mental health policies.

Methods: For each site participating in the survey, data were collected by trained interviewers, through questionnaires administered during face-to-face interviews. The prevalence of major mental disorders was estimated by the Mini International Neuropsychiatric Interview (MINI), a standardized and validated diagnostic tool. The method and the local results of these surveys have been widely disseminated [1, 2, 3]. Analysis of data relating to a sample of 17,264 subjects from 20 international sites has resulted in a more comprehensive epidemiological communication [4]. A logistic regression allowed to link the level of overall prevalence of psychiatric disorders, to each of seven predictive sociodemographic variables across 20 sites considered. This study has also demonstrated the existence of differentiated levels of pathologies depending on the sites grouped into geographic areas. As statistical representativeness of these areas has not been established yet, a modelling by site should be run, in order to establish local patterns of diseases, referring to the global model.

Results: The epidemiological model will be enriched by the creation of new explanatory variables and the design of an analysis plan integrating local models. Significant results will be presented to the heads of survey sites.

Conclusions: We suggest the presentation of a global model (all sites) of the risk of major mental disorders, and site-specific models incorporating proposals for prevention and care actions intended for local mental health policies.

1. Caria A, Roelandt JL, Bellamy V, Vandeborre A. « Santé Mentale en Population Générale : images et réalités (SMGP) » : Présentation de la méthodologie d'enquête. *L'Encéphale* 2010;36(3, Suppl 1):1-6.

2. Roelandt JL, Caria A, Anguis M, Benoist J, Bryden B, Defromont L. La santé mentale en population générale : images et réalités. Résultats de la première phase d'enquête 1998-2000. *L'information psychiatrique* 2003;79:867-878.

3. Surault P. Santé mentale et déterminants sociaux. *L'Encéphale* 2010;36(3, Suppl 1):27-32.

4. Chabaud F, Benradia I, Bouet R, Caria A, Roelandt JL. Prévalences du MINI sur 15 sites des enquêtes santé mentale en population générale : image et réalités, V Congrès International d'Epidémiologie Adelf-Epiter/ Revue d'Epidémiologie et de Santé Publique, septembre 2012, 60S.<http://dx.doi.org/10.1016/J.respe.2012.06.054>.

Prevalence of schizophrenia in a geographical area in Malaga (Spain)

Very few studies have examined schizophrenia morbidity in Spain. We seek to estimate the prevalence of schizophrenia and related disorders and the use of services in a population aged 14 years or older living in the mental health catchment area of Hospital Carlos Haya in Málaga. Methods: Data were obtained from multiple sources of information mainly clinical databases. We selected more than 4000 persons as “possible cases” and we consult case notes and key informant (general practice and psychiatrists) to confirm schizophrenic diagnoses and place of living. Results: 1169 men and 639 women were included as cases in the study. The one year ICD-10 prevalence rate was 6,8 (6,5-7,1) per 1000 adult population. Almost 80% of cases were in contact with public mental health services and 37% had contact with primary care as well but only 39 out of 1808 were solely in contact with their GP. Responsibility for schizophrenic patients is mainly carried by mental health services. Health planning should be based on local data about prevalence and use of services. Multiple sources of information are essential for accurate estimation of prevalence of schizophrenia disorders.

0137

Berta Moreno-Küstner¹,
 Fermin Mayoral², José María García
 Herrera², Carlos Martín³,
 Desiree Navas⁴, Pedro Angona²,
 Olga Perez⁴, Fabio Ribas²

¹Universidad de Málaga, Personalidad,
 Evaluación y Tratamiento Psicológico,
 Spain

²Hospital Regional Universitario Carlos
 Haya, Unidad de Psiquiatría, Málaga,
 Spain

³Distrito Sanitario Granada Nordeste,
 Centro de Salud el Marquesado,
 Granada, Spain

⁴Fundación IMABIS, Unida de
 Investigación Distrito Sanitario Málaga,
 Málaga, Spain

The child and adolescent mental health case register in Santiago de Compostela (Spain): A review clinical activity during the last 10 years

Background: The Child and Adolescent Mental Health Service of the CHUS University Hospital of Santiago de Compostela dates from 1997. The reference population is 467,738 inhabitants (50,000 children and adolescents, between 0-16 years). A case register was set up in 1990; in 1995, the first analysis of data was presented at the Congress of the European Society of Psychiatry for Children and Adolescents (ESCAP).

0383

Dolores Dominguez¹,
 Raimundo Mateos¹

¹Medicine School of Santiago,
 Psychiatry, Santiago de Compostela,
 Spain

Objectives: To analyze changes since previous analysis: 1) increased number of consultations, 2) variations in treated prevalence of different diagnoses, 3) the relationship between diagnoses and socio-demographic variables, 4) the characteristics of the most common diagnoses. Methods. Data from the Case Register, between the years 2000 and 2010 are compared with the previous data.

Design: Descriptive study, identifying the variables associated to diagnoses.

Statistical analysis used: contingency tables and chi-square test. Results. Along the years 2000-2010, 3298 children and adolescents, were attended, a number much higher than the 2537 patients seen during the previous twenty years. The proportion of adolescents was also higher (41.6% versus 1/3 during the previous period). Male gender predominated (60%). 47% came from the rural. The most frequent complaints were minor symptoms (42.6%) and behaviour disorders (37.9%). Major symptoms were rare (1.3%). The demand for consultation came from family (1/3), primary care (1/3) and school (16.3%).

The groups of most frequent diagnoses were: neurotic disorders (15.7%), hyperkinetic disorders (12.2%), absence of diagnose (15.3%) and Z codes (14.4%). The prevalence of psychotic, organic and alcohol and drug disorders were below 1%.

Treatment: 63% received no drug treatment (30% psychotherapy and 33% orientation); another 30% received psychotherapy and drugs and psychotropic drugs only, 0.3%.

Outcome: The 51.7% was discharged. The 23.7% were lost at follow up.

Conclusions: The significant increase in consultations has not been accompanied by an increase of staff. An important proportion of cases did not receive a psychiatric diagnosis. The prevalence of most severe diagnostic categories is low.

0384

Raimundo Mateos¹, Carmen García-Mahía^{1,2}, Javier Vicente^{1,2}

¹University of Santiago de Compostela, Psychiatry, Santiago de Compostela, Spain

²CHUAC University Hospital, Psychiatry, A Coruña, Spain

The relationship between morbidity, disability and needs assessment in one epidemiological field study

Background: One of the applications of psychiatric epidemiology is to contribute to the planning of psychiatric services. Traditionally, dependent variables used in surveys have been the measures of morbidity (symptoms and diagnoses) and more recently, the level of functionality (or conversely, disability). Interestingly however, most studies assessing the needs of persons with mental disorders have been carried out among institutionalized populations or among those under treatment, while studies performed among community population are scarce.

It is a known fact that only a fraction of the cases identified in epidemiological studies are receiving treatment. The question arises as to what extent the other two concepts, disability and needs assessment can help to better identify the amount and type of mental health services a population needs. This requires that we know what the relationship between these three types of epidemiological measurements is in different social and cultural contexts.

Question: What is the relationship between three types of dependent variables: measures of morbidity, of functionality / disability and needs assessment, in the context of an epidemiological field survey of an older population.

Methods. This paper is part of a double-phase epidemiological survey, the Epidemiologic Study of Santiago de Compostela.

Sample: randomized, 800 people aged over 65, representing the catchment area of Santiago de Compostela (500,000 inhabitants, 20% aged over 65). In the second phase, 365 persons over 65 were interviewed in their homes. **Instruments:** A) Morbidity: Geriatric Depression Scale GDS- 30 (Yesavage), Mini-Mental State and a comprehensive health questionnaire covering subjective health, drugs use and psychiatric care received. B) Functional status: Barthel Index and Lawton Index. C) Needs assessment: the Camberwell Assessment of Needs of the Elderly (CANE).

Results: The sample mean age was 76.3 years-old; 32% were male, 68% female. The mean of met and unmet needs in the sample was 3.1 and 0.5. Cases with depression or cognitive impairment had a higher number of unmet needs than the average population.

Conclusions: The combination of measures of morbidity, functional capacity and needs may improve the planning of mental health services.

0442

Jorge A. Cervilla¹, Lorena Valdearenas¹, Jutta Lindert¹, Francisco Torres-Gonzalez¹

¹Centre for Public Mental Health, Health Services and Population Research Department, London, United Kingdom

Prevalence and correlates of psychotic symptoms in a spanish elderly community

Objetives: Psychotic symptoms are a major source of morbidity in the elderly resulting in a significant negative impact on socio and family level. Given the lack of studies assessing psychotic symptoms in our area of influence, we conducted a study to determine their prevalence and correlates in search of plausible risk factors / prevention.

Design: Cross-sectional study.

Setting: Non-demented community-dwelling elderly at the province of Granada, Spain.

Participants: 562 participants, aged 60-84 years, who had no cognitive impairment or dementia.

Measurements: We determined psychotic symptoms prevalence (SCID-I), quality of life (WHOQOL-OLD), subjective body complaints (GBB-24), perceived social support (MSPSS) and anxious-depressive symptoms (HADS) with validated instruments.

Results: Prevalence of any psychotic symptom was 13%, that of delusions was 11.4% and

of either auditory or visual hallucinations 5,5%. 3.9% were psychotic having both delusions and hallucinations. Psychotic symptoms were more common in woman. Psychotic symptoms correlated negatively with lower quality of life scores ($p < 0.005$). Delusions correlated positively with higher depression subscale scores ($p = 0,012$). Hallucinations correlate negatively with lower social support scores ($p = 0,047$).

Conclusions: This is the first specific study developed in a Spanish representative population. The prevalence of delusions in non-demented community-dwelling individuals is slightly higher than expected if compared with other non-demented community-dwelling Europeans. That may be due to hardship conditions in current Spanish elderly upbringing and over-estimation by SCID instrument which is not specifically designed for elderly subjects. Psychotic symptoms are associated with female sex, poorer quality of life, lower perceived social support and higher depression scores.

An analysis of changes in psychiatric emergency presentations - the impact of a new primary care mental health policy in South Australia

Objective: To determine the impact of a new primary care mental health policy in South Australia on psychiatric emergency presentations.

Methods: In Australia, mental health services are split between state and federal governments, with states funding acute hospital based services and Federal Government providing primary care mental health programmes, with no clearly defined linkages between levels of care. Gaps in service delivery result in a number of people presenting to hospital emergency departments (ED) with psychiatric diagnoses that may be better managed in primary care. In 2006, a significant policy change aimed to facilitate better access to community psychiatrists, psychologists and primary care physicians (PCP) for high prevalent mental health disorders. Recent evaluations have demonstrated this program has increased access to care. It remains unclear to what extent this policy may have influenced mental health ED usage.

Using information derived from the State Health databases, Bureau of Statistics and Medicare Australia, we analyse how the introduction of greater access to psychology, psychiatry and GP mental health programmes in 2006 impacted on ED presentations for affective disorders through a pre-post interrupted time series. The impact of socio economic status (SES) on this process is also examined.

Results: ED use for affective disorders was significantly more common in people with low SES. A significant increase in use of psychology and PCP mental health care plans was seen from 2006-2011 across all SES groups. A significant reduction in ED presentations for affective disorders was seen over time. This effect was mostly seen in people with lower SES.

Discussion: Increased access to psychology services appears to impact on ED crisis presentations in low SES but not in other groups. This suggests public policy can influence population mental health.

The shift from institution to community: Are the mentally ill being well served?

Introduction: The last 50 years have seen the substantial elimination of mental hospitals with care provided in the community and in general hospital settings in most Western countries. While this has also been a period of rapid pharmacological developments, the question remains of whether patients are better served in this system

Method: Review of the number of beds available for the mentally ill in Canada,

0128

Niranjan Bidargaddi^{1,2},
Tarun Bastiampillai^{1,3},
Geoffrey Schrader⁴, Robert Adams⁴
¹Flinders University, Medicine, Adelaide, Australia

²CHSA LHN, SA Health, Mental Health Observatory Research Unit, Adelaide, Australia

³SA Health, Mental Health Services, Southern Adelaide Local Health Network, Adelaide, Australia

⁴University of Adelaide, Adelaide, Australia

0293

Roger Bland¹, Angus H Thompson^{1,2}

¹ University of Alberta, Psychiatry, Edmonton, Canada

² Institute for health economics, Edmonton, Canada

observations regarding the gross out of homelessness, the mentally ill in the prison system and the outcome for people with severe persistent mental illness.

Results: There has been a massive reduction in the number of psychiatric beds per thousand population with a decrease in the length of stay associated with some expansion of community services but of growth in homelessness and incarceration in prisons with no corresponding improvement in outcome for people with schizophrenia, for which the outcome has changed little with modern management. Despite the fact that mental illnesses account for up to 40% of disability in developed countries, in Canada only 5% the health budget is spent on mental health.

Conclusions: Deinstitutionalization has been a mixed blessing. Most people appreciate the additional freedom of being able to live in the community, but the anticipated improvement in outcomes is not being achieved. The recent evidence that the lives of those with schizophrenia, even when treated, are bleak, suggests that a review of the way in which we do things is in order. Our home Canadian province can serve as a good example: oil-revenue fed comprehensive health-care system, relatively advanced ideas, and inexpensive (for the patient) treatment, and a welfare system to ensure, at least, a minimum level of food and housing. Nonetheless, our data, drawn from residents of that province shows that, once diagnosed, about three-quarters of people with schizophrenia can expect a life characterized by moderate to severe symptoms.

0200

Barbara Lay¹, Thekla Schönenberger¹,
Marco Bleiker¹, Silke Lengler¹,
Christina Blank¹, Wulf Rössler¹

¹Psychiatric University Hospital Zurich,
Zurich, Switzerland

Effectiveness of an intervention programme in patients at high risk of compulsory admission to psychiatric hospitals 12 months after inclusion into the study

Objectives: To evaluate an intervention programme for high-risk patients with multiple compulsory admissions to psychiatry, a randomized controlled trial is currently conducted in four psychiatric hospitals in the Canton of Zurich, Switzerland. The study is implemented within the framework of ZInEP. The intervention aims to reduce the amount and length of compulsory admissions to psychiatric in-patient care. Secondary aims are patients' perceived coercion, empowerment and satisfaction with treatment.

Methods: The intervention programme consists of individualised psycho-education focusing on behaviours prior to and during illness-related crisis, individualised crisis cards and, after discharge from the hospital, a 24-month preventive monitoring of individual risk factors for compulsory readmission to hospital. Detailed follow-up assessments of service use, psychopathology and patient perceptions are scheduled 12 and 24 months after discharge. For the whole study a period of five years is scheduled.

Results: Patients with a variety of psychiatric diagnoses are participating in this study. Many of them are displaying comparatively problematic behaviour (characterised by aggression, suicidal behaviour, substance abuse, low social adjustment and social difficulties).

Of the 238 patients included in the study (119 intervention group; 119 control group) 100 completed the 12-month follow-up assessment so far. Preliminary findings on health care use, degree of change in psychopathology and changes in the patients' perspective (perceived coercion, empowerment) after having participated 12 months in the intervention programme will be presented. Outcomes will be compared to that of the control group (usual-care).

Conclusion: The analysis, at this point, will provide insight into short-term effects of this innovative intervention programme.

Jen-Pang Wang^{1,2}, Tsu Hui Yang¹,
Pesus Chou²

¹Taipei City Psychiatric Center, Taipei
City Hospital, Taipei, Taiwan

²National Yang-Ming University, Institute
of Public Health and Community
Medicine Research Center, Taipei,
Taiwan

Associated factors of involuntary admission through a psychiatric emergency service in Taiwan: Who and what should be included in the process of involuntary admission?

Objective: The number in involuntary psychiatric admission has been increasing since the 1990s in western countries. There have been many articles related to involuntary psychiatric admission since then. But among them, there was few literature from non-western countries in the past. This study is to investigate the rate and related factors of involuntary admission through a psychiatric emergency service in Taiwan. We hypothesized that involuntary admission is associated not only with psychiatrists' evaluation, but also with police referral and initial evaluation by psychiatric nurses.

Material and methods: This was a case-control study which recruited consecutive patients from clinical and administrative data at a psychiatric emergency service in Taipei City during 2008 to 2009. The admissions arranged by psychiatric emergency service were used as study samples. Demographics and clinical characteristics evaluated by psychiatrists and nurses, and service use characteristics were collected. The involuntary admission rate was calculated. And factors related to involuntary admission were also identified by stepwise multiple logistic regression.

Results: Among 2,777 patients being admitted through the psychiatric emergency service, 110 patients (4%) were involuntarily admitted. The percentage of all-inpatient episodes in this hospital was 2.4%. After controlling for important variables, those patients who were referred by police and had presenting problem as violence evaluated by psychiatric nurses were more likely to be involuntarily admitted. They also spent much time in psychiatric emergency services, and were admitted outside working hours. The diagnosis made by psychiatrist was less important as compared to variables related to police and psychiatric nurses.

Conclusions: The involuntary admission rate was relatively low compared to western countries. Psychiatric nurses and police may play one of determinant parts in involuntary admissions. Besides, those patients may cost much time before being involuntarily admitted. It is suggested that police and psychiatric nurse should have responsibilities and regulations to place psychiatric patients involuntarily and temporally as in western countries.

Effects of different housing facility types for the severely mentally ill: A systematic review

Background: Across the western countries, several different housing facility types have evolved for chronically mentally ill clients, e.g., psychiatric nursing homes, boarding homes, sheltered housing, supported housing. Until today it is not entirely clear which effects these facility types have on the clients' mental health and on their social situation.

Methods: We conducted a systematic review with studies that compared at least two different housing conditions for mentally ill clients less than 65 years of age. Exclusion criteria were: old age psychiatry, intellectual disabilities, homelessness, and dehospitalization studies. We searched the following databases: PubMed, PsychINFO, Google Scholar, CINAHL and conducted a hand-search. Relevant outcome criteria were: mental health status, rehospitalization, living situation, social inclusion, quality of life, satisfaction, social functioning, social skills, and needs.

Results: Out of 202 retrieved and read articles, we could select 25 relevant studies which fit into our inclusion criteria. Only 3 were randomized controlled trials, only two used a matched pairs-design. 20 studies were cross-sectional comparisons of different housing types. Overall, we found no strong effects for any kind of facility type. In general, psychiatric nursing homes showed better results than hospital settings; however, compared to sheltered or supported housing, their results were less favorable. Any kind of professional support was usually better for clients' mental and social status than no support. We found a favorable

Dirk Richter¹, Holger Hoffmann²

¹Bern University of Applied Sciences,
Health Section, Bern, Switzerland

²Psychiatric University Hospital, Public
Mental Health Research Unit, Bern,
Switzerland

tendency for supported housing conditions compared to other conditions.

Discussion and conclusions: Although a large number of psychiatric clients receive housing support and housing programs' budgets are on the rise all over the western world, there is no clear evidence for the effects of different types of housing conditions available. Large studies with strong research designs are needed.

0105

Giovanni de Girolamo¹,
Valentina Candini¹, Chiara Buizza¹,
Paolo Maggi², Anna Lucia Melegari³,
Nicoletta Goldschmidt⁴, Perdove
Group¹

¹St John of God Clinica Research
Centre, Brescia, Italy

²Sacro Cuore di Gesù, San Colombano
al Lambro, Pavia, Italy

³Presidio Ospedaliero Riabilitativo
Beata Vergine della Consolata, San
Maurizio Canavese, Torino, Italy

⁴Villa Sant'Ambrogio, Cernusco sul
Naviglio, Milano, Italy

The Perdove Study: A prospective cohort study of 23 psychiatric residential facilities in Italy

Introduction: In Italy after the closing of all Mental Hospitals a remarkable proportion of patients still needs long-term residential care; in a national survey carried in 2000, there were more than 17,000 patients in Residential Facilities (RFs), and this number was on the increase. However, so far no prospective cohort studies have been done to assess in detail this clinical population and assess their 1-year outcome.

Objectives: The study is aimed to: (a) describe the socio-demographic, clinical, and treatment related characteristics of psychiatric inpatient of 23 RFs belonging to the St John of God Order, located in Northern Italy in an index period of the year 2010; (b) assess the 1-year outcome, with a special attention on the rate of patients home discharged; (3) identify predictors of expected home discharge.

Methods: Each subject meeting inclusion criteria received a comprehensive set of standardized assessment instruments, including a "Patient Schedule", the BPRS, the HONOS, the FPS, the PHI, the SLOF and the RBANS. Detailed socio-demographic and clinical data were also collected.

Results: The study involved 403 patients; of them, 66.7% were males, with a mean age of 48 (sd=10); 70.7% were unmarried. The average duration of illness of these patients was 23.1 years. The most frequent diagnosis was schizophrenia (67.5%). One hundred and four were discharged: 55 to home, 33 to another inpatient facility, 9 to supported housing, and 6 to prison. Two logistic regression analyses were carried out to identify the independent predictors of discharge.

Conclusions: The results show that only a small number of patients was discharged after one year. The main variables associated with a higher likelihood of being discharge to home were: illness duration shorter than 15 years, presence of an available and effective social support in the last year, diagnosis of unipolar depression. Lower severity of psychopathology, and higher working skills were also associated with a significantly higher likelihood to be discharged to home.

0153

Markus Busch¹, Ulrike Maske¹,
Livia Ryl¹, Ulfert Hapke¹

¹Robert Koch Institute, Department of
Epidemiology, Berlin, Germany

Prevalence and correlates of depressive symptoms and diagnosed depression among adults in Germany

Objectives: Data on the prevalence of depression in the population provide the basis for assessing disease burden, estimating health care needs and planning preventive measures. The aim of this study is to determine the prevalence and correlates of depressive symptoms and diagnosed depression in the general population in Germany.

Methods: The first wave of the German Health Interview and Examination Survey (DEGS1) collected health data from a representative sample (n=7988) of German adults aged 18 to 79 years. Current depressive symptoms were assessed with the Patient Health Questionnaire (PHQ-9) and diagnosis of depression within the last 12 months was assessed by standardized computer-assisted physician interview.

Results: The overall prevalence of current depressive symptoms (PHQ-9 ≥ 10) is 8.1% (women 10.2%, men 6.1%). Prevalence is highest among 18- to 29-year-olds and

decreases with age. The 12-month prevalence of diagnosed depression is 6.0% (women 8.1%, men 3.8%) and is highest among 50- to 59-year-olds. Prevalences of current depressive symptoms and diagnosed depression decrease with increasing socioeconomic status (SES). In analysis adjusted for age, sex and SES, adults living in small towns are less likely to report current depressive symptoms or diagnosed depression, compared to larger towns, cities and rural areas. In analyses adjusted for sociodemographic factors and other relevant confounders, current depressive symptoms and diagnosed depression are associated with adverse health behaviours, higher prevalences of chronic diseases, lower self-rated health and health-related quality of life, reduced physical functioning and higher health service use.

Conclusions: Current depressive symptoms and diagnosed depression are widespread among adults in Germany and associated with a wide range of adverse health characteristics. The associations with unhealthy behaviours suggest the need for a multidimensional, integrated approach to prevention and health care.

How to establish evidence for possible changes between 1998 and 2012 in the morbidity spectrum of the longitudinal DEGS1-MH cohort

Objectives: A subgroup of DEGS had already participated in the preceding survey, the “German National Health Interview and Examination Survey 1998” and its Mental Health Supplement (GHS-MHS). Thus, the prospective-longitudinally designed DEGS study program already builds up on a longitudinal component that can be used to analyse possible changes in the morbidity spectrum over the last 14 years. This paper describes methodological challenges of the comparison between the 1998 GHS-MHS and the 2012 DEGS1-MH data within the longitudinal sample.

Methods: Of the former 1998 GHS-MHS sample (N=4181), N=1414 could be re-contacted and were willing to participate in DEGS-MHS. In both assessments the main diagnostic instrument was a personal computer assisted “Composite International Diagnostic Interview” (CIDI), including sections on help-seeking and treatment utilization behaviour. Additional relevant health information comes from both GHS-MHS as well as DEGS1 main survey (Robert Koch Institute).

Results: Interpretation of differences and similarities between the data from the two studies have to take into account design effects such as sampling procedures and according weighting schemes, differences in age composition of the cohort (1998: age range 18-65, M=44.0, SD=11.7; 2012: range 29-78, M=56.5, SD=11.6), differential re-participation rate (e.g., slightly higher in formerly healthier subjects), differences in diagnostic procedures such as included diagnoses (e.g. PTSD, illicit drug related disorders) or changes in the diagnostic conventions (DSM-IV vs. DSM-IV-TR), as well as time effects (e.g. memory effects with regard to respondent’s differential report of symptoms or time frames).

Conclusions: Despite the highly standardized diagnostic procedures (CAPI/CIDI) in both studies it is not appropriate to directly compare respective prevalence rates without adjustments for changes in sample composition and other methodological reasons.

Determinants of help-seeking and health care utilization in patients with mental disorders

Objectives: Comprehensive and reliable epidemiological data on the use of mental health services in the general German adult population were last presented by the 1998 “German National Health Interview and Examination Survey”. Since then, a steady increase has been observed of the number of prescribed diagnoses of mental disorders in routine care (as recorded by health insurance companies), and the proportion of early pensioning due to

0423

Frank Jacobi¹, Hans-Ulrich Wittchen¹,
Simon Mack¹, Anja Gerschler¹,
Lucie Scholl¹, Jens Siebert¹,
Michael Höfler¹

¹Technische Universität Dresden,
Institute of Clinical Psychology and
Psychotherapy, Dresden, Germany

0424

Simon Mack¹, Frank Jacobi¹, Hans-
Ulrich Wittchen¹

¹Technische Universität Dresden,
Institute of Clinical Psychology and
Psychotherapy, Dresden, Germany

mental health problems. Current numbers from epidemiological data on the use of mental health services in the general population are provided by the German Health Interview and Examination Survey for Adults and its Mental Health Module (DEGS1-MH).

Materials and Methods: N=4484 participants (age 18-79) were interviewed by clinical interviewers using the "Composite International Diagnostic Interview" (CIDI). The CIDI is a comprehensive, reliable, computer-assisted diagnostic instrument for the assessment of symptoms and syndromes of mental disorders according to the criteria of DSM-IV, including also help-seeking and treatment utilization behavior. Results were adjusted to the true age, gender, and socio-economic distribution in the German population. For analyzing the determinants of mental health service utilization, age, sex, severity, type of mental disorder and comorbidities are considered.

Results: About 40% of DEGS1-MH participants with a 12-month DSM-IV diagnosis report to have ever been in contact with health care services due to mental health problems. The results are heterogeneous with 25-80% fluctuation depending on type of disorder, comorbidities and other determinants.

Conclusions: DEGS1-MH provides updated and representative data on the use of mental health services in the general adult population and thus contributes to mental health policy decision making by providing estimates of mental health care need, supply and demand in the community.

0425

Jürgen Zielasek^{1,2}, Wolfgang Gaebel^{1,2}

¹LVR-Klinikum Düsseldorf, Department of Psychiatry and Psychotherapy, Düsseldorf, Germany

²Heinrich-Heine University, Medical Faculty, Düsseldorf, Germany

Psychotic experiences in the community: prevalence and relation to DSM-IV diagnoses

Objectives: Psychosis-like experiences like pronounced jealousy or magical thinking, but also psychotic symptoms like hallucinations and delusions, are experienced by 5-10% of the general population during the lifetime. The prognostic and diagnostic role of such experiences and symptoms is still unclear since they are usually of very brief duration.

Methods: The mental health module of the German Health Interview and Examination Survey for Adults (DEGS1-MH) included - beyond the regular assessment of possible psychotic disorders in the CIDI interview - additional questionnaires addressing these experiences and symptoms (hallucination and delusion).

Results: Truly psychotic symptoms were present in only a few percent of the participants, but psychosis-like experiences were more frequent and some of them were found in nearly 50% of all participants. Individual symptoms showed various associations with age, with some experiences more frequent in the elderly and other symptoms and experiences more frequent in adolescents. Gender only played a minor role.

Conclusions: The results presented here will be correlated with information from other parts of the survey like the presence of mental disorders, cognitive impairments and demographic factors.

0426

Michael Wagner¹, Wolfgang Maier¹,
Jürgen Zielasek^{2,3}, Wolfgang Gaebel^{2,3},
Markus Busch⁴, Ulfert Hapke⁴,
Frank Jacobi⁵, Hans-Ulrich Wittchen⁵

Cognitive epidemiology and mental health in the Mental Health Supplement of the "German Health Interview and Examination Survey for Adults" (DEGS1-MH)

Objectives: The role of Cognitive impairments for psychiatric epidemiology is increasingly recognized. Cognitive impairments can accompany mental disorders, thus limiting everyday function and productivity, they have an impact on health behaviour, and they can be indicators of neurodegenerative or other diseases of the brain. Cognitive reserve, on the other hand, moderates the impact of diseases on the incidence and course of cognitive impairment.

Material and Method: The German Health Survey (DEGS1) and the add-on survey on mental health (MHS) were conducted between 2008 and 2011 in 180 sample points across Germany. The mental health survey included 4484 subjects between 18 and 79 who were interviewed with the Composite International Diagnostic Interview (CIDI) and were tested with a neuropsychological battery. About a third of the subjects had been assessed in 1998 for psychiatric symptoms (CIDI) and physical diseases in a previous nationwide health survey (BGS98).

Results: The neuropsychological battery took about 25 minutes to administer and comprised prospective and episodic memory, working memory, verbal fluency, visual-motor functioning, and vocabulary (as an indicator of cognitive reserve). In addition, subjective cognitive impairments and concerns were examined. Current analyses address the association of current depression and depression history with cognitive function, the correlation between subjective and objective cognitive impairment, and moderating role of cognitive reserve for the degree of cognitive impairments associated with several diseases. Key results will be presented at the conference.

Conclusions: The DEGS1 and the MHS provide important and current data on the prevalence of cognitive impairments, their determinants and consequences in a representative sample of the adult German population. Linking these data to the BGS98 survey will also allow for the identification of risk and protective factors for cognitive impairments and psychiatric diseases.

¹University of Bonn, Department of Psychiatry and Psychotherapy, Bonn, Germany

²LVR-Klinikum Düsseldorf, Department of Psychiatry and Psychotherapy, Düsseldorf, Germany

³Heinrich-Heine University, Medical Faculty, Düsseldorf, Germany

⁴Robert Koch Institut, Berlin, Germany

⁵Technische Universität Dresden, Institute of Clinical Psychology and Psychotherapy, Dresden, Germany

Prevalence and comorbidity of burn-out syndrome in Germany

Objective: In Germany burn-out syndrome is increasingly regarded as a public health issue and is currently in the centre of the media's attention. In extension to its original conception as a mental health issue among health care and social workers, it is now used to describe a wide range of psychological problems and disorders attributed to work-related stress. There are no diagnostic criteria for burn-out syndrome and researchers doubt that it is a distinct mental disorder, yet increasing numbers of sick-leave days due to burn-out are reported. No population-based data on burn-out syndrome are available. The aim of this study was to assess its prevalence and to investigate comorbid mental disorders in the population living in Germany.

Material and methods: Data (n=7988) of the representative study "German Health Interview and Examination Survey for Adults" (DEGS1) of the Robert Koch Institute (RKI) were used to estimate prevalences. Respondents were asked whether they had ever and within the past 12 months been diagnosed with burn-out syndrome, depression and anxiety disorders. N=4484 out of the DEGS1-participants also took part in a "Composite International Diagnostic Interview" (CIDI) for the assessment of a broad range of mental disorders according to DSM-IV and ICD-10 criteria.

Results: 4.2% (95% CI 3.7-4.7) stated that they ever had a burn-out diagnosis, 1.5% (95% CI 1.2-1.8) reported a diagnosed burn-out syndrome in the past 12 months. Those with a burn-out diagnosis were more likely to indicate diagnosed depression and anxiety disorders. These associations remained significant after adjusting for sex, age and socio economic status in multivariable logistic regression analysis. To gain further insight into these results, analysis on comorbid mental disorders on the basis of the CIDI will be presented.

Conclusion: Further research is needed to determine potential characteristics of people with burn-out syndrome, its comorbidities and public health implications.

0112

Ulrike Maske¹, Markus A. Busch¹, Ingeburg Seiffert¹, Ulfert Hapke¹

¹Robert Koch Institute, Department of Epidemiology and Health Monitoring, Berlin, Germany

0095

Christina Mohr Jensen¹, Hans
Christoph Steinhausen¹¹Aalborg Psychiatric Hospital, Research
Unit for Child and Adolescent
Psychiatry, Aalborg, Denmark

Time-trends in incidence rates for child and adolescent psychiatric disorders in Denmark over sixteen years

Objectives: Yearly incidence rates for Hyperkinetic disorder (HD), Conduct disorder (CD), Mixed disorders of conduct and emotions (MIXED), Anxiety disorders (ANX), Depression (DEP), Schizophrenia (SZ), Bipolar disorder (BP), Autism spectrum disorders (ASD) and Eating disorders (EAT) were calculated for children and adolescents (age: 0-17 yrs.) seen in Danish Child and Adolescent Psychiatry from 1995 to 2010.

Materials and Methods: Data on psychiatric diagnoses were obtained from the Danish Psychiatric Central Registry (DPCR). Cases with an onset of the disorders in the ICD-8 period before 1995 were excluded and diagnoses given in emergency units were not counted as an incidence due to the questionable validity of the diagnoses. A total of N = 41.194 patients had an incidence of at least one psychiatric disorder in the observation period.

Results: The incidence rate of HD increased more than ten times from a low of 17.56 per 100.000 person years in 1996 to a high of 183,79 per 100.000 person years in 2010. For DEP there was a twelvefold increase in the incidence rate from 5.33 to 62.94 and for ASD an almost fivefold increase from 15.84 to 77.42 each per 100 000 person years. This increase was not entirely due to a general increase in the incidence rates for mental disorders in child- and adolescent psychiatry as a whole because the incidence rates for CD, MIXED, ANX, SZ, BP and EAT showed only minor changes. Partially, the changes in incidence rates could be explained by changing diagnostic awareness of younger children, older adolescents, and females.

Conclusions: Due to its nationwide coverage and completeness of data, the DPCR is an important source of data for epidemiological research and health care surveillance allowing to track changing patterns in incidences of mental disorders including associated factors over extended time periods.

0099

Hans Christoph Steinhausen¹,
Charlotte Bisgaard¹¹Aalborg Psychiatric Hospital, Research
Unit for Child and Adolescent
Psychiatry, Aalborg, Denmark

Nationwide trends over fifteen years in the prescription rates of psychotropic medication for children and adolescents in Denmark

Objective: The study of prescription rates of psychotropic drugs for children and adolescents in Denmark over fifteen years.

Materials and methods: The entire data-set of the nationwide Danish prescription register covering the major drug groups used for mental disorders in children and adolescents (age 0-17) over a fifteen years time span from 1996 to 2010 were analyzed. Incidence and prevalence rates for stimulants, antidepressants, antipsychotics, and anxiolytics prescriptions were calculated. The effects of sex and age were analysed and curve fitting by the least square method was used to test for time trends based on a total of 105 903 patient years.

Results: For all drug groups, the incidence rates increased from a low of 109.98/100'000 in 1997 to a maximum of 428.03/100'000 in 2009 and the prevalence rates from a low of 1.33 per mille in 1995 to a high of 13.07 per mille in 2010. These trends were strongest for the stimulants. Incidence rates of stimulant drug prescriptions increased from a low of 15.80/100'000 in 1997 to a high of 185.18/100'000 in 2009 and prevalence rates from 0.29 per mille in 1996 to 7.55 per mille in 2010. These trends were also evident for the antidepressants and antipsychotics, whereas the prescription rates for the anxiolytics declined slightly. For stimulants there was a predominance of males getting the prescriptions whereas antidepressants were prescribed more frequently for females. Stimulant prescription rates increased for all age groups except for children aged 0-4 years. The increase in prescription rates for both antidepressants and antipsychotics was mainly due to the group of the 14-17 year olds.

Conclusions: Prescription rates of psychotropic medication for children and adolescents

have increased strongly in Denmark but are still lower than in many other advanced countries.

Course and long-term outcome of early onset schizophrenia compared to adult onset schizophrenia in a nationwide Danish sample

Objectives: The present study aims at investigating the psychiatric course of early onset schizophrenia (EOS) and comparing it to the course of adult onset schizophrenia (AOS) in a large nationwide representative sample.

Methods: Data were taken from various Danish nationwide registers. Diagnoses stem from the Danish Psychiatric Central Register (DPCR) providing data of all patients admitted or treated in the public health system. All patients diagnosed with schizophrenia below the age of 18 years during 1994 and 2007 were included. The sample contains N=921 patients with EOS which is one of the largest sample ever on EOS. Furthermore, the full sample of adults aged 18-40 years comprises N=11 181 patients. The follow-up period covers 2-16 years.

Results: At the time of preparation of this abstract, the analyses of the psychiatric data have just started. Amongst others, the number of hospitalizations, the number of inpatient days, the number of involuntary admissions, prior diagnoses, and co-morbid mental disorders will be compared between EOS and AOS.

Conclusions: The present study will be the first to report truly representative data on the course and outcome of EOS. Patients with EOS are expected to have a worse course and outcome than adult patients as indicated by current knowledge on the subject.

0098

Ditte Lammers Vernal¹, Marlene Briciet Lauritsen¹, Dorte Helenius¹, Hans Christoph Steinhausen¹

¹Aalborg Psychiatric Hospital, Research Unit for Child and Adolescent Psychiatry, Aalborg, Denmark

The association between attention-deficit/hyperactivity disorder, medication, co-morbid mental disorders and suicide attempts in a nationwide Danish sample

Objectives: To study the risk for suicide attempts (SA) in patients with attention-deficit hyperactivity disorders (ADHD) considering also the role of co-morbidity and medication in a large representative sample.

Methods: Data were linked from four Danish national registers on a total of 21187 patients with ADHD, their drug prescription rates, and associated SA between 1994 and 2010. The cohort was divided into subgroups treated with methylphenidate (MPH) only, amphetamines only, other ADHD-specific drugs only, antidepressants only, antipsychotics only, and mixed drugs. A control group of patients with ADHD never had any medication. The risks of co-morbid mood disorders, anxiety disorders, conduct/dissocial personality disorders, and substance use disorders, and medication for getting SA were analyzed.

Results: The total rate of SA in this sample was 1.7%. SA rates were significantly higher before than after onset in the MPH subgroup and significantly higher after than before onset in the antidepressants subgroup. Compared to non-medicated ADHD patients, subgroups treated with antidepressants or mixed drugs had significantly higher SA rates. MPH, other ADHD-specific drugs, and anxiety disorders were no risk factors. Longer duration of medication and younger age had a protective function on SA. Antidepressants, antipsychotics, mixed drugs, mood disorders, conduct/dissocial personality disorders, and substance use disorders acted as risk factors.

Conclusions: The risk of SA in ADHD derives mostly from co-morbid disorders except anxiety disorders and related treatment with antidepressants and antipsychotics whereas monotherapy with MPH or other ADHD-specific drugs is not hazardous.

0097

Hans Christoph Steinhausen¹, Dorte Helenius¹

¹Aalborg Psychiatric Hospital, Research Unit for Child and Adolescent Psychiatry, Aalborg, Denmark

0185

Simon Davies^{1,2}, Rebecca Pearson¹,
Helen Bould¹, Lexine Stapinski¹,
Kate Button¹, David Christmas¹,
Petros Skapinakis¹, Glyn Lewis¹,
Jonathan Evans¹

¹Sch. Social & Community Medicine,
Univ. of Bristol, Cent. Mtl Health,
Addiction & Suicide Res., Bristol, UK
²CAMH, University of Toronto, Division
of Geriatric Psychiatry, Toronto, Canada

Generalised anxiety symptoms but not panic symptoms at age 15 are associated with depression at 18 in the ALSPAC (Avon Longitudinal Study of Parents and Children) cohort study

Objective: Generalised Anxiety Disorder (GAD) and Panic Disorder (PD) differ in their biology and co-morbidities. We hypothesised that GAD but not PD symptoms at age 15 are associated with a diagnosis of depression at 18.

Methods: Using longitudinal data from the ALSPAC birth cohort we examined the relation of exposure variables (GAD and PD symptoms by the DAWBA at 15) to outcome (depression at 18 on the CIS-R) by logistic regression, excluding adolescents already depressed at 15. Covariates were social class, maternal education, birth order, child gender, smoking status and alcohol intake. We performed a sensitivity analysis of multiple imputation for missing data.

Results: 5276 of 5635 adolescents with DAWBA data at age 15 were not depressed. Of these 229 (4.3%) had high and 2951 (55.9%) moderate GAD symptom scores. The corresponding figures for PD scores were 28 (0.5%) and 108 (2.0%). In the sample with complete outcome and covariate data (n=2835), high and moderate GAD symptoms in adolescents not depressed at age 15, were associated with increased likelihood of depression at 18 in all models (unadjusted, adjusted for PD symptoms at 15 and covariates). The adjusted OR for depression at 18 in adolescents with high relative to low GAD scores was 5.2 [95% C.I. 3.0 to 9.1] and for moderate relative to low GAD scores was 1.7 [95% C.I. 1.2 to 2.5], overall p<0.0001. In contrast there were no associations between PD symptoms and depression at 18 in any model (high relative to low PD scores, adjusted OR= 1.3 [95% C.I. 0.3 to 4.8], overall p=0.737). Missing data imputation strengthened the relations of GAD scores with depression at 18 (high relative to low GAD scores, OR= 6.2, [95% C.I. 3.9 to 9.9]) but those for PD scores became weaker.

Conclusion: Symptoms of GAD but not PD at age 15 are associated with depression at 18. Clinicians should monitor adolescents with GAD symptoms for development of depression since the elevated risk at 18 applies even when symptoms are moderate.

0035

Bernhard Baune¹

¹University of Adelaide, Discipline of
Psychiatry, Adelaide, Australia

Psychiatric-medical comorbidities: Is a risk factor model sufficient to describe complex interactions?

Objectives: Severe psychiatric and medical disorders individually belong to the group of disorders accounting for the top ten burden of disease worldwide and leading to a reduction of life expectancy between 25-30 years for individuals with severe mental disorders. The aim of this paper is to review sociodemographic, clinical and biological factors of common and severe psychiatric (e.g. depression, bipolar disorder, schizophrenia) and medical disorders (e.g. heart disease, type 2 diabetes mellitus - T2DM) contributing to complex bidirectional relationships between these comorbid conditions.

Material and methods: Systematic review of the literature on psychiatric and medical comorbidity using search terms covering the above named disease groups and risk factors in order to describe bidirectional relationships between these disorders.

Results: Longitudinal studies have established a temporal relationship between pre-existing T2DM or heart disease and depression in later life and vice versa, suggesting a bidirectional relationship between these individual medical diseases and depression. Several studies suggest that clinical characteristics of depression, such as severity of depression, number of episodes and duration of depression as well as treatment with psychotropic medication may moderate the relationship between depression and T2DM and cardiovascular disease, respectively. Consistently, various studies support a role for marital status, education and income as moderators of this relationship. In contrast, relatively little is known about factors of the medical disorders modifying these bidirectional relationships. Several of these studies vary in methodology, hence yielding some inconsistent results.

Conclusions: While the bi-directional relationship between severe psychiatric disorders and major medical disorders can be assumed, first epidemiologically based bio-psycho-social models emerge to describe the complexities of these comorbidities with clinical implications.

Major depression and incident hospitalization with ischemic heart disease, cardiac procedures and mortality in the general population: A retrospective Danish population-based cohort study

Objective: We investigated the association between unipolar depression and incident hospital admissions due to ischemic heart disease, invasive cardiac procedures and mortality independent of other medical illnesses.

Material and methods: Population-based cohort of 4.6 million persons age 15-years or older and born in Denmark followed up from 1995 to 2009. Incidence and mortality rate ratios (IRRs, MRRs) were estimated by survival analysis stratified by or adjusted for gender, age, severe chronic somatic comorbidity, and calendar time.

Results: Adjusted risks of cardiac hospital admissions and death were significantly increased by up to 15% and 68%, respectively, in persons with hospital admissions due to depression, and most pronounced in 15 and 60 years old women (IRR: 1.64; MRR: 2.57) and men (IRR: 1.39; MRR: 2.21), and during the first 180 days after being diagnosed with depression (woman: IRR: 1.38; MRR: 2.35; men: IRR: 1.42; MRR: 2.67). One-year mortality after incident ischaemic heart disease was elevated by 34% in women and men. By contrast, overall rates of invasive cardiac procedures following cardiac hospitalizations were significantly decreased by 34% in persons with depression, but two-fold elevated in men recently diagnosed with depression.

Conclusion: Clinical depression was a risk factor for cardiac complications independent of somatic comorbidity in the magnitude of other cardiac risk factors, particularly in individuals between 15 and 60 years of age or being recently diagnosed with depression. Clinical attention to these risk groups appears suboptimal as indicated by increased cardiac mortality rates without previous cardiac hospital admissions and increased one-year mortality and lower rates of invasive cardiac procedures after ischemic heart disease events.

Cardiovascular disease, depression and the perception of emotional verbal stimuli: The BiDirect-Study

Question: Emotional stimuli are often used to study cognitive processing and function by providing images or words that are perceived as emotionally arousing to study participants. Arousing stimuli are known to be faster processed. Outside the neuroscience and neurobiology field, however, emotional stimuli are rarely used. Associations between arousing stimuli and perceived health status or disease severity among patients with different disorders have not been studied. Our aim was to assess perceived arousal and valence (valuing) of an emotional word list and to compare these perceptions between individuals with and without depression and cardiovascular disease.

Methods: The BiDirect study examines the association between depression and subclinical vascular diseases using a parallel cohort design. Patients hospitalised for an acute depressive episode, a random sample of people living in the city of Münster and patients hospitalised for an acute coronary syndrome were recruited into 3 cohorts (total N=979) and examined with the same programme. The latter included a depression classification and also an emotional wordlist with 12 words, 4 being positively, negatively or neutrally loaded. Participants rated their arousal and valence. Socio-economic factors, comorbidities and anthropometric measurements (weight, height, blood pressure) were assessed. Differences in means of arousal and valence were compared between different ages, education groups and gender as well as between the 3 cohorts. Multivariable regression

0080

Christiane Gasse¹, Thomas M. Laursen¹, Bernhard T. Baune²

¹Aarhus University, National Center for Register-based Research, Aarhus V, Denmark

²University of Adelaide, School of Medicine, Adelaide, Australia

0061

Klaus Berger¹, Bernhard Baune², Johanna Kissler³, Volker Arolt⁴, Heike Wersching¹

¹University of Muenster, Institute of Epidemiology & Social Medicine, Muenster, Germany

²University of Adelaide, Discipline of Psychiatry, Adelaide, Australia

³University of Konstanz, Department of Psychology, Konstanz, Germany

⁴University of Muenster, Department of Psychiatry, Muenster, Germany

methods were applied to simultaneously control for important confounder.

Results: Age was related to neutral and gender to negative words of both, valence and arousal. Mean scores for valence and arousal differed significantly between the 3 cohorts for neutral and negative words after adjustment for age and gender.

Conclusions: The perception of emotional stimuli differs between patients with depression, those with cardiovascular disease and healthy controls in a large epidemiologic study. Associations with risk factors, perceived health status and disease severity will be presented.

0036

Margrit Löbner¹, Melanie Luppá¹, Herbert Matschinger¹, Alexander Konnopka², Hans-Helmut König², Lutz Günther³, Jürgen Meixensberger⁴, Hans Jörg Meisel⁵, Matthias C. Angermeyer^{6,7}, Steffi G. Riedel-Heller¹

¹University of Leipzig, Institute for Social Medicine, Occupational Health and Public Health, Leipzig, Germany

²University Medical Center Hamburg-Eppendorf, Department of Medical Sociology and Health Economics, Hamburg, Germany

³Klinikum St. Georg gGmbH, Department of Neurosurgery, Leipzig, Germany

⁴University of Leipzig, Department of Neurosurgery, Leipzig, Germany

⁵Berufsgenossenschaftliche Kliniken Bergmannstrost, Department of Neurosurgery, Halle, Germany

⁶Center for Public Mental Health, Gössing am Wagram, Austria

⁷University of Cagliari, Department of Public Health, Cagliari, Italy

Psychiatric comorbidity in patients undergoing herniated disc surgery

Objectives: Objectives of this study are to examine prevalence rates of affective, anxiety and substance related disorders (categorical approach) and longitudinal depression and anxiety rates (dimensional approach) and associated determinants in disc surgery patients compared to the general population.

Methods: The longitudinal observational study refers to 305 consecutive disc surgery patients (18-55 years). Face-to-face interviews (T0) were conducted during hospital stay after disc surgery. Follow-up interviews were carried out 3 months (T1) and 9 months (T2) after disc surgery by telephone. Psychiatric comorbidity was assessed with the Composite International Diagnostic Interview (CIDI-DIA-X), depression and anxiety by means of the Hospital Anxiety and Depression Scale (HADS).

Results: Categorical approach. Disc surgery patients suffer more often from affective disorders and illicit substance abuse than the general population. Significant associations were found between psychiatric comorbidity and gender, as well as pain intensity. Dimensional approach. Depression and anxiety decreases significantly during nine months after surgery. Depression rates vary between 23.6% (T0), 9.6% (T1) and 13.1% (T2). Anxiety rates range between 23.7% (T0), 10.9% (T1) and 11.1% (T2), being significantly higher at all three assessment points compared to the general population. Risk factors for anxiety or depression at the time of the surgery are e.g. age, gender and pain intensity. Significant time interactions were found for e.g. physical health status and vocational dissatisfaction.

Conclusions: Compared to the general population patients undergoing disc surgeries show a higher risk for mental disorders and are often affected by depression and anxiety during hospital treatment and also in the course of time. The assistance by mental health professionals during hospital and rehabilitation treatment may reduce poor postoperative outcome.

0102

Thomas Becker¹, Dorothea Blankenhorn¹, Reinhold Kilian¹

¹University of Ulm, Dep. of Psychiatry II, BKH Günzburg, Günzburg, Germany

Somatic comorbidity and mental health care

Studies from several countries have shown that residents in psychiatric and social care facilities, compared with the general population, have a higher prevalence of somatic illness and reduced life expectancy due to physical illness. An unhealthy lifestyle, living conditions, medication side-effects and a lack of physical health monitoring are assumed to be the main causes of high somatic morbidity.

In a study on the health behaviour of psychiatric inpatients 10 years ago we identified particular patients with schizophrenia as having a higher prevalence of smoking, harmful alcohol consumption, obesity and bad eating habits in comparison to the general population.

Meanwhile the problem of physical comorbidity and unhealthy lifestyles receives increased attention of mental health experts and many psychiatric hospitals in Germany offer programs to promote healthier eating, physical activity and smoking cessation to their patients.

Now we started a new study on the health behaviour of psychiatric inpatients with schizophrenia in the framework of a WPA project called "Monitoring and Management of Cardiometabolic Risk Factors In schizophrenia- A Global Perspective (MOMACRIS)".

In this presentation preliminary results from this study will be presented with regard to the question whether the prevalence of unhealthy lifestyle habits has been reduced in comparison to what we found a decade ago.

The epidemiology of interventions in the comorbidity between cardiac disease and depression

Objectives: There is substantial epidemiological evidence for the detrimental influence of depression on the onset and progress of coronary artery disease and particularly on the medical prognosis after heart infarction. However, interventional studies on the treatment of depression in post-infarction patients have generally shown an improvement of depressive symptoms but not of medical outcome. The reasons for the failure to prove the link between these two disorders by specific anti-depressive interventions is still under debate. We hypothesize that insufficient treatment of depression may be an important reason.

Material and methods: Clinical epidemiological studies applying an interventional approach to the cardiac-depression comorbidity with clinical and public health implications will be presented. The strategies of depression treatments will be analyzed and contrasted to relevant guidelines and clinical practice.

Results: The treatment of depression in post-infarction patients is less flexible and less consequent as it is proposed by guidelines and strongly suggested by clinical practice. Remarkably, the COPES study has chosen a different strategy and has (accordingly?) lead to better medical outcomes.

Conclusions: In epidemiologically based intervention studies, as well as in medical practice, it seems to be favourable to employ a more flexible and clinically oriented anti-depressive treatment strategy to battle depression and particularly the progress of comorbid coronary artery disease. I may be that, from an epidemiological perspective, this step might provide the missing link in the line of evidence leading from descriptive to analytical to interventional evidence in this field of research.

MentDis_ICF65+ study approach and field work procedures on the prevalence of mental disorders in the elderly EU population

Introduction: In European countries, the population older than 60 is predicted to rise from 22% in 2000 to 30% in 2025. Older age is associated with increasing frequency of disease, need for care and service utilization, and leading to rising costs for health care systems. As empirical findings on the prevalence of mental disorders in older people are partly scarce and heterogeneous, more information on morbidity rates in the elderly is needed to optimize mental health care for elderly people. Therefore the aim of this European study is to (1) adapt existing assessment instruments, (2) to collect data on the prevalence, the incidence, and on the natural course and prognosis of mental disorders.

Method: The multi-centre study conducted in six different European and associated countries (Germany, Great Britain, Israel, Italy, Spain and Switzerland) with a cross-sectional and prospective longitudinal design, will be based on age-stratified, random samples of elderly living in the community in selected catchment areas. Within the pre- and pilot phases age-gender specific assessment tools (e.g. the Composite International Diagnostic Interview, CIDI) will be developed, translated and back translated, and psychometrically assessed. In the following main phase the lifetime, 1-year and 4 weeks prevalence of mental disorders, the level of service utilisation and their associated factors, such as symptom severity and

0114

Volker Arolt¹, Silke Jörgens¹

¹Universitätsklinikum Münster,
Department of Psychiatry, Münster,
Germany

0427

Jana Volkert¹, Holger Schulz¹,
Martin Härter¹, Maria Hausberg¹,
Susanne Sehner¹, Alessandra Canuto²,
Mike Crawford¹, Luigi Grassi¹,
Manuel Munoz³, Arieh Shalev⁴, Hans-
Ulrich Wittchen⁵, Sylke Andreas⁶

¹University Medical Centre Hamburg,
Department of Medical Psychology,
Hamburg, Germany

²University Hospitals of Geneva,
Division of Geriatric Psychiatry,
Department of Psychiatry, Genf,
Germany

³Universidad Complutense de Madrid,
Facultad de Psicología, Madrid, Spain

⁴Hadassah University Hospital,
Department of Psychiatry, Hadassah,
Israel

⁵Technische Universität Dresden,
Institute of Clinical Psychology and
Psychotherapy, Dresden, Germany

⁶Alpen-Adria University Klagenfurt,
Department of Psychology, Klagenfurt,
Germany

prior course, quality of life and the degree of impairment of activities and participation will be assessed. In the second main phase - 1 year later - the same sample will be reassessed. This will allow to obtain information on the prognosis of mental disorders and the progression and improvement, respectively.

Results: Response rate varied from 31% in Switzerland to 11% in Germany. There was no significant gender difference overall, but at centre level, $p < .01$. In Spain, Italy and England response rate was higher for male, while in Geneva it was higher for female respondents. Response rate was also 7% higher for the younger old age group (65- 74 years) across all centres.

Discussion: The harmonised sampling methodology and adopted instruments tailored to the needs of the elderly render the MentDis_ICF65+ study a unique and important database on the prevalence and incidence rates on mental disorders in the elderly in European and associated countries. Furthermore, insight into associated factors including service utilisation, quality of life, and impairment of activities and participation in older adults will be gained. This will help to improve mental health care in direct contact with elderly people, and furthermore, offer starting points for required structural changes initiated on the level of mental health care politics.

0428

Sylke Andreas¹, Holger Schulz²,
Jana Volkert², Maria Hausberg²,
Susanne Sehner², Hans-
Ulrich Wittchen³, Mike Crawford²,
Luigi Grassi², Alessandra Canuto⁴,
Arieh Shalev⁵, Manuel Munoz⁶,
Martin Härter²

¹Alpen-Adria University, Department of
Psychology, Klagenfurt, Germany

²University Medical Centre Hamburg,
Department of Medical Psychology,
Hamburg, Germany

³Technische Universität Dresden,
Institute of Clinical Psychology and
Psychotherapy, Dresden, Germany

⁴University Hospitals of Geneva,
Division of Geriatric Psychiatry,
Department of Psychiatry, Genf,
Switzerland

⁵Hadassah University Hospital,
Department of Psychiatry, Hadassah,
Israel

⁶Universidad Complutense de Madrid,
Facultad de Psicología, Madrid, Spain

Prevalence of mental disorders in the elderly: Results from the MentDis_ICF65+ study

Introduction: Reliable data on the prevalence of mental disorders in older people are currently lacking for the EU. Despite the availability of some international studies with quite variable results, the size and burden of mental disorders in the elderly remains unclear. Therefore the aim of this European study is to (1) adapt existing assessment instruments, and (2) to collect data on the prevalence of mental disorders.

Method: Within a cross-sectional and prospective longitudinal design, the multi-centre study in six different European countries and associated states will be based on age-stratified, random samples of elderly living in the community. There has been a methodological pre- and pilot phase and two main-phases. In order to answer the research questions, the first phase has been devoted to the adaptation of age-gender specific assessment tools (e.g. the Composite International Diagnostic Interview, CIDI65+), to the translation and back translation of the instruments for older people, and to the assessment of their psychometric properties. In the following main-phase the lifetime, 1-year and 4 weeks prevalence of mental disorders will be assessed.

Results/Discussion: First result of the overall age and gender adjusted life-time prevalence of mental disorders in the elderly is 34% whereas the highest overall life-time prevalence rate is found for major depression with 20.6% followed by any anxiety disorder with 15.6%. Adjusted one-year and current prevalence rates of mental disorders in the elderly will be reported.

The study show a high life-time prevalence rate for mental disorders in the elderly across European and European associated countries. The need for specialised mental health care will be discussed.

0364

Robert Sigström¹, Ingmar Skoog¹,
Björn Karlsson¹, Svante Östling¹

¹University of Gothenburg, Psychiatry
and Neurochemistry, Gothenburg,
Sweden

The prognosis of specific phobia in the elderly population: A 5-year follow-up study

Objectives: Specific phobia (SP) is one of the most prevalent mental disorders. It is considered to have a chronic course, often with onset in early childhood. However, there are few prospective population studies of the disorder, and none including an elderly population. We aimed to study the prognosis of SP in a sample of elderly with special

reference to SP as a risk factor for depression.

Material and methods: As part of ongoing population studies in Gothenburg, Sweden, a representative sample of 70-year old men and women (N=558) without dementia were examined by psychiatric nurses, using a semi-structured interview based on the Comprehensive Psychopathological Rating Scale (CPRS). Symptom algorithms were used to diagnose SP, other anxiety disorders, and depression according to DSM-IV. We also recorded phobic fears not meeting diagnostic criteria for SP ('only fear'). At a 5-year follow-up 418 (74.9%) men and women were re-examined.

Results: The prevalence of SP had declined significantly from 10.2% to 6.1% at follow-up. Of those with SP at baseline, 28.6% met diagnostic criteria also at follow-up, 52.4% had 'only fear' and 19.0% had no fear at follow-up. The prognosis of SP was not influenced by psychiatric comorbidity or type of fear. SP at baseline increased the risk for depression at follow-up in a logistic regression model also including gender and other anxiety disorders.

Conclusion: Less than a third of those with SP meet criteria at a 5-year follow-up, indicating that symptom levels of SP fluctuate more than what is commonly assumed. However, the marked reduction in prevalence of SP over time, suggests that age in itself may have a positive influence on the prognosis. Being a risk factor for depression in this study, SP may have greater clinical importance than previously thought, which calls for more prospective studies in younger samples.

The relationship between social integration and depression in non-demented primary care patients aged 75 years and older

Background: Social integration seems to be associated with depression in late life. But the measurement of social integration still lacks a strong consensus. To date in most studies the different domains of social integration have been examined separately.

Aims: In order to improve comparability among studies, we used the social integration index (SII), which covers all domains of social integration, to examine the association of social integration and depression in non-demented primary care patients aged 75 years and older.

Method: Data were derived from the longitudinal German study on Aging, Cognition and Dementia in primary care patients. Included in the cross-sectional survey were 1028 non-demented subjects aged 75 years and older. The GDS-15 Geriatric Depression Scale was used to measure depression with a threshold of ≥ 6 . Associations of the SII and further potential risk factors and depression were analysed using multivariate logistic regression models.

Results: The SII was significantly associated with depression in the elderly. After full adjustment for all variables, odds of depression were significantly higher for lower levels of the SII, having a care level, impaired vision and mobility and subjective memory complaints.

Conclusion: Because the social integration index covers several aspects of social integration, the results seem to be more significant than considering only one of these domains alone. Further research is needed to prove the practicability of the social integration index and to supply the literature with consistent results regarding the association of social integration and depression. Elderly with depression could benefit from increased social networks and enhanced social integration, which points to the development of social programs and social policies that maximize the engagement of older adults in social activities and volunteer roles.

0211

Michaela Schwarzbach¹,
Melanie Luppa¹, Claudia Sikorski¹,
Angela Fuchs², Wolfgang Maier³,
Hendrik van den Bussche⁴,
Michael Pentzek², Steffi G. Riedel-
Heller¹

¹Institute for Social Medicine,
Occupational Health and Public Health,
University of Leipzig, Leipzig, Germany

²Institute of General Practice, Medical
Faculty of the Heinrich-Heine-University
Düsseldorf, Düsseldorf, Germany

³Department of Psychiatry, University
Bonn, Bonn, Germany

⁴Department of Primary Medical Care,
University Medical Center Hamburg-
Eppendorf, Hamburg, Germany

0378

Trevor Cook¹, JianLi Wang¹,
Carmelle Bolo¹¹Faculty of Medicine, University of
Calgary, Community Health Sciences,
Calgary, Canada

Low social support as a risk factor for a major depressive episode among Canadian community dwelling seniors

Background: Major depression represents one of the leading causes of disease burden worldwide. Further, the proportion of Canadian citizens aged 65 years of age and older is rapidly growing. Despite this, there is a lack of longitudinal data on risk factors for a major depressive episode in seniors. While current literature has established social support as an important factor in the development and prevention of a major depressive episode, comprehensive measures of social support are rarely employed. A longitudinal approach to examining the relationship between depression and comprehensive social support tools has yet to be conducted in Canada.

Methods: This study utilized 8-years of population-based longitudinal data from the National Population Health Survey, collected by Statistics Canada. Sample was restricted to individuals 65 years of age and older at baseline, free of a current or previous depressive episode. Sample demographics, measures of 2- and 8-year depression incidence were prepared using bootstrap weighted chi-square statistics. Multi and univariate cross-sectional and longitudinal logistic regression models were used to identify risk factors for a major depressive episode.

Results: The majority of participants were female, married and living with partner. Roughly 80% of participants reported a chronic condition, though only 25% reported a pain problem and a third restriction to activity. Chronic pain, chronic conditions, and restriction to activity were each associated with higher incidence of major depression. Of five types of social support examined, lack of tangible social support (OR 3.06, CI: 1.49-6.29) affection social support (OR 2.08, CI: 1.34-3.25), positive social interaction (OR 1.52, CI: 1.07-2.17), and emotional (OR 1.483, CI: 1.04-2.09) social support were significantly associated with risk of MDE. Female gender (OR 2.28, CI 1.49-3.50), having a chronic condition (OR 2.60, CI 1.50-4.40), and a restriction to activity (OR 3.00, CI: 2.00-4.35) were independent risk factors for depression in longitudinal models.

Conclusion: Some but not all types of social support are significant risk factors for a major depressive episode in longitudinal analysis. Chronic conditions, pain and activity limitations are important risk factors for depression.

0184

Dimitry Crisp¹, Tim Windsor², Kaarin
J. Anstey¹, Peter Butterworth¹¹Australian National University, Centre
for Research on Ageing Health &
Wellbeing, Canberra, Australia²Flinders University, Department of
Psychology, Adelaide, Australia

Are there consequences for mental health and well-being when relocating from the community to a retirement village?

Objective(s): Although the benefits of retirement village living are widely lauded, few studies have examined the impact of this life transition on the mental health and well-being of older adults. This study investigated the 12-month impact of relocation to a retirement village on subjective well-being and mental health. Further, it explored the impact of feeling pressure to relocate on post-move outcomes.

Methods and Materials: The study comprised 83 older Australians (aged 57 to 90 years) and utilised a prospective longitudinal design to examine the mental health and well-being of residents over the 12 month period following their relocation to independent living units within a retirement village. Participants completed questionnaires prior to moving and at 1, 6 and 12 months post relocation, which assessed levels of depression, anxiety, stress, life satisfaction, and affect. Comparisons were made with a random sample of adults of the same age cohort maintaining residence in the community.

Results: Analyses indicated greater perceived pressure to move was associated with lower levels of positive affect and life satisfaction, and greater anxiety and negative affect prior to moving. However, no evidence was provided for a lasting negative impact on well-being. The investigation of the impact of relocation on health and well-being provided evidence for the transition as a positive experience. Compared to older adults remaining in the community, those individuals who relocated reported significantly lower levels of stress

and social isolation at the 12-month follow-up. Although immediate improvements were observed in reported positive affect, overall stability was observed in depression, anxiety and subjective well-being.

Conclusions: While further follow-up of long-term outcomes is required to assess the full impact of relocation, this study provides evidence for relocation to a retirement village as representing a positive change in late life.

A peripatetic journey through several centuries of models in epidemiology

We might start this journey with basic conceptual models of disease incidence found in the Hippocratic Writings and end with aberrant protein conformations such as the prion. Along the way, examples of agents and environments remind us of the current and future challenges in epidemiology and prevention research. Many useful examples are found in epidemiological research on neuropsychiatric disturbances, as highlighted in this lecture, with a focus on epidemiology as it can be used to improve population health.

0455

James Anthony¹

¹ Johns Hopkins University, Baltimore, United States

The natural history of common mental disorders from adolescence to adulthood.

Background: Symptoms of depression and anxiety become common in the years following puberty. Retrospective studies of adults suggest that many cases of depressive and anxiety disorder emerge before the age of 18 years. However, prospective studies have been few and focussed primarily on prediction of young adult disorders. It therefore remains unclear how often adolescent episodes of common mental disorder are limited to the adolescent years.

Methods: A stratified, random sample of 1943 adolescents was recruited from 44 secondary schools across the state of Victoria, Australia at age 14-15 years. Data pertaining to common mental disorder was obtained at eight waves of follow-up, commencing at mean age 15.5 years and ending at mean age 29.1 years.

Findings: Almost a half of the adolescents who fulfilled this study's criteria for common mental disorders had no further similar disorders in young adulthood. Indeed a majority of those reporting a single episode of disorder during the teens (77% of males, 50% of females) had no further episode. In contrast sixty percent of those with persisting or recurrent adolescent disorder continued to have further symptoms as young adults. Around 40% of young adults with any disorder, had reported none as adolescents. Females, high-risk alcohol user and those with more severe episodes of adolescent disorder had substantially higher rates of continuity into young adulthood.

Interpretation: Much adolescent mental disorder appears limited to the teens and many with disorders in young adulthood have no adolescent history of disorder. Clinical intervention is most indicated for females with severe and persistent disorder in adolescence.

0412

George Patton^{1,2}, Carolyn Coffey², Helena Romaniuk², Christina O'Loughlin², Louisa Degenhardt², Craig Olsson², John Carlin²

¹The Royal Children's Hospital, Centre for Adolescent Health, Parkville, United Kingdom

²University of Melbourne, Royal Children's Hospital, Victoria, Australia

A gene by environment genomewide association study of alcohol problems

Background: We conducted a GxE genomewide association study to identify which genes predict problematic substance use in context of recent stress exposure.

Methods: The data come from 3 community studies that have followed children prospectively into early adulthood, collecting repeated data on substance use, related problems, and stress exposure. The phenotype of latent alcohol involvement was

0381

William Copeland¹, Nisha Gottfredson², Elizabeth Jane Costello¹, GEDI Consortium¹

¹Duke University School of Medicine, Department of Psychiatry and Behavioral Sciences, Durham, NC, United States

²Duke University, Durham, NC, United States

harmonized across studies using indicators of recent alcohol-related symptoms, quantity of use and frequency of use. All models predicted problematic alcohol involvement from each genetic marker, recent stressful life events, and an interaction term between the marker and life events.

Results: Analytic models were run for 866,099 autosomal SNPs in 2124 total subjects. The minimum p values were 9.2×10^{-7} and 2.3×10^{-8} for the main effect and interaction terms, respectively. Two markers met the criteria for significance and another sixteen interaction terms met the suggestive threshold. Notable findings were intronic SNPs in the NTRK2 gene which codes for the TRkB receptor that binds neurotrophins including BDNF. A second set of 'hits' involved intronic markers in the gene that codes for DNA methyltransferase 1. DNA methyltransferase 1 has a role in the establishment of tissue-specific patterns of methylated cytosine residues. No main effect findings met either the significant or suggestive threshold.

Conclusions: These results suggest limited involvement of large or intermediate genetic effects in the alcohol involvement phenotype, but some modest effects may affect risk through stress susceptibility, perhaps through mediating neurotropic binding or tissue-specific methylation. This study supports recent calls for prospective, longitudinal studies with careful assessment of both genetic and environmental risk.

0289

Lilly Shanahan¹, William Copeland²,
Nancy Zucker², Adrian Angold²,
Jane Costello²

¹University of North Carolina at Chapel
Hill, Psychology, Chapel Hill, NC,
United States

²Duke University Medical Center,
Durham, NC, United States

Do childhood somatic complaints predict later psychopathology?

Background: Somatic complaints during childhood are common and have strong cross-sectional associations with psychopathology. However, little is known about whether and how childhood somatic complaints predict psychopathology over time. Here, we examined whether recurrent stomach aches, headaches, and muscle aches in childhood predicted psychopathology in adolescence and young adulthood. We also examined the role of the inflammatory marker C-reactive protein in pathways from childhood somatic complaints to later psychopathology.

Methods: Data came from the prospective population-based Great Smoky Mountains Study (N = 1,420). Participants were assessed yearly from ages 9 to 16, and then again at ages 19, 21. The Child and Adolescent Psychiatric Assessment was used to assess somatic complaints and psychopathology to age 16, and the Young Adult Psychiatric Assessment thereafter. Bloodspots were collected and assayed for high-sensitivity C-reactive protein levels (hs-CRP). Physical health was assessed using Form HIS-1A from the U.S. Public Health Service.

Results: Preliminary analyses based on the youngest two cohorts of the Great Smoky Mountains study suggested that somatic complaints during childhood (ages 9-12) predicted depression and oppositional defiant disorder in adolescence (ages 13-16). Somatization between ages 9-16 also predicted increased risk for emotional disorders in young adulthood (ages 19, 21), particularly depression and generalized anxiety disorder. Children with somatic complaints increased in their levels of hs-CRP from childhood to adolescence. Additional analyses will examine whether there are gendered patterns of associations between childhood somatic complaints and later psychopathology.

Conclusions: Our preliminary analyses suggest that somatization during childhood could be a key indicator for risk for emotional disorders in adulthood.

The changing profile of 'old age' and its relevance for Psychiatric Epidemiology

Old age is the strongest risk factor for dementia, and other mental disorders such as depression and anxiety disorders are also common in old age. The population above age 80 will increase from 106 million 2010 to almost 400 million in 2050. It is estimated that mean survival age in Europe will be 100 years in 2100. In Gothenburg, Sweden, we have conducted longitudinal population studies in the elderly since 1971. Thus, we are able to compare cohorts of elderly born from 1901-02 to 1930. We found that the total prevalence of cardiovascular disorders declined among 75-year-olds between 1976 and 2005. However, there was a gender change. While cardiovascular disorders were more common among women than among men in the 1970s, it was more common among men in 2000s. There were different trend among cardiovascular disorders, the prevalence of obesity, diabetes and stroke increased, while hypertension and hypercholesterolemia decreased. This might be important, as vascular risk factors are related to both dementia and depression. In the later-born cohorts, the prevalence of minor depression increased, and the influence of social network on the risk of depression diminished. Risk drinking increased among 75-year-olds from 1976 to 2005, especially among women. Elderly today are much more active than previous generations, and they have more sex. They are also much less dependent in ADL. Preliminary data suggests that the prevalence of dementia has decreased by almost one third in 85-year-olds 2008-2010 compared to 1986-87, despite an increase in the prevalence of stroke. This is probably due to the fact that elderly today are less vulnerable to different insults. Thus, elderly today differ to a large extent from elderly 30 years ago. This may have large implications for mental disorders in the elderly.

Grant support: Our research programmes are supported by the Swedish Research Council, Swedish Research Council for Working Life and Social Sciences, Swedish Brain Power, and the American Alzheimer's Association.

Epidemiology of alcohol use in old age

In Europe the number of older people with substance use problems or requiring treatment for a substance use disorder is estimated to more than double between 2001 and 2020. This is due not only to the increase of the population aged 65 and older but also to a cohort effect: the higher rate of substance use among the baby-boom cohort (born between 1946 and 1964). This paper focuses on specific problems associated with alcohol use in old age, such as increased alcohol sensitivity with age, chronic illness and high use of medications, under-detection and under-treatment of alcohol use problems. Another objective is to investigate prospectively the relationship between moderate alcohol consumption and incident overall dementia and Alzheimer dementia. Furthermore, recent data from large epidemiological German studies on alcohol use disorders among the elderly in the community and in nursing homes are presented.

Late-life depression: Occurrence, course, risk factors and consequences

Background: Depression is (just behind dementia) the second most common psychiatric condition in old age and depression is known to impact individual's mental and somatic health outcomes negatively. This work reviews occurrence, course, risk factors and consequences of late-life depression.

Methods: Most recent results of population-based and primary care-based studies reporting prevalence, course and risk factors for depression in old age will be outlined. Special reference is given to two German studies: (1) the Leipzig Longitudinal Study of the Aged (LEILA 75+), investigating a representative sample of 1265 individuals aged 75+ assessing depressive symptoms using the Center for Epidemiologic Studies Depression Scale (CES-D)

0457

[Ingmar Skoog](#)¹

¹University of Gothenburg,
Neuropsychiatric Epidemiology Unit,
Gothenburg, Sweden

0446

[Siegfried Weyerer](#)¹

¹Central Institute of Mental Health,
Mannheim, Germany

0472

[Steffi G. Riedel-Heller](#), Melanie Lupp

Institute of Social Medicine,
Occupational Health and Public Health
(ISAP), University of Leipzig, Germany.

and (2) the German Study on Ageing, Cognition, and Dementia in Primary Care Patients (AgeCoDe) investigating 3,214 non-demented patients aged 75+ using the Geriatric Depression Scale (GDS15).

Results: Depression in old age is common and has severe consequences. A meta-analysis found a pooled prevalence of 7.2% (95% CI 4.4-10.6%) for major depression and 17.1% (95% CI 9.7-26.1%) for depressive disorders. Depression rates increase with age and are highest in the oldest old, which is currently the most rapidly growing population segment. Consequences of late life depression for the individual and for the society in terms of costs of illness are outlined. Studies of health service utilization and costs showed homogeneously that healthcare costs for depressive elderly individuals are one third higher compared to non-depressive individuals even though most do not receive depression-specific treatment. The natural course of depressive symptoms over 8 years was rather unfavourable with an intermittent course in 17% and a chronic course in 23% of the Leila75+ participants. A number of risk factors were identified, e.g. a poor social network and functional impairment. Loss and bereavement impacts incident depression.

Discussion: Although late life depression is a threat to old age health, the public health impact of late life depression is underestimated so far. Most recent work in psychiatric epidemiology will facilitate prevention and the implementation of improvement strategies, such as collaborative care models in order to improve depression care .

0458

Hans-Helmut König¹

¹Universitätsklinikum Hamburg-Eppendorf, Institut für Medizinische Soziologie, Sozialmedizin und Gesundheitsökonomie (IMSG), Hamburg, Germany

Costs of dementia in old age

Dementias are one of the most expensive disease groups among the population aged 65 years and over. This is mainly due to the patients' deficits in activities of daily living which increase with the progression of dementia, leading to an increasing need for care. As a result, costs of illness of dementia may more than double over the course of the disease. Costs of medical care account for a relatively small share of total costs and are not greatly influenced by disease severity. By contrast, costs of social care and nursing care make up at least three quarters of total costs in the majority of studies. When patients are cared for in the community, most of the care is often provided informally by relatives. Accordingly, from a societal perspective, up to 80% of the costs of illness in this setting may be due to informal care while additional professional home care accounts for a relatively small share of total costs. When informal care is valued by replacement or opportunity costs, care for dementia patients living at home may cost more than care in nursing homes if functional impairment is controlled for. Given that demographic and social changes are likely to cause a shortage in the supply of familial caregivers in the future, the focus of health policy on community care provided by families may be challenged, and new ways to provide affordable care for dementia patients should be developed.

0023

Horst Bickel¹

¹Klinikum rechts der Isar, Dept. of Psychiatry, Munich, Germany for the AgeCoDE study group

Interactive effects of the apolipoprotein E (APOE) ε4 allele and non-genetic risk factors on the incidence of dementia

Objective: APOE ε4 is the most important susceptibility gene for dementia. Numerous studies suggest that the effect of the ε4-allele can be modified by environmental risk factors, but the results are inconsistent. Using an adequately powered study, we analyzed the putative interactive effects of ε4 with non-genetic risk factors on the incidence of dementia.

Methods: A random sample of general practice patients over the age of 75 was subjected four times to a follow-up examination at intervals of 18 months. Trained physicians and psychologists examined the participants at their homes. Dementia was diagnosed according to DSM-IV criteria. The non-genetic factors (absent vs. present) were combined in each case with ε4 (non-carrier vs. carrier). The relationship of these combinations with dementia was determined by means of the Cox regression. Interaction was defined as a significant departure of disease risk from an additive model. It was tested by the „relative excess risk

due to interaction“(RERI).

Results: Out of the 3114 initially non-demented participants, 416 developed a dementia. APOE-ε4 carriers had a significantly elevated dementia risk (HR = 1.83; 95%CI: 1.48-2.25). Many of the non-genetic risk factors likewise showed significant main effects. A significant synergistic effect with ε4 was found for memory complaints and mild cognitive impairment, whereas ε4 produced no increase in risk among the highly educated (antagonistic effect). Alcohol consumption and smoking showed a tendency to reduce the risk associated with the ε4 allele. Women with ε4 were at higher risk than men. Vascular diseases did not modify the risk of dementia due to ε4.

Conclusions: Memory complaints and mild cognitive impairment may progress more rapidly to clinical dementia among ε4 carriers. Higher education appears to protect against the adverse effects of ε4. Our data speak against the hypothesis that the effect of APOE is mediated by vascular risk factors.

Stability of MCI in a cohort at risk for neurodegeneration: Results of the first follow-up of the TREND-study (Tübinger evaluation of Risk factors for Early detection of NeuroDegeneration)

Objectives: Since Petersen has introduced the concept of „Mild Cognitive Impairment“ (MCI) as a possible preliminary stage of Alzheimer’s Disease (AD) in 1999, many cohort and population studies have focused on MCI. Follow-up examinations indicate that the cross-sectional diagnosis MCI is not a stable marker for further progression to AD, as the cognitive impairment often disappears in these studies. Additionally, the quantitative criteria of the qualitatively well defined category are still controversially discussed. The data of the TREND-study, which started 2009 with the enrollment of 700 healthy elderly at the age of 50 to 80 years, addresses these problems.

Material and Methods: At baseline, 715 participants underwent a detailed general, neurological and psychiatric examination. Different tests classified the participants with respect to one or more risk factors for a neurodegenerative disease such as REM-sleep-behavior disorder, depression or hyposmia. The CERADplus test battery was used as standard neuropsychological test instrument in all participants.

Results: At baseline, 7.1% of the cohort revealed an amnesic MCI (single domain: 3.2%, multi domain: 3.9%, criterium: 1.5 SD in the memory domain below the norm). After two years, only half of the initial aMCI diagnoses persisted whereas 41% had no aMCI any more, 20% showed a very mild type of MCI (-1.5

Conclusions: In a cohort of subjects at risk for neurodegeneration the relative amount of stable MCI is smaller than in a general cohort. Participants with MCI are related to higher drop out rates than healthy subjects. An integrative model for the mentioned risk factors is needed for a more sophisticated analysis. The impact of the early consideration of the cognitive state is expected in later follow-up examinations.

The prognosis of patients with mild cognitive impairment in general practice

Objectives: Most likely the concept of Mild Cognitive Impairment (MCI) is going to be introduced into the DSM-5 termed as Mild Neurocognitive Disorder - thus receiving the status of a diagnosis. This study investigates the prognostic value of such a diagnosis and analyses the determinants of the future course of MCI.

Method: 357 probands with MCI, aged 75+, were recruited by primary care surgeries and followed up by interviewers for 3 years. Depending on the course of MCI the probands

0277

Florian G. Metzger¹, Raphael Niebler¹, Christina Heidler¹, Carolin Buchwald¹, Gerhard W. Eschweiler¹, Daniela Berg^{2,3}, Walter Meatzler^{2,3}, Andreas J. Fallgatter¹

¹University of Tuebingen, Dept. of Psychiatry and Psychotherapy and Geriatric Center, Tuebingen, Germany
²University of Tuebingen, German Center for Neurodegenerative Diseases (DZNE), Tuebingen, Germany
³University of Tuebingen, Center of Neurology, Department of Neurodegeneration, Hertie-Institut of Clinical Brain Research, Tuebingen, Germany

0188

Hanna Kaduszkiewicz¹, Eisele M. for the AgeCoDE study group

¹Universitätsklinikum Hamburg-Eppendorf, Institut für Allgemeinmedizin, Hamburg, Germany

retrospectively were grouped into four groups representing remittent, unstable, stable and progressive courses of MCI. We performed ordinal logistic regression and CART analyses.

Results: 41.5% of MCI cases at baseline retrieved normal cognitive function 1.5 and 3 years later, 21.3% showed an unstable, 14.8% a stable course of MCI and 22.4% progressed to dementia. Symptoms of depression, multidomain MCI-subtypes, poor results in cognitive tests and higher age increased the risk of progressive MCI. CERAD word list memory was the best baseline-indicator to differentiate between remittent and progressive MCI. Symptoms of depression modify the prognosis.

Conclusions: In primary care around a quarter of patients with MCI progressed to dementia within the next three years. Neuropsychological tests and assessment of depressive symptoms are helpful in predicting this progressive versus the remittent course. However, when transferring the concept of MCI into clinical diagnostic algorithms (e.g. DSM-5) we shouldn't forget that three quarters of MCI patients stayed cognitively stable or even improved within three years. These patients should not be alienated through such a diagnosis.

0022

Tobias Luck^{1,2}, Steffi G. Riedel-Heller¹,
Melanie Luppá¹, Birgitt Wiese³,
Frank Jessen^{4,5}, Horst Bickel⁶,
Siegfried Weyerer⁷, Michael Pentzek⁸,
Hans-Helmut König⁹, Martin Scherer¹⁰,
John C. S. Breitner¹¹, Wolfgang Maier^{4,5}

¹University of Leipzig, Institute of Social
Medicine, Occupational Health and
Public Health, Leipzig, Germany

²University of Leipzig, LIFE — Leipzig
Research Center for Civilization
Diseases, Leipzig, Germany

³Hannover Medical School, Institute for
Biometrics, Hannover, Germany

⁴University of Bonn, Department of
Psychiatry, Bonn, Germany

⁵DZNE, German Center for
Neurodegenerative Diseases, Bonn,
Germany

⁶Technical University of Munich,
Department of Psychiatry, Munich,
Germany

⁷Central Institute of Mental Health,
Mannheim, Germany

⁸Heinrich-Heine-University Düsseldorf,
Institute of General Practice, Düsseldorf,
Germany

⁹University Medical Center Hamburg-
Eppendorf, Department of Medical
Sociology and Health Economics,
Hamburg-Eppendorf, Germany

¹⁰University Medical Center Hamburg-
Eppendorf, Department of Primary
Medical Care, Hamburg-Eppendorf,
Germany

¹¹McGill University, Douglas Mental
Health University Institute, Montreal,
Canada

Apolipoprotein E epsilon 4 genotype and a physically active lifestyle in late-life: Analysis of gene-environment interactions for the risk of dementia and Alzheimer's disease dementia

Background: As physical activity may modify the effect of the APOE $\epsilon 4$ allele on dementia and Alzheimer's disease dementia (AD) risk, we tested for such a gene-environment interaction in a general practice patients sample aged 75+.

Methods: Data were derived from the longitudinal German Study on Ageing, Cognition and Dementia in Primary Care Patients. Multivariable Cox regression assessed individual association of APOE $\epsilon 4$ status and physical activity with dementia and AD risk controlled for covariates. We tested for gene-environment interaction by calculating relative excess risk and attributable proportion due to interaction, and synergy index. Kaplan-Meier survival method estimated dementia- and AD-free survival times.

Results: Among 2,492 non-demented patients, 278 developed dementia (184 AD) over a follow-up interval of 4.5 years. Presence of the APOE $\epsilon 4$ allele significantly increased, higher physical activity significantly decreased dementia and AD risk. Co-presence of APOE $\epsilon 4$ with low physical activity was associated with higher dementia and AD risk and shorter dementia- and AD-free survival than presence of APOE $\epsilon 4$ or low physical activity alone. Indices of interaction indicated additivity of the individual effects of low number of physical activities and APOE $\epsilon 4$ allele for general dementia risk and an additive interaction for AD risk.

Conclusions: Physical activity even in late-life may be effective to reduce conversion to dementia and AD or to delay onset of clinical manifestation and engaging in such activities can be recommended independently of genetic susceptibility. APOE $\epsilon 4$ carriers may particularly benefit from increasing physical activity with regard to their AD risk.

Depressive symptoms and longitudinal changes of cognitive performance in elderlies at high risk for neurodegeneration (TREND-study)

Questions: The purpose of this study was to examine the cognitive longitudinal changes in a younger cohort of elderly German citizens. It is important for prevention to identify early easily acquirable predictors, modulators and risk factors of cognitive decline, as persons with a history of depression are considered to have an increased risk for neurodegeneration, especially Alzheimer and Parkinson disease.

Methods: The cognitive performance and depressive symptoms within or without a full-blown depressive episode at baseline was evaluated in more than 600 elderlies (50-80 years) in the TREND-study (Tübinger evaluation of Risk factors for Early detection of NeuroDegeneration, www.trend-studie.de). Cognitive performance in the memory domain was defined by the z-scores of delayed recall and executive functions by the trail making test B to A ratio within the CERADplus battery, which are corrected for age and education. Two years later there were follow-up multimodal assessments of the mentioned cognitive and emotional domains and their longitudinal changes in relation to the persistence or change of a depressive episode. In this substudy the delayed recall at baseline and follow-up at 2 years, and the changes of the z-scores were analysed by parametric statistical procedures.

Results: Only 19 of 435 initially not-depressed individuals (4 %) showed a depressive episode two years later, but 74 of 211 (35%) initially depressed subjects suffered from a new or persisting depressive episode. Initially depressed patients showed a more increased performance two years later than the initially non-depressed individuals, if they have recovered from depression. There were weak associations between longitudinal changes of memory and executive functions, which were modulated by gender, vascular risk factors and the acute emotional state.

Conclusions: There are complex interactions between different cognitive and emotional domains in elderlies on risk for cognitive decline. Especially subjects recovered from depression but with persisting inferior cognitive performance might be on a high risk for further cognitive decline.

Depression and incident dementia: An 8-year population-based prospective study

Aims: The aim of the study was to investigate the impact of depression (categorical diagnosis; major depression) and depressive symptoms (dimensional diagnosis and symptom patterns) on incident dementia in the German general population.

Methods: Within the Leipzig Longitudinal Study of the Aged (LEILA 75+), a representative sample of 1,265 individuals aged 75 years and older were interviewed every 1.5 years over 8 years. Cox proportional hazards regressions were used to estimate the impact of depression and depressive symptoms on incident dementia.

Results: The incidence of dementia was 48 per 1,000 person-years (95% confidence interval (CI) 45-51). Depressive symptoms (Hazard ratio HR 1.03, 95% CI 1.01-1.05), and in particular mood-related symptoms (HR 1.08, 95% CI 1.03-1.14), showed a significant impact on the incidence of dementia only in univariate analysis, but not after adjustment for cognitive and functional impairment. Major depression showed a significant impact on incidence of dementia also in multivariate analysis (HR: 2.75, 95% CI 1.01-7.50). Mean time to incident dementia was significantly shorter for participants with major depression compared to those without (4.7 years (95% CI 3.1-6.3) vs. 6.8 years (95% CI 6.7-7.0)). No significant difference was found between the mean time of participants with and without dimensional diagnosis (6.6 years (95% CI 6.2-7.1) vs. 6.8 years (95% CI 6.7-7.0)).

0362

Gerhard W. Eschweiler¹,
Raphael Niebler¹, Walter Maetzer²,
Florian Gerhard Metzger¹,
Elena Gruener², Caroline Buchwald¹,
Christina Heidler¹, Daniela Berg²,
Andreas Fallgatter¹

¹University Hospital, Department of Psychiatry and Psychotherapy, Geriatric Center, Tuebingen, Germany

²Hertie Institute of Brain Research and DZNE, Department of Neurodegeneration, Tuebingen, Germany

0017

Melanie Lippa¹, Tobias Luck^{1,2},
Franziska Ritschel¹, Matthias
C. Angermeyer^{3,4}, Arno Villringer⁵,
Steffi G. Riedel-Heller^{1,2}

¹University of Leipzig, Institute of Social Medicine, Occupational Health and Public Health, Leipzig, Germany

²University of Leipzig, LIFE – Leipzig Research Center for Civilization Diseases, Leipzig, Germany

³Center for Public Mental Health, Gössing a. W., Austria

⁴University of Cagliari, Department of Public Health, Cagliari, Italy

⁵Max Planck Institute for Human Cognitive and Brain Sciences Leipzig, Department Neurology, Leipzig, Germany

Discussion: The finding that in particular more severe depression - i.e. major depression - was found to have a significant impact on future dementia agrees with the assumptions of the brain reserve threshold theory that depression adds to brain injury burden, and therefore influences development of dementia.

0232

Robert Pietrzak¹

¹National Center for PTSD and Yale School of Medicine, Psychiatry, West Haven, United States

Psychiatric and medical comorbidity of full and partial posttraumatic stress disorder among older adults in the United States: Results from Wave 2 of the National Epidemiologic Survey on Alcohol and Related Conditions

Question: While PTSD has been included in the Diagnostic and Statistical Manual of Mental Disorder (DSM) since 1980, no known study has systematically examined its prevalence, and psychiatric and medical comorbidity in a nationally representative sample of U.S. older adults. "Partial PTSD" describes clinically significant PTSD symptoms in trauma-exposed individuals who do not meet full criteria for PTSD, but no study has examined Axis I and II disorders associated with this classification in a nationally representative sample of older adults.

Methods: We used data from the Wave 2 National Epidemiologic Survey on Alcohol and Related Conditions to examine lifetime Axis I and II psychiatric disorders and a broad range of medical conditions associated with full PTSD and partial PTSD in a nationally representative sample of 9,463 U.S. adults aged 60 or older.

Results: Lifetime prevalences \pm standard errors of PTSD and partial PTSD were $4.5\% \pm 0.25$ and $5.5\% \pm 0.27$, respectively. These rates were higher in women ($5.7\% \pm 0.37$ and $6.5\% \pm 0.39$) than in men ($3.1\% \pm 0.31$ and $4.3\% \pm 0.37$). Older adults with full and partial PTSD most frequently identified unexpected death and serious illness or injury to someone close as their worst stressful events. Full PTSD was associated with elevated odds of lifetime mood, anxiety, drug use, and borderline and narcissistic personality disorders, as well as past-year diagnoses of hypertension, angina pectoris, tachycardia, other heart disease, stomach ulcer, gastritis, and arthritis. Partial PTSD was associated with elevated odds of mood, anxiety, and narcissistic and schizotypal personality disorders, as well as past-year diagnoses of gastritis, angina pectoris, and arthritis. Full and partial PTSD were additionally associated with poorer psychosocial and physical functioning compared to older adults exposed to trauma but without full or partial PTSD.

Conclusions: PTSD among older adults in the United States is slightly more prevalent than previously reported and is associated with considerable psychiatric and medical comorbidity, as well as psychosocial and physical dysfunction. Partial PTSD is associated with intermediately elevated rates of co-occurring psychiatric and medical disorders, as well as dysfunction.

0030

Isabelle Chaudieu^{1,2}, Joanna Norton^{1,2}, Karen Ritchie^{1,2,3}, Philippe Birmes⁴, Guillaume Vaiva^{5,6}, Marie-Laure Ancelin^{1,2}

¹Inserm U1061, Montpellier, France

²University Montpellier Sud de France, Montpellier, France

³Imperial College, London, UK

⁴University Toulouse III, Toulouse, France

⁵CNRS UMR 8160, Lille, France

⁶University Lille-North of France, Lille, France

Late-life health consequences of exposure to trauma in a general elderly population: The mediating role of re-experiencing posttraumatic symptoms

Question: A history of trauma is associated with both poor mental and physical health but the specific impact of post-traumatic stress disorder (PTSD) symptoms on physical health using objective indicators of health status has rarely been evaluated in elderly civilians. This study investigates the long-term consequences of a lifetime exposure to trauma on health in a French elderly general population.

Methods: Psychiatric health, medical history and clinical examination (ICD-10 criteria) were assessed in 1662 subjects. Lifetime traumatic exposure, PTSD and psychiatric diagnoses were obtained using the Watson's PTSD Inventory and the Mini International Neuropsychiatric Interview.

Results: We observed an increase in the number and severity of health-related outcomes between groups, non-traumatized subjects (comparison group) having the lowest risk, and those with trauma leading to recurrent re-experiencing of events (non-resilient subjects) having the highest risk. Traumatized persons who did not report recurrent re-experiencing symptoms (resilient subjects) showed better current mental health than both traumatized subjects who did and the comparison group. Non-resilient subjects were more likely to have current depressive symptoms ($p=.003$), current major depression ($p<.0001$), current anxious disorder ($p=.032$) and psychiatric co-morbidity ($p=.002$) than non-traumatized subjects. Resilient subjects differed from non-traumatized subjects in having significantly less current suicidal ideation ($p=.054$) and psychiatric co-morbidity ($p=.035$). Both groups of traumatized subjects showed a higher rate of cardio-ischemic disease, notably current angina pectoris (OR=2.27 [1.31; 3.91] and 2.34 [1.22; 4.49] for resilient and non-resilient groups, respectively). Traumatized persons, specifically those non-resilient, showed a higher waist/hip ratio, higher triglyceride levels, and a greater frequency of hypertension.

Conclusion: Our findings suggest that trauma could be associated with cardio-ischemic diseases independently of PTSD symptoms expression. However the expression of these symptoms appears associated with additional metabolic risk factors. Elderly persons with a history of exposure to traumatic events should be carefully monitored for vascular pathology.

The association of traumatic experiences and posttraumatic stress disorder with physical morbidity in old age: A German population based study

0027

Heide Glaesmer¹, Elmar Brähler¹,
Harald Gündel¹, Steffi G Riedel-Heller¹

¹University of Leipzig, Medical
Psychology, Leipzig, Germany

Objective: To examine the relationship of traumatic experiences and PTSD among a representative population sample of 1,456 German elderly (60 years and above). Several studies have suggested that PTSD as well as traumatic experiences are related to adverse health outcomes. However, many past studies were based on selected samples like combat veterans, or survivors of natural disasters.

Methods: Based on self-report data and using regression analyses, we investigated the association of traumatic experiences and PTSD with several medical conditions. Data were collected in May and June 2008.

Results: Traumatized subjects had a significantly increased risk for all the medical conditions under study compared to those participants without a traumatic exposure (OR = 1.37 (CI = 1.07-1.75) for hypertension up to 5.12 (CI = 2.25-11.6) for cancer). There are significant associations of current PTSD with cardiovascular diseases (Angina pectoris/coronary artery disease; congestive heart failure, peripheral vascular disease) and cardiovascular risk factors (hypertension, elevated cholesterol) (OR = 1.94 (CI = 1.14-3.31) for peripheral vascular disease up to 3.76 (CI = 2.11-6.70) for elevated cholesterol), as well as with asthma, cancer, back pain, hard of hearing, osteoporosis, stomach problems and thyroid disorders.

Conclusions: These findings suggest an association between traumatic stress and PTSD with impaired physical health in a general population sample in the German elderly. It underpins the importance of traumatic experiences and PTSD not only for mental health, but also for physical health as a long-term consequence.

0170

Philipp Kuwert¹, Heide Glaesmer²,
Svenja Eichhorn², Elena Grundke¹,
Robert H Pietrzak³, Harald Freyberger¹,
Thomas Klauer¹

¹University Medicine Greifswald,
Psychiatry, Stralsund, Germany

²University of Leipzig, Medical
Psychology, Leipzig, Germany

³Yale University, Psychiatry, New Haven,
United States

Mental health outcomes of exposure to wartime rape compared with non-sexual war trauma: A matched pairs study.

The aim of the study was to compare the long-term effects of conflict-related sexual violence experienced at the end of World War II (WW II) with non-sexual WW II trauma. 27 Elderly wartime rape survivors were compared to age- and gender-matched control subjects who were drawn from a larger sample of subjects over 70 years of age who had experienced WW II-related trauma. A modified version of the Posttraumatic Diagnostic Scale was used to assess trauma characteristics and posttraumatic stress disorder (PTSD) symptoms, the Brief Symptom Inventory-18 was used to assess current psychopathology. Additionally, measures of posttraumatic growth (Posttraumatic Growth Inventory; PTG) and social acknowledgement as a trauma survivor (Social Acknowledgement Questionnaire; SAQ) were used to assess two important mediating variables in post-trauma conditions of rape victims. Women exposed to conflict-related sexual violence reported greater severity of PTSD-related avoidance and hyperarousal symptoms, as well as anxiety, compared with female long-term survivors of non-sexual World War II trauma. The vast majority—80.9%—of these women also reported severe sexual problems during their lifetimes, relative to 19.0% of women who experienced non-sexual war trauma. Women exposed to conflict-related sexual violence also reported greater posttraumatic growth, but less social acknowledgement as trauma survivors, compared to survivors of non-sexual war trauma. The results are consistent with emerging neurobiological research, which suggests that different traumas may be differentially associated with long-term posttraumatic sequelae in sexual assault survivors than in other survivor groups; and highlight the need to treat deleterious effects of conflict-related sexual violence in current worldwide crisis zones.

0104

Chesmal Siriwardhana^{1,2},
Aihula Sumathipala^{1,2},
Sisira Siribaddana², Helena Zavos¹,
Matthew Hotopf¹

¹Institute of Psychiatry, King's College
London, Health Services & Population
Research, London, United Kingdom

²Institute for Research & Development,
Colombo, Sri Lanka, Sri Lanka

Sri Lankan national survey on mental health: Prevalence of mental illnesses including PTSD among adults

Introduction: Sri Lanka is a multi-ethnic developing country, and its public health achievements have been considered as a model. It has also been affected by three decades of civil conflict and a devastating tsunami. Country-wide prevalence data on mental disorder burden of Sri Lanka is lacking. However, proxy indicators from evidence of smaller studies suggest that mental disorders are a major public health concern.

Methods: A cross-sectional study was conducted to estimate the prevalence of mental disorders in Sri Lanka. Multi-stage, cluster sampling design was used. The study was conducted in 17 out of 25 administrative districts of the country, 9 districts were unavailable due to escalated civil conflict during the study period. Measures, previously validated in Sri Lankan population, were used to ascertain mental disorder outcomes, socio-demographic correlates and outcomes of exposure to conflict and tsunami.

Findings: A total of 6120 participants were interviewed. Mean age was 39.8 years (SD 12.6). Sample included 86.2% Sinhala, 7.7% Tamils, 6% Muslims and 0.2% other ethnicities, reflecting national ethnic diversity. Overall prevalence of mental illness was found to be 21.4%. Major depression 2.6% (CI 2.1-3.2) and other depression 7.9% (CI 7.0-8.9) accounts for half of the prevalence, followed by somatoform disorder 4.2% (CI 3.6-4.9) and PTSD 2.8% (CI 1.8-2.9). Socio demographic correlations included older age, female gender, unemployment, marital status and lower education.

Conclusion: Prevalence rates of mental disorders in Sri Lanka, was shown to be high. Limitations include the study not being conducted in conflict affected areas. However, prevalence figures are relatively lower compared to other developing country populations affected by conflict and tsunami.

Risk factors for service-related mental disorders among Canadian forces personnel deployed in support of the mission in Afghanistan during 2001 - 2008

0180

David Boulos¹, Mark Zamorski¹¹Department of National Defence, Directorate of Mental Health, Ottawa, Canada

Objectives: Over 40,000 Canadian Forces (CF) personnel have deployed in support of the Canadian mission in Afghanistan. The objective of this study was to estimate cumulative incidence of diagnosed Afghanistan-related Mental Disorders (ARMD) in this cohort and further, to use a time-to-event (survival) analysis approach and multi-variate modelling to explore risk factors for ARMD.

Methods: The study cohort consisted of all 30,513 CF personnel who deployed outside of N. America in support of the mission in Afghanistan before 1-January-2009. Clinical diagnoses and the clinician's perception of its relationship to the Afghanistan mission were abstracted from the medical records of a stratified random sample of 2,014 personnel. Cox proportional hazards regression was used to explore the independent association of risk factors with a primary outcome of any diagnosed ARMD.

Results: 13.5% of the cohort was diagnosed with ARMD over a median follow-up of 1,364 days. Visual inspection of survival curves showed flattening after seven or more years of follow-up. Cox regression showed that deployment to a higher threat location, non-officer rank, and Army service were independent risk factors for ARMD. The hazard ratio for deployment to Kandahar was 5.6 relative to the United Arab Emirates location. In contrast, sex, component (Regular vs. Reserve Force), having had multiple deployments, and total time deployed were not independent risk factors for ARMD.

Conclusions: An important minority of CF personnel who deployed in support of the mission in Afghanistan have been diagnosed with ARMD. Meaningful numbers of ARMD cases continue to come forward for help for at least seven years after return, as such the CF must retain a robust diagnostic and treatment capability long after the mission winds down. Identified risk factors likely reflect combat exposure, a known driver of post-combat mental disorders. The main study limitation was that only CF diagnoses were captured during follow-up.

Mental health at work: Study design and first results from S-MGA

0067

Uwe Rose¹, Eberhard Pech¹, Gabriele Freude¹, Stefan Schiel², Helmut Schröder², Angela Rauch³, Anita Tisch³, Stefan Bender³

Objectives: The current study S-MGA (Studie zur Mentalen Gesundheit bei der Arbeit") was initiated by the German Federal Institute for Occupational Safety and Health (FIOSH). It focuses on work ability, functioning and mental health of employees. The aim of the study is analyse the predictive value of these key determinants for workforce participation within a five years period.

The purpose of the present presentation is to describe the design of the study, the sampling of participants, methods of data collection, and to analyse different types of non-response.

Material and Methods: S-MGA is a follow-up study in a cohort sampled from all German employees aged 31 - 60 subject to mandatory social insurance contributions. Register data according to the employment history at the Institute for Employment Research (IAB) were used for the two-stage sampling design. The employment history was combined with the results of a computer-assisted face-to-face interview (CAPI) and a self-administered questionnaire. Main topics are work conditions and employment, psychosocial risk factors and measures of mental health (depression, burnout, well-being), work ability and functioning according to the International Classification of Functioning (ICF). The selectivity bias within the sampling process was assessed by comparing the distributions of relevant characteristics in the sample and the sampling frame. Results: 4.511 (32.6%) interviews were realized. The refusal rate was 49.4 %. The characteristics within the sample reflect the distributions within the population almost perfectly. All percentages ranged within the population's 95%-confidence interval.

¹Federal Institute for Occupational Safety and Health, Mental Health and Cognitive Capacity, Berlin, Germany
²Institute for Applied Sciences, Bonn, Germany
³Institute for Employment Research, Nuernberg, Germany

Conclusions: In spite of the low response rate there was no indication for inconsistency between population and the sample drawn for the CAPI.

0063

Gabriele Freude¹, Eberhard Pech¹,
Peter Martus¹, Uwe Rose¹

¹Federal Institute for Occupational
Safety and Health, Mental health and
Cognitive Capacity, Berlin, Germany

Mental health in the German working population: Burnout, depression and positive indicators of mental health

Objectives: The topic of "Work and Mental Health (MH)" is of increasing importance for Occupational Health and Safety in Germany. Population-based data of all German employees according to MH, work environment, and psychosocial working conditions are missing.

Based on a broader understanding of MH, data acquisition will focus not only on "negative" MH indicators (mental disorders or syndromes) but also on "positive" MH indicators, e.g. well-being and work satisfaction.

This presentation will focus on preliminary results on both aspects of MH.

Material and Methods: The representative study S-MGA (Study on Mental Health at Work) provides the data base for this analysis. N=4511 workers aged between 31 and 60 years were asked by a computer-assisted face-to-face interview (CAPI). Questionnaire data were obtained for the following domains: depression (PHQ), burnout (OLBI), relaxation inability (FABA), well-being (PWP, SPANE), life and work satisfaction.

Results: Results according to the distributions of MH indicators and work ability will be presented stratified by gender and age. Strong correlations between PHQ and OLBI were found among male employees ($r = -.52$) and female employees ($r = -.57$)

Conclusions: S-MGA provides a comprehensive survey about the MH status of the working population in Germany. The special uniqueness in this current study is given by the combination of more traditional assessment of MH with measurements from positive psychology which both is related to the field of work. A further issue is the conceptual distinction between depression and burnout.

0089

Peter Martus¹, Uwe Rose¹,
Eberhard Pech¹, Olga Jakob¹,
Gabi Freude¹

¹University Tübingen, Medical
Biostatistics, Tübingen, Germany

Physical and mental functioning and workability in German employees

The work ability index (WAI) has been viewed as a one-dimensional instrument to assess work ability in different occupational groups. There has been, however, a discussion, whether this index might have a more complex, at least two-dimensional structure. In a recent publication (Martus et al, Occupational Medicine 2010;60:517-524), the psychometrical structure of the WAI has been investigated and two factors could be identified by confirmatory factor analysis. These were interpreted as subjectively estimated work ability and objective health status. In a prospectively collected sample of 4500 of different occupational groups we measure among several other variables the WAI and the SF 12 questionnaire. Based on these data, we will validate our results obtained previously. In detail, we will investigate the following scientific hypotheses:

H1 Is the 2-factor structure of the WAI confirmed in this large scale validation sample

H2 Is the factor structure identical for different occupational groups

H3 Is the interpretation of both factors consistent with absorbed associations with the SF12?

H4 Can we identify exploratory prognostic factors for both dimensions of the WAI and the total score?

Hypotheses 1 and 2 will be examined by using confirmatory factor analysis for one and several groups. Hypotheses 3 and 4 will be examined using correlation and linear regression

analyses Hypothesis 4 will be examined by subdividing the sample randomly in a learning and a validation subsample. The prognostic model will be developed in the learning sample and validated in the validation sample.

The results might have consequences for the assessment of work ability in scientific surveys on the population level. Possibly they will allow to assess and to build prognoses of work ability of individual subjects too.

Atypical positions on the labor market and depressive symptoms: A register based follow-up study

Objective(s): The aim is to analyze depressive symptoms effects of four different 'atypical positions' on the labour market, namely unemployment, part time employment, marginal employment and subsidized employment. Previous studies on atypical positions were typically only based on self-report measured in one or few points of time. We hypothesize that experience of atypical positions are a risk factor for actual depressive symptoms and that they mediate the relation between education and depressive symptoms.

Material and methods:

Population

In the lidA Study ("German Cohort Study on Work, Age and Health"), 6,076 people with an employment from the German Integrated Database on Labour Market History (IEB) and born in either 1959 and 1965 were interviewed (response rate 23%). 79% allowed a linkage of lidA with the IEB data, allowing for about 4,921 people in the analysis data set.

Variables

Depressive symptoms are assessed by BDI (simplified). Data on atypical positions from the IEB (unemployment; part time, marginal and subsidized employment) cover more than 10 years prior to the interview. In lidA, data on family status and education is used.

Analysis

We intend to make a stepwise linear regression analysis in three steps stratified by gender: In step 1, education, and cohort/birth year are included in the model, in step 2 atypical positions, in step 3 family status.

Results and conclusions: The results would either reject or confirm our hypotheses. The advantages of the study are that the data are prospective and unbiased from the participant's actual depressive symptoms. The disadvantages are that there is no measurement of depressive symptoms prior to follow-up and there might be limited power regarding e.g. experience of unemployment in the study population.

Work characteristics and social support as predictors of wellbeing

Objectives: Subjective well-being is currently of interest as a policy outcome for judging a nations' progress instead of GDP. Hedonic well-being includes subjective perceptions of mood such as happiness and cognitive judgments of life satisfaction. The aim of this study is to assess whether work stressors and types of social support from the closest person predict well-being adjusting for confounding factors.

Material and methods: We used data from the Whitehall II Study of 5182UKcivil servants to examine domains of work and personal relationships and their impact on wellbeing. The psychosocial work environment measured by Karasek's Job Strain Questionnaire and perceived social support at Phase 1 were used to predict well-being measured by the Affect Balance Scale at Phase 2 adjusting for confounding factors.

Results: High levels of confiding/emotional support (0.63, 95%CI 0.38-0.89, p for trend

0077

Hermann Burr¹, Anita Tisch²,
Silke Tophoven², Angela Rauch²,
Uwe Rose¹

¹Bundesanstalt für Arbeitsschutz und
Arbeitsmedizin, Work and Health,
Berlin, Germany

²Institut für Arbeitsmarkt- und
Berufsforschung, Erwerbslosigkeit und
Teilhabe, Nürnberg, Germany

0085

Stephen Stansfeld¹, Martin Shipley²,
Rebecca Fuhrer³, Jenny Head²,
Mika Kivimaki²

¹Queen Mary University of London,
Centre for Psychiatry, London, United
Kingdom

²University College London,
Epidemiology and Public Health,
London, United Kingdom

³McGill University, Department
of Epidemiology, Biostatistics &
Occupational Health, Montreal,
Canada

<0.001; difference in mean from reference group) and control at work (0.57, 95%CI 0.31-0.83, p for trend <0.001; difference in mean from reference group) and low levels of job strain were associated with higher levels of well-being, after adjusting for affect balance score at baseline and satisfaction with standard of living, accommodation, and leisure time. Higher externally assessed work pace was also associated with greater well-being.

Conclusions: Overall, the results suggest that both work and personal social support are powerful predictors of subjective well-being and policy to promote well-being should aim at improving the quality of these areas of everyday life.

0130

Lisa Jarman¹, Angela Martin²,
Alison Venn¹, Petr Otahal¹,
Kristy Sanderson¹

¹University of Tasmania, Menzies
Research Institute Tasmania, Hobart,
Australia

²University of Tasmania, School of
Management, Hobart, Australia

Prevalence and correlates of psychological distress in a large and diverse public sector workforce

Objectives: High psychological distress in workers is a risk factor for chronic disease that impacts workforce productivity, employment longevity and overall health. Routine screening of employee mental health has been suggested as a preventative intervention. This study reports on the baseline results from the Partnering Healthy@Work evaluation, which targets a large and diverse Australian public sector workforce. Our aims were: i) compare workplace prevalence of high psychological distress with population-based data; ii) examine correlates of psychological distress in public sector employees.

Materials and Methods: Prevalence of self-reported psychological distress (Kessler-10) by age and sex were compared for two public sector employee surveys and population benchmarks for employed adults (Tasmanian Population Health Survey, National Survey of Mental Health and Wellbeing) (minimum N = 3160, participation rates 25-70%). A log binomial regression model predicted the relationship between high psychological distress and demographic, socioeconomic, work and health factors in the public sector workforce.

Results: Prevalence of psychological distress was elevated by sex and by age in the routinely implemented public sector survey. Male psychological distress was estimated at 12% and 16% for public sector workers and was higher ($p < .001$) within this environment than regional and national norms. Work stress (effort-reward imbalance) (males: PR = 3.19, $p = 0.004$; females: PR = 5.28, $p < .001$), health risk behaviours, shorter tenure, lower age and being unmarried were correlated with high psychological distress in the public sector workforce.

Conclusions: Routine surveying of employees provided useful information on mental health. Prevalence of psychological distress in male public sector survey respondents was higher than population averages. Psychological distress was more highly correlated with work stress than with socioeconomic status, work features or health issues.

0131

Peter Butterworth¹, Liana Leach¹,
Sarah Olesen¹, Kim Kiely¹

¹The Australian National University,
Centre for Research on Ageing, Health
and Wellbeing, Canberra, Australia

Mental disorders, psychological distress and high-school drop-out in Australia

Background: The early onset of mental disorders may disrupt educational attainment during adolescence and have adverse social and economic consequences across the lifecourse. This analysis examines the impact of early affective, anxiety and substance use disorders, and general measures of psychological distress on high school completion in Australia.

Methods: Analysis of two national datasets. The 2007 Australian National Survey of Mental Health and Wellbeing (NSMHWB) included the CIDI 3.0 which assessed lifetime prevalence of affective, anxiety, and substance use disorders and determined age of onset. The analysis focused on respondents aged between 20 and 34 years and investigated the association between the onset of mental disorders and school completion. The longitudinal Household, Income and Labour Dynamics in Australia survey has followed persons from over 7,000 households annually for over 10 years. Our analysis considers young respondents who

were still at school, and follows them over time to investigate whether psychological distress, alcohol consumption and tobacco use predicts subsequent school disruption. Analyses consider personal and family covariates, including socio-economic circumstances and parental education.

Results: The early onset of mental disorders, and particularly substance use disorders, was significantly associated with disrupted education. The effect was strongest for the middle years of high school (year 10 completion). Longitudinal analysis showed that higher levels of psychological distress predicted subsequent school drop-out.

Discussion: The results confirm that mental disorders and substance use are associated with disrupted educational attainment in Australia. A focus on prevention and early intervention in adolescence may prevent high-school drop-out and promote longer-term social and economic outcomes.

Trajectories of emotional difficulties in primary and secondary school pupils in England: Patterns and predictors

As part of a national study of mental health and mental health interventions in schools in England, self-report measures of emotional difficulties were collected from school pupils from state-maintained primary and secondary schools. Longitudinal data was collected from a large sample of primary and secondary school pupils across England (primary schools N=3300 & secondary schools N=3000) at yearly intervals in 3 waves (2008-2010). This paper aims to look at stability and trajectories of change in pupils self-reported emotional difficulties and identify individual level variables (such as gender, age, ethnicity) that might predict trajectory membership. Amount of variation in trajectories and trajectory membership attributed to the school level will also be explored. Longitudinal growth modelling and latent class analyses from within the SEM framework will be used to conduct analyses.

National survey on emotional and behavioral problems in children 6-18 years old in Kosovo

Objective: The purpose of this study was to estimate the prevalence of emotional and behavioral problems in children 6-18 years in school setting in Kosovo using and identifying predictors such as children's age, gender, area of residence (urban/rural) and other variables.

Methods: A group of 1374 parents, 1300 youth and 343 teachers of children and adolescents aged 6 to 18 years, from different regions of Kosovo. The Child Behavior Checklist (CBCL/6-18), Youth Self Report (YSR) and the Teacher's Report Form (TRF), have been used to assess prevalence of emotional and behavior problems and also the agreement between informants. Cronbach's α coefficient was used as an index of internal consistency for the CBCL, YSR and the TRF scales. T scores and raw scores were assessed using Assessment Data Management (DMA) and all other statistical analyses were performed with SPSS version 18 for Windows. Associations between nominal variables were analyzed with cross-tabulation, and between continuous variables Pearson correlations were used. Differences between group means were analyzed with ANOVA (Analysis of Variance). Logistic regression is used to predict the presence or absence of a characteristic or outcome based on values of a set of predictor variables.

Results: Most scales of the CBCL, YSR and the TRF showed a satisfactory internal consistency. We found a prevalence of 17.2% of parents reporting emotional and behavioral problems. Prevalence rates were found 18.6 % for Internalizing problems and 10.7% for Externalizing. The most prevalent subscales were found, Somatic complaints (9.6%), Thought problems (8.1%) and Anxious Depressed, (7.3%), Results showed a

0415

Praveetha Patalay¹, Jessica Deighton^{1,2},
Miranda Wolpert^{1,2}

¹University College London, CAMHS
Evidence Based Practice Unit, London,
United Kingdom

²Anna Freud Centre, London, United
Kingdom

0049

Mimoza Shahini¹, Johannes Wancata²
¹QKUK, Child Psychiatry, Prishtina,
Albania

²Universitätsklinik für Psychiatrie und
Psychotherapie, Klinische Abteilung für
Socialpsychiatrie, Wien, Austria

moderate to high agreement between Parents and Teacher report, a low to moderate between Youth and Parent and very little agreement between Youth and Teachers. These results are comparable with the results get from other studies.

Conclusion: In general, this study supports previous findings concerning cross-cultural studies based on ASEBA (Achenbach System of Empirically Based Assessment) instruments. The prevalence of, anxiety, somatization and PTSD reported by parents in this sample of children and adolescents is particularly noteworthy because may indicate that a high percentage of youth in Kosovo encounter traumatic events and experience significant emotional responses associated with these events.

0113

Fionna Klasen¹, Ulrike Ravens-Sieberer¹

¹University Medical Center Hamburg, Department of Child and Adolescent Psychiatry, Psychotherapy, and Psychosomatics, Hamburg, Germany

Mental health of children and adolescents in Germany: Results from the BELLA longitudinal study

Question: High prevalence rates of mental health problems in childhood and adolescence are considered one of the biggest global health challenges of the 21st century. The present research reports prevalences and risk and protective factors as well as mental health service utilization of children and adolescents in Germany

Methods: The BELLA study is the mental health module of the German National Health Interview and Examination Survey among Children and Adolescents (KiGGS). The representative sample consisted of 2,863 children and adolescents aged 7-17. Baseline data was collected from 2003 to 2006 and three follow-up waves were carried out one year, two years and four years after baseline. In order to identify mental health problems, the extended version of the Strengths and Difficulties Questionnaire (SDQ) and a clinical interview (DIPS) were administered. Further standardized measures were applied to assess determinates (biological/personal, familial, social) for mental health problems.

Results: Of all children 22% indicated mental health problems and stability was 50% at 2-years follow-up. Adverse family climate stand out particularly as a negative contributor to children's mental health. When several risk factors occur simultaneously, the prevalence of mental health problems increased markedly. Conversely, pronounced individual, family and social resources coincided with a reduced occurrence of mental health problems, especially in children with a limited number of risk factors. Only 48.5% of children with mental health problems received treatment in Germany. Further, first longitudinal results will be presented.

Conclusion: Implications for prevention how to strengthen family resources are discussed.

0043

Frauke Schultze-Lutter¹,
Chantal Michel¹, Benno
G. Schimmelmann¹

¹Universität Bern, Klinik für Kinder- und Jugendpsychiatrie, Bern 60, Switzerland

Prevalence of at-risk criteria of psychosis in young adults of the general population.

Objective: An Attenuated Psychosis Syndrome has been proposed for Section III of DSM-5. Yet, the prevalence and pathological value of APS and other at-risk criteria in young adults of the general population, when assessed in the same way as in help-seeking persons, is still unclear.

Materials and methods: We studied the 3-month prevalence of ultra-high risk and basic symptom at-risk criteria assessed with the Structured Interview for Psychosis-Risk Syndromes (SIPS) and the Schizophrenia Proneness Instrument, Adult version (SPI-A) in a random 16- to 40-year old general population sample of the canton Bern, Switzerland. 1233 subjects were assessed in a telephone interview by trained psychologists. Response rate was 68%. Exclusion criteria were communication problems and life-time psychosis.

Results: While 2.8% met all criteria of any one at-risk criterion within the last 3 months, 24.9% acknowledged at least one lifetime at-risk phenomenon. Thereby, "perceptual abnormalities/hallucinations" on attenuated (7.2%) and transient psychotic level (0.5%),

and “unusual thought contents/delusional ideas” on attenuated level (6.1%) were most frequently endorsed. Presence of any risk criterion was related to higher presence of current axis-I disorder, lower psychosocial functioning, lesser life satisfaction and more help-seeking for mental problems.

Conclusions: While at-risk phenomena occur in about a good quarter of the general population at least temporarily, only a small minority reports sufficient recency, frequency or change in severity of these phenomena to meet present at-risk criteria according to SIPS and SPI-A. The presence of at-risk criteria is associated with indicators of psychopathological significance. From an epidemiological point of view, at-risk criteria appear to be sufficiently rare and clinically significant in young adults to be considered as a diagnostic category in future. Yet, it remains to be shown, if this is true also for children and adolescents.

Dose reduction of anti-psychotics in first episode schizophrenia: Is there an association with long term recovery?

0459

Fokko Nienhuis¹, Lex Wunderink¹,
Roeline Nieboer¹, Durk Wiersma¹,
Sjoerd Sytema¹

¹University of Groningen, Dept.
of Social Psychiatry, Groningen,
Netherlands

Context: Short-term effects of dose-reduction/discontinuation strategies versus maintenance treatment with an antipsychotic in remitted first episode psychosis (FEP) patients have not been shown to be differentially advantageous; however long-term effects on recovery have not been studied before.

Objective: To compare rates of recovery in remitted FEP after 7-years of follow-up of a dose-reduction/discontinuation versus maintenance treatment trial.

Design: 7-years follow-up of a 2-year open randomized controlled trial comparing maintenance treatment (MT) and dose-reduction/discontinuation (DR).

Setting: 128 patients participating in the original trial were recruited from 257 FEP patients referred from October 2001 to December 2002 to 7 mental health care services in a 3.2 million catchment area. 111 patients refused to participate, and 18 patients did not remit.

Patients: After 7 years 103 patients (80%) of 128 patients who were included in the original trial could be traced and consented to follow-up assessment.

Intervention: After 6 months of remission patients were randomly assigned to dose-reduction/discontinuation strategy or maintenance treatment for 18 months. After the trial treatment was to the discretion of the clinician.

Main outcome measures: Primary outcome was rate of recovery, defined as meeting criteria of both symptomatic and functional remission. Determinants of recovery were examined using logistic regression analysis; the treatment strategy (MT or DR) was controlled for baseline parameters.

Results: DR-patients showed twice the recovery-rate of MT-patients (40% against 18%). Logistic regression showed an odds ratio of 3.5 ($P=.014$). Better DR recovery-rates were related to higher functional remission-rates in DR but not to symptom remission rates.

Conclusion: Dose-reduction/discontinuation of antipsychotics during the early stages of remitted FEP showed superior long-term recovery rates compared to maintenance treatment. This is the first study showing long-term gains of an early course dose-reduction strategy in remitted FEP patients; before translating these results into general practice additional studies are necessary.

0025

Hans-Christoph Steinhausen¹,
Dorte Helenius², Povl Munk-Jorgensen³

¹University of Basel, Institute of
Psychologie, Basel, Schweden

²Aalborg Psychiatric Hospital, Aarhus
University Hospital, Research Unit
for Child and Adolescent Psychiatry,
Aalborg, Denmark

³Aarhus University Hospital, Department
of Psychiatry, Risskov, Denmark

Family aggregation of mental disorders in the Danish Nationwide Three Generations Study

Objectives: To determine the familial aggregation of all major mental disorders across three generations and to present findings based on a new statistical measure of family load for three major mental disorders considering also the impact of selected socio-demographic risk factors.

Material and methods: Psychiatric diagnoses were obtained from the Nationwide Danish Psychiatric Central Register (DPCR). The cohorts included all case-probands with first child and adolescent psychiatric contact before the age of 18 years in the time period between 1 April 1969 and 29 June 2004 followed up until the age of 35 years (N = 20,117), their first-degree relatives (N = 39'861 parents, N = 22'876 siblings, and N = 5915 children), and a matched group of control-probands (N = 56'811) including their first-degree relatives (N = 104'184 parents, N = 70'829 siblings, and N = 15'502 children). Furthermore, the family load was studied in subgroups of case-probands with schizophrenia (SZ), bipolar disorders (BD), or anxiety disorders (ANX).

Results: In the total sample, Hazard rate ratios were significantly elevated for case-probands as compared to controls for all diagnoses among probands (HR = 7.5 - 33), parents (HR = 1.8 - 3.3), and siblings (HR = 1.8 - 7.0). Family aggregation of any diagnosis was significantly higher in case-probands with substance use disorder, schizophrenia, affective disorders, neurotic (anxiety) disorders, and miscellaneous disorders. There was specificity of familial transmission for affective and neurotic (anxiety) disorders.

SZ, BD, and ANX did occur more often in case than in control families. Having a father, a mother or a sibling with one of these three disorders increased the risk for the case-proband. The year of birth, the degree of urbanization, and paternal age at birth (≥ 35 yrs.) were associated with SZ. Female sex was associated with a higher risk in BD and ANX. However, neither in SZ, nor in BD, nor in ANX, the family load was dependent on age of onset of the case-probands. Furthermore, case relatives did not develop SZ, or BD, or ANX earlier than control relatives.

Conclusions: These findings based on a very large and representative dataset provide further and solid evidence for the high family aggregation of major mental disorders. The use of a new measure of family load allowed the calculation of a quantitative measure of family aggregation which in terms of magnitude is relatively similar in SZ, BD, and ANX.

0272

Caroline Vandeleur¹,
Kathleen Merikangas², Martin Preisig¹

¹University Hospital of Lausanne,
Psychiatry, Lausanne, Switzerland

²NIMH, Bethesda, United States

Familial aggregation and cross-aggregation patterns of depressive syndromes in the community

Objective: In order to test the nosological relationship among threshold depressive disorders and minor depression (MID) and the validity of MID as a depressive syndrome, we studied the patterns of familial aggregation and cross-aggregation of these disorders in the general population.

Material and methods: The present paper is based on a population-based study, including families with at least one directly interviewed first-degree relative. The sample included 330 probands with major depressive disorder (MDD), dysthymia or MID, 207 controls and their 2537 first-degree relatives. Within a standard best-estimate procedure based on all available information, diagnoses of MDD and dysthymia were assigned according to the DSM-IV, whereas that of MID relied on algorithmically defined criteria.

Results: Generalized linear models showed: 1) evidence for the familial aggregation of MDD and dysthymia, but not of MID; 2) an elevated risk of single episode MDD in relatives of probands with recurrent MDD but not the converse; and 3) no evidence for cross-aggregation between MID and MDD or dysthymia.

Conclusions: The data confirmed specific familial aggregation of MDD and dysthymia. Within MDD, our results supported that single and recurrent MDD subtypes represent increasingly severe manifestations of a common underlying diathesis. The lack of specific familial aggregation of MID and its unrelatedness to threshold depressive disorders questions the diagnostic validity of MID according to the used definition.

The intergenerational transmission of parenting quality and risk of offspring adolescent depression: A prospective community study

0309

Objective: To examine the association between mothers own experiences of being parented and later risk of depression in offspring at age 18.

Material and Methods: Prospective cohort study using the UK Community based birth cohort (Avon Longitudinal Study of Parents and Children, ALSPAC), a large geographically defined cohort of mothers. Data from over 10,000 mothers (mean age, 28.3 years; SD 4.8) and over 4,500 adolescents was used to investigate the association between how a mother recalled her own recollections of being parented and later risk of offspring depression at age 18. Recall of parenting practices was measured using the Parental Bonding Instrument (PBI, Parker et al., 1979). Adolescent depression was measured as a primary diagnosis of major depression in offspring at 18 years using the Clinical Interview Schedule-Revised (CIS-R; Lewis et al., 1992).

Results: Initially, confirmatory factor analysis of the PBI uncovered two parenting dimensions: 'lack of care' and 'overprotection'. Once established, logistic regression results demonstrated that lack of care was the only parenting dimension associated with risk of offspring depression. Adolescent offspring of mothers, who reported they received a lack of care from their own mothers, were 1.13 times (95% CI, 1.02 - 1.26) more likely to have a diagnosis of depression at age 18. This relationship was unaffected by a series of potential confounding variables.

Conclusions: This study adds to the literature on the intergenerational transmission of experiencing a warm/sensitive caregiving environment in childhood and later risk of offspring adolescent depression. Results indicate that preventative interventions could be aimed at promoting positive parenting practices which may improve the intergenerational cycle of parenting.

Liam Mahedy¹, Jon Heron¹, Glyn Lewis¹¹University of Bristol, Centre for Mental Health, Addiction and Suicide Research, Bristol, United Kingdom

Abuse in early life and depression and anxiety in adulthood

0405

Background: Violence, abuse and neglect of older persons (VAO) is an increasing public health problem. Despite growing evidence of the increasing size of the problem, data on prevalence of past 12 month VAO (PVAO) are still scarce in Europe, and conceptual and methodological differences limit the extent to which comparisons can be made between national studies. We aimed to 1) estimate the scope of PVAO among older persons in 7 cities in 7 countries, 2) assess correlated late life factors of VAO, 3) investigate early life factors and prevalence rates of abuse.

Methods: Logistic regression analyses with respective 95% confidence intervals (CI).

Results: N=4467 older individuals completed interviews with about N=650 interviews per city. Mean response rate was 48.8%. Mean age of participants was 70 years; 42.7% (N=1908) of the sample were male. The overall PVAO prevalence rate of PVAO varied from 12.7% (95%CI: 10.2-15.6) in Italy to 30.8% (95% CI: 27.2-34.6) in Sweden. The reported most common single form of PVAO was psychological violence with 10.4% (95% CI: 8.1-13.0) in Italy and 29.7% (95%CI: 26.2- 33.5) in Sweden followed by physical violence with 1.0% (95%CI: 0.4-2.1) in Italy and 4.0% (95%CI: 2.6-5.8) in Sweden. The reported prevalence rate of physical violence with injuries varied from 0.0% in Italy to

Jutta Lindert^{1,2}, Martha Cöff³, Francisco Torres-Gonzalez³, Jorge Cervilla³, Henrique Barros³, Elleni Ioannidi³, Joaquim Soares³¹Protestant University of Ludwigsburg, Public Health, Ludwigsburg, Germany²Harvard School of Public Health, Boston, USA³for the ABUEL working group (founded by the European Commission, DG-SANCO)

1.5% (95%CI: 0.7-2.8) in Lithuania. The reported prevalence rate of financial violence varied from 1.8% (95%CI: 0.9-3.2) in Sweden to 7.8% (95%CI: 5.8-10.1) in Portugal. The proportion of reported sexual violence varied from 0.3% in Lithuania and Spain (95%CI: 0.0-1.1) to 1.5% (95%CI: 0.7-2.8) in Greece. Abuse was related to anxiety, but not to depression. The findings will be presented in detail in the session.

Discussion: Influencing factors of mental health of older people need further investigation to understand better diversity of responses to abuse experiences.

0330

Joanne Allen¹, Kerry Inder¹,
Terry Lewin¹, John Attia², Brian Kelly¹

¹University of Newcastle and Hunter
New England Health, Centre for
Translational Neuroscience and Mental
Health, Newcastle, Australia

²University of Newcastle, Centre for
Clinical Epidemiology and Biostatistics,
Newcastle, Australia

Integrating and extending cohort studies: Lessons from the Extending Treatments, Education and Networks in Depression (xTEND) project

Objectives: Epidemiologic studies examining the influences of demographic, social, and contextual factors on mental health outcomes often struggle to adequately represent the range of environments of interest. Further, differences in methodology, analysis methods and questions of interest often mean that little can be concluded from reviews of this literature.

Material: The Extending Treatments, Education and Networks in Depression (xTEND) project capitalised on data collected by two existing cohort studies based in New South Wales, Australia. In aggregation, these studies provided a representative and cost efficient platform to investigate a range of influences on mental health. These cohorts assess common demographic, psychological, social and physical factors of interest to the xTEND project. In addition, environmental features of communities were characterised from existing state and national databases and geocoded to participants.

Methods: Baseline individual participant data from the Australian Rural Mental Health Study (ARMHS: N = 2639) and the Hunter Community Study (HCS: N = 3318) were combined and common definitions of community remoteness, social capital and health service accessibility applied. A common three-year follow-up phase (ARMHS: N = 1261; HCS: N = 2252) was conducted to extend the capacity of these studies to assess research questions of common interest, facilitate the harmonization of baseline measures of comparable constructs and to allow comprehensive assessment of a range of social, physical, psychological and contextual factors over time.

Results: The current paper addresses the rationale, challenges encountered and solutions devised by a project aiming to maximise the benefits from existing cohort studies and national databases to inform research questions of mutual interest. Follow-up data were also used to better target an intervention for persons experiencing depression and alcohol issues.

Conclusions: Pooling individual participant data can be a worthwhile venture, particularly where adequate representation is beyond the scope of existing research, where the effects of interest are small though important, where events are of relatively low frequency or rarely observed, such as suicidal ideation, and where the issues are of immediate national interest.

0264

Sarah Sullivan¹, Glyn Lewis¹,
Nicola Wiles¹, Jon Heron¹,
Daphne Kounali¹, Liam Mahedy¹,
Mary Cannon², Stan Zammit^{1,3}

¹University of Bristol, Social and
Community Medicine, Bristol, United
Kingdom

²Royal College of Surgeons, Psychiatry,
Dublin, Ireland

³Cardiff University, MRC Centre
for Neuropsychiatric Genetics and
Genomics, Cardiff, United Kingdom

The continuity of psychotic experiences and longitudinal associations with depressive symptoms in a community sample

Objectives: Psychotic experiences are prevalent in community samples and often occur alongside depressive symptoms. Less is known about whether psychotic experiences persist over time and how they are longitudinally associated with depressive symptoms. There is some evidence of longitudinal associations between psychotic experiences and depression and between depression and psychotic experiences however previous studies are likely to have been affected by measurement error and did not adjust for concurrent psychopathology.

Methods: This study uses data from a large community sample ($n=7693$) to investigate prospective relationships between repeated measures of self-reported depressive symptoms and psychotic experiences collected at approximately 12 and 18 years of age. Structural equation modelling was used to estimate the prospective associations over 6 years between latent traits of self-reported depressive symptoms and psychotic experiences.

Results: Psychotic experiences were stable over time ($r=0.661$ SE 0.033) after adjusting for depressive symptoms at age 18 but depressive symptoms were less stable over time ($r=0.268$ SE 0.025) after adjusting for psychotic experiences. There was evidence of a weak association between psychotic experiences at 12 and depressive symptoms at 18 ($r=0.142$ SE 0.030) but no evidence of an association between depressive symptoms at 12 and psychotic experiences at 18 ($r=0.011$ SE 0.028).

Conclusions: Little of the variance in psychotic experiences at 18 was accounted for by depressive symptoms at 12 and 18, therefore these experiences appear persistent over time. They may therefore be a vulnerability factor for future psychosis. A small proportion of the variance in depressive symptoms at 18 years was due to psychotic experiences at 12. Social isolation may be a mediator in the association between psychotic experiences and depressive symptoms. This requires further investigation.

Validation of a case definition for depression in administrative data using a chart review reference standard

0280

Objective: Because conducting interviews to diagnose mental disorders is expensive and time consuming, interest in using population based administrative health data for research on mental health is increasing. This is particularly true for depressive disorders, because of their high prevalence. Yet there is legitimate concern that misclassification of diagnosis in the underlying data might bias the results. Our objective was to determine the validity of ICD-9 and ICD-10 administrative health data case definitions for depression using chart review of family physician (FP) records as the reference standard.

Materials & Methods: Five trained chart reviewers reviewed 3362 randomly selected charts from years 2001 and 2004 at 64 FP clinics in Alberta and British Columbia, Canada. Depression was defined as the presence of either: 1) documentation of major depressive episode, or 2) documentation of specific antidepressant medication prescription plus recorded depressed mood. Exclusions targeting bipolar depression and alternate indications for antidepressants were imposed. The charts were linked to administrative health data (hospital discharge abstracts and physician claims data) by unique personal health number. Validity indices were estimated for 8 administrative data definitions of depression using 3 years of data.

Results: Depression prevalence by chart review was 15.9%-19.2% depending on region and year. Preliminary results indicate an administrative data definition of "2 ICD depression billing claims within a 1 year window OR 1 ICD depression hospitalization" had the highest validity, with estimates of sensitivity 77%, specificity 88%, positive predictive value 57%, negative predictive value 95%, and kappa 0.57. With this definition, the administrative data 3-year depression prevalence was estimated as 23.5%-27.9% depending on region and year.

Conclusions: These results suggest that administrative data can be relatively valid as a source of data for research and health services purposes. Our estimates of validity indices are higher than some others reported in the literature for depression. This could relate to our use of both inpatient and outpatient data. Limitations include the use of FP chart data as the "gold standard", given the potential for missed or incorrect depression diagnosis.

Cynthia A Beck¹, Guanmin Chen²,
Emily Schorr³, Hude Quan²

¹University of Calgary, Departments
of Psychiatry and Community Health
Sciences, Calgary, Canada

²University of Calgary, Community
Health Sciences, Calgary, Canada

³King's College, Institute of Psychiatry,
London, UK

0288

Herbert Matschinger¹¹Institute of Social Medicine,
Occupational Health and Public Health,
Leipzig, Germany

Screening depression by means of the PHQ-9. Differential item functioning and item ordering

Background: The PHQ-9 is frequently employed to screen patients with respect to depression. It consists of 9 ordinal, Likert type items which are equally worded in the same direction and assumed to map one and only one latent construct (The EuroQol Group, 1990). It is assumed that these 9 items are locally independent, which means that the manifest answer is generated by the latent dimension (e.g. depression) only and therefore the sum can be used as a sufficient statistic for the location of a respondent on the dimension. These assumptions obviously are violated if the order of the questions in the questionnaire exerts an effect on the measurement characteristics.

Objective: The study is aimed to evaluate both the effect of item ordering and the ordinality of the prescriptive forms of answering (response categories) and the effect of the order of the items on this characteristic.

Method: In order to distinguish between differential item functioning and item impact with respect to a strict (uni)-dimensional form a Partial Credit Model has been employed (Masters, 1982). This model is formulated within the framework of a non-linear mixed model (Rijmen, Tuerlinckx, De Boeck et al., 2003; Skrondal & Rabe-Hesketh, 2004; Zheng & Rabe-Hesketh, 2007) which allows to treat the threshold parameters as dependent from the individually varying position of a question. A CATI survey was conducted on 1005 respondents employing a Latin Square, so that each of the 9 items is to appear at each of the possible 9 positions.

Results: It is shown that the thresholds are not ordered and the discrimination of the categories depend on the order of the items.

Conclusion: The sum should not be treated as a statistic to portray depression. Particularly, the quite frequently applied algorithm to obtain a classification into minor and major depression is not independent from the invariantly applied order of the items.

0138

Birgitt Wiese¹, Susanne Steinmann¹,
Jana Prokein¹, Hartmut Hecker¹¹Hannover Medical School, Hannover,
Germany

Tree-structured survival analysis with time dependent covariates

The German Study on Aging, Cognition and Dementia in Primary Care (AgeCoDe) is a longitudinal study in elderly individuals with the aim to identify predictors of cognitive decline and dementia. 3327 participants (not demented at baseline) were recruited in six German cities. During four follow-up periods covering a time span of more than six years, 433 patients developed dementia.

Candidate predictors of incident dementia are time invariant variables like sex, education, apoE ε4 genotype and time dependent variables like medication and comorbidity. As an alternative method to Cox proportional hazard regression with time dependent covariates, a decision tree analysis was applied.

To account for the time changing of covariates, the observation time was split into small intervals, thus allowing each subject to contribute repeatedly and with different covariate values to the set of all observations as described by Segal [1]. The time scale was transformed to obtain constant baseline hazards. Then, for each interval i the set of data for all patients that were still under observation at the beginning t_i of the interval were collected including their dementia status, their time varying co-variable values at t_i and their time constant variable values. Thus, for each observation point t_i , this new data set comprised a classification variable (event yes or no) and a set of covariates and could be analysed by tree analysis techniques. All cases and a random subset of control observations were selected for the analysis. The number of control data, elevated due to the definition of cases and controls, was accounted for by imposing a high cost factor for the misclassification of cases. Initially generated trees were pruned in order to minimize the 10-fold cross validated relative classification error.

The result shows a binary tree identifying prognostic subgroups for incident dementia, the splits being defined by time invariant and time dependent variables. It is shown that the different views to the data due to multivariate Cox regression on the one and tree-structured analysis on the other hand may reveal different aspects of the role of prognostic variables within the process of the development of dementia.

[1] Segal M. Extending the elements of tree-structured regression Stat Methods Med Res September 1995 4: 219-236

The WHO disability assessment schedule in the DSM-5 field trials: Reliability and associations with psychiatric diagnosis in large academic settings

0391

William Narrow¹, Diana Clarke^{1,2}, S. Janet Kuramoto¹

¹American Psychiatric Association, Division of Research, Arlington, United States

²Johns Hopkins Bloomberg School of Public Health, Department of Mental Health, Baltimore, United States

Background/Question: The DSM-5 Disability Study Group has recommended the use of the World Health Organization Disability Assessment Schedule (WHODAS) for the measurement of disabilities in patients with mental disorders. The WHODAS was developed as a self-report measure for adult respondents and has 36 items covering 6 domains; a corresponding instrument covering the same domains for children and adolescents age 6 and older was developed by the Study Group. These instruments were tested in the DSM-5 Field Trials. The study aims to examine the feasibility, clinical utility, and reliability of the child and adult versions of the WHODAS. Diagnostic and symptom status of patients with various WHODAS scores will also be examined.

Methods: A multi-site test-retest reliability study, involving seven sites with adult patient populations and four sites with child and adolescent populations, and utilizing a stratified sampling approach, was conducted to examine the study objectives. Mean WHODAS scores for various diagnoses statuses of patients were also examined. Analyses were weighted and used SAS and SUDAAN software. For reliability estimates, intraclass correlation coefficients for stratified samples and bootstrap 95% confidence intervals were calculated.

Results: Test-retest reliabilities of the adult WHODAS were in the good-to-excellent range. In the child field trials, parents of children age 11 and over were found to be more reliable respondents than their children. Parents of younger children were very reliable respondents. Patients and parents found the DSM-5 diagnostic system's measures helpful in talking about their problems and helping their clinicians understand their illnesses better. Clinicians reported that the results of the self-completed measures as a whole were helpful.

Conclusions: The results of this study provide evidence of the reliability of the WHODAS. In addition, the WHODAS, along with the other self-report measures recommended for DSM-5 might form an assessment package that is feasible and has utility for both patients and clinicians. The use of a disability measure separate from symptom assessment and grounded in the WHO disability classification can help clinicians develop more comprehensive treatment plans, and provide additional justification for treatment decisions.

Mixed mode data collection in a prospective cohort study: Lessons learned for recruitment & retention

0326

Sandy Berzins¹, Dina Lavorato¹, Jeanne Williams¹, Carmelle Bolo¹, Andrew Bulloch¹, Scott Patten¹

¹University of Calgary, Community Health Sciences, Calgary, Canada

Recruitment and retention strategies are important considerations when planning a population-based longitudinal study in order to maximize response and minimize selection bias.

Objectives: To describe lessons learned from a mixed-mode data collection strategy in a population-based, prospective cohort study of determinants of mental health and well-being in MS.

Methods: Study participants were followed for six months, starting with two baseline risk factor assessments followed by completion of the Patient Health Questionnaire (PHQ-9) every 2 weeks. Additional modules were included at monthly intervals for a total of 19

data collection points. Participants could complete the surveys either online, by mail, or by telephone interviews. Retention strategies included gift card incentives at regular intervals, thank you cards, and personalized follow-up reminders.

Results: From a random sample of 500, 190 participants agreed to participate for a participation rate of 40%. 48 people chose phone interviews, 43 mail, and 99 online surveys. Phone interviews had the highest drop-out rate, but best module completion rate. The internet modality had a low drop-out rate but many participants switched to phone or mail. Mail module completion rate was similar to internet.

Conclusions: Online data collection for a prospective study with multiple data collection points presents many technical issues that can outweigh its benefits over traditional survey methods. Providing all three options, when feasible, can take advantage of the strengths and minimize weaknesses for both researchers and participants while a customized participation experience may improve retention.

0208

Juliane Hardt^{1,2}, Susann Conrad^{2,3},
Heiner Raspe^{2,4}

¹Essen University Hospital, Institute of Computer Science in Medicine, Biostatistics, and Epidemiology, Essen, Germany

²University of Luebeck / University Hospital of Schleswig-Holstein, Institute for Social Medicine, Lübeck, Germany

³Agency for Quality in Medicine (AQuMed/ÄZQ), Department of Evidence-based Medicine and Guidelines, Berlin, Germany

⁴University of Luebeck / University Medical Center Schleswig-Holstein, Professor of Population-based Medicine, Lübeck, Germany

Construction and validation of an indicator scale of perceived stress for psychosocial impairments in patients with inflammatory bowel diseases (IBD)

Background: We reported data on psychosocial problems of IBD patients from a German survey [1]. Studies showed associations of stress exposure and acute episodes of active disease [2,3]. A secondary analysis of IBD survey data investigates associations of perceived daily stress with symptoms and mental health. A short scale of perceived stress with three items was constructed and analysed as an indicator for psychosocial impairments (construct/criterion validity) [4].

Methods: Data from 1018 IBD patients (65 % female, 58 % CD patients, mean age 42 yrs, disease duration: 13 yrs) on perceived daily stress, mental strains associated with the disease (e.g. anxiety and depression: HADS [5]) and health services were analysed. Scale construction was based on item response theory. Scale properties were investigated with confirmatory factor analysis, reliability analyses and model-fit statistics (Rasch analysis with Winsteps 3.68®).

Results: A unidimensional scale with good properties (Cronbach's α : .73; person reliability: .76) was constructed with three items on perceived stress. Three groups (low, moderate, high perceived stress) were identified, which differed substantially in reported anxiety ($d = 1.2$) and depression ($d = 0.9$), in an objective disease activity score (GIBDI) and further symptoms. In addition, the three groups differ concerning preferences for and utilisation of various (esp. psychosocial) health services.

Conclusions: IBD patients report multiple psychosocial impairments [1]. The scale for perceived stress may identify IBD patients with high demand for psychosocial attendance, if confirmed in independent samples. For better secondary prevention we propose to integrate this indicator for psychosocial impairments into the diagnostic process.

References:

- [1] Hardt J et al. [Inflammatory bowel diseases as multi-focal disorders ...]. *Z Gastro* 2010;48:381-91
- [2] Hoffmann JC et al. [Clinical practice guideline on diagnosis and treatment of Crohn's disease]. *Z Gastro* 2008;46:1094-146
- [3] Hoffmann C et al. [Diagnosis and therapy of ulcerative colitis ...]. *Z Gastro* 2004;42:979-83
- [4] Hardt J et al. [Examination of a short scale on perceived stress in patients with inflammatory bowel disease]. *Zbl Arbmed* 2010;60: 318-319
- [5] Herrmann C et al. [HADS-D Hospital Anxiety and Depression Scale - German Version]. Bern: Huber, 1995

Positive correlation between serum brain-derived neurotrophic factor and depression in community dwelling older adults

Objectives: Recent studies suggest that brain-derived neurotrophic factor (BDNF) involves in pathogenesis of depressive disorders. Clinical studies have reported that blood BDNF levels are lower in major depression than in healthy controls. Although blood BDNF is expected to be a biomarker for depression screenings, the association between blood BDNF and depression has not been epidemiologically examined well, especially in the elderly. The current study examined the association between serum BDNF and depression in community dwelling older adults.

Material and Methods: A cross-sectional survey was conducted in an urban area of Tokyo in 2011. Subjects were 6699 persons aged 65 to 84. Zung's Self-rating Depression Scale (SDS) was administered to all 898 participants, and their blood samples were simultaneously collected. In addition, those who were suspected being depression with another self-administered depression scale were assessed by a psychiatrist using the SCID and the 21-item HAMD.

Results: Total SDS scores were positively correlated with the serum BDNF levels, showing more depressive persons had higher BDNF levels, while Mini Mental States of Examination scores were not correlated to. The correlation between the SDS scores and BDNF levels was statistically significant after controlling for factors possibly correlated to BDNF, such as sex, age, BMI, HbA1c levels, and history of heart disease. The 21-HAMD scores were positively correlated with the BDNF levels among cases of major and minor depressive disorders diagnosed by a psychiatrist using the SCID.

Conclusion: We observed positive correlations of serum BDNF with depressive symptoms and with severity of clinically significant depression. These correlations are contradictory to what has been reported in younger generation. The current results may suggest the association between BDNF and depression differs by generation. The mechanism of control of BDNF production in older people should be scrutinized.

Linking phenotypes to CNVs in neurodevelopmental disorders

Background: There has been increasing focus on blurred boundaries between supposedly distinct psychiatric disorders such as schizophrenia, autism, bipolar disorder, and attention deficit disorder due to evidence for common genetic and environmental factors underlying these conditions. There is also emerging evidence that copy number variants (CNVs), a type of DNA structural variation, provide a new vista on understanding unique and pleiotropic susceptibility to neuropsychiatric disorders such as Autism Spectrum Disorders (ASD) and schizophrenia. Therefore, rather than the traditional approach of attempting to identify genes for particular phenotypes, we investigate phenotypic manifestations of CNVs that are relevant to brain disorders via shared sub-phenotypes.

Methods: Rare CNV and detailed phenotype data were derived from the Autism Genome Project and Irish schizophrenia cases. Patients were classified by the presence or absence a rare CNV that impacts any genes previously implicated in ASD or Intellectual Disability (ID), or any genes that are differentially brain expressed (BE) or not (0/1), and association with candidate neurodevelopmental phenotypes were examined. Random forests and mixture models were used to explore whether phenomic features identify CNV-associated sub-groups.

Results: Univariate associations between CNVs and selected phenotypes were identified for parental age and family history of mental illness in schizophrenia, and language delay in ASD. Exploratory analyses suggest sub-phenotypes that might provide good targets for association analyses in future studies, and indicate that distinguishing deletions and duplications is important. Inconsistency of measurements by site in large collaborative studies is a major impediment to assessment of genotype-phenotype associations.

0398

Kazushige Ihara¹, Mitsugu Hachisu², Hideyo Yoshida³, Hisashi Kawai⁴, Hirohiko Hirano³, Motonaga Kojima⁴, Yoshinori Fujiwara⁵, Shuichi Obuchi⁴, Masahiro Hashizume⁶

¹Toho University Faculty of Medicine, Dept. of Social Medicine, Dev. of Public Health, Tokyo, Japan

²Showa University, Clinical Psychopharmacology, Tokyo, Japan

³Tokyo Metropolitan Institute of Gerontology, Prevention of Dependence on Long-Term Care, Tokyo, Japan

⁴Tokyo Metropolitan Institute of Gerontology, Promoting Support System for Home Care, Tokyo, Japan

⁵Tokyo Metropolitan Institute of Gerontology, Promoting Participation and Contribution, Tokyo

⁶Toho University Faculty of Medicine, Psychosomatic Medicine, Tokyo, Japan

0193

Alison Merikangas¹, Elizabeth Heron¹, Richard Anney¹, Aiden Corvin¹, Louise Gallagher¹

¹Trinity College Dublin, Psychiatry, Dublin, Ireland

Discussion: Sophisticated modeling suggests that CNV-associated subgroups may exist, however the clinical applicability of these remain to be demonstrated. This work also illustrates the methodologic and analytic challenges of conducting research on gene-environment interaction for neuropsychiatric disorders.

0370

Bent Müller¹, Arndt Wilcke¹,
Holger Kirsten¹, Johannes Boltze¹

¹Fraunhofer IZI, Leipzig, Germany

Current models for complex disease prediction including genetics: The state of the art

Objective: Most psychiatric diseases are complex diseases and treatment remains a challenge. Improved diagnosis and knowledge about predisposition may improve chances for therapy and successful prevention. Complex diseases are caused by combinations of environment and a variety of different genetic factors. Recently, the rapid, ongoing progress in genotyping technology and the increasing knowledge about disease-related genetic risk variants leads to new, promising tools for risk prediction including genetic data in combination with traditional non-genetic risk factors. Methods include regressions analysis, support vector machines and traditional area under the curve (AUC) of receiver operating characteristic (ROC). However, there is still no consensus about methodologies how to best integrate and evaluate genetic data into existing risk models.

Material and Methods: This work will focus on reviewing different approaches used by recent prediction studies including genetic information in addition to established risk factors. Literature for this study was identified by PUBMED search for genetic predisposition related terms and the search results were checked manually for suitable studies, afterwards. These studies were evaluated based on their marker selection criteria, the applied model and the evaluation of their own results and their model.

Results and Conclusions: The evaluation provides a comprehensive overview of the state-of-the-art in disease prediction including genetic data. Derived from the conclusions out of the evaluation, suggestions will be given how to best develop and evaluate prediction models including genetics.

0178

Monica Uddin¹, Kezhong Zhang¹,
Karestan Koenen^{1,2}, Sandro Galea²,
Richelo Soliven¹, Derek Wildman¹,
Allison Aiello¹

¹Wayne State University, Detroit, United States

²Columbia University, New York, United States

Evidence for shared molecular etiology of affective and physical disorders in the Detroit Neighborhood Health Study

Question: Physiologic stress causes the accumulation of unfolded or misfolded proteins in a cellular compartment known as the endoplasmic reticulum (ER). This condition, referred to as "ER stress", is critically involved in a variety of physical diseases, including metabolic, neurodegenerative, and cardiovascular disease, and cancer. Although work in animal models suggests that ER stress is also involved in affective disorders such as depression, little is known about its role in mental illness among humans. Importantly, for at least some ER stress-associated disorders (e.g. non-alcoholic fatty liver disease, obesity, diabetes), rates of depression are higher in affected people than in the general population. The goal of this study was to test for evidence of ER stress in two affective disorders, post traumatic stress disorder (PTSD) and major depressive disorder (MDD), in a community-based sample.

Materials and methods: Data were obtained from the Detroit Neighborhood Health Study (DNHS), a population-based study of PTSD and its comorbidities in adult Detroit residents. Age and gender matched participants with vs. without past month PTSD (N=32) and with vs. without past year MDD (N=36) were selected from a subset of participants from whom leukocyte-derived RNA was also available. PTSD and MDD were assessed via structured telephone interview, consistent with DSM-IV criteria. ER stress was assessed via quantitative real-time RT-PCR in genes indicative of ER stress (BIP, EDEM1, CHOP, XBP1).

Results: Participants with PTSD showed significantly ($p < 0.05$) higher gene expression levels of BIP (1.25 fold) and EDEM1 (1.53 fold). Participants with MDD showed significantly ($p < 0.01$) higher gene expression levels in the same two genes (~1.34 fold in both genes).

Gene expression levels of CHOP and XBP1 were not significantly different in either disorder.

Conclusions: Persons with PTSD and persons with MDD show evidence of ER stress in genes associated with both accumulation of unfolded or misfolded proteins (EDEM1) and induction of ER stress response (BIP1) in the DNHS. These results indicate that molecular mechanisms known to contribute to physical disease also show evidence of dysregulation in mental illness.

The feasibility and the effectiveness of a multi-element psychosocial intervention for early psychosis conducted in the real world routine

0464

Background: Most multi-element research in early psychosis has been conducted in non-epidemiologically representative samples enrolled in experimental settings, thereby raising the risk of underestimating the complexities involved in treating First Episodes of Psychosis (FEP) in 'real-world' services. The GET UP PIANO (Psychosis early Intervention and Assessment of Needs and Outcome) trial has two overarching aims: 1) To compare, at 9 months, the effectiveness of a multi-component psychosocial intervention with that of treatment as usual (TAU) in a large epidemiologically based cohort of patients with FEP and their family members recruited from a 10 million-inhabitant catchment area; 2) To identify the barriers that may hinder its feasibility in real-world routine clinical settings and patient/family conditions that may render this intervention ineffective or inappropriate. Primary outcomes were considered symptom reduction, increased social functioning, lower inpatient admission rates.

Methods: Participants were recruited from community mental health centers (CMHCs) operating for the Italian National Health Service and located in two entire regions of Italy (Veneto and Emilia Romagna), and in the cities of Florence, Milan and Bolzano. The PIANO trial had a pragmatic cluster randomized controlled design, which compared the effectiveness of TAU plus a multi-element psychosocial treatment for patients with FEP and their family members, versus TAU alone. The experimental additional treatment comprised: 1) cognitive behavioral therapy for psychosis (CBTp) for patients; 2) family intervention for psychosis (FIp); and 3) case management. It was expected that an optimal number of 20-30 CBT sessions per patient would be delivered during a time frame of 9 months, with weekly sessions held during the first 3 months and fortnightly during the subsequent 6 months. Family intervention consisted of an optimal number of 10-15 sessions over 9 months with each individual family: 6 sessions in the first 3 months, and at least 1 session/month during the subsequent 6 months. Every patient/family had a case manager who coordinated all planned interventions.

Results: A total of 338 patients participated in the study: 172 patients in control condition and 272 patients in experimental condition. At baseline, the socio-demographic characteristics of the patients did not differ between groups. One hundred and 89 patients have completed 10 or more CBT sessions and had their relatives complete 2 or more FI sessions. One hundred and 38 patients have completed over 20 CBT sessions; 24 people did not participate in the CBT treatment due to various reasons that included: withholding consent to treatment (13 patients), attrition before the start of CBT (3 patients) and others. Concerning Family Intervention, the largest group (n=121) have participated in 10-19 FI sessions; 52 patients' relatives did not participate in FI due to various reasons such as: no relatives available (17 patients), patient refusal to grant consent to contact relatives (7 patients), no consent to CBT (13 patients), relatives not giving consent (7 relatives) and others. At follow-up subjects in the experimental group had significantly lower PANSS Total Score, lower GAF and Hamilton Score (treatment effect estimates based on random effects linear regression models) and lower number of days of admission.

Conclusions: This study proves that it is possible to apply evidence based interventions for early psychosis also in routine CMHCs, with an improvement - obtained with a treatment lasting for a short time - in clinical and social outcomes. Interventions proved to be acceptable to the vast majority of patients and their families. Knowledge produced by

Ruggeri M.¹, Bonetto C.¹, Tosato S.¹, De Santi K.¹, Poli S.¹, Cristofalo D.¹, De Girolamo G.², Fioritti A.³, Rucci P.³, Santonastaso P.⁴, Neri G.⁵, Pileggi F.³, Ghigi D.⁶, Miceli M.⁷, Scarone S.⁸, Cocchi A.⁹, Torresani S.¹⁰, Faravelli C.¹¹, Zimmermann C.¹², Meneghelli A.⁹, Cremonese C.⁴, Scocco P.⁴, Giubilini F.¹³, Leuci E.¹³, Mazzi F.⁵, Gennarelli M.², Brambilla P.¹⁴, Tansella M.¹, Lasalvia A.¹ & the GET UP GROUP

¹ Section of Psychiatry, Department of Public Health and Community Medicine, University of Verona and Azienda Ospedaliera Integrata Verona, Italy

² IRCCS Centro S. Giovanni di Dio Fatebenefratelli, Brescia, Italy

³ Department of Mental Health, Azienda ULSS, Bologna, Italy

⁴ Department of Psychiatry, University of Padova, Padova, Italy

⁵ Department of Mental Health, Azienda ULSS, Modena, Italy

⁶ Department of Mental Health, Azienda ULSS, Rimini, Italy

⁷ Department of Mental Health, Azienda ULSS, Firenze, Italy

⁸ Department of Mental Health, Azienda ULSS S.Paolo, Milano, Italy

⁹ Department of Mental Health, Azienda Ospedaliera Ospedale Niguarda Ca' Granda, Milano, Italy

¹⁰ Department of Mental Health, Azienda ULSS, Bolzano, Italy

¹¹ Department of Psychology, University of Florence, Florence, Italy

¹² Section of Clinical Psychology, Department of Public Health and Community Medicine, University of Verona and Azienda Ospedaliera Integrata Verona, Verona, Italy

¹³ Department of Mental Health, Azienda ULSS, Parma, Italy

¹⁴ Section of Psychiatry, Department of Pathology, and Experimental and Clinical Medicine, University of Udine, Udine, Italy

this study is to date unique in this field and greatly contribute to bridge the gap between research and clinical practice in the area of early interventions.

0465

Poli S.¹, De Santi K.¹, Alpi A.², Bislenghi L.², Bolis T.², Colnaghi F.², Fascendini S.², Grignani S.², Paglia C.², Patelli G.², Cristofalo D.¹, Bonetto C.¹, Ruggeri M.¹, Meneghelli A.² and the GET UP GROUP

¹ Section of Psychiatry, Department of Public Health and Community Medicine, University of Verona and Azienda Ospedaliera Integrata Verona, Verona, Italy

² Department of Mental Health, Azienda Ospedaliera Ospedale Niguarda Ca' Granda, Milano, Italy

Building capacity to provide innovative interventions for early psychosis in mental health professionals

Background: The international literature shows a growing interest on innovative psychosocial interventions for early psychosis, with a particular focus on Cognitive Behavior Therapy (CBT). These interventions have been found to be associated with symptom remission, improved quality of life and global functioning, and reduction of long-term disability. However, there is still poor evidence on the effectiveness of their application in routine clinical settings, also due to the lack of skills that allow mental health professionals to provide them. This study aims to evaluate the efficacy of a specific training program to build capacity in CBT implemented in routine clinical practice and to assess the impact of trainee's individual characteristics (age, profession, clinical experience, cultural background) on the acquisition of competence.

Method: A specific CBT training program has been delivered to Mental health professionals (psychiatrist or psychologists) in 64 Community Mental Health Centers (CMHCs) and conducted as a preliminary phase of the GET UP PIANO (Psychosis early Intervention and Assessment of Needs and Outcome) Trial, as part of the larger research program "Genetics, Endophenotypes and Treatment: Understanding Early Psychosis" (GET UP) conducted in a 10 million inhabitant catchment area in Northern-Central Italy. The CBT training program has been developed as part of a post-graduate course promoted by the University of Verona, with the involvement as teachers of the leading experts in the field. It consisted of 112 hours of teaching and 30 hours of supervision in small groups and three months of practice training. Mental health professionals' competences were measured at baseline and at the end of the course, using multi-choice questionnaires, case reports analysis and supervisors' judgments. Professionals' satisfaction towards the course has been also evaluated by an ad hoc questionnaire.

Results: A total of 127 mental health professionals (psychiatrists and psychologists) completed the training. Statistical analysis has been performed using a series of multivariate regression analyses taking into account cultural background, duration of previous clinical experience and profession as dependent variable, and engagement and competence as independent variables. Competence on CBT developed during the training was good to excellent in the vast majority of subjects. Questionnaires on professionals' satisfaction, focused strengths and limits of the training program, with an overall medium to high satisfaction and good subjective perception of utility of the course in providing the basic skills to intervene with patients affected by psychosis.

Conclusions: The high participation and engagement, and the competencies acquired in the CBT training proves the feasibility and utility of implementing specific training programs that build capacity in mental health professionals that work in everyday practice. This might be useful to fill the gap between evidence and routine clinical practice.

0466

Lasalvia A.¹, Bonetto C.¹, Bissoli S.¹, Bertani M.¹, Tosato S.¹, De Santi K.¹, Poli S.¹, Cristofalo D.¹, De Girolamo G.², Fioritti A.³, Rucci P.³, Santonastaso P.⁴, Neri G.⁵, Pileggi F.³, Ghigi D.⁶, Miceli M.⁷, Scarone S.⁸, Cocchi A.⁹, Torresani S.¹⁰, Faravelli C.¹¹, Zimmermann C.¹², Meneghelli A.⁹, Cremonese C.⁴, Scocco P.⁴, Giubilini F.¹³, Leuci E.¹³, Mazzi F.⁵, Gennarelli M.², Brambilla P.¹⁴, Tansella M.¹ & Ruggeri M.¹ & the GET UP GROUP

¹ Section of Psychiatry, Department of Public Health and Community Medicine, University

Predictors of treatment outcome in patients and their relatives of a multi-element psychosocial intervention for early psychosis

Background: Multi-element interventions for the treatment of patients with first-episode psychosis (FEP) are promising, but have mostly been conducted in non-epidemiologically representative samples, thereby raising the risk of underestimating the complexities involved in treating FEP in 'real-world' services. This study aims to investigate the predictors of good outcome in a large sample of FEP patients recruited in a multisite randomized trial assessing the effectiveness of an evidence-based multi-element psychosocial intervention and evaluate the clinical and social trajectories of those that recover.

Methods: This study was conducted within the framework of the GET UP PIANO (Psychosis early Intervention and Assessment of Needs and Outcome) Trial, which was part of the larger research program “Genetics Endophenotypes and Treatment: Understanding early Psychosis” (GET UP). The PIANO cluster randomized controlled trial aimed to implement innovative and targeted forms of early psychosis intervention in routine practice and to test its effectiveness and feasibility in 117 Italian community mental health centres located throughout a 10 million-inhabitant catchment area.

Results: A total of 272 patients received over a 9-month period the experimental multi-element psychosocial intervention, which consisted of routine service intervention plus a package of evidence-based additional treatment comprising of (1) cognitive behavioral therapy for psychosis (CBTp) for patients; (2) family intervention for psychosis (Flp); and (3) case management (CM). Results of a series of multivariate regression analyses to test the effect of the multi-element intervention on a set of putative predictors (e.g., family history for psychosis, pre-morbid functioning, pre-morbid IQ, DUP, ethnicity, age at onset, gender, psychiatric diagnosis) on both primary (i.e. changes in positive and negative symptoms and subjective appraisal of psychotic symptoms; relapse rates) and secondary outcomes (i.e. changes in social functioning, emotional wellbeing, service disengagement, needs for care, family expressed emotions, family burden, and service satisfaction) will be presented.

Conclusions: This study allows to gain a better insight on which typologies of FEP patients might best benefit from these interventions.

of Verona and Azienda Ospedaliera Integrata Verona, Verona, Italy
²IRCCS Centro S. Giovanni di Dio Fatebenefratelli, Brescia, Italy
³ Department of Mental Health, Azienda ULSS, Bologna, Italy
⁴ Department of Psychiatry, University of Padova, Padova, Italy
⁵ Department of Mental Health, Azienda ULSS, Modena, Italy
⁶ Department of Mental Health, Azienda ULSS, Rimini, Italy
⁷ Department of Mental Health, Azienda ULSS, Firenze, Italy
⁸ Department of Mental Health, Azienda ULSS S.Paolo, Milano, Italy
⁹ Department of Mental Health, Azienda Ospedaliera Ospedale Niguarda Ca' Granda, Milano, Italy
¹⁰ Department of Mental Health, Azienda ULSS, Bolzano, Italy
¹¹ Department of Psychology, University of Florence, Florence, Italy
¹² Section of Clinical Psychology, Department of Public Health and Community Medicine, University of Verona and Azienda Ospedaliera Integrata Verona, Italy
¹³ Department of Mental Health, Azienda ULSS, Parma, Italy
¹⁴ Section of Psychiatry, Department of Pathology, and Experimental and Clinical Medicine, University of Udine, Udine, Italy

The subjective appraisal of symptoms and disability in early psychosis

Background: Psychotic disorders are among the most severely disabling mental illnesses, leading to great personal suffering for patients and their families. International treatment guidelines for first episode psychosis recommend a prompt and integrated approach, based on a combination of different components (psychotherapy, pharmacological treatment, multifamily group, case management ect.) in a multi-element perspective. Subjective and objective assessments can offer distinct but complementary outcome variables. An important target of the efficacy evaluation of this perspective are the views of service users. Subjective appraisal of having a mental illness determines behavioral and emotional consequences. The meaning that patient attaches to having a psychiatric problem depends on two appraisal processes: how the illness is conceptualized (i.e., subjective illness beliefs) and what that means for the person experiencing it (i.e., subjective self-beliefs). Patients may be more likely to experience demoralization if they believe that their illness is chronic, impedes subjectively significant social roles, is beyond control, accompanied by social discrimination, and turns them into dangerous, incapable and worthless individuals. The aim of this study is to test whether a multi-element approach can produce effect on subjective appraisal of positive symptoms, disability and functioning in early psychosis.

Methods: Four hundred forty-four patients with first episode psychosis took part in The Psychosis early Intervention and Assessment of Needs and Outcome (PIANO), that is part of a larger research program (Genetics, Endophenotypes and Treatment: Understanding early Psychosis - GET UP) which aims to compare, at 9 months, the effectiveness of a multi-component psychosocial intervention versus treatment as usual (TAU) in a large epidemiologically based cohort of patients with FEP and their family members recruited from all public community mental health centers (CMHCs) located in two entire regions of Italy (Veneto and Emilia Romagna), and in the cities of Florence, Milan and Bolzano. 272 patients were randomized to experimental treatment and 172 to usual treatment. Subjective appraisal of symptoms (measured by PSYRATS), global functioning (measured by GAF) and disability (measured by WHO-DAS II) variables were taken both at baseline and at 9-month follow-up.

Results: There were significant post-treatment improvements on the PSYRATS. Experimental treatment seems to play a crucial role for total delusion score and for the items regarding

0467

Zoppei S.¹, Lasalvia A.¹, Bonetto C.¹, Bissoli S.¹, Tosato S.¹, De Santi K.¹, Poli S.¹, Cristofalo D.¹, De Girolamo G.², Fioritti A.³, Rucci P.³, Santonastaso P.⁴, Neri G.⁵, Pileggi F.⁶, Ghigi D.⁶, Miceli M.⁷, Scarone S.⁸, Cocchi A.⁹, Torresani S.¹⁰, Faravelli C.¹¹, Zimmermann C.¹², Meneghelli A.⁹, Cremonese C.⁴, Scocco P.⁴, Giubilini F.¹³, Leuci E.¹³, Mazzi F.⁵, Gennarelli M.², Brambilla P.¹⁴, Tansella M.¹, Meneghelli A.⁹, Ruggeri M.¹, & the GET UP GROUP

¹Section of Psychiatry, Department of Public Health and Community Medicine, University of Verona and Azienda Ospedaliera Integrata Verona, Verona, Italy
²IRCCS Centro S. Giovanni di Dio Fatebenefratelli, Brescia, Italy
³ Department of Mental Health, Azienda ULSS, Bologna, Italy
⁴ Department of Psychiatry, University of Padova, Padova, Italy
⁵ Department of Mental Health, Azienda ULSS, Modena, Italy
⁶ Department of Mental Health, Azienda ULSS, Rimini, Italy
⁷ Department of Mental Health, Azienda ULSS, Firenze, Italy
⁸ Department of Mental Health, Azienda ULSS S. Paolo, Milano, Italy
⁹ Department of Mental Health, Azienda Ospedaliera Ospedale Niguarda Ca' Granda, Milano, Italy
¹⁰ Department of Mental Health, Azienda ULSS, Bolzano, Italy
¹¹ Department of Psychology, University of Florence, Florence, Italy
¹² Section of Clinical Psychology, Department of Public Health and Community Medicine, University of Verona and Azienda Ospedaliera Integrata Verona, Verona, Italy
¹³ Department of Mental Health, Azienda ULSS, Parma, Italy

¹⁴ Section of Psychiatry, Department of Pathology, and Experimental and Clinical Medicine, University of Udine, Udine, Italy

0468

Tosato S.¹, Gennarelli M.², Bocchio L.², Cristofalo D.¹, Bonetto C.¹, Lasalvia A.¹, De Santi K.¹, Poli S.¹, Cristofalo D.¹, De Girolamo G.², Fioritti A.³, Rucci P.³, Santonastaso P.⁴, Neri G.⁵, Pileggi F.³, Ghigi D.⁶, Miceli M.⁷, Scarone S.⁸, Cocchi A.⁹, Torresani S.¹⁰, Faravelli C.¹¹, Zimmermann C.¹², Meneghelli A.⁹, Cremonese C.⁴, Scocco P.⁴, Giubilini F.¹³, Leuci E.¹³, Mazzi F.⁵, Brambilla P.¹⁴, Tansella M.¹ & Ruggeri M.² & the GET UP GROUP

¹ Section of Psychiatry, Department of Public Health and Community Medicine, University of Verona and Azienda Ospedaliera Integrata Verona, Verona, Italy

² IRCCS Centro S. Giovanni di Dio Fatebenefratelli, Brescia, Italy

³ Department of Mental Health, Azienda ULSS, Bologna, Italy

⁴ Department of Psychiatry, University of Padova, Padova, Italy

⁵ Department of Mental Health, Azienda ULSS, Modena, Italy

⁶ Department of Mental Health, Azienda ULSS, Rimini, Italy

⁷ Department of Mental Health, Azienda ULSS, Firenze, Italy

⁸ Department of Mental Health, Azienda ULSS S.Paolo, Milano, Italy

⁹ Department of Mental Health, Azienda Ospedaliera Ospedale Niguarda Ca' Granda, Milano, Italy

¹⁰ Department of Mental Health, Azienda ULSS, Bolzano, Italy

¹¹ Department of Psychology, University of Florence, Florence, Italy

¹² Section of Clinical Psychology, Department of Public Health and Community Medicine, University of Verona and Azienda Ospedaliera Integrata Verona, Verona, Italy

¹³ Department of Mental Health, Azienda ULSS, Parma, Italy

¹⁴ Section of Psychiatry, Department of Pathology, and Experimental and Clinical Medicine, University of Udine, Udine, Italy

0469

Fioravanti G.¹, De Santi K.², Ruggeri M.², Di Paola F.¹, Lo Sauro C.¹, Talamba GA.³, Rotella F.³, Casale S.¹, Cristofalo D.², De Girolamo G.⁴, Lasalvia A.², Santonastaso P.⁵, Neri G.⁶, Pileggi F.⁷, Ghigi D.⁸, Miceli M.⁹, Scarone S.¹⁰, Cocchi A.¹¹, Torresani S.¹², Giubilini F.¹³, Faravelli C.¹ & The Get Up Group

¹ Department of Psychology, University of Florence, Florence, Italy

² Section of Psychiatry, Department of Public Health and Community Medicine, University of Verona and Azienda Ospedaliera Integrata Verona, Verona, Italy

cognitive and distress levels. Significant improvements in global and social functioning and on disability in the items about relationship with partner and friction in social contact were also observed. Further analyses are now in progress.

Conclusion: a structured multi-element approach seems to play an important role in social functioning, disability and subjective appraisal of delusion symptoms for early psychotic patients.

Biological and environmental factors: the modulating effect of cannabis use and ethnicity in treatment response in early psychosis

Background: Several environmental factors as migration and cannabis abuse represent risk factors that may contribute - in people with a susceptible genetic background - to causing the onset of psychosis, even if the relative role that such factors play in shaping the onset and the course of the disease remains unclear. Multi-element interventions for the treatment of patients with first-episode psychosis (FEP) are promising, but evidence on cannabis and ethnicity's effects in treatment response are still lacking. The aims of this study, conducted in a large FEP sample, are: 1) to describe cannabis misuse and migration prevalence rates; 2) to investigate whether patients using cannabis have a worse clinical outcome; 3) to evaluate the prevalence of engagement of migrants in the clinical trial and their clinical outcome.

Methods: This study was conducted within the framework of the Psychosis early Intervention and Assessment of Needs and Outcome (PIANO) trial, which was part of the larger research program "Genetics Endophenotypes and Treatment: Understanding early Psychosis" (GET UP). The PIANO cluster randomized controlled trial aimed to implement innovative and targeted forms of early psychosis intervention in routine practice and to test its effectiveness and feasibility in 117 Italian community mental health centres located throughout a 10 million-inhabitant catchment area. A set of standardized instruments has been used to collect sociodemographic, clinical and drug use information from patients and/or relatives.

Results: A total of 272 patients, of whom 12% are migrants, received over a 9-month period the experimental multi-element psychosocial intervention. A series of multivariate regression analyses will be performed to test the effect of a set of putative predictors (e.g., ethnicity, cannabis use) on clinical outcome (i.e. changes in positive and negative symptoms and subjective appraisal of psychotic symptoms; relapse rates; changes in cannabis rates and service satisfaction) of the multi-element intervention.

Conclusions: This study will allow to gain a better insight on: (1) the feasibility of a multi-element interventions in migrants, 2) the effectiveness of the intervention in reducing cannabis rates.

The impact of life events on the outcome of care in early psychosis

Objective: The aim of the present study is to evaluate the role of psychosocial stressors in a cohort of patients with first episode of psychosis, within the strategic research program Genetics Endophenotypes and Treatment: Understanding early Psychosis (GET UP).

Methods: 348 early psychosis patients recruited in the GET UP PIANO Trial and 309 controls representative of the general population and matched to cases by sex, age and education were assessed for the occurrence of early and recent life events, the perception of early parenting, and the parental expressed emotions. Recent life events were evaluated by assessors not involved in the interview and blind the patient or control status. Independent events (outside the subject's control) were also evaluated.

Results: The comparisons between patients and controls revealed that childhood loss

events (22.2% among patients vs 10.7% among controls $\chi^2=10.96$ $p=.001$), recent life events (73.3% among patients vs 42.3% among controls $\chi^2=45.95$ $p<.001$), parental rearing (e.g. mother care $M=23.96\pm 8.22$ in patients vs $M=28.66\pm 5.82$ in controls $t=5.35$ $p<.001$) and family emotional climate ($M=29.12\pm 6.97$ in patients vs $M=10\pm 7$ in controls $t=-30.84$ $p<.001$) were all strong risk factors for early psychosis. Independent recent events were more frequent among controls (53.7%) than among patients (23%; $\chi^2=26.70$ $p<.001$).

Conclusion: Subjects affected by psychosis undergo more stressful life events in the year prior to the onset of psychosis. However, the number of events that are independent of the subject's behavior is lower than in controls. Are there maladaptive behaviours preceding the onset? Is there an active gene-environment correlation?

- ³ Department of Neuroscience, Careggi Hospital University, Florence, Italy
⁴ IRCCS Centro S. Giovanni di Dio Fatebenefratelli, Brescia, Italy
⁵ Department of Psychiatry, University of Padova IRCCS, Padova, Italy
⁶ Department of Mental Health, Azienda ULSS, Modena, Italy
⁷ Department of Mental Health, Azienda ULSS, Bologna, Italy
⁸ Department of Mental Health, Azienda ULSS, Rimini, Italy
⁹ Department of Mental Health, Azienda ULSS, Firenze, Italy
¹⁰ Department of Mental Health, Azienda ULSS S. Paolo, Milano, Italy
¹¹ Department of Mental Health, Azienda Ospedaliera Ospedale Niguarda Ca' Granda, Milano, Italy
¹² Department of Mental Health, Azienda ULSS, Bolzano, Italy
¹³ Department of Mental Health, Azienda ULSS, Parma, Italy

Depression subtype and suicidal ideation: First results from the ongoing BiDirect study

Objectives: Depression has long been treated as homogeneous entity in epidemiological research. However, depression subtypes may differ considerably with respect to symptom severity, duration, and comorbidities [1]. A higher risk of suicidal ideation and suicidal attempts has been reported for patients with atypical depression [2-3], yet there is still a general scarceness of research on depression subtypes. Our aim was to compare subtypes of mood disorders regarding the frequency of suicidal ideation and suicide attempts.

Material and methods: BiDirect is a prospective cohort study conducted in the City of Münster, Germany. Its aim is to analyze the pathways between mood disorders and cardiovascular endpoints. For this analysis, only patients with mood disorders were selected. Suicidal thoughts were surveyed in the Mini International Neuropsychiatric Interview (MINI) and the Hamilton Anxiety and Depression Scale. The subtypes of mood disorder were classified by means of the MINI and items taken from the Inventory of Depressive Symptoms (IDS). The definition of atypical depression was adopted from the DSM-IV. Socio-demographic and socio-economic characteristics were collected in a standardized questionnaire and used as adjustment set. Subtypes of depression were compared using Chi²-Tests and binary logistic regression.

Results and conclusions: The data set comprised 686 depressive patients. Of these, 8.6% showed an atypical symptom pattern, 40.7% fulfilled the criteria of a melancholic depression. 16.2% had a bipolar mood disorder, 17.3% suffered from dysthymia. 26.2% reported suicidal ideation. Melancholic depression was associated with a higher chance of suicidal ideation, whereas atypical depression was not related to suicidal thoughts. The results reported here are preliminary. The final analysis will comprise more patients and additional adjustment variables. The findings will be presented, and their implications, e.g. for prevention, will be discussed.

Literature

- [1] Singh T, Williams K. Atypical depression. *Psychiatry* 2006;4:33-9.
 [2] Angst J, Gamma A, Sellaro R, et al. Toward validation of atypical depression in the community: results of the Zurich cohort study. *J Affect Disord* 2002;72:125-38.
 [3] Matza SL, Revicki DA, Davidson JR, et al. Depression with atypical features in the national comorbidity survey: classification, description, and consequences. *Arch Gen Psychiatry* 2003;60:817-26.

0150

Michael Unrath¹, Laura Khil¹,
Klaus Berger¹

¹University of Münster, Institute of Epidemiology and Social Medicine, Münster, Germany

0006

Birgit Wagner¹, Grit Klinitzke¹,
Elmar Brähler², Anette Kersting¹

¹Medical University of Leipzig,
Psychosomatic Medicine, Leipzig,
Germany

²Medical University of Leipzig,
Department of Medical Psychology and
Medical Sociology, Leipzig, Germany

Extreme obesity is associated with suicidal behavior and suicide attempts in adults: Results of a population-based representative sample

Objective: A paradoxical relationship between obesity and completed suicide has been found in large prospective studies. However, only few studies have evaluated the association between suicidal behavior, suicide attempts and the various body mass index (BMI) categories. The aim of this study was to determine whether obesity is positively associated with increased suicide attempts and suicidal behavior with consideration of gender differences.

Methods: In a representative population-based sample (N =2436) face-to-face interviews were conducted in 2011 to examine the prevalence of suicide attempts and suicidal behavior in participants in the different BMI categories. Logistic regression analyses were conducted for suicidal behavior and suicide attempts to examine the association between obesity status and suicidality, controlling for confounding variables. Suicidal behavior was assessed by the Suicidal Behaviors Questionnaire-Revised (SBQ-R), which is a four-item measure of suicidal thoughts and past attempts.

Results: Analyses revealed that extremely obese participants (BMI ≥ 40.0) had a prevalence rate of suicidal behavior of 33% for female respondents and 13% for male respondents and rates for suicide attempts of 27% for female and 13% for male respondents. No significant gender differences could be found for any of the weight categories. Furthermore, adjusted ORs showed a significant difference in suicidal behavior in class I obesity (OR, 3.02 [1.50-6.08] and class III obesity (OR, 21.22 [6.51-69.20]). AORs for suicide attempts showed significantly greater odds for class I obesity (OR, 3.49 [1.76-6.90] and class III obesity (OR, 12.43 [3.87-39.86] compared to the normal weight group.

Conclusion: These results support a positive relationship between suicidal behavior, suicide attempts and obesity. However contrary to previous findings, no gender differences were found.

0234

Shu-Sen Chang^{1,2,3}, David Stuckler^{4,5},
Paul Yip^{1,6}, David Gunnell²

¹The University of Hong Kong, HKJC
Centre for Suicide Research and
Prevention, Hong Kong, Hong Kong

²University of Bristol, School of Social
and Community Medicine, Bristol,
United Kingdom

³Ju Shan Hospital, Taoyuan, Hong
Kong

⁴University of Cambridge, Department
of Sociology, Cambridge, United
Kingdom

⁵London School of Hygiene & Tropical
Medicine, Department of Public Health
and Policy, London, United Kingdom

⁶The University of Hong Kong,
Department of Social Work and Social
Administration, Hong Kong, Hong Kong

The impact of the 2008 global economic crisis on suicide: A time trend study

Question: There is emerging evidence that suicide rates have increased in some countries affected by the 2008 global economic crisis. However, studies to date have focused on single countries and have yet to identify the most vulnerable demographic groups.

Methods: Suicide data were extracted from the World Health Organization Mortality database. Fifty-three countries had complete data for 2000-2009. Poisson regression models were used to estimate time-trends in suicide rates (2000-2007) and excess suicides in 2008 and 2009 compared with pre-crisis trends. US data were extracted from the CDC online database.

Results: Rises in suicide were mainly seen amongst the 27 European and 17 American countries studied; their male suicide rates were 4.9% (95% Confidence Interval [CI] 4.2-5.6%) and 3.4% (95% CI 2.7-4.1%) higher in 2009 than expected if past trends had continued, corresponding to 3380 (95% CI 2914 to 3846) and 774 (95% CI 622 to 926) excess suicides respectively. There was no change in European female rates and the increase in American female rates was smaller (2.0%). Rises amongst European males aged 15-24, 25-44, 45-64, and 65+ years were 11.9%, 5.1%, 4.4%, and 1.8% respectively; European females aged 15-24 showed a 10.8% rise but older females showed no increase. In non-European countries males aged 25-44 showed the largest increase (3.5%). Rises in national suicide rates appeared to be associated with the magnitude of increases in unemployment, particularly in countries with low pre-crisis unemployment levels (Spearman's $r = 0.16-0.53$). US males showed 4.3% (95% CI 2.9-5.7%) and 5.2% (95% CI 3.6-6.8%) rises in 2008 and 2009 respectively; there was no change in female suicide rates.

Conclusions: The economic crisis in European and American countries studied has significantly increased suicides, particularly in countries with higher levels of job loss. Young males and females appear to be the most vulnerable groups and an important target for social protection.

Does naturally occurring lithium in drinking water has a role in suicide prevention?

Lithium is found naturally in variable amounts in food and water, and is widely used in pharmacological doses in psychiatry for the treatment and prevention of manic and depressive episodes and suicidal ideation/behaviour in mood disorders. The optimal blood level at which lithium exerts a possible preventive effect against suicide has not been established.

Three previous studies, conducted in USA (1990), Japan (2009), and Austria (2011), have shown that geographic areas with higher natural lithium concentrations in drinking water are associated with lower suicide mortality rates – suggesting that natural levels of lithium in drinking water may have a protective effect on suicide mortality in the general population; whereas, the fourth study from East of England (2011) did not find any association. Since the publication of these reports, there has been considerable debate in the scientific literature and print/electronic media on whether preventive supplementation of lithium in drinking water could improve community mental health and wellbeing.

The objective of this presentation is to review the epidemiological evidence regarding the association between lithium in drinking water and suicide rates, and to discuss key issues, study designs and questions for further research.

Reference: N Kabacs, A Memon, T Obinwa, J Stochl, and J Perez. Lithium in drinking water and suicide rates across the East of England. *British Journal of Psychiatry*, May 2011; 198, 406-407.

Smoking cessation treatment and the risk of depression, suicide and self-harm in the Clinical Practice Research Datalink: A cohort study

Objectives: UK and US regulatory agencies have issued safety warnings that smoking cessation medicines, such as varenicline and bupropion, may increase the risk of fatal and non-fatal self-harm. We compared the risk of suicide, self-harm and depression in patients prescribed varenicline and bupropion with those prescribed nicotine replacement therapy (NRT).

Methods: We followed up 195 142 patients aged 18 and over with a first prescription of a smoking cessation product between September 1st 2006 and 31st December 2010 in the UK's Clinical Practice Research Datalink (CPRD), formerly known as the General Practice Research Database (GPRD). NRT was most commonly prescribed (69.2% of prescriptions), followed by varenicline (25.7%) and bupropion (5.1%). Approximately half of general practices in the CPRD were linked to National Mortality data and Hospital Episode Statistics (HES). Our primary outcomes were suicide and hospital admission for self-harm; depression was a secondary outcome. Cox regression methods were used.

Results: We detected 8140 primary care records of depression, 88 hospital admissions for self-harm and 5 confirmed suicides. We found no evidence that patients prescribed varenicline had higher risks of suicide, self-harm or depression compared with those prescribed NRT; hazard ratios (HRs) 1.33 (95% confidence interval 0.14, 12.94), 0.92 (0.52, 1.61) and 0.77 (0.73, 0.82) respectively. There were no suicides in patients prescribed bupropion. We found no evidence that patients prescribed bupropion had higher risks of self-harm, HR 0.65 (0.20, 2.09) or depression, HR 0.75 (0.66, 0.84) compared with patients prescribed NRT. Updated results will be available at the conference.

0438

Anjum Memon¹, Nikolett Kabacs²,
Jesus Perez^{2,3}

¹Brighton and Sussex Medical School & NHS Brighton and Hove, Brighton, United Kingdom

²Cambridgeshire and Peterborough NHS Foundation Trust, Cambridge, United Kingdom

³University of Cambridge, Department of Psychiatry, Cambridge, United Kingdom

0064

Kyla Thomas¹, Richard Martin¹,
Neil Davies¹, Chris Metcalfe¹,
Frank Windmeijer², David Gunnell¹

¹University of Bristol, School of Social and Community Medicine, Bristol, United Kingdom

²University of Bristol, Department of Economics, Centre for Market and Public Organisation, Bristol, United Kingdom

Conclusions: There is no evidence of an increased risk of suicidal behaviour in patients prescribed varenicline or bupropion compared to those prescribed NRT. These findings are reassuring for users and prescribers of smoking cessation medicines.

0072

Janet Sultana¹, Clive Ballard², Matthew Broadbent³, Chin-Kuo Chang³

¹Institute of Psychiatry, King's College London, Neuroscience, London, United Kingdom

²King's College London, Wolfson Centre for Age-Related Diseases, London, United Kingdom

³NIHR BRC for Mental Health and Dementia Biomedical Research Unit, London, United Kingdom

Associations between risk of mortality and atypical antipsychotic use in vascular dementia

Introduction: Vascular dementia (VaD) is the second commonest form of dementia. Over 90% of patients experience behavioural and psychological symptoms in dementia (BPSD). This is commonly managed with atypical antipsychotics (aAPs), but the modest benefits have to be weighed against significant adverse outcomes including an increased mortality risk. There is very limited evidence to inform practice in VaD and the risk of mortality associated with aAPs is unknown. This knowledge gap was addressed using a novel clinical research tool, an electronic interactive case register (CRIS) containing all patient notes from the South London and Maudsley NHS Trusts.

Methods: A retrospective cohort study was carried out by identifying VaD patients exposed or not exposed to olanzapine, quetiapine or risperidone through CRIS. Patients were excluded if they were prescribed haloperidol or if they had a diagnosis of schizophrenia, bipolar disorder or schizoaffective disorder. Patient data on socio-demographic background, VaD diagnosis, prescription of aAPs, MMSE results and mortality status was mined through CRIS. Risk of mortality over 5 years was compared for patients ever exposed to aAPs or patients exposed to aAPs for more than 3 months compared to non-exposed patients.

Results: The cohort included 1,532 VaD patients. Adjusted analyses suggested that exposure to olanzapine and quetiapine results in a higher risk of mortality compared to non-exposed patients (HR=1.21, 1.14; CI=0.78-1.87, 0.93-1.39) but surprisingly patients ever exposed to risperidone did not experience an increased risk of mortality (HR=0.85; CI=0.59-1.24). Long-term use of any drug (>3 months) was also not associated with increased risk of mortality.

Conclusions: These results suggest that some aAPs are less harmful in VaD compared to controls. Further work is needed to confirm the potential and surprising disparity between individual drugs found in this study.

0194

Wei Che Chiu^{1,2}, Meng-Hung Lin³, Yu-Chi Yeh¹, Jung-Der Wang², Pau-Chung Chen²

¹Cathay General Hospital, Taipei, Taiwan

²National Taiwan University, Institute of Occupational Medicine and Industrial Hygiene, Taipei, Taiwan

³China Medical University, Department of Public Health, Taichung, Taiwan

Angiotension receptor blockers reduce the risk of Alzheimer's disease: A population-based cohort study

Objective: Angiotension receptor blocker (ARB) is a class of hypertensive drugs which modulates the renin-angiotensin-aldosterone system. Recent studies implied that ARB has not only antihypertensive effect but also beneficial effects on Alzheimer's disease (AD). The purpose of this study was to investigate the effects of ARBs for AD.

Methods: We conducted a population-based cohort study from the Taiwan National Health Insurance Research Database. From all potential participants aged fifty years or more, a total of 24,418 matching pairs (1:1) of ARB-exposed and non-ARB-exposed subjects were included. Each subject was individually tracked from 1997 to 2009 to identify incident cases of AD (onset in 1999 or later). Cox proportional hazard regressions were employed to calculate the hazard ratios (HRs) and 95% confidence intervals (CIs) for the association between ARBs and AD.

Results: There were 132 cases (0.54%) of AD in ARB cohort, comparing with 239 cases (0.98%) in non-ARB cohort during follow-up 11 years. The multivariate-adjusted HR for AD was 0.62 (95% CI, 0.48-0.78) for patients with ARB treatments. The adjusted HRs were 0.61 (95% CI, 0.49-0.77) and 0.31 (95% CI, 0.20-0.49) for patients received ARBs for less

than and more than four years. In cumulative dosage, subjects with more than 1460 DDD of ARBs had less risk from less than 1460 DDD (HR 0.27 vs. 0.63; log rank test, $p < 0.05$).

Conclusion: ARBs decreased the risk for Alzheimer's disease. The longer time and more cumulative dosage the patients received, the more protective effects on Alzheimer's disease in our study.

Potentially inappropriate antidepressant pharmacotherapy in the elderly

Objective: Pharmacotherapy is the most frequently used treatment strategy for depression (Boenisch et al. 2012). However, evidence suggests deficits for certain risk groups (Glaeske et al. 2012). We aimed to investigate potentially inappropriate medications (PIM) for depressed elderly patients (≥ 65 years). We analysed PIM frequency and examined factors influencing PIM choice.

Material: We used claims data of a German health insurance. The study population included adult insureds with an outpatient or inpatient depression diagnosis and at least one antidepressant prescription insured throughout 2009 ($N=104.776$). Further analyses were conducted based on the subpopulation of the elderly ($N=54.653$).

Methods: PIM prescriptions were identified using the ATC-Code and a list of medications with a higher risk of adverse effects for the elderly (PRISCUS list). We calculated 12-month PIM prescription rates according to age groups and tested group differences by Chi-square tests. Potential influence factors (age, gender, region, diagnosis) were analysed within the subpopulation by logistic regression.

Results: The mean age of the study population was 63,2 years ($SD=16.8$) and 75,9% were female. 30,4% of the younger and 33,4% of the elderly patients received at least one PIM prescription ($\chi^2=102,3$; $p<.001$). All predictors showed a significant influence ($p<.01$) with a higher relative risk (RR) for female vs. male patients (RR: 1.15), urban and rural regions vs. urban centres (RR: 1.05; 1.11) and F33 vs. F32-diagnosis (RR: 1.23). Among the elderly subpopulation younger age is associated with a higher risk (RR: 0.98).

Conclusion: PIM prescription is frequent among elderly patients treated with antidepressant pharmacotherapy. Supporting previous results we found prescribing variations depending on non-clinical patient characteristics (Amann et al. 2012, Glaeske et al. 2012). Guideline implementation could reduce these. Further research should consider additional predictors.

Illegal substance use in Brazil: The second Brazilian National Alcohol and Drug Survey (BNADS)

Introduction: Brazil is undergoing a broad public debate as its drugs constitution is due to be reviewed. The knowledge of nationally representative consumption rates of illegal drugs should provide the necessary foundation to the debate allowing evidence-based decisions.

Method: The Second Brazilian National Alcohol and Drugs Survey developed by the National Institute of Policies on Alcohol and Drugs (INPAD) and the Federal University of Sao Paulo, investigated the consumption of all psychotropic drugs and its associations. Dependence was assessed among cannabis and cocaine users using the Severity of Dependence Scale. The survey used probability multistage cluster sample design to select 4607 participants aged 14 and older from 149 municipalities across the country, achieving a total response rate of 77%.

Results: Over 6% of the adult population have tried cannabis at least once in their lives, 3% reported having used it in the last year. Over half of the users (62%) tried cannabis for the first time before they were aged 18. Dependence rate was 37% among all users - 0.6%

0048

Denise Kaestner¹,
Dorothea Buechtemann¹,
Joern Moock¹, Wolfram Kawohl²,
Wulf Roessler²

¹Leuphana Universität Lüneburg, KT
Vernetzte Versorgung, Lueneburg,
Germany

²Psychiatrische Universitätsklinik
Zürich, Klinik für Soziale Psychiatrie
und Alltagspsychiatrie, Zürich,
Switzerland

0057

Clarice Madruga¹, Raul Caetano²,
Ilana Pinsky^{1,2}, Ronaldo Laranjeira^{1,2}

¹UNIFESP, Psychiatry - UNIAD, Sao
Paulo, Brazil

²University of Texas, UT Southwestern
Medical Center, Dallas, United States

in the general population. Cocaine experimentation was reported by over 4% of the adult population, whilst 2% used it in the last year. Intra-nasal cocaine rates were 4% lifetime use and 2% last year use among adults; smoked cocaine (crack/merla/oxi) was tried by 1.4% of the adult population, 1% reported having used it in the last year. Over 45% of the users have tried cocaine before they were 18 years old. Dependence was identified in nearly half of the current users (48%), injected cocaine was reported by 14% of the users. Prevalence of lifetime and last year use of all other illegal drugs combined was 4% and 1.6% respectively.

Conclusion: Brazil is the second largest cocaine market in the world with regard to the sheer number of users. The knowledge of population-based studies must guide necessary changes in the health and legal systems and underlie policy makers' decisions.

0341

Edison Manrique-Garcia¹,
Stanley Zammit², Christina Dalman³,
Thomas Hemmingsson⁴, Peter Allebeck¹

¹Karolinska Institutet, Department of
Public Health Sciences, Division of
Social Medicine, Stockholm, Sweden

²MRC Centre for Neuropsychiatric
Genetics and Genomics, Cardiff
University, Department of Psychological
Medicine & Neurology, Cardiff, United
Kingdom

³Karolinska Institutet, Department of
Public Health Sciences, Division of
Public Health Epidemiology, Stockholm,
Sweden

⁴Karolinska Institutet, Department
of Public Health Sciences, Division
of Occupational and Environmental
Medicine, Stockholm, Sweden

Characteristics of Schizophrenia in users and non users of cannabis

Objective: While there is increasing evidence on the association between cannabis use and schizophrenia, it is still unclear whether schizophrenia patients with a cannabis history have another prognosis, with regard to relapse and hospital duration, compared to those without a cannabis history.

Material and Methods: A cohort study of 50.000 Swedish men with data on cannabis use at ages 18-20. A total of 350 cases of schizophrenia were identified from inpatient care records and followed up from 1970 through 2010. Records of schizophrenia patients with and without a history of cannabis use were investigated with regard to types of diagnoses, duration of first admission, rate of re-admission and total duration of hospital stay.

Results: Schizophrenia patients with history of cannabis use had a higher median duration of first hospital episode (59 days vs 30 days). Patients with a history of cannabis had a higher median rate of re-admission (10 times vs 4 times). Also total number of hospital days was higher in patients with cannabis history compared to those without (547 days vs 184 days) The distribution of types of schizophrenia was difficult to assess since many received a "unspecified" diagnosis, and there was no significant difference between the groups.

Conclusions: Schizophrenia patients with history of cannabis used had significantly higher burden of inpatient care than non cannabis users. Not only does cannabis increase the risk of schizophrenia, but our findings indicate that the type of schizophrenic psychosis may be more severe than schizophrenia cases in general.

0416

Suzi Gage¹, Matt Hickman¹,
Marcus Munafa¹, Stan Zammit¹

¹University of Bristol, Bristol, United
Kingdom

Association between cannabis and psychotic experiences at age 18: ALSPAC

Background: Although acute cannabis intoxication has been shown to cause transient psychotic experiences (PEs), whether prolonged cannabis use can cause psychotic symptoms is less clear. Systematic reviews have provided some evidence that the relationship is causal, but residual confounding and intoxication effects are hard to completely rule out.

Methods: We used data from the Avon Longitudinal Study of Parents and Children (ALSPAC) birth cohort. Substance use at age 16 was assessed via self-report questionnaire. PEs at age 18 were assessed via semi-structured interviews. Confounders (family history, maternal education, IQ, depression, borderline personality traits, strengths and difficulties questionnaire (SDQ), alcohol use at age 16, and other illicit drug use at age 16) were measured variously by questionnaire and interview. Ordered logistic regression analyses were conducted to investigate the associations between cannabis use at 16 and PEs at 18, and tobacco use at 16 and PEs at 18. We also excluded anyone who self reported definite PEs at age 16.

Results: We found cannabis use at age 16 and PEs at age 18 to be associated. Adjustment for pre birth and childhood confounders did not change the point estimates greatly.

Removing those who attribute their PEs only to cannabis intoxication decreased the point estimate, but strong evidence of an association remained. Further adjustment for either tobacco use or other illicit drug use attenuated the relationship substantially. However, both these confounders are highly correlated with cannabis use. We found tobacco use at age 16 and PEs to be associated. Adjustment for pre birth confounders did not alter the point estimate, but childhood confounders slightly attenuated it. Further adjustment for cannabis use resulted in further attenuation, but not to the same level as for cannabis PE results. The same was also true for other illicit drug use as a confounder.

Conclusions: The relationship between cannabis use and PEs seems to be heavily confounded by other illicit drug use and in particular tobacco use. The relationship between tobacco and PEs appears to be more robust to confounding by cannabis use and other illicit drug use. However, due to the collinearity between these measures, it is hard to draw conclusions as to the specific effect on the relationship of any one of them. Other methods are needed to robustly test the independent effects of cannabis, tobacco and other illicit drugs on PEs.

Clinical characteristics of victims of human trafficking in contact with an inner city mental health service

Objectives: Little is known about the mental health needs of trafficked people. We aimed to describe the clinical characteristics of trafficked people in contact with a large inner city mental health service compared with a non-trafficked cohort. We hypothesised that, compared with a non-trafficked cohort matched for gender, age and primary diagnosis, trafficked people would be significantly more likely to have co-morbid disorders and have significantly smaller improvements in functioning at the end of an episode of care.

Materials and Methods: Study design: Cohort study. Study population: mental health service users who had been trafficked for exploitation and a non-trafficked service user cohort matched for gender, age (+/- 2 years) and primary diagnosis. Data collection: The South London and Maudsley NHS Trust (SLaM) Biomedical Research Centre Case Register Interactive Search (CRIS) database allows the search and retrieval of anonymised full patient records for mental health service users in contact with SLaM services between 2006 and 2012. Free text searches of CRIS were used to identify a cohort of trafficked and non-trafficked service users. Data were extracted on socio-demographic and clinical characteristics, functioning (Health of the Nation Outcome Scale), and on episodes of care.

Results and Conclusions: We identified case records of 136 people in contact with SLaM services who had been trafficked for sex work, domestic servitude and other forms of exploitation. 105 (77%) of the trafficked service users were female and age at first SLaM contact ranged from 11 to 50 years (mean 25.7, SD 8.7). Post Traumatic Stress Disorder (18.6%, n=24), depression (7.8%, n=10) and schizophrenia (6.2%, n=8) were the most frequently recorded diagnoses among trafficked service users. Analysis is in progress and scheduled for completion by March 2013.

Effectively working on rehabilitation goals: 24-month outcome of a randomized controlled trial of the Boston Psychiatric Rehabilitation approach

Question: This study aimed to investigate the effect of the Boston Psychiatric Rehabilitation Approach (PR) on attainment of personal rehabilitation goals, social functioning, empowerment, needs for care and quality of life in persons with severe mental illness (SMI) in the Netherlands.

Method: A 24-month multicenter randomized controlled trial (RCT) was used to compare the results of PR to "care as usual" (CAU). Patients with SMI were randomly assigned by a

0336

Sian Oram¹, Charlotte MacKenzie¹,
Cathy Zimmerman², Melanie Abas¹,
Matthew Broadbent¹, Louise Howard¹

¹Institute of Psychiatry, London, United Kingdom

²London School of Hygiene and Tropical Medicine, Global Health and Development, London, United Kingdom

0343

Wilma Swildens¹, Harry Michon²,
Jooske van Busschbach³, Hans Kroon²,
Durk Wiersma³, Jim van Os^{4,5}

¹Altrecht GGZ, Utrecht, Netherlands

²Trimbosinstitute, Utrecht, Netherlands

³UMCG, RGOc/UCP, Groningen, Netherlands

⁴Maastricht University Medical Centre, Department of Psychiatry and Psychology, School of Mental Health and Neuroscience, Maastricht, Netherlands

⁵Institute of Psychiatry, Division of Psychological Medicine, London, United Kingdom

central randomization centre to PR (N=80) or CAU (N=76). The primary outcome goal attainment was assessed by independent raters blind to treatment allocation. Measures for secondary outcomes were change in work situation and independent living, Personal Empowerment Scale, Camberwell Assessment of Needs and WHO Quality of Life. Effects were tested at 12 and 24 months. Data were analysed according to intention to treat. Covariates were psychiatric centre, psychopathology, number of care contacts and educational level of the professionals involved.

Results: The rate of goal attainment was substantially higher in PR at 24 months (adjusted risk difference: 21%, 95%CI, 4 to 38; NNT = 5). PR was also more effective in the area of societal participation (PR: 21% adjusted increase, CAU: 0% adjusted increase; NNT = 5) but not in the other secondary outcome measures.

Conclusions: The results suggest that PR is effective in supporting patients with SMI to reach self-formulated rehabilitation goals and in enhancing societal participation, although no effects were found on the measures of functioning, need for care and quality of life.

Discussion: In the Netherlands PR has proven to be an effective rehabilitative instrument. Although training is given nationwide, more effort is needed for good implementation. In the end of this presentation ways to enhancing implementation and guarantee good fidelity is discussed.

0419

Hans Joachim Salize¹,
Harald Dressing¹, Christian Jacke¹

¹Central Institute of Mental Health,
Mental Health Services Research
Group, Mannheim, Germany

Reducing involuntary hospital admission of severe mentally ill by preventive monitoring

Background: Reducing the number and rate of involuntary placements and treatments of mentally ill is an important aim in mental health care from the perspective of persons concerned and from a human rights- and health policy perspective alike. Due to poor evidence on effective approaches in the field, we conducted a randomised controlled study testing a specific intervention to reduce the number of compulsory admissions to psychiatric hospital care during a defined period of time.

Data and Methods: Patients suffering from schizophrenia or affective disorder with a risk for involuntary placement who were discharged from 4 hospitals in the German Rhine-Neckar-region were randomised to an intervention and control group and followed up to 2 years.

Additionally to the regular treatment by community mental health care services, the patients in the intervention group received a training for recognizing their individual risks for relapsing added by an individual crisis card which listed these risks. Intervention patients were contacted regularly each third week after study entry for monitoring and checking their individual relapse and re-admission risk. In case of a threatening relapse they were advised to contact their regular psychiatrist or other mental health care service for preventing a hospital re-admission. Patients in the control group did not receive the intervention and were treated by regular community mental health care services („treatment as usual“). Major endpoints were the number and average length of voluntary and involuntary psychiatric hospital stays during 24 months

Results: 204 patients were included. The drop-out rate was 37.4 % in the intervention group and 28.4 % in the control group. During the first 12 months of the follow-up the proportion of patients with at least one re-admission to psychiatric inpatient treatment was higher in the control-group (56.6 %) than in the intervention group (47.9 %). Mean length of stay was 57 days in the control group and 44 days in the intervention group. However, the differences were not statistically significant.

The same trend was detected when looking at involuntary or voluntary re-admission. There was a tendency towards earlier re-admissions in the control-group („survival time“), although the difference was not statistically significant. When analysing specific patients groups, e.g. patients with severe psychotic symptoms at baseline, inpatient stays during the follow-up tended to be significantly longer in the TAU group.

Discussion: Overall, results indicate that this case-management intervention may be too unspecific to prevent involuntary hospital re-admission for the analysed patient group as a whole, but may prove to be effective in specific sub-groups.

A national panel of people with severe mental illnesses in the Netherlands: First findings

Introduction: While societal participation of people with severe mental illnesses (SMI) is an important aspect of their recovery, little is known on a national level about relevant aspects such as actual participation level of this group and wishes and personal goals people have. The Trimbos Institute has recently developed a national panel of people with SMI to fill this gap. Partners are (amongst others): Kenniscentrum (knowledge centre) Phrenos, LPGGz (a national platform for users of mental health services), NIVEL (a national institute of health care research). Aim is to gain more knowledge and insight in how persons in this group live, work and participate in society. Participation and Recovery (and related topics as relevant support) are core themes.

Methods: Panel member are recruited both in mental health services (divisions for people with severe mental illnesses) and in public by several means, e.g. web site and newsletters. One method the panel uses is to ask members fill in questionnaires either online or in paper forms, according to their own choices. The purpose is to follow members longitudinally using partly standardised scales to be able to detect trends. At this point members have filled in two questionnaires containing largely different variables. Main purpose of the presentation therefore is to describe the member population. However, some features have been measured twice, s.a. work participation, as a result of which some trends are analysed.

Results: The panel has started in 2010 and consists of over 800 members. 60% is woman, mean age is 47 (sd 12). 81% is client of mental health services. Considering duration of mental health problems and disabilities experienced in daily life and participation the target population is adequately reached. Between 15 and 20% of panel members work competitively, far less than national figures in the total population. The second survey confirmed the first one on this. Loneliness is substantially more experienced in the member population as is on a national scale (77% feels moderately or strongly lonely against 30% in other civilians based on national surveys). A majority of members wishes for personal changes in societal participation, especially regarding relationships and work.

Conclusion: The panel has made a promising start. It yields figures useful for (applied) science and administration & policy makers. The national administration of public health, wellbeing, and sports continues to finance the basic elements of the panel. The panel data justify further efforts to gain insight in effective rehabilitation support and implementation of evidence based rehabilitation interventions. In the near future the panel team will seek collaboration with research groups to increase data gathering and broaden the scope of the research.

Job Coaching for the severely mentally ill

Objectives: We present a cluster of topical studies conducted at the sites Zurich and Luneburg concerning job coaching or supported employment. In the clinical supported employment service in Zurich, job coaching after the method Individual Placement and Support (IPS) is used as a case management method.

Material and Methods: 250 mentally ill persons receiving a pension from the Swiss disability insurance (Invalidenversicherung, IV) have been included in an RTC. In another, retrospective, survey we aimed to identify predictive factors for coaching success in a sample of 256 patients from our clinical centre. In a third trial, conducted at the Leuphana

0421

Harry Michon¹, C. Place¹,
L. Hulsbosch¹, J. Weeghel², H Kroon¹

¹Trimbos Institute, Utrecht, Netherlands

²Kenniscentrum Phrenos, Utrecht,
Netherlands

0418

Wolfram Kawohl¹, Wulf Rössler¹

¹Psychiatric University Hospital, Zurich,
Switzerland

University Lüneburg, we focus on the maintenance of employment. Moreover, a catamnestic trial of the EQOLISE-study has been performed at the Zurich site.

Results: The retrospective study revealed the expectation of the patient to be predictive for coaching success. In the catamnestic trial of the EQOLISE-study, abandoning of job coaching has been shown to lead to loss of jobs in the open job market. Preliminary data of the current RCTs will be presented as well. Job Coaching tends to be superior to treatment as usual also in disability pensioners.

Conclusions: Job Coaching has been shown to be superior to treatment as usual in sheltered workshops by the EQOLISE-study. Nevertheless, coaching should not be interrupted after successfully placing a patient on a job. In the naturalistic setting of our clinical supported employment service, the expectation of the patient is a predictor of coaching success while age, gender, and diagnosis do not play a role. Supported Employment can be used as a method of case management in order to maintain a job even under the condition of a mental disorder.

0420

Christian Jacke¹, Hans Joachim Salize¹

¹Central Institute of Mental Health,
Mental Health Services Research
Group, Mannheim, Germany

Effectiveness of insurance company-based case management for patients with depression

Background: Europe has the highest treatment density / capacity for major depressions. However, more than 50% of all prevalent cases are treated too late or remain entirely untreated. To overcome these shortcomings, a case management program at the health insurance level was designed in order to increase or accelerate referral from GPs or family doctors to adequate depression treatment by specialists. The incremental cost-effectiveness-ratio (ICER) of this intervention was of main interest.

Data and Methods: In total, 954 Patients were recruited in two different regions covered by a major German health insurance company. Regional affiliation defined the membership to intervention- and treatment-as-usual (TAU)-group (477 patients each). The intervention itself encompassed several training courses for seven health insurance account managers regarding characteristics of depression, counselling and, case management techniques. New skills should be applied in routine care for insured patients suffering from depression during one year at least whereas the TAU-group proceeded as usual. Resource utilization and costs were measured by health insurance routine data for patients with definitive affective disorders (ICD-10: F3) and a sickness leave between 28 and 56 days or discharge of inpatient treatment 14 days prior to study inclusion, both combined with a F3 diagnosis. Primary endpoint was the utilization of specialist care (psychiatrist or psychotherapist). Analysis referred to outcome- and cost-differences which were used for the ICER-calculation. The Net-Monetary-Benefit approach for the estimation of Cost-Acceptability-Curves was chosen. Basic sensitivity analysis by bootstrap variation (1-10,000) was performed.

Results: The overall caseload for each case manager was 68 patients with major depression. Demographic and diagnosis related descriptive statistics showed balanced groups. Overall, 85.2% of patients (813) utilized outpatient care. The average number of contacts to psychiatrists or psychotherapists was 12.6 in the first year. In the intervention group, the average number of contacts (13.5) differed significantly from the TAU-group (11.8). Costs of health care did not differ. The empirical ICER was 5.02 and the intervention becomes significantly cost-effective with a maximum willingness to pay between 31-68 Euros per patient.

Discussion: The developed case management program accelerates treatment and increases specialist care for major depression without elevating health care costs. The intervention itself is cost-effective, easy to implement and resumes fast results. The project shows that health insurances actively can increase quality of care. The implementation of the case management program is strongly recommended.

Sustainable vocational inclusion by supported employment: Five-year follow-up of a randomized controlled trial

Objective: Individual Placement and Support (IPS) is currently the most evidence-based supported employment (SE) approach to bring people with severe mental illness (SMI) back into competitive employment. Up to date still little is known about the long-term effectiveness of IPS. Aim of the present study is to enlarge the evidence of the long-term effectiveness of IPS.

Material and Methods: Randomized controlled trial (RCT), 2- and 5-year follow-up. 100 unemployed persons with stabilized SMI randomly assigned to either the IPS program of the Bern University Hospital of Psychiatry (n=46) or to the most viable locally available traditional vocational rehabilitation programs (TVR) (n=54).

Employment data at 2- and 5-year follow-up, including employment status, hours worked per week, job tenure, and income were collected as well as non-vocational data such as relapses, recovery attitudes and quality of life. The primary outcome variables were whether the participant successfully obtained and kept competitive employment.

Results: Employment rates of competitive jobs were 65% in the IPS group and 33% in the TVR group. At 5-year follow-up still 45% of the IPS group was competitively employed vs. 13% in the TVR group. Stability in competitive jobs was significantly better in the IPS group as well as all other vocational outcome criteria. In non-vocational outcome, both number of hospitalizations and time in hospital were significantly lower in the IPS group.

Conclusions: This study is the first RCT on IPS with a 5-year follow-up. It clearly demonstrates that the superiority of IPS over TVR programs as well as its higher sustainability and decrease in hospitalizations becomes even more evident after five rather than after two years. Thus, the benefit of traditional „first train then place“-models that still dominate vocational rehabilitation in Western Europe has to be questioned.

0109

Holger Hoffmann¹, Dorothea Jäckel¹, Sibylle Glauser¹, Zeno Kupper²

¹University Hospital of Psychiatry Bern, Public Mental Health Research Unit, Bern, Switzerland

²University Hospital of Psychiatry Bern, Psychiatry Department of Psychotherapy, Bern, Switzerland

Stigma among medical students towards overweight and obesity

Objective Medical students and other health care professionals have been identified as a major source of stigma towards overweight and obese individuals. As data from Europe on medical students' attitudes is lacking weight-bias among students in Leipzig, Germany was investigated.

Material and Methods A paper-pencil-survey was conducted among a sample (n=671) of medical students at Leipzig University from May to June 2011. Key element of the questionnaire was a pair of vignettes depicting an obese and a normal weight 42-year-old woman, respectively. Each vignette was followed by the Fat Phobia Scale (FPS), a semantic differential assessing participants' weight related attitudes. In case of the overweight vignette a panel of questions on causal attribution for the woman's overweight preceded the semantic differential.

Results Factor analysis revealed that a "positive energy balance" was rated as the most relevant cause for the overweight, followed by "negligent personality trait", "societal and social environment", and "biomedical causes". The overweight vignette was rated significantly more negative than the normal weight vignette (mean FPS score 3.65 ± 0.45 versus 2.54 ± 0.38 , $p < 0.001$). A significantly higher proportion of students had negative attitudes towards the overweight as compared to the normal weight individual (98.9% versus 53.7%, $p < 0.001$). In linear regression analysis, attributing a "positive energy balance" or "negligent personality trait" as relevant causes for the overweight was positively associated with negative attitudes towards the overweight vignette.

Conclusions This study confirms prevalence of weight-bias among a sample of German medical students. Negative attitudes arise on the basis of holding the individual

0045

Birte Pantenburg¹, Claudia Sikorski¹, Melanie Luppá¹, Georg Schomerus², Hans-Helmut König³, Perla Werner⁴, Steffi G. Riedel-Heller¹

¹Leipzig University, Institute of Social Medicine, Occupational Health and Public Health, Leipzig, Germany

²Greifswald University, Department of Psychiatry, Greifswald, Germany

³University Medical Center Hamburg-Eppendorf, Department of Medical Sociology and Health Economics, Hamburg, Germany

⁴University of Haifa, Faculty of Social Welfare and Health Sciences, Haifa, Israel

accountable for the excess weight. The results call for bringing the topic of overweight and obesity, including its complex aetiology, more into the focus of the medical curriculum, and for implementing anti-stigma interventions.

146

Lars P. Hölzel¹, Nicolas Rüschi²,
Fabian Frank¹, Levente Kriston³,
Mathias Berger¹

¹University Medical Center Freiburg,
Psychiatry and Psychotherapy, Freiburg,
Germany

²University of Zurich, Clinic for
General and Social Psychiatry, Zurich,
Switzerland

³University Medical Center Hamburg-
Eppendorf, Department of Medical
Psychology, Hamburg, Germany

Effects of the Freiburg Alliance Against Depression on stigma, knowledge and attitudes towards mental health services

Objectives: Depression is one of the most frequent medical conditions worldwide, affecting about 16% of adults in the course of their lifetime. It is also the leading cause of years spent living with disability. Although depression can be treated effectively, only about half of all patients with a depressive disorder seek professional help in Germany. Common reasons for not seeking help are deficits in terms of knowledge and stigmatization. The aim of the Freiburg Alliance Against Depression is to inform the population of Freiburg about depression and to decrease stigmatization. The effects of the campaign are evaluated by means of an epidemiological survey.

Methods: In Freiburg, a depression awareness campaign has been conducted since January 2011. In Karlsruhe, no public awareness campaign takes place. Effects are compared between representative samples of citizens of Freiburg and Karlsruhe in a controlled cohort study. Data were gathered by means of a questionnaire-based representative survey in January 2011. Our primary outcome is the change in attitudes towards the use of mental health services (IASMHS) in Freiburg compared to Karlsruhe. Secondary outcomes are changes in stigma and knowledge. The first follow-up investigation is planned for January 2013.

Results and Conclusion: 2,190 citizens of Freiburg and Karlsruhe were invited to participate in the study. 493 (22.5%) responded, 285 in Freiburg and 208 in Karlsruhe. At baseline, no statistically significant differences between citizens of Karlsruhe and Freiburg were found, with the exception of knowledge about depression. First results on the effects of the Freiburg Alliance Against Depression on stigma knowledge and attitudes towards mental health services will be available by March 2013.

0076

Yin-Ju Lien¹, Yu-Chen Kao², Yia-Ping Liu³, Ching-Hui Loh², Shwu-Jon Lin², Chien-Wen Lu²

¹National Taiwan Normal University,
Department of Health Promotion and
Health Education, Taipei, Taiwan

²Songshan Armed Forces General
Hospital, Department of Psychiatry,
Taipei, Taiwan

³National Defense Medical Center,
School of Medicine, Taipei, Taiwan

Assessing internalized stigma and stigma resistance in individuals with mental illness in Taiwan: An investigation using the internalized stigma of mental illness scale

The Internalized Stigma of Mental Illness Scale (ISMIS) is widely used to measure a global level of internalized stigma and stigma resistance (SR) simultaneously in clinical and research settings. There has not been a validated Taiwanese version previously reported.

We administered the Chinese version (ISMIS-C) to a consecutive sample of 160 outpatients with (n=103; psychotic group including schizophrenia and affective psychosis) or without psychotic disorders (n=57; non-psychotic group including various depressive and anxiety disorders). Several psychometric properties of ISMIS-C were evaluated in this study, including internal consistency, stability over time, and conceptual construct. Additionally, we examine convergent or criterion validity of internalized stigma and SR as well as discriminative validity of the instrument between groups of outpatients with and without psychotic diagnoses.

Overall, the 29-item ISMIS-C was presented to be internal reliable (Cronbach's alpha = 0.92; item-total correlations = 0.30-0.74), and reliable over time (ICC = 0.63-0.85). Our factor analysis supported the concept distinction between measured internalized stigma and SR subscales of the ISMIS-C. Internalized stigma of mental illness, comprised four-factor solution corresponding to Social Withdrawal, Alienation, Perceived Discrimination, and Stereotype Endorsement Dimensions. The construct of the internalized stigma and SR subscales of the ISMIS-C derived from factor analysis was nearly identical to the original

version of ISMIS. As predicted, the internalized stigma subscale scores had positive correlations with measures of mental illness stigma, depressive, and hopeless symptoms ($r = 0.54$ to 0.69) and negatively with self-esteem ($r = -0.58$) and self-efficacy ($r = -0.61$). SR was correlated positively with self-esteem ($r = 0.41$) and self-efficacy ($r = 0.32$), and negatively with mental illness stigma measures, depression, and hopelessness ($r = -0.31$ to -0.36). Our data also demonstrated that psychotic patients experienced a greater level of internalized stigma subscales and total scores than those without psychotic diagnoses ($z = -2.92$ to -3.99).

We confirmed the reliability and validity of the Chinese ISMIS. The usefulness of the ISMIS in a psychiatric population was replicated in the Taiwanese sample. The ISMIS-C can be used as an informative device when investigating "internalized stigma" and "SR" among individuals with or without psychotic disorders.

Social class changes and psychiatric disorders

Question: In this study we explored how adult social class and the transition between parental and adult class (social mobility), is related to severe psychiatric disorders.

Methods: This study covers over 1 million Swedish residents born 1949-1959. Parental class (1960) and own mid-life occupational class (1980, 1990) information was retrieved from the respective censuses. Psychiatric patients were identified by first admission of schizophrenia, alcoholism and drug dependency, affective psychosis and neurosis or personality disorders ($N=24\ 659$) from the inpatient register. We used Poisson regression analysis to estimate the rate per 100,000 person-years and relative risks (RR:s) for psychiatric disorders, by adult social class (time-varying covariate).

Results: The rate of psychiatric disorders was significantly higher among individuals belonging to the Low manual class, compared to High non-manual class. The RR:s ranged from 2.12 (Low manual class) to 1.35 (Low non-manual class), compared to High non-manual class. Downwards mobile had increased RR:s and upwards mobile had lower RR:s for psychiatric disorders. But the risks were similar for individuals experiencing the same magnitude of mobility (e.g. one step upwards), regardless of parental class.

Conclusions: There is a pronounced adult social class gradient in psychiatric disorders; individuals in the low manual class had the highest rates and risks. Even though the risks of psychiatric disorders were greater for downwards mobile and lower for upwards mobile, the risks were similar by the magnitude of social mobility, regardless of parental class.

Estimated prevalence of mental disorders and the desire for social distance: Results from population surveys in two large German cities

Question: The study is focused on two research questions: (1) What are the public's estimates of the prevalence of depression, schizophrenia, bulimia nervosa and anorexia nervosa? (2) What is the relationship between the estimated prevalence of the mental disorders and the public's desire for social distance?

Methods: Analyses are based on a telephone survey in two large German cities (Hamburg and Munich). Sample consists of persons aged 18 years and older, living in private households ($N=2014$, response rate 51%). Written vignettes with typical signs and symptoms suggestive of a depression, schizophrenia, bulimia nervosa and anorexia nervosa were presented to the respondents. Respondents were then asked about the lifetime prevalence of the mental disorders and their desire for social distance. Age, gender, education, residency, and familiarity with the disorder were introduced as control variables into the regression analyses.

0356

Sanna Tiikkaja¹, Pär Sparén¹,
Ninoa Malki¹, Sven Sandin¹,
Bitte Modin², Christina M Hultman¹

¹Karolinska Institutet, Medical
Epidemiology and Biostatistics,
Stockholm, Sweden

²Stockholm University/Karolinska
Institutet, Centre for Health Equity
Studies (CHESS), Stockholm, Sweden

0255

Olaf von dem Knesebeck¹, Eva Mnich¹,
Christopher Kofahl¹, Martin Lambert²,
Anne Karow², Thomas Bock²,
Martin Härter², Matthias Angermeyer³

¹UKE, IMMSG, Hamburg, Germany

²UKE, Hamburg, Germany

³Center for Public Mental Health,
Gösing, Austria

Symposium XVIII

Results: Across all four disorders under study the respondents markedly overestimate the rates of lifetime prevalence. Increasing prevalence estimation is associated with a significant decrease in the desire for social distance in case of schizophrenia. As for depression, anorexia nervosa and bulimia nervosa there are no significant associations after controlling for socio-demographic characteristics and familiarity with the mental illness.

Conclusions: Many campaigns aimed at reducing the stigma attached to mental illness emphasize the high prevalence of mental disorders. The assumption of these campaigns is that reduction of the perceived distinction leads to a decrease of the desire for social distance towards those afflicted. Our results indicate that this may not generally be an effective way to reduce stigma.

The vascular depression hypothesis revisited

Objective: Subclinical cerebrovascular disease may cause depression in older adults. Whereas cross-sectional several studies have assessed peripheral atherosclerosis and structural brain parameters, few longitudinal studies have been performed and very few focused on vascular brain lesions (microbleeds), bloodflow or hemodynamic alterations in the brain to test this hypothesis. Here, we will present an overview of recent work prospectively testing the association of microbleeds, MRI-defined blood flow, or Doppler measures of cerebrovascular hemodynamic indices with incident depression in a population-based cohort of older adults.

Methods: From the prospective population-based Rotterdam Study, we studied a cohort of 3200 participants (age 65+) free of depression, dementia, and stroke at baseline. We measured mean blood flow velocities and vasomotor reactivity with transcranial Doppler Ultrasonography, microbleeds and total cerebral blood flow using magnetic resonance imaging as well as indicators of peripheral atherosclerosis. All participants were assessed for depressive symptoms with Centre for Epidemiological Studies-Depression scale (CES-D) at baseline and at follow-up. Participants with depressive symptoms (CES-D ≥ 16) were interviewed with the Schedules for Clinical Assessment in Neuropsychiatry by clinicians to classify depression according to DSM-IV criteria. All analyses were adjusted for age, sex, education, cognitive scores, smoking status, peripheral atherosclerosis, hypertension, diabetes, and incident stroke.

Results: Mean blood flow velocity at baseline predicted incident depressive symptoms (OR .97, 95% CI .96-.99, p value= .004) and depressive disorders (OR .98, 95% CI .97-.99, p value= .006). Similarly, total cerebral blood flow was associated with higher levels of depressive symptoms. In contrast, presence of cerebral microbleeds or peripheral atherosclerosis were not associated with depressive symptoms after adjustments for vascular risk factors.

Conclusions: Reduced cerebral blood flow but not peripheral atherosclerosis predicted incident depression, indicating that microangiopathy but not generalized vascular predicted depressive disorders. Overall, these findings support a "cerebral micro-vascular" depression hypothesis.

Predictors of the development and the remission of major depression and anxiety disorders in an epidemiologic catchment area in Montreal, Canada: A longitudinal study

Objectives: The aim of this study is to identify predictors of the development and the remission of major depression and anxiety disorders.

Methods: A longitudinal study in the form of a community survey included a randomly selected sample of 2,434 individuals between 15 and 65 years of age (T1), 1,815 of whom agreed to be re-interviewed two years later (T2). Mental disorders were identified using the Canadian Community Health Survey (CCHS 1.2) version of the Composite International Diagnostic Interview, including mood disorders (major depression and mania) and several anxiety disorders: panic disorder (PD), social phobia (SP) and agoraphobia (AG). Logistic regression was used to identify predictors (T1) of the remission of mood disorders and anxiety disorders at T2 and predictors of new cases at T2.

Results: The prevalence of mental disorders for the two waves of the research program is presented. Among the 145 subjects who had major depression (MD) at T1, 69% recovered at T2; and of the 1,553 who did not have MD at T1, 5.7% developed MD at T2. Of the 93 subjects who had anxiety disorder (including PD, SP and AG) at T1, 78.4% recovered at T2; and of the 1,635 subjects who were free of an anxiety disorder at T1, 1.8% developed one or more at T2. Identified predictors for the remission of disorders and for the development of new disorders are presented.

0265

Henning Tiemeier¹, Nese Direk¹,
Albert Hofman¹

¹Erasmus Medical Center,
Epidemiology, Rotterdam, Netherlands

0066

Jean Caron¹, Aihua Liu¹

¹Mcgill University, Psychiatry, Montréal,
Canada

Conclusion: Predictors of new cases will enable the development of more effective prevention programs and the predictors associated with remission will contribute to the improvement of mental health services.

0132

Graham Meadows¹,
Mehmet Ozmen¹, Scott Patten²,
Joanne Brooker¹, Frances Shawyer¹,
Joarder Kamruzzaman³,
Gour Karmakar³, Simon Albrecht¹,
Fiona McDermott⁴, Peter Gibbs⁵,
Lee Gordon-Brown⁶, Brett Inder⁶

¹Monash University, Southern Synergy,
Notting Hill Campus, Clayton, Australia

²University of Calgary, Calgary, Canada

³Monash University, Faculty of
Information Technology, Melbourne,
Australia

⁴Monash University, Department of
Social Work, Melbourne, Australia

⁵Southern Health, Melbourne, Australia

⁶Monash University, Faculty of Business
and Economics, Melbourne, Australia

Estimating the long term effects on depression prevalence of introducing mindfulness based cognitive therapy to target depressive relapse: A simulation modeling approach

Question: What contribution might an evidence-based psychological treatment aimed at reducing depressive relapse make to reducing the prevalence of the disorder?

Methods: This work is part of a broader research program investigating several service and population health scenarios using simulation modelling. Here we consider Major Depressive Disorder (MDD) and Mindfulness Based Cognitive Therapy (MBCT). We developed a discrete event simulation model to estimate the impact of interventions related to time-course of MDD at a population level. The model was calibrated against known values from Australian national survey work. MBCT has optimal effects in people who have entered remission following at least their 3rd episode of MDD and the calibrated model can estimate incidence of eligible cases in Australia. To this we added a model of the effect of MBCT. MBCT is supported by multiple studies and meta-analyses. For effects in this setting we used results from our own work in the largest and longest effectiveness MBCT study done to date (n=203 with 87% follow-up over 2 years). This work has confirmed the effectiveness of MBCT in the specific service setting and demonstrated good cost-effectiveness properties. The model therefore uses both Australian national epidemiological data and locally relevant findings of experience with MBCT.

Results: At steady state situation (day 100,000), we find an incidence rate for 3+ episodes of 10.2/10,000 per year. Introducing MBCT into the simulation, reaching a new steady state takes 31 years. At the new steady state we find that most optimistically, if the intervention came to have general acceptability and was widely available, there would be the potential to effect a 26% reduction in prevalence of MDD in the population. In the presentation we will provide details of models of estimates of varying availability of the treatment and varying uptake. While the results vary considerably, even pessimistic scenarios suggest impact on prevalent cases in Australia that would benefit 10-20,000 individuals at any one time.

Conclusions: Taking a simulation modelling approach to estimate population need and to appraise the effect of a new service has enriched the information available to guide policy in regards to MBCT and provided demonstration of an approach with wider potential value.

0321

Scott Patten¹

¹University of Calgary, Community
Health Sciences, Calgary, Canada

An agent-based approach to understanding major depression epidemiology

Question: Diagnosis of major depression (MD) is based partially on the application of time and severity thresholds (at least two weeks, at least 5 of 9 'A' criterion symptoms etc.) to depressive symptom levels. Seen through this lens, MD has a complex epidemiology that is characterized by time-dependent health state transitions (e.g. recurrence rates that decline with time since the previous episode) and associations of elevated symptom levels and past episodes with an increased risk of relapse and recurrence. Agent-based models can be used to identify mechanisms whereby such complex patterns sometimes emerge as properties of simpler underlying interactions. In this study an agent based model was used to explore whether some of the epidemiologic complexities of MD can be reproduced as emergent properties in a simple agent-based model.

Methods: An agent-based simulation model depicting a stress-diathesis conceptualization of depression was developed. A diagnostic threshold based on the severity of depressive symptoms was applied to the simulation output, allowing symptom fluctuations from the

stress-diathesis interaction to be observed with and without the lens of a threshold-based definition.

Results: An apparently complex epidemiologic pattern emerged from the simulation when thresholds were applied to the model's output. When a threshold-based diagnostic definition was applied incidence was found to be age dependent, recurrence was dependent on the duration of recovery, the remission rate declined with increasing episode duration, risk of a new episode was correlated with baseline symptom levels and the number of past episodes predicted the risk of relapse.

Conclusions: A simple stress-diathesis conceptualization coupled with a threshold-based diagnostic definition can explain several of the complexities of MD epidemiology. This suggests that a stress-diathesis conceptualization may ultimately provide a more parsimonious framework than does the application of diagnostic threshold.

Longitudinal associations between physical activity and depressive symptoms in women followed 31 years

Objective: Depression is a serious and common disorder that is predominant in women and has an unclear etiology. Physical activity is related to mood, and studies show relationships between depressive symptoms and physical inactivity. However, studies that examine associations of both intra- as well as interindividual change over time in physical activity and depression are lacking.

Methods: The study population originates from the Prospective Population Based Study of Women in Gothenburg. In 1974, 1992, 2000, and 2005 participants were asked about their level of physical activity in leisure time and depression symptoms were assessed using the Montgomery-Åsberg Depression rating scale (MADRS). Due to lack of information in 1974, nine out of ten MADRS items were used from all follow-ups. Latent growth curve models and cross-lagged models were used to examine bidirectional associations over time and associations of intraindividual change in physical activity and depressive symptoms over time.

Results: Lower physical activity in 1974 was related to higher mean MADRS score cross-sectionally. On the intraindividual level, decreased physical activity was related to increased mean MADRS score over time. Higher mean MADRS score at baseline was related to lower levels of subsequent physical activity. No relationship was found between physical activity at baseline and subsequent depression.

Conclusions: Women who decreased their levels of physical activity also demonstrated more depressive symptoms than expected. Depressive symptoms predicted future physical activity but not vice-versa.

Outcomes 10 years after first episode of psychotic major depression and schizoaffective disorder, depressed type

The effect of beer prohibition on alcohol disorders: Before and after the introduction of beer in Iceland in 1989

Detecting changes in alcohol related disorders 19 years after the end of a 54 year public beer ban.

Since the prohibition was lifted on the sale of alcohol in Iceland in 1935 the prevalence of alcohol disorders has as far as statistics show, been relatively steady and the problems associated with alcohol consumption have been relatively large. The problems were widely seen as a nuisance but never the less as an integrated part of Icelandic society up until the early seventies. The ban lifted in 1935 did however not extend to the sale of beer for public

0441

Pia Gudmundsson¹, Magnus Lindwall¹, Deborah Gustafson¹, Svante Östling¹, Tore Hällström¹, Calle Bengtsson¹, Kristoffer Bäckman¹, Ingmar Skoog¹, Margda Waern¹

¹University of Gothenburg, Mölndal, Sweden

0120

Eiríkur Lindal¹, Jon G Stefansson²
¹SALFRAEDITHJONUSTA EL,
REYKJAVIK, Iceland

²Medical and Psychological Services
Skiptholt, Reykjavik, Iceland

consumption. The beer ban was lifted in 1989. Since then a great change has taken place in Iceland.

The DIS/CIDI was used in 2 separate population studies where alcohol related disorders were assessed before and after the lifting of the beer ban.

The number of individuals receiving an alcohol related diagnosis according to DSM or ICD criteria has dropped substantially since beer was re-introduced. The amount of pure alcohol consumed annually per individual has increased in the form of beer and wine and the sale of hard liquor has fallen. These changes will be discussed.

0002

Celia Lo¹, Tyrone Cheng¹, Ivan de la Rosa¹

¹University of Alabama, School of Social Work, Tuscaloosa, United States

Mental disorder and substance abuse: A temporal-order model

Question: Empirical evidence attributes the co-occurrence of mental disorder and substance abuse to 3 dynamics: (1) overlapping genetic, developmental, and environmental factors; (2) mental illness brought on by severe substance abuse; and (3) substance abuse intended as self-medication to alleviate symptoms of mental illness. This study evaluated the self-medication hypothesis, asking whether higher levels of substance abuse are associated with the presence of mental disorder accompanied by limited access to and use of mental health care. **Methods.** The study data came from the Fragile Families and Child Wellbeing Study, a 5-wave longitudinal study of a cohort of nearly 5,000 births, which oversampled unmarried births. The core study looked at both mothers and fathers of these newborn children. All resided in the United States and were first interviewed between 1998 and 2000, the period during which the children were born. Parents were re-interviewed in 4 follow-up studies spanning 10 years. The core study measured mental health-related variables, levels of drug use, social structural factors, and relationship factors, variables also employed in the present assessment of the self-medication hypothesis. **Results.** We used STATA generalized least squares random-effects modeling and generalized estimating equations for panel data (with robust standard errors) and found some evidence supporting the hypothesis. Moreover, our results indicate that the relationship of mental disorder and substance abuse is complex. **Conclusion.** Empirical support of the self-medication hypothesis implies that prevention policy and practice can be successfully deployed to improve adults' mental health. Future research might ask if relationships we observed among our variables are observed as well within specific social groups.

0231

Ulrich John¹, Hans-Jürgen Rumpf², Gallus Bischof², Ulfert Hapke³, Monika Hanke¹, Christian Meyer¹

¹University Medicine Greifswald, Epidemiology and Social Medicine, Greifswald, Germany

²University Lübeck, Psychiatry, Lübeck, Germany

³Robert-Koch-Institute, Berlin, Germany

Excess mortality of alcohol-dependent individuals after 14 years and mortality predictors based on treatment participation and severity of alcohol dependence

Objective: To estimate excess mortality among alcohol-dependent individuals and to analyze whether alcohol dependence treatment utilization, alcohol dependence severity, and alcohol-related problems may predict mortality over 14 years.

Methods: A random sample of the general population between the ages of 18 and 64 in one region in Germany was drawn. Among 4070 respondents, 153 alcohol-dependent individuals were identified. For 149 of them, vital status information was provided 14 years later. Baseline data from the Composite International Diagnostic Interview (German version M-CIDI) included alcohol dependence and further mental disorders according to the Diagnostic and Statistical manual of the American Psychiatric Association (DSM-IV), alcohol dependence treatment utilization, alcohol dependence severity based on a symptom frequency questionnaire, alcohol-related problems, and the number of mental disorders at baseline.

Results: Annualized death rates were 4.6-fold higher for females and 1.9-fold higher for males compared to the age- and sex-specific general population. Having participated in inpatient specialized alcohol dependence treatment was not related with longer survival

than not having taken part in the treatment. Utilization of inpatient detoxification treatment predicted the hazard rate ratio of mortality (unadjusted: 4.2, 90% confidence interval 1.8 to 9.8). The severity of alcohol dependence was associated with the use of detoxification treatment. Alcohol-related problems predicted mortality.

Conclusions: According to the high excess mortality, a particular focus should be placed on females. Inpatient specialized alcohol dependence treatment did not seem to have a sufficient protective effect against dying prematurely. Having been in detoxification treatment only, the severity of alcohol dependence, and alcohol-related problems may be predictors of time to death among this general population sample.

Illicit drug outcomes at 3 years in a large national sample in the USA

Objective: To examine 3-year transitions among nonuse, asymptomatic use and problem use of illicit drugs for US adults in the general household population.

Method: Data from the nationally representative NESARC study of 34,653 adults interviewed twice, 3 years apart. Three mutually exclusive categories of baseline drug status comprised past year non-users ($n=32,675$), past-year asymptomatic drug users ($n=861$), and past-year symptomatic drug users ($n=1,117$). Variables tested for association with 3-year transitions to different status categories included sociodemographic, health, substance use and psychiatric covariates.

Results: Among baseline nonusers, 95.4% continued to be nonusers at follow-up, 2.1% became asymptomatic users, and 2.5% developed drug problems. Among baseline asymptomatic users, 66.6% had stopped using drugs at follow-up, 14.3% continued to be asymptomatic users and 19.1% had developed drug problems. Nearly half (49.0%) of those with drug problems at baseline had stopped using drugs at follow-up, 10.9% had transitioned to asymptomatic use and 40.1% continued to have drug problems. Younger age, male gender, white race, and not being married were associated with progression from non-use to use or problematic use, as were alcohol and tobacco categories, major depression and schizotypal, borderline and narcissistic personality disorders. Panic disorder and avoidant personality disorder were associated with less progression.

Conclusions: Transitions in drug use status are common. The finding that alcohol and tobacco-related variables and co-occurring psychopathology are important correlates of transitions suggests the value of addressing all co-occurring disorders and substance use in patient assessments and treatment planning, both for preventing adverse transitions and promoting positive transitions.

Young and not so drunk: Adolescent alcohol consumption rates are not what we think they are

Background: Epidemiological surveys report 87% of 15 year olds in Europe, 66% of 12 year olds in Australia, 12% to 33% of 13 year olds in the United States, and 24% of 12 year olds in the United Kingdom, have consumed alcohol in their lifetimes. Such data has resulted in international concerns and panic over increasing rates of adolescent alcohol use and misuse. However, existing research fails to distinguish between drinking and having only a sip of alcohol, often combining sippers and drinkers into one category. Having a sip of alcohol is a common adolescent behaviour, but potentially represents a different behaviour to consuming full drinks. Additionally, by not distinguishing between having a sip of alcohol and a full drink, prevalence rates of adolescent alcohol involvement may in fact be inflated.

Method: Grade 7 students ($M=12.5$ years old) and one of their parents were recruited across Australian secondary schools during 2010/11 for a longitudinal cohort. In total,

0315

Wilson Compton¹

¹National Institute on Drug Abuse, Division of Epidemiology, Services and Prevention Research, Bethesda, MD, United States

0094

Monika Wadolowski¹, Richard Mattick¹, Alexandra Aiken¹, Chiara Bucello¹, Delyse Hutchinson¹, Timothy Slade¹, Jakob Najman², Kypros Kypri³, Raimondo Bruno⁴, Nyanda McBride⁵

¹University of New South Wales, National Drug & Alcohol Research Centre, Randwick, Australia

²University of Queensland, Queensland Alcohol and Drug Research and Education Centre, Brisbane, Australia

³University of Newcastle, Centre for Clinical Epidemiology & Biostatistics, Newcastle, Australia

⁴University of Tasmania, School of Psychology, Hobart, Australia

⁵Curtin University, National Drug Research Institute, Perth, Australia

1,977 parent-child dyads were recruited, with 1,929 completing baseline surveys. Measures included: parent and youth alcohol use and harms; parental supply of alcohol; delinquency; parent monitoring and rule-setting; family relationships and conflict; peer substance use and approval. Results presented are from baseline data.

Results: Sixty seven percent of 12 year olds and 75% of 13 year olds reported lifetime alcohol histories. Sixty three percent of 12 year olds and 65% of 13 year olds reported only ever having a sip of alcohol. Only 4% of 12 year olds and 10% of 13 year olds reported ever consuming at least a glass of alcohol. Whilst parents were the largest alcohol source, peers were more likely to supply drinkers than those who had only sipped alcohol ($\chi^2_{(1,N=362)}=91.8, p=.000$). Compared to those who had only sipped alcohol, drinkers also had more substance using and drunk peers ($\chi^2_{(1,N=1284)}=115.1, p=.000$, and $\chi^2_{(1,N=1284)}=128.9, p=.000$, respectively).

Conclusions: Current results are consistent with Australian population data, reporting 66% of 12 year olds had a lifetime history of alcohol use. However, when having only a sip is distinguished from having a full drink, alcohol involvement is significantly decreased. Therefore, adolescent alcohol prevalence rates should be interpreted with caution, with actual drinking rates not hugely prevalent.

0473

Alexander Konnopka¹, Hans-Helmut König¹

¹Department of Medical Sociology and Health Economics, University Medical Centre Hamburg-Eppendorf, Hamburg, Germany.

Costs of alcohol consumption in Germany

AIM: To estimate the direct and indirect costs of morbidity and mortality attributable to alcohol consumption in Germany from a societal perspective.

METHODS: Using the concept of attributable risks and the prevalence-based approach, age- and gender-specific alcohol-attributable fractions for morbidity and mortality were calculated for alcoholic disorder, neoplasms,

endocrinological, nervous, circulatory, digestive, skin and perinatal disorders, and injuries and poisonings. The literature provided data on alcohol consumption in Germany by age, gender and dose amount, and relative risks. Direct costs were calculated based on routine resource utilisation and expenditure statistics. Indirect costs were calculated based on the human capital approach using a discount rate of 5%.

RESULTS: Alcohol consumption accounted for 5.5% of all deaths and 970,000 years of potential life lost. Total costs were euro24,398 million, amounting to 1.16% of Germany's GDP, or euro296 per person. Direct medical and non-medical costs were euro8441 million. Indirect costs were euro15,957 million (69% mortality and 31% morbidity costs). In contrast, protective health effects of alcohol consumption saved euro4839 million.

CONCLUSIONS: The magnitude of alcohol-attributable morbidity and mortality and associated costs demands more preventive efforts.

0086

Stephen Stansfeld¹, Charlotte Clark¹, Jenny Head²

¹Queen Mary University of London, Centre for Psychiatry, London, United Kingdom

²University College London, Epidemiology and Public Health, London, United Kingdom

Impact of anxiety disorders on sickness absence

Objective: Common mental disorders are a risk factor for sickness absence. Existing studies have largely focussed on depression not anxiety. The objective of this study is to review the associations between anxiety and the risk of sickness absence.

Material and Methods: A literature search of anxiety disorders and sickness absence was carried out reviewing papers published since 2000. This was supplemented by secondary analysis of longitudinal data from the Whitehall II Study linking anxiety symptoms measured by the General Health Questionnaire in 10,304 civil servants to recorded psychiatric and general sickness absence data.

Results: Anxiety disorders show equivalent levels of role impairment to depressive disorders although in general the risk for sickness absence is less for anxiety disorders. Childhood

anxiety disorders may establish avoidant patterns of coping that increase the risk of sickness absence in adulthood. Anxiety disorders may amplify the health concern around physical illness leading to greater disability.

Conclusion: Anxiety disorders should be considered a risk factor for sickness absence. Further investigation of this association may help in designing interventions to reduce rates of sickness absence and treat anxiety disorders in the context of the workplace.

Prevalence of workplace phobia and related participation problems in general practice patients

Workplace-related anxieties and workplace phobia are specific anxieties which are especially prone to lead to sickness absence at work.

In 307 patients in routine general practice, 10% suffered from workplace phobia, i.e. panic and avoidance reactions when only thinking of the workplace. Patients with workplace phobia as compared to patients without workplace phobia had a similar somatic illness status, but they attributed health problems more often to the workplace, were longer on sick leave (17 weeks versus 9 weeks) and had more problems in work-related abilities like flexibility, decision making, contacts with others at work, and even problems doing activities outside their own home. However, workplace phobics did not report significantly lower general wellbeing.

0155

Michael Linden¹

¹Charité Univ. Med. & Rehab. Center Seehof, Research Group Psychosomatic Rehabilitation, Teltow/Berlin, Germany

Associations of work and non-work stressors on positive well-being in the 2007 Adult Psychiatric Morbidity Survey

Objective: Well-being is an increasingly popular concept with policy makers but evidence on factors associated with well-being remains limited. Protective factors for well-being may differ from risk factors for psychological distress. This paper examines the associations of work and non-work stressors with well-being in a general population sample.

Material and methods: Secondary analysis of the 2007 Adult Psychiatric Morbidity Survey was undertaken, a survey of adults in private households in England. The response rate was 57%. The survey assessed well-being, job strain and effort reward imbalance, recent life events, and social support.

Results: Adverse work characteristics were associated with lower well-being after adjustment for non-work stressors. Job strain (high demands/low control jobs) and active jobs (high demands/high control jobs), as well as jobs with effort-reward imbalance (high effort/low reward jobs), and individuals with low and mid-levels of social support at work reported lower well-being. Domestic violence, and low and mid-levels of non-work social support also showed associations with lower well-being after adjustment for work stressors. Few associations were observed with recent life events.

Conclusions: Work stressors showed strong associations with well-being. Further comparison of protective factors for well-being and risk factors for psychological distress in this dataset will be presented.

0078

Charlotte Clark¹, Scott Weich², Sally McManus³, Paul Bebbington⁴, Terry Brugha⁵, Rachel Jenkins⁶, Howard Meltzer⁵, Stephen Stansfeld¹
¹Barts & the London School of Medicine, Centre for Psychiatry, London, United Kingdom

²University of Warwick, Warwick, United Kingdom

³National Centre for Social Research, London, United Kingdom

⁴University College London, London, United Kingdom

⁵University of Leicester, Leicester, United Kingdom

⁶Institute of Psychiatry, London, United Kingdom

Person-environment-fit as a predictor of occupational mental health: Assessing organizational pathways to employee wellbeing using the Areas of Worklife Survey (AWS)

Question: Occupational stress has been consistently linked with negative health outcomes. To better understand the mechanisms contributing to stress-related disorders, a new tool has been developed for assessing the impact of needs-supply fit in 6 dimensions of worklife on

0397

Beate Schulze¹, Michael P. Leiter², Steffi G. Riedel-Heller¹

¹University of Leipzig, Institute for Social Medicine, Occupational Medicine and Public Health, Leipzig, Germany

²Acadia University, Canadian Centre for Organizational Research & Development, Wolfville, Canada

employee wellbeing.

Methods: The AWS (Leiter & Maslach 2006) comprises 28 items and measures the degree of experienced congruence between the person and six domains of his or her job (workload, control, reward, community, fairness), using a 5-Point-Likert-Scale. The instrument was translated into German and field-tested in three studies: (1) an employee opinion survey in a telecommunications company (n=1400), (2) a study of motivational congruence (n=120), and (3) an online survey among the members of a large professional organization for experts and managers (n=685). Multiple linear regression models were used to assess the relationship between AWS dimensions and health outcomes.

Results: The six scales show reasonable to good reliability (Cronbach's alpha 0.61-0.81). The regression models revealed significant relationships of the 6 dimension with job satisfaction, subjective health, burnout, depression and work-life-balance, with specific patterns for each outcome. Regression models explained between 16.8% and 42.2% of the variance. Results further suggest that perceptions of the work context may have a stronger effect on employee health than reported health behaviours or socio-demographic characteristics such as age and gender. At the organizational level, person-environment-misfit is linked with increased absenteeism and turnover.

Conclusion: Person environment fit, particularly on the dimensions of workload, control and rewards, significantly contributes to employee health. The AWS proved to be a compact and reliable tool in assessing organizational predictors of mental health. Further, it was shown to be suitable for identifying pathways to job stress and its health consequences at the organizational level and for developing evidence-based preventive measures, thus tapping a key source of psychiatric morbidity.

0179

Andreas Seidler¹, Marleen Thinschmidt¹,
Stefanie Deckert¹, Franziska Then¹,
Janice Hegewald¹,
Karen Nieuwenhuijsen¹, Steffi Riedel-
Heller¹

¹Institute and Polyclinic of Occupational
and Social Medicine, Medical Faculty,
TU Dresden, Dresden, Germany

Influence of psychosocial work load on the development of mental disorders

Mental disorders are highly prevalent in the general population as well as in the working-age population and are characterized by multifactorial genesis in which genetic as well as environmental factors play an etiologic role.

To analyze the association between psychosocial work factors and mental health, a systematic literature review was undertaken including cohort studies, case-control studies, and randomized controlled trials. Literature search in PubMed and PsycInfo was based on a defined search string and strict exclusion and inclusion criteria. Evaluation of the initially identified 4,206 search hits by two independent reviewers and a detailed quality assessment finally resulted in 38 studies with adequate quality. Of the included studies, 32 studies were retrieved for mental disorders, five studies for mental impairment (burnout incl. emotional exhaustion) and one study which considered both depression and burnout.

The results of our systematic review clearly point to a relationship between psychosocial working conditions and the onset of depressive symptoms, burnout, and clinical disorders (depression, anxiety disorders, and somatoform disorders). Particularly high job strain defined by high job demands and low job control seems to play a role in the etiology of the mentioned clinical outcomes.

Comprehensive approaches to designing working conditions may prove to be most effective for preventing psychological diseases. The avoidance of detrimental psychosocial work stressors not only serves to prevent psychological disease, but is also a relevant approach to the promotion of public health.

Assessment of the impact of employment and working conditions on the population's mental health in Spain

Objective: There are large numbers of epidemiological studies analyzing the impact of employment and working conditions on mental health. However, our hypothesis is that demographic conditions might have affected the results of these studies. In this paper, we analyze the effect of employment and working conditions on the mental health of the population in Spain eliminating the effects of the most significant demographic characteristics.

Material and Methods: The data are taken from the 2006 Spanish National Health Survey. The dependent variable was self-perceived poor mental health (GHQ-12) and the independent variables were associated with poor mental health, including unemployment, not having a permanent work contract, job satisfaction level and income level. Multivariate analysis was performed through a logistic regression model using the independent variables adjusted by gender, age, marital status, level of education and social class with the calculation of the prevalence odds ratio (OR) and confidence interval (95%).

Results: The results highlight how the percentage of people with bad mental health is higher among unemployed people, with higher job insecurity, with lower job satisfaction levels and lower income. All these differences were significant from a statistical point of view and support the results of previous studies in which employment and working conditions correlated with an increased risk of poor mental health.

Conclusion: Trends towards progressive increases in the unemployment rate, job insecurity and cuts in social benefits could cause a significant rise in the number of people with mental disorders, coupled with the worsening of the situation of those who are already suffering from disorders of this type. Improving working conditions should be a priority in policies to improve the mental health of the population and reduce mental health inequalities.

This abstract is part of the R&D National Scientific Project of Spain "Development of a model to optimize mental health services access and utilization in Spain (MODEMENT)" CSO2009-13268, funded by the Minister of Science and Innovation of Spain (2010-2012).

Non-suicidal self-injury (NSSI) and youth culture: Findings from Germany

Objective: The prevalence of non-suicidal self-injury (NSSI) in adolescents in Germany is reported to be among the highest in Europe and comparable to rates from the USA. Both intraindividual and interindividual factors have been identified as motivations for NSSI. To date no study has addressed the influence of belonging to or identifying with a certain youth culture as a potential correlate of NSSI in adolescents.

Method: We conducted a self-report school survey at 9th grades of different school types in the German mid-sized town of Ulm and surrounding areas (n=452, mean age: 14.85, SD: 0.58). For anonymous assessment, a paper and pencil version of the Self Harm Behavior Questionnaire and an updated version of the youth culture questionnaire by Young was used.

Results: Ninety two students reported a lifetime history of NSSI (20.7%; f: 61: 66.3%; $\chi^2=18.93$, $p=.000$), a 1-year prevalence of 13.5% was reported for NSSI. Only few students described a strong sense of belongingness with a certain sub-culture. Highest rates were observed for "jocks" (n=206, 46.2%), "hip hop" (n=49, 11%), "reggae/ ragga" (n=40, 9%) and "(hard)rock" (n=33, 7.4%), lowest rates observed for "satanists" (n=1, .2%), "skinheads" (n=2, .5%), "grunge" (n=3, .7%), "punks" (n=3, .7%). "emo" (n=2, .4%) and "gothic" (n=0). With regards to NSSI significant positive correlation between level

0353

Marco Garrido-Cumbrera¹,
Enrique López-Lara¹, José Alameda-
Palacios², María Rio-Benito³

¹Universidad de Sevilla, Department of
Geography, Sevilla, Spain

²Hospital Macarena, Mental Health
Division, Sevilla, Spain

³Centre Hospitalier Universitaire
Vaudois - CHUV, Département de
Psychiatrie, Lausanne, Spain

0340

Paul Plener¹, Ferdinand Keller¹

¹University of Ulm, Dept. of Child
and Adolescent Psychiatry and
Psychotherapy, Ulm, Germany

of belongingness and NSSI were found for “punks”, “gothic”, “emo”, “hip hop”, “skater”, “hardcore”, “hippies” and “satanists”., with a significant negative correlation for “jocks”.

Discussion: We found a correlation between certain sub-cultures and NSSI. Some of these sub-cultures share common features and especially Emo and Satanist youth culture might be seen as most strongly related to Gothic youth-culture. We could not find an association with hard rock or metal music, which has often been discussed with regards to a proneness to suicidality in the past. There are several limitations of this study such as the assessed sample is not representative and no data from non-participants were available due to school authorities’ regulations.

0189

Robert Young¹

¹Medical Research Council, Social & Public Health Science Unit, Glasgow, United Kingdom

Contagion and adolescent suicide risk: The influence of schools, friends and youth culture

Objective(s): Social context has a strong influence on suicidality and adolescence is a peak period for suicidal ideation and a key period for the development of social identity. A few case studies report social contagion of suicidal behaviour among adolescents or students in certain institutions (colleges, schools, psychiatric wards). Our objectives are 1) to determine if there is evidence of social contagion or clustering of suicide risk among adolescent school pupils 2) to determine what social factors can explain such clustering: schools; peer friendship networks; social background; or identification with supposedly ‘high risk’ youth cultures (e.g. Goth or Emo).

Material and methods: 602, 15-year old pupils from four Scottish schools took part in a survey. Level of suicide risk (lifetime attempted suicide and recent serious suicidal ideation or plans in the past year) was assessed using a computerised psychiatric schedule. Pupils were given a questionnaire asking about their social background (social class, family structure, etc) and their identification with various youth cultures (Goth, Emo, Rap, etc). They also nominated up to six friends within their school year.

Results and conclusion(s): 1.6% of males and 9.4% of females attempted suicide or reported recent suicidal ideation. Exploratory social network analysis was used to probe for patterns of contagion (or clustering) and a peer network sociogram created for each school. Only one of the four schools showed evidence of suicidal contagion or clustering. At that school a single ‘suicide risk’ cluster was evident in which almost all members identified with an ‘alternative’ youth subculture, e.g. Goth, Emo, Punk or Alt-rock. Causal and non-causal explanations for our findings and their relevance for the psychiatric epidemiology of adolescent suicide are discussed.

0031

Ian Colman¹, Sonja Swanson²

¹University of Ottawa, Department of Epidemiology & Community Medicine, Ottawa, Canada

²Harvard University, Harvard School of Public Health, Boston, United States

The association between exposure to suicide and suicidality outcomes in a nationally-representative prospective cohort of Canadian youth

Objective: Ecological studies support the popularized hypothesis that suicide may be “contagious”, in that exposure to suicide may influence risk for suicide and related outcomes. However, this association has not been assessed adequately in prospective studies. The purpose of this study was to estimate the association between exposure to suicide and suicidality outcomes in Canadian youth.

Material and methods: The study used baseline information from the National Longitudinal Survey of Children and Youth (NLSCY) between 1998/99 and 2006/07 with follow-up assessments two years later. Participants included all respondents aged 12-17 in Cycles 3-7 (1998/99-2006/07) with measures on suicide exposures (N=7983 ages 12-13; N=7148 ages 14-15; N=5217 ages 16-17).

Results: Exposure to a schoolmate’s suicide was associated with ideation at baseline in

ages 12-13 (OR=5.06; 95%CI: 3.04-8.40), 14-15 (OR=2.93; 95%CI: 2.02-4.24), and 16-17 (OR=2.23; 95%CI: 1.43-3.48); it was further associated with attempts in ages 12-13 (OR=4.57; 95%CI: 2.39-8.71), 14-15 (OR=3.99; 95%CI: 2.46-6.45), and 16-17 (OR=3.22; 95%CI: 1.62-6.41). Personally knowing someone who committed suicide was similarly associated with suicidality outcomes for all age groups (p 's<0.05). Two-year outcomes were assessed for ages 12-15; a schoolmate's suicide predicted suicide attempts in both 12-13 (OR=3.07; 95%CI: 1.05-8.96) and 14-15 year-olds (OR=2.72; 95%CI: 1.47-5.04). Among those who reported a schoolmate's suicide, there was little evidence suggesting that personally knowing the decedent affected the risk of ideation or attempts.

Conclusion: Exposure to suicide is strongly associated with suicidality, across age groups and exposure types. Two-year outcomes suggest the risk period may be longer than previously anticipated. Results generally support school-wide over current targeted interventions, particularly over strategies that suggest targeting interventions toward those closest to the decedent.

School performance and the risk of suicide attempts in young adults: Longitudinal population-based study.

Objective: Poor school performance is associated with attempted suicide, but the mechanisms underlying this association are uncertain. We examined this relationship and the extent to which it is explained by i) adult health behaviours or ii) socioeconomic conditions. Furthermore, we examined the potential modifying role of previous suicidal thoughts in the relationship, hypothesizing that poor school performance may relate to the tendency of acting upon them.

Methods: We conducted a population-based study including 7,816 individuals aged 18-33 years, recruited in 2002 and 2006 in Stockholm, Sweden and resurveyed in 2007 and 2010, respectively. Data were collected by record linkage and questionnaires. We estimated the risk of reporting lifetime suicide attempts at follow up among individuals without a history of suicide attempts at baseline and in relation to compulsory school leaving grades, controlling for possible confounders and mediators.

Results: We found a clear positive gradient in the risk of suicide attempts at follow up with decreasing levels of compulsory school leaving grades. Adult life health behaviors and socioeconomic conditions marginally attenuated, but did not fully explain, the relationship. The gradient varied with baseline history of lifetime suicide thoughts, and was especially striking among individuals without such a history.

Conclusion: Poor school performance appears to predict suicide attempts among young adults, particularly among individuals without a history of suicidal thought. Adult health behaviors and socioeconomic conditions did not explain this relationship. Instead, other factors linked with poor school performance such as increased impulsivity and poor problem-solving ability may increase the tendency of acting on suicidal thoughts

Differences in mental health according to socio-economic level among 18 to 24 year-old French people

Objective: The aim of the present study was to compare mental health according to socio-economic level, defined by occupational status (students/employed/unemployed) and income (social benefits included) in young French adults.

Methods: A cross-sectional study was carried out in 2005 in four French regions (Rhône-Alpes, Lorraine, Haute-Normandie and Ile de France). Phone interviews (including mobile phone) were performed in a randomly selected sample of 20,077 people, from whom 2370 individuals were 18 to 24 years old at the time of survey. In addition to socio-demographic characteristics, data collection was based on CIDI-SF, SF-36, Sheehan disability, and CAGE

0070

Kyriaki Kosidou¹, Christina Dalman¹,
Peeter Fredlund¹, Cecilia Magnusson¹

¹Karolinska Institutet, Division of Public Health Epidemiology Department of Public Health Sciences, Stockholm, Sweden

0151

Emmanuelle Leray¹, Laure Denis¹,
Aymery Constant¹, Viviane Kovess¹

¹EHESP School of Public Health, Epidemiology, Rennes, France

scales, and some questions about positive mental health, social network and mastery. All analyses were gender-stratified and based on weighted data.

Results: In the 1130 men and 1240 women, there were respectively 47.6% and 55.2% of students, 41.1% and 32.7% employed, and 11.3% and 12.1% unemployed people. Most of the prevalence were higher in the unemployed, the difference being significant in men for major depressive episode (13.6% versus 5.6% and 9.8% in students and employed people), specific phobia (9.6% vs 3.1% and 6.6%), post-traumatic stress disorder (6.8% vs 2.4% and 1.8%) and drug addiction (13.6% vs 4.9% and 5.3%), and for alcohol abuse in women (4.2% vs 1.2% and 1.5%). Severe impairment related to those mental disorders was the highest in this group, and they felt the most socially excluded. After adjustment on covariates, the influence of occupational position remained significant.

Discussion: To our knowledge, this study is the first one exploring the influence of socio-economic level, and especially occupational position, on mental health in young French people. Easy access to French university, existence of social benefits for young people are specific characteristics of France which can be specifically studied in this survey as potential determinants of a good mental health in young adults.

0100

Carolin Donath¹, Elmar Gräbel¹,
Dirk Baier², Thomas Hillemacher³

¹Psychiatric University Hospital
Erlangen, Medical Psychology/
Sociology, Erlangen, Germany
²Criminological Research Institute of
Lower Saxony, Hannover, Germany
³Hannover Medical School, Center
for Addiction Research, Hannover,
Germany

The prevalence of suicidal thoughts and attempts in a representative sample of German adolescents

Objectives: Depression is seen by the WHO among the most burdening health impairments in the future. Research shows that psychiatric disorders including depression are rising in the developed countries not only within adults but also among children and adolescents. Suicidal thoughts are seen as one symptom of and a possible hint towards depression. The aim of this study is to describe the prevalence of suicidal thoughts and attempts in a healthy representative sample of German adolescents.

Material and Methods: A representative written survey of N = 44,610 students in the 9th grade of different school types in Germany was carried out. 27.4 % of the adolescents surveyed have a migration background whereby the Turkish culture is the largest group. The mean age of the students was 15.3 years (SD = 0.7). The participants were asked with a 4-category-scale if they had ever had suicidal thoughts and with a dichotomous scale if they had ever seriously attempted to commit suicide.

Results: The majority of the adolescents (60.5 %) did never have suicidal thoughts at the point of the investigation. However 5.2 % report to have such thoughts often and an additional 10.4 % report to have suicidal thoughts occasionally. Serious suicidal attempts were stated by 9.0 % of the questioned 15-year-olds.

Conclusions: The rate of suicidal thoughts and even more attempts seems alarmingly high for a healthy sample of adolescents. It needs to be clarified to which extent those thoughts relate to a clinical relevant depression or to other developmental processes in adolescence.

0060

Perla Werner¹, Dovrat Goldstein¹

¹University of Haifa, Center for
Research and Study of Aging, Haifa,
Israel

Guilt and family stigma in the context of Alzheimer's disease: A mixed methods study

Objective: Guilt was reported as one of the main negative feelings associated with family stigma in several diseases such as mental illnesses and HIV. The objective of this study is to assess the meaning and effect of guilt in the area of family stigma and Alzheimer's disease (AD).

Material and Methods: A mixed methods study was conducted. In the first stage, family caregivers' perceptions of stigma associated with AD were explored using in-depth, semi-structured interviews with 10 adult children caring for their parents with AD. In the second

stage, structured face-to-face interviews were conducted with 185 adult child caregivers (75% female; mean age = 53 years). Relationships with caregiver burden were examined.

Results: Although usually associated with negative connotations, guilt was found to be a positive reaction in the area of AD, not only because of being related to increased concern but also because it was clearly associated with increased positive behaviors such as willingness to augment caregiving involvement. The quantitative study also showed guilt to be prevalent among caregivers of persons with AD. Moreover, it was found to be significantly associated to caregiver burden.

Conclusions: Our findings suggest that, guilt is a central emotion in family stigma in the area of AD. However, its meaning and impact are unique to the disease. The theoretical and practical implications of these findings will be discussed.

Association between public views of mental illness and self-stigma among individuals with mental illness in 14 European countries

Objective(s): Little is known about how the views of the public are related to self-stigma among people with mental health problems. To gain a better understanding of the association between public knowledge, attitudes and behaviours and the internalisation of stigma among people with mental health problems, this study investigated specific factors among the general public and their association with perceived and internalized stigma among individuals with mental health problems.

Material and methods: This study links two large, international datasets to explore the association between public stigma in 14 European countries (Eurobarometer survey) and individual reports of self-stigma, perceived discrimination and empowerment among persons with mental illness (n=1835) residing in those countries (GAMIAN study).

Results and conclusions: Individuals with mental illness living in countries with less stigmatising attitudes, higher rates of help-seeking and treatment utilisation and better perceived access to information had lower rates of self-stigma and perceived discrimination and those living in countries where the public felt more comfortable talking to people with mental illness had less self-stigma and felt more empowered. Targeting the general public through mass anti-stigma interventions may lead to a virtuous cycle by disrupting the negative feedback engendered by public stigma thereby reducing self-stigma among people with mental health problems. A combined approach involving knowledge, attitudes and behaviour is likely needed; mass interventions which facilitate disclosure and positive social contact may be the most effective. Improving availability of information about mental health issues and facilitating access to care and help-seeking also show promise with regard to stigma.

Perceived discrimination, stigma stress and self-concept as 'mentally ill' among young people at high risk for psychosis

Objective: Early intervention in people at-risk for psychosis and social stressors during the development of psychosis (social defeat hypothesis) are a focus of current research. We know little about how young people at high risk for psychosis who are in the transition from being 'normal' to, potentially, having a serious mental illness perceive and react to mental illness stigma. Our aim was to examine (i) a stress-coping model of mental illness stigma, including the cognitive appraisal of stigma as a stressor, among persons at risk for psychosis; and (ii) how perceptions of and reactions to stigma change during at-risk stages of psychotic disorders over one year.

Methods: We recruited 190 persons at high-risk or ultra-high-risk states for schizophrenia or bipolar disorder (assessed by the Schizophrenia Proneness Instrument, the Structured

0075

Sara Falk¹, Elaine Brohan²,
Ramin Mojtabei³, Graham Thornicroft¹

¹Institute of Psychiatry, King's College London, Health Service and Population Research Department, London, United Kingdom

²University College London, London, United Kingdom

³Johns Hopkins Bloomberg School of Public Health, Baltimore, United States

0059

Nicolas Rüschi¹, Karsten Heekeren¹,
Ana Theodoridou¹, Wulf Rössler¹

¹Psychiatric University Hospital Zürich, Department of General and Social Psychiatry, Zurich, Switzerland

Interview for Psychotic Symptoms and the Hypomania Checklist) in the Zürich early recognition and intervention programme (zinep.ch). Psychopathology, quality of life and self-esteem were measured by self-report. At baseline and after one year, we assessed the level of perceived stigma, social distance to others with a mental illness, stigma as a stressor and the perception of people with mental illness as a group (group value, group identification) and the self-concept as being mentally 'healthy' or 'ill'.

Results: We report findings on stigma as a stressor, including predictors of stigma stress as well as its consequences such as poor quality of life, controlling for psychopathology. We also describe changes in perceptions of and reactions to stigma across one year.

Conclusions: Our findings contribute to the current discussion about the role of labeling and diagnoses and their potential positive (early treatment and help-seeking, shared-decision making) versus negative (public and self-stigma) consequences in the context of high-risk states and early intervention for psychosis.

0111

Elise Pattyn¹, Piet Bracke¹

¹Ghent University, Sociology, Gent, Belgium

Treatment recommendations for mental illness: The paradox of mental health literacy

Question: The 'mental illness is an illness like any other' approach has the aim to improve the mental health literacy of the lay public by promoting a biomedical model of mental illness. The research question is what the consequences are of adhering to a biomedical model. Some research suggested that this resulted in more adequate treatment recommendations, while other research warned that this resulted in more stigmatizing attitudes. Therefore, this paper will study this paradox by considering both the advantages and pitfalls of the biomedical model.

Methods: The data are based on the survey 'Stigma in a Global context- Belgian Mental Health Study', which carried out face-to-face interviews among a representative sample of the Belgian population (N=714). Two vignettes of major depression and schizophrenia were studied. Mental health literacy refers to labeling processes and causal attributions. Help-seeking refers to spontaneous recommendations to consult either a general practitioner, a psychiatrist, psychologist, family, friends or self-care options (multiple options could be mentioned). Stigma refers to social exclusion after treatment. The data are analyzed by means of logistic and linear regression models in SPSS Statistics 19.

Results: People who consider the situation as a disease are more likely to recommend help from a psychiatrist and those who attribute the situation to biological factors are more inclined to recommend help from a general practitioner. Whereas applying lay diagnoses are linked to recommending self-care and attributing the situation to psychosocial stressors is associated with recommending lay care. Concerning stigma, it appears that perceiving the situation as a disease and applying accurate diagnostic labels is related to more social exclusion after treatment.

Conclusions: Adhering to the biomedical model of mental illness has both beneficial and detrimental consequences; it is a package deal.

0058

Georg Schomerus¹,
Herbert Matschinger²,
Matthias Angermeyer³

¹University Medicine Greifswald, Psychiatry, Stralsund, Germany
²University, ISAP, Leipzig, Germany
³Center for Public Mental Health, Gösing am Wagram, Germany

Belief in a symptom continuum and the stigma of mental illness. Results from a representative population study

Background: Alienation is a central step in the process of stigmatizing persons with mental disorders. We examine whether belief in a continuum of symptoms from mental health to mental illness is associated with less stigmatizing attitudes.

Methods: Representative population survey in Germany (n=3642), using case-vignettes of persons suffering from schizophrenia, depression or alcohol-dependence. We measured

belief in a continuity of symptoms, emotional reactions and desire for social distance related to the person described in the vignette.

Results: While 42% of respondents agreed in symptom continuity for depression, this percentage was 26% for schizophrenia and 27% for alcohol dependence. Continuum beliefs were associated with more pro-social emotional reactions and less desire for social distance. This relationship was strongest for schizophrenia, followed by alcohol dependence.

Conclusion: Continuum beliefs are associated with less stigmatizing attitudes, particularly regarding schizophrenia and alcohol dependence. Educational information on the continuous nature of most psychopathological phenomena could usefully be integrated in anti-stigma messages.

Counteracting internalized stigma: Efficacy of day clinic treatment for people with schizophrenia

Background: The stigma of mental illness is a complicating feature of psychiatric treatment, especially in schizophrenia. A detrimental consequence is internalized stigma, i.e. the inner subjective experience of stigma resulting from applying negative stereotypes and stigmatizing attitudes to oneself, which considerably hinders the recovery process. The empowerment and recovery oriented program of the day clinic might contribute to a reduction in internalized stigma. However, until now the influence of the day clinic treatment on internalized stigma has not been studied.

Methods: Data from two groups of patients had been collected twice, at baseline and after five weeks. The experimental group attended the day clinic treatment (N=40) and the control group waited for the day clinic treatment (N=40). Assessments of demographic and clinical variables, internalized stigma (ISMI), quality of life (WHOQOL-BREV) and psychopathology (PANSS) were conducted. T-test and general linear model were used to analyze longitudinal data.

Results: The following significant differences between the two groups were found: Patients in day clinic treatment showed a reduction in internalized stigma while the control group showed a minimal increase (within-group Cohen d, 0.356 vs. -0.128, respectively; between-group d=0.446). The experimental group as compared with the control group also showed a greater improvement in psychological quality of life (within-group Cohen d, -0.754 vs. -0.058, respectively; between-group d=0.6) and psychopathology (within-group Cohen d, 0.715 vs. 0.146, respectively; between-group d=0.452).

Conclusion: Results are encouraging but have to be confirmed in a randomized design.

Objective and subjective assessment of sleep in a middle- and old-aged population: Preliminary results from the Leipzig Research Center for Civilization Diseases (LIFE)

Question: The impact of sleep on health and well-being is still not fully understood. Results from epidemiological studies indicate that the average sleep duration has decreased over the last decades and in parallel to this, an increase in fatigue and daytime sleepiness has been found. This is of high relevance, due to the fact that a short sleep duration and chronic sleep deprivation are associated with various health risks and increased mortality and morbidity of cardiovascular and metabolic disorders. Furthermore, sleep disorders constitute a main risk for the development of mental disorders, e.g. depression where insomnia is not only a typical symptom of the disorder, but seem to be a major predictor for the development or recurrence of a depressive episode. Explanations for this association involve a broad range of adverse physiological consequences impacting especially the

0010

Ingrid Sibitz^{1,2}, Katarina Provaznikova¹, Madeleine Lipp¹, Richard Lakeman³, Michaela Amering^{1,2}

¹Medical University of Vienna, Department of Psychiatry and Psychotherapy, Vienna, Austria ²Ludwig Boltzmann Institute for Social Psychiatry, Vienna, Austria

³Southern Cross University, School of Health and Human Sciences, NSW, Australia

0366

Christian Sander^{1,2}, Silke Zachariae^{2,3}, Ronald Mergl^{1,2}, Markus Löffler^{2,3}, Peter Schönknecht^{1,2}, Ulrich Hegerl^{1,2}

¹University Hospital Leipzig, Psychiatry, Leipzig, Germany

²University of Leipzig, Leipzig Research Center for Civilization Diseases (LIFE), Leipzig, Germany

³University of Leipzig, Institute for Medical Informatics, Statistics and Epidemiology (IMISE), Leipzig, Germany

immune system. On the other hand, prolonged habitual sleep duration seems to be an even stronger predictor for negative health outcomes. There is no explanation for this connection from experimental studies, but longer sleep duration is associated with several psychosocial factors (e.g. lower socioeconomic status or social isolation) which are themselves associated with increased mortality.

Methods: At the Leipzig Research Center for Civilization Diseases (LIFE), funded by means of the European Union, by the European Regional Development Fund (ERFD) and by means of the Free State of Saxony within the framework of the excellence initiative, we are currently performing an epidemiological study aiming at the inclusion of 10.000 middle- und old-aged subjects (40-79 years). Sleep is assessed subjectively using questionnaires (PSQI, D-MEQ and ESS). Additionally, a subgroup of LIFE-subjects wears an actigraphic device (SenseWear Pro 3) for one week, allowing an objective assessment of their sleep habits.

Results: Preliminary results from the LIFE-study will be presented in the talk and will be compared with results from other epidemiological studies.

Conclusion: Due to the interrelation of sleep patterns and various disorders, a better understanding of sleep seems to be necessary for improving the mental and physical health in the general population.

0355

Stefan Kreisel¹, Michael Guhra¹,
Ewa Cieplinska-Legge¹,
Christine Thomas¹

¹Evangelisches Krankenhaus Bielefeld,
Department of Psychiatry and
Psychotherapy, Bielefeld, Germany

Prevalence on admission and incidence during the course of hospital stay: Delirium in the elderly in a German general hospital - Estimation using random survey sampling

Questions: The occurrence of delirium in medical in-patients has been noted to lie anywhere between 11 and 42%, whereas true newly incident cases during the course of the stay range from 3 to 29% - depending on the study setting. The large range of prediction is partly explained by divergent classification systems. However, there may also be ascertainment bias as most studies establish cohorts via convenience sampling. We set out to measure prevalence and incidence of delirium in the elderly in a general hospital setting more accurately by using random survey sampling methodology.

Methods: Over a period of five months., approx. 10% of all admitted patients aged 70 and older - excluding those with critical illness necessitating treatment on ICU or equivalent wards - were screened by a dedicated "delirium" nurse on the day of admission and on further two visits in the first week in-hospital. The Confusion Assessment Method (CAM) was used as the screening instrument, diagnosis was validated by geriatric psychiatrists using both DSM-IV and ICD-10 criteria. Patients were selected randomly, stratified proportionally per hospital department/specialty.

Results: Delirium prevalence according to DSM-IV criteria was 13.25% (95%CI 9.14-17.36); ICD-10 prevalence was much lower: 5.00%, 95%CI 2.33-7.68. Incident delirium was rare, occurring only in 2.5% of patients within one week of admission.

Discussion: Prevalence is somewhat and incidence is much lower than previously reported, acknowledging the fact that critically ill patients were excluded a priori. These results may be due to the more „conservative“ sampling scheme, highlighting the fact that convenience sampling may at times lead to overestimation of disease occurrence.

0195

Peter Schoenknecht¹,
Nadine Sonnabend¹, Roland Mergl¹,
Christian Sander¹

¹UKL, Psychiatry, Leipzig, Germany

Prevalence of minor depression in elderly persons with and without mild cognitive impairment

The co-existence of minor depression and mild cognitive impairment (MCI) is common in the elderly. Aim of the present paper is to demonstrate prevalence rates of minor depression in older patients with and without MCI as reported in the literature. Findings will be compared with preliminary data of the ongoing LIFE study. We searched through the

electronic databases Medline and Psycinfo by the following keywords: minor depression, mild cognitive impairment and MCI in combination with elderly and late life. We extracted all data from studies based on clinical interviews according to DSM. Point prevalence for minor depression is higher in medical settings (median 15.5%) than in the community (median 4.6%). There is still debate if prevalence of minor depression differs according to age and sex, but prevalence seems to increase progressively with worsening of cognitive impairment. Risk factors associated with minor depression were presence of loneliness, long-term institutional care, poor physical health, poor ability to walk, poor functional abilities, worse life quality or lower life satisfaction. Minor depression in elderly persons with MCI, however, is rarely investigated. Prevalence rate was 26.5%.

Conclusion: Minor depression is frequent in the elderly population, but due to methodological limitations, MCI among those subjects has not been sufficiently investigated. Future studies based on clinical structured interviews should be performed in a longitudinal design in order to differentiate late-life depression from progressive MCI or early manifestation of AD.

Dementia care manager: Striking a new path in ambulant dementia care with DelpHi-MV, a GP-based randomised controlled intervention trial

Objectives: Increasing incidence and prevalence of dementia is a major challenge for the German health care system. This study aims to implement and evaluate an innovative subsidiary support system for persons with dementia (PwD) living at home. Main objectives of the intervention are (1) to improve quality of life and health care of the PwD and (2) to reduce caregiver burden. Purpose of this presentation is to describe the DelpHi-Intervention and to present first results on its feasibility.

Methods: DelpHi-MV (Dementia:life and person centered help in MV) is a GP-based cluster-randomised controlled intervention trial. The intervention is conducted by Dementia Care Managers (DCM) - nurses with dementia-specific training - at the people's homes.

The DelpHi-Intervention is based on German guidelines for evidence-based diagnostic and treatment of dementia and therefore defines 8 action fields to be addressed to optimise care for PwD. Each action field includes several foci, each focus comprises specific intervention modules. There are more than 100 different modules defined.

A comprehensive assessment of the care situation, individual resources and needs of the PwD as well as their caregiver is conducted. Predefined algorithms use these information as triggers for specific intervention tasks. A list with recommended intervention tasks is generated and discussed in an interdisciplinary case conference. Results are summarized in a GP information letter and then discussed between GP and DCM. Completion of each task is monitored by the DCM during intervention visits and at follow-up assessment.

Results: Since onset of the study in December 2011 N=217 subjects were included (intervention group: n=143 (66%)). The DCM conducted n=855 home visits. The application of intervention moduls vary in frequency, the presentation will present different cases.

Conclusions: Intervention as planned in the DelpHi-MV study is feasible, but requires a considerable degree of complexity.

0283

Jochen René Thyrian¹, Tilly Eichler¹,
Adina Dreier², Wolfgang Hoffmann^{1,2}
¹Deutsches Zentrum für
Neurodegenerative Erkrankungen e.V.
(DZNE), Standort Rostock/Greifswald,
Germany

²Institut für Community Medicine,
Abteilung Versorgungsepidemiologie
und Community Health, Greifswald,
Germany

0038

Janine Stein¹, Melanie Luppa¹,
Wolfgang Maier², Hendrik van
den Bussche³, Martin Scherer³,
Birgitt Wiese⁴, Steffi G. Riedel-Heller¹

¹University of Leipzig, Faculty of
Medicine, Institute of Social Medicine,
Occupational Health and Public Health,
Leipzig, Germany

²University of Bonn, Department of
Psychiatry, Bonn, Germany

³University Medical Center Hamburg-
Eppendorf, Institute of Primary Medical
Care, Hamburg, Germany

⁴Hannover Medical School, Institute for
Biometrics, Hannover, Germany

The assessment of changes in cognitive functioning: Age-, education-, and gender-specific reliable change indices (RCIs) for older adults tested on the MMSE, SIDAM and CERAD-NP battery. Results of the German Study on Ageing, Cognition and Dementia in Primary Care Patients (AgeCoDe)

Objectives: The diagnosis of dementia requires reliable evidence about decline in cognitive functioning over time. Neuropsychological instruments are often used to measure cognitive functioning in the elderly. Normative data for changes in cognitive function that normally occur in cognitively healthy individuals is crucial to interpret changes in test scores of neuropsychological instruments.

Material and Methods: As part of the German Study on Ageing, Cognition and Dementia in Primary Care Patients (AgeCoDe Study), a sample of cognitively healthy individuals, aged 75 years and older, was assessed at 1.5 year intervals over a period of 4.5 years using the Mini-Mental State Examination (MMSE), the Structured Interview for the Diagnosis of Dementia of the Alzheimer Type, Multi-infarct Dementia and Dementia of other Etiology according to DSM-III-R, DSM-IV and ICD-10 (SIDAM) and selected subtests of the CERAD-NP battery. Age-, education-, and gender-specific Reliable Change Indices (RCIs) were computed for a 90% confidence interval.

Results: Across different age and education subgroups, changes from at least 2 to 3 points in MMSE test scores and at least 3 to 5 points in SIDAM test scores indicated significant (i.e. reliable) changes. Across different age, education and gender subgroups, changes from at least 6 to 9 points in Verbal Fluency, 4 to 8 points in Word List Memory, 2 to 4 points in Word List Recall and 1 to 4 points in Word List Recognition indicated significant (i.e. reliable) changes in CERAD-NP test scores.

Conclusions: Smaller changes in test scores can be interpreted only with high uncertainty because of probable measurement error, practice effects and normal age-related cognitive decline. This study provides age-, education-, and gender-specific normative data for the interpretation of cognitive changes in older age groups.

0449

Johan Nilsson¹, Svante Östling¹,
Margda Waern¹, Ingmar Skoog¹

¹University of Gothenburg, Department
of Psychiatry and Neurochemistry,
Gothenburg, Sweden

Age-dependant variations of generalized anxiety disorder (GAD): A study of 70-75-79-85 year-olds from Gothenburg, Sweden

Objective: To examine the one-month prevalence of generalized anxiety disorder (GAD) according to DSM-IV, DSM-V and ICD-10. The population sample was examined at the ages of 70, 75, and 79.

Method: During 2000-2009, a comprehensive semi-structured psychiatric interview was conducted by trained nurses in a representative population sample of people born 1930 without dementia in Gothenburg, Sweden (N=1046; 414 men, 632 women). In 2005-2006 the sample was expanded to include additional cases. GAD was diagnosed according to ICD-10 and DSM-IV/V, and dementia according to DSM-IV.

Results: The one-month prevalence of GAD in 2000 was 3.6% (N=20) according to DSM-IV, 5.2% (N=29) according to DSM-V and 2.8% (N=16) according to ICD-10. The one-month prevalence of GAD in 2005 was 4.1% (N=32) according to DSM-IV, 4.5% (N=35) according to DSM-V and 3.7% (N=29) according to ICD-10. The one-month prevalence of GAD in 2009 was 4.6% (N=28) according to DSM-IV, 6.3% (N=38) according to DSM-V and 1.3% (N=8) according to ICD-10. There was a moderate correlation between DSM-IV/V and ICD-10 at examinations in 2000 and 2005 (2000, Somers'd=0.427, p=0.005; 2005, Somers'd=0.471, p<0.001) and a low correlation in 2009 (2009, Somers'd=0.152, p=0.107)

Conclusions: While GAD was common in all ages, DSM-IV/V and ICD-10 consistently captured different individuals, our results indicated that this discrepancy could increase with

age. Current definitions of GAD may comprise two different expressions of the disease, and also raises the question of the need for age-adjusted diagnostic criteria.

A new generation of psychiatric case register

The 'case register' has traditionally been used in Psychiatry as a resource for studies of disorder outcomes, providing complementary data to randomised controlled trials on 'real world' levels of response to interventions and predictors of response. However, traditional registers required large amounts of effort from busy clinical teams for their maintenance, inevitably limiting their longevity. Electronic medical records systems are increasingly being developed and applied in routine health care, both primary and secondary, offering substantial volumes of potentially highly informative data. The Clinical Record Interactive Search (CRIS) application was developed at the SLAM NIHR Biomedical Research Centre for Mental Health, in order to provide a means for researchers to access de-identified copies of records from a large mental health care provider in south London. Over 200,000 cases are currently represented on the system and a considerable amount of information has been added or developed through external data linkages and information extraction applications to derive structured data from free text fields. The system and its development will be described, leading on to a consideration of the future of the case register.

0456

Robert Stewart¹¹King's College, London, United Kingdom

Improving mental health outcomes at a population level: A global e-mental health service

Online self-help programs have emerged as one of the most promising developments in the field of mental health service delivery in recent times. Not only do such programs provide a means of delivering services with high fidelity, they offer the opportunity to implement programs for prevention, treatment and recovery en-masse. For the first time, there is a real possibility of delivering interventions that improve mental health outcomes at a population level.

There is now evidence demonstrating the efficacy of e-mental health online programs. However, few of the evaluated programs are publically accessible at no cost to the public. Further, most trials of e-mental health interventions have been conducted in restricted settings and have been confined to treatment interventions. Clearly, if e-mental health programs are to be translated into practice, there is a need to undertake effectiveness trials in 'real-life' contexts.

The current paper describes the results of a series of intervention studies of the effectiveness of the programs (MoodGYM, BluePages, BlueBoard, e-couch) provided by the publically accessible, global e-hub self help mental health service. Findings are reported for diverse settings ranging from schools to the UK NHS Choices portal, for prevention as well as treatment contexts, for guided as well as unguided delivery and for a range of countries.

The e-hub service is funded by the Australian federal government. The challenge for the future is to develop funding models that transcend national boundaries and support the global provision of evidence-based self-help e-mental health services.

0404

Kathleen Griffiths¹¹The Australian National University, Centre for Mental Health Research, Canberra, Australia

Emotional and behavioral problems across adolescence: Comparing prospective cohort data and retrospective CIDI-DSM-IV diagnoses. The TRAILS study

Background: Most adult mental disorders have origins in childhood and adolescence. Hence, population-based data on their development in adolescence are important, amongst others, for policy makers.

0154

Johan Ormel¹, Tineke Oldehinkel¹¹UMCG, Psychiatry, Groningen, Netherlands

Objective: To determine the development of internalizing and externalizing psychopathology during adolescence, using both prospective data on the presence of emotional and behavioral problems and retrospective data on the incidence of DSM-IV defined mental disorders.

Methods: Population-based prospective cohort study which follows 2230 children from preadolescence into adulthood with bi-annual dimensional measures of psychopathology (Achenbach's ASEBA measures). At age 19, we also administered the CIDI, a structured lifetime diagnostic interview.

Results: Across adolescence, girls scored higher on internalizing problems and boys on externalizing problems. In boys, anxiety and depressive problems decreased in early adolescence (age 11-14), remained stable in middle adolescence (age 14-16) and increased slightly in late adolescence (age 17-20). In girls, anxiety and depressive problems increased slowly till age 16 after which they began to decrease somewhat. Externalizing problems increased during adolescence until age 15-16; thereafter they steadily decreased for both girls and boys. Total problem scores remained stable until mid-adolescence and then slightly dropped. However, the retrospective CIDI data tell a different story. Most first-ever onsets of major depression, generalized anxiety disorder and substance dependence occurred in late adolescence (16+).

Conclusion: Developmental trajectories show already substantial levels of emotional and behavioral problems at the beginning of adolescence. Therefore, the increase in the incidence of mental disorders during late adolescence as assessed with clinical interviews is partially misleading. Causes of the discrepancy will be discussed.

0448

Andrew Cheng¹¹Institute of Biomedical Sciences, Academia Sinica, Taipei, Taiwan

Changing trends in the prevalence of common mental disorders in Taiwan: a 20-year repeated cross-sectional survey

This study analyzed data from 9,079 respondents recruited in five independent cross-sectional national surveys in Taiwan carried out in 1990-2010, using the Chinese Health Questionnaire (CHQ) to screen Common mental disorders (CMDs). Trends in CMDs were compared with trends in national levels of unemployment, divorce, and suicide rates. The prevalence of CMDs doubled from 11.5% in 1990 to 23.8% in 2010 ($p[\text{trend}] < 0.001$). This increase paralleled rises in national rates of unemployment, divorce, and suicide across the five waves. In multivariable regression model, significant risk factors of probable CMDs were being female (adjusted odds ratio [OR] 1.6, 95% CI 1.4-1.8), ≤ 6 years education (adjusted OR 1.3, 95% CI 1.1-1.5), unemployment (adjusted OR 1.4, 95% CI 1.1-1.7), and being in poor physical health with limitations in daily activities (adjusted OR 6.5, 95% CI 5.4-8.0). Controlling for these factors in multivariable models did not reduce the secular rise in prevalence of probable CMDs ($p[\text{trend}] < 0.0001$). Deterioration in a number of indicators of social wellbeing have paralleled rises in probable CMDs and suicide rates in Taiwan indicating the potential importance of clinical and social preventive measures to offset rises in depression and suicide during times of economic adversity.

0417

Matt Hickman¹, Jon Heron¹,
Barbara Maughan¹, Danielle M. Dick¹,
Kenneth S. Kendler¹, Glyn Lewis¹,
John Macleod¹, Marcus Munafò¹

¹University of Bristol, Bristol, United Kingdom

Conduct problem trajectories and alcohol use and misuse in mid to late adolescence: ALSPAC

Aims: To test the utility of a developmental model of conduct problems in predicting alcohol use in adolescents.

Design: Birth cohort
Setting: England.

Participants: Approximately 5,600 adolescents from the Avon Longitudinal Study of Parents and Children.

Measurements: Trajectories of conduct problems derived from repeated measures spanning 4 to 13 years were related to (i) patterns of alcohol use from 13 to 15 years, and (ii) hazardous alcohol used at age 16.

Findings: Boys with 'Adolescent Onset' or 'Early Onset Persistent' conduct problems were much more likely to be high frequency drinkers between 13 and 15 years (OR 5.00 95% CI=[2.4, 10.6] and 3.9 95%CI=[2.1, 7.3] respectively) compared with those with Low or 'Childhood Limited' conduct. Adolescent Onset/Early Onset Persistent girls also had greater odds of this high-alcohol frequency drinking pattern (2.67 [1.4, 5.0] and 2.14 [1.2, 4.0] respectively). Associations were more moderate when examining the risk of hazardous alcohol use at age 16. Compared to 32% among those with low conduct problems, over 40% of young people classified as showing Adolescent Onset/Early Onset Persistent conduct problems were drinking hazardously (OR 1.52 [1.09, 2.11] and 1.63 [1.22, 2.18] respectively).

Conclusions: Whilst persistent conduct problems greatly increase the risk of adolescent alcohol problems, the majority of adolescents reporting hazardous use at age 16 lack a history of conduct problems. It is important, therefore, to undertake alcohol prevention among all young people as a priority, as well as target people with manifest conduct problems.

The natural history of binge drinking from adolescence to young adulthood

Background: Binge drinking in adolescence has become common in many countries over recent decades. We know little about its course.

Methods: A 15-year prospective cohort study in Victoria, Australia using a stratified, random sample of 1943 adolescents recruited from secondary schools at age 14-15 years. Levels of past-week "binge" (5+ drinks containing 10g alcohol) and "extreme binge" (20+ drinks for males, 11+ for females) alcohol use were assessed during six adolescent waves, and across three adult waves up to the age of 29 years.

Findings: Half of males (51.5%) and a 33.9% of females reported past-week binge drinking in adolescence. Most adolescent-onset binge drinkers (nine in ten male and seven in ten female adolescent-onset binge drinkers) continued to binge drink in young adulthood. 70% of males and 48% of females who were not adolescent-onset binge drinkers also reported binge drinking in young adulthood. "Extreme binge drinking", which was reported by 19.3% of males and 15.3% females in adolescence, increased substantially in the young adult waves (38% males, 27.4% females). Among adolescent binge drinkers (n=821), factors predicting young adult binge and extreme binge drinking were: being male, adolescent antisocial behaviour, and adverse consequences of drinking in adolescence (intense drinking, physical harm, and sexual risk taking related to alcohol consumption). Extreme bingeing in young adulthood was also predicted by weekly/daily cannabis use in adolescence; early onset sexual behaviour, and adolescent alcohol-related social problems.

Interpretation: Binge alcohol use is highly prevalent and extreme binge drinking common in young adulthood. Binge use in adolescence that continues into adulthood is added to by incident binge use among those who avoided binge use in adolescence. Given the acute health risks of bingeing and possible longer term adverse health impacts (e.g. dependence, liver disease), effective prevention in adolescents and young adulthood is a public health imperative.

0413

Louisa Degenhardt¹,
Christina O'Loughlin¹, Wendy Swift¹,
Helena Romaniuk¹, Carolyn Coffey¹,
Wayne Hall¹, George Patton¹

¹University of Melbourne, National
Drug and Alcohol Research Centre,
Melbourne, Australia

0414

Wendy Swift¹, Tim Slade¹,
Louisa Degenhardt¹, George Patton¹
¹University of NSW, National Drug
and Alcohol Research Centre, Sydney,
Australia

Adolescent predictors of alcohol use disorders in young adults

Objectives: We know little about longitudinal patterns of alcohol use and alcohol use disorders in young adults. While DSM-IV alcohol use disorder is a dichotomous diagnosis, it can be underpinned by multiple combinations of symptom patterns and drinking experiences. We aim to extend the scant literature on this issue with a 10-year follow-up of a representative cohort of 1943 young Australians followed from 14 years, by: (i) characterising the heterogeneous experience of alcohol use disorder symptoms in young adults, and (ii) examining if there are unique adolescent predictors of young adult alcohol use disorder.

Materials and Methods: DSM-IV alcohol use disorder (abuse and dependence) was assessed at 24 years among participants reporting at least weekly drinking, or consuming multiple drinks per drinking day, in the past year. Participants meeting an alcohol dependence diagnosis were coded negative on alcohol abuse. Using existing literature, latent class analysis (LCA) will be used to characterise the sample's patterns of alcohol use disorder. Appropriate regression techniques will be used to examine adolescent predictors of class membership according to whether LCA gives ordered categories of severity (e.g., ordinal logistic regression) or there appear to be qualitatively different categories of class membership. Adolescent predictors of subtypes will include: adolescent alcohol use patterns and problems, antisocial behaviour, personality, mental health and other drug use.

Results: Preliminary analyses indicate that 7% of participants met diagnostic criteria for alcohol abuse and 12% alcohol dependence at 24 years. The majority of participants endorsed only one abuse criteria, typically recurrent alcohol use in hazardous situations (7.1%) and failure to fulfil major role obligations due to alcohol use (6.5%). The most commonly endorsed dependence criteria were: using more than intended or for longer than intended (41.4%), tolerance (21.6%) and persistent to desire to quit/failed quit attempts (18%).

Conclusions: These data will provide important information regarding the patterns and experiences of alcohol use disorder in the age group in which alcohol use is most prevalent. A better understanding of predictors of disorder subtypes will help inform prevention and intervention strategies.

0317

Jonathan Evans¹, Alan Stein¹,
Catherine Quarini¹, Rebecca Pearson¹,
Paul Ramchandani¹, Glyn Lewis¹

¹University Of Bristol, Centre for Mental
Health Addiction and Suicide Research,
Bristol, United Kingdom

Pathways from antenatal and postnatal depression to adolescent depression: Differential moderation by offspring gender

Background: Observational epidemiological studies indicate that antenatal and postnatal depression have independent effects on child outcomes. However the strength of the relationship between antenatal and postnatal depression makes it difficult to disentangle the separate effect of each. Antenatal depression is thought to lead to disturbances of the HPA axis with consequences for foetal programming. We hypothesised that if this were the case the gender of the foetus might influence the vulnerability to maternal antenatal depression. Animal studies have shown that female foetuses are more vulnerable to the effects of prenatal stress and more corticosterone crosses from the maternal bloodstream to the placenta of female foetuses compared to male foetuses.

We set out to test this using data from ALSPAC, a large longitudinal study, by examining the effect of perinatal depression on the future risk of adolescent depression some 18 years later.

Method: Data on depression status was available for 3421 children aged 18 and their mothers. Maternal depression was measured using the Edinburgh Postnatal Depression Scale (EPDS). Adolescent depression at age 18 was measured using the Clinical Interview Schedule Revised (CIS-R).

Results: Using logistic regression, we analysed the association between antenatal depression

and child depression at age 18; there was a significant interaction with gender whereby the effect of antenatal depression was restricted to girls (odds ratio 1.67, 95% CI 1.07 to 2.59, $p = 0.02$), and of postnatal depression to boys (odds ratio 2.54, 95% CI 1.22 to 5.30, $p = 0.01$).

Conclusions: Differential moderation by gender according to the timing of depression, suggests that there are different pathways from antenatal depression, than there are from postnatal depression, to future depression risk. The effect of antenatal depression cannot be solely attributed to autocorrelation of adjacent depression measures overtime. This finding that vulnerability to the effects of antenatal depression is restricted to girls, the opposite from that found postnatally, provides indirect support for the hypothesis that maternal to fetal cortisol transfer is responsible for the increased future risk of depression in those exposed to depression whilst in utero.

Pathways to adulthood and substance use: Evidence from the national longitudinal study of adolescent health

Objective: Although associations between adult roles (e.g., parenthood) and substance use have been studied, little is known about how roles combine to form pathways, and how these pathways are associated with substance use. This paper (1) describes transition patterns to adulthood (involving timing of schooling, employment, marriage, and parenthood) in a recent American panel study and (2) then examines relationships between these transition patterns and substance use patterns.

Material and Methods: Data come from four waves of the National Longitudinal Study of Adolescent Health, extending from early adolescence to age 30. Latent class analysis identified pathways to adulthood for males and females. Appropriate regression models then examined associations between these pathways and use of alcohol, tobacco, marijuana, cocaine, and "hard drugs" such as crystal meth, controlling these variables and sociodemographic factors in adolescence. The reference category for these models comprises youth who did not attend college and began full-time employment immediately after high school ("Workers").

Results & Conclusions: Preliminary results suggest that, for males and females, college attendance increases alcohol use at age 30; for females, work with family formation decreases alcohol use. For males, work with family and college with family decreases marijuana use; for females, college with family decreases marijuana use. For males, work with family and college with family decreases cocaine use. Thus, family formation tends to be protective for workers and college graduates. Although college is associated with better health, it also strongly increases the likelihood of substance use. As the population becomes better educated and less likely to marry and have children, an increasingly large segment may be at increased risk for substance use. Analyses will next examine problematic use of these substances and examine possible explanatory mechanisms.

The longitudinal course of mental health of children and adolescents with and without mental illness pre and post the Chilean earthquake and tsunami

Background: Only a small number of studies have examined the longitudinal course of mental health following a disaster. Studies examining child and adolescent mental health are rare. The 2010 Earthquake and Tsunami that impacted Chile, reportedly the sixth strongest earthquake in the world recorded since 1900, offered an opportunity to examine the longitudinal course of psychopathology in population studied prior to the disaster.

Method: A representative community sample of 354 children (age 4-11) and adolescents (age 12-18) from the province of Concepción near the epicenter of the earthquake had

0158

Michael Shanahan¹, Jason Freeman¹, Shawn Bauldry¹, Richard Miech²

¹University of North Carolina, Chapel Hill, Sociology, Chapel Hill, United States

²University of Colorado-Denver, Denver, Colorado, United States

0198

Robert Kohn¹, Benjamin Vicente¹, Sandra Saldivia¹

¹Universidad de Concepcion, Psychiatry, Concepcion, Chile

participated in the national child mental health survey two months prior to the disaster and were reassessed one year later ($n = 320$). The Spanish computer version of the Diagnostic Interview Schedule for Children (DISC-V) was administered both pre- and post-disaster to obtain a DSM-IV diagnoses including affective, anxiety, substance use, and behavioral disorders. In addition, data about the subjects' family functioning, socio-demographics, social economic status, changes in family structure, the presence of family psychiatric history, physical health problems, and history of physical and sexual abuse were obtained. The post-disaster interview included information on exposure and impact of the disaster.

Results: Prior to the earthquake and tsunami 27.5% of the children and adolescents in Concepción had a DSM-IV disorder, and 13.8% when impairment was accounted for. One-year post disaster 24.0% of the children and adolescents had a mental illness, and 15.8% with impairment. Only 2% had disaster related PTSD. Using paired analysis, McNemar's Test, there was a statistically significant reduction in the number of individuals with sub-threshold disorders one-year after the disaster. Those individuals who had a DSM-IV diagnosis prior to the natural disaster, a sizable percentage had remission one-year later, 45.9%. One-year incidence cases were 12.6% among those without disorder prior to the disaster.

Conclusions: These findings will be discussed in context of other child mental health surveys following natural disasters. Resiliency and earthquake preparedness may have been factors in the low rate of mental illness post-disaster.

0392

Kathleen Merikangas¹, Femke Lamers¹

¹National Institute of Mental Health,
Genetic Epidemiology Research Branch,
Bethesda, MD, United States

Comorbidity and familial aggregation of mood disorders and comorbid vascular diseases in the National Institute of Mental Health Family Study of Comorbidity Affective Spectrum Disorders

The goal of this presentation is to examine the association between mood disorder subtypes and vascular diseases and biomarkers in a community based family study. The NIMH Family Study of Comorbidity of Affective Spectrum Disorders is a non-clinical family study of probands with a range of mood disorders and controls. There are a total of 500 probands and more than 1000 interviewed relatives. Aside from comprehensive diagnostic interviews, probands and relatives underwent complete physical and neurological examinations, collection of laboratory biomarkers, autonomic nervous system testing, psychophysiological studies, and holter monitoring for 24 hours. The paper will examine the associations between cardiovascular diseases and biomarkers with mood disorder subtypes within individuals and their co-aggregation in adult relatives. The preliminary analyses of the laboratory findings demonstrate that probands with mood disorders have higher levels of CRP, triglycerides, and other biomarkers of cardiovascular disease than control probands. The application of the family study approach to identify possible explanations for comorbidity of mood disorders and vascular disorders will be described.

0088

Brenda Penninx¹

¹VU University Medical Center,
Psychiatry, Amsterdam, Netherlands

Depression and cardiovascular disease: Insights into the roles of underlying mechanisms and depression symptom profiles

Question: Depressive disorders have shown to increase the incidence of CVD with a factor two. Within the Netherlands Study of Depression and Anxiety (NESDA) we examined to what extent dysregulations of the HPA-axis, immune, metabolic and autonomic nervous systems could play a role in this link by examining their associations with depression status and depression symptom profiles.

Methods: Data are from 2981 participants (aged 18-65 years, 66% female), including 1701 persons with a current depressive disorder, 627 persons with a remitted depressive disorder and 652 healthy controls.

Results: Depressed participants - especially those with a melancholic depression profile

- had significantly higher cortisol awakening response levels, indicating a hyperactive HPA-axis. Chronic inflammation and metabolic dysregulations were more present among depression persons with an atypical depression profile. Autonomic dysregulation - both an increased sympathetic and a decreased parasympathetic activation - was also seen among depressed persons, but was completely driven by antidepressant use and not by depression status itself.

Conclusions: This large-scale study observed various immune, metabolic and HPA-axis dysregulations among depressed persons which could be partly responsible for the observed depression-CVD link. These dysregulations seem to be specific for specific depressive symptom profiles.

Depression, HPA axis functioning, and cardiovascular risk in a population-based sample: Results from the PsyCoLaus cohort study

Objective: To investigate whether a diagnosis of depression is associated with an elevated risk for cardiovascular risk and whether hypothalamic-pituitary-adrenocortical (HPA) axis dysfunction mediates this effect in a large population-based cohort. In this context, state- and trait aspects of depression as well as possible subtype-specific pathogenetic effects related to HPA axis dysfunctioning will be considered.

Methods: We will analyse data from the PsyCoLaus study, a large population-based cohort study conducted in Lausanne that included comprehensive somatic, psychiatric, and genetic investigation in community residents aged 35-75 years. A follow-up is ongoing since 2009, where also saliva cortisol levels are measured to determine the cortisol awakening response and the diurnal slope of cortisol. The present sample size is $n = 2150$. Cardiovascular risk factors are assessed using physical measures (hypertension, diabetes, dyslipidemia, obesity) or self reports (smoking, inactivity). Psychopathology is assessed with the Diagnostic Interview for Genetic Studies (DIGS).

Results and Conclusions: Results on the association of depression and cardiovascular risks and possible mediator effects of HPA axis functioning from the PsyCoLaus follow-up study will be presented and discussed at the conference.

Depression subtypes and the metabolic syndrome: The prospective association and the role of inflammatory processes

Introduction: Inflammation is postulated to be one of the mechanisms underlying the association between mental disorders and cardiovascular diseases. However, previous studies focusing on the role that inflammatory processes play in the association between depression and cardio-vascular risk factors have provided inconsistent results.

Aims: To prospectively determine 1) the associations between depression subtypes and the incidence of components of the MeS and 2) the potential mediating role of inflammatory processes in these associations.

Methods: Data stemmed from the baseline and 5-year follow-up assessment of the PsyCoLaus Study. This community study included 3717 35 to 66 year-old randomly sampled residents of the city of Lausanne (Switzerland), who underwent an extensive biochemical, physical and psychiatric evaluation (53.3% females; mean age 51.0 years). A 5-year follow-up including a similar biochemical and physical follow-up evaluation with nearly 90% participation has recently been completed. DSM-IV Axis-I criteria were elicited using the semi-structured Diagnostic Interview for Genetic Studies. Major Depressive Disorder was subtyped into "atypical", "melancholic", "mixed atypical-melancholic" and "unspecified". The levels of high sensitive C-reactive protein (HsCRP) and pro-inflammatory cytokines (IL-1 β , IL-6 and TNF- α) were measured using blood samples at baseline and follow-up.

0226

Christine Kuehner¹, Enrique Castelao², Jennifer Glaus³, Peter Vollenweider⁴, Gerard Waeber⁴, Martin Preisig²
¹Central Institute of Mental Health, Psychiatry and Psychotherapy, Mannheim, Germany

²University Hospital of Lausanne, Department of Psychiatry, Lausanne, Switzerland

³University Hospital of Geneva, Department of Mental Health and Psychiatry, Geneva, Switzerland

⁴University Hospital of Lausanne, Department of Medicine, Lausanne, Switzerland

0291

Martin Preisig¹, Aurelie Lasserre¹, Jennifer Glaus¹, Caroline Vandelour¹, Pedro Marques-Vidal², Gerard Waeber³, Peter Vollenweider³

¹CHUV, Psychiatry, Prilly, Switzerland

²CHUV, Institute of Social and Preventive Medicine, Lausanne, Switzerland

³CHUV, Internal Medicine, Lausanne, Switzerland

Results and conclusions: Preliminary analyses have shown a strong association between atypical depression at baseline and the incidence of obesity and the metabolic syndrome during follow-up after adjustment for sociodemographic and lifestyle characteristics, psychiatric comorbidities and drug treatment. Results on the potential mediator effects of inflammatory processes in these associations will be presented and discussed at the conference.

0275

Christian Otte¹, Frank Zimmermann-Viehoff¹, Linn Kühl¹, Heidi Danker-Hopfe¹, Mary Whooley²

¹Charite, Psychiatry, CBF, Berlin, Germany

²University of California, San Francisco, United States

Antidepressants, autonomic function, and mortality in patients with coronary heart disease: Data from the Heart & Soul Study

While antidepressants reduce depressive symptoms in patients with coronary heart disease (CHD), they might be associated with autonomic side effects potentially increasing mortality. We examined whether the use of tricyclic antidepressants (TCA) or selective serotonin reuptake inhibitors (SSRI) is associated with mortality in patients with CHD, and determined whether this association is mediated by autonomic function in 956 patients with stable CHD followed for a mean duration of 7.2 years. Of 956 patients, 44 (4.6 %) used TCA, 89 (9.3 %) used SSRI, and 823 (86.1 %) did not use antidepressants. At baseline, TCA users exhibited lower heart rate variability and higher urinary and plasma norepinephrine compared to SSRI users and non-users. In analyses adjusted for age, sex, body mass index, diabetes, heart failure, use of renin-angiotensin system inhibitors and depressive symptoms, TCA use was associated with increased mortality compared to non-use. Further adjustment for autonomic function reduced the association between TCA use and mortality. SSRI use was not associated with mortality compared to non-use. In patients with CHD, the use of TCA was associated with increased mortality. This association was partially mediated by autonomic function. Our findings suggest that TCA should be avoided in patients with CHD.

0295

Katja Beer¹, Mira Ertl¹, Laura Sumaski², Thorsten Zeidler², Andreas Ströhle¹, Volker Arolt², Wilhelm Haverkamp³, Johannes Waltenberger⁴, Jacqueline Müller-Nordhorn⁵, Nina Rieckmann⁵

¹Charité Universitätsmedizin Berlin, Klinik für Psychiatrie und Psychotherapie, Berlin, Germany

²Universitätsklinikum Münster, Klinik für Psychiatrie und Psychotherapie, Münster, Germany

³Charité Universitätsmedizin Berlin, Medizinische Klinik mit Schwerpunkt Kardiologie, Berlin, Germany

⁴Universitätsklinikum Münster, Department für Kardiologie und Angiologie, Münster, Germany

⁵Charité Universitätsmedizin Berlin, Berlin School of Public Health, Berlin, Germany

Suicidal ideation and suicidal risk in patients with coronary heart disease

Objectives: We aim to determine the prevalence of current suicidal ideation and suicidal risk in hospitalized CHD patients. Furthermore, we developed and tested a safety protocol for timely follow-up evaluation of suicidal ideation and the initiation of appropriate care.

Material and Methods: The present study is part of a prospective cohort study focussing on the health care utilisation of CHD patients with and without co-morbid depression. Patients hospitalized in the coronary care units at two university hospitals are screened for current depressive symptoms including suicidal ideation with the Patient Health Questionnaire (PHQ). In addition, patients undergo evaluation for clinical depression using the Composite International Diagnostic Interview (CIDI).

Positive screening for suicidal ideation is followed by a clinical suicidality assessment conducted by clinical psychologists, following a safety protocol developed by a team of psychologists and psychiatrists in collaboration with study nurses and cardiologists.

Results: Based on the first 111 patients 14 (12,6%) patients reported current suicidal ideation in the PHQ. In the follow-up assessment of suicidality 9 of these patients reported thoughts about death, 3 of which reported thoughts about death and suicide, and none had a plan of a suicide attempt. 4 were discharged before questionnaires were returned and could not be contacted thereafter, and 1 declined the interview. The safety protocol was adapted to site specific exigencies of the two hospitals (e.g. optimising the flow of information between study team and clinic staff, initiating adequate care for patients at risk).

Conclusions: Suicidal ideation is a common phenomenon among hospitalized CHD patients. When conducting depression screenings in hospital settings, safety protocols need to be developed in close collaboration with the local hospital staff.

Mental health disparities between Roma and non-Roma children in Romania

Objective: The aim of this study was to compare mental health disorders between Roma children (Gypsy travelers) and non-Roma children in Romania.

Methods: Data come from the School Children Mental Health Evaluation Project (SCMHE, 9021 children in 7 countries), whose sample was constituted through a randomization of schools and children within each grade in the selected schools. In Romania, a total of 70 children were classified as Roma and compared to 925 non-Roma children. Children mental health disorders were assessed by children themselves using the self-administered Dominique Interactive (DI) questionnaire, and by parents and teachers using the Standard Difficulties Questionnaire (SDQ) questionnaire.

Results: All crude and adjusted DI results showed a much higher proportion of mental disorders in Roma children compared to non-Roma children (crude prevalence of internalizing disorders 42.7% vs 21.2%, $p < 0.0001$, and externalizing disorders 25.0% vs 4.8%, $p < 0.0001$), except for Major Depressive Disorder upon adjustment), and many of them worked together. The adjusted odds ratios of being a Roma child on having internalized disorders or externalizing disorders were respectively 2.6 [1.3-5.0] and 5.4 [2.4-12.2]. On the other hand, Roma parents did not report more frequent mental health disorders in their children than non Roma parents. Teachers significantly reported more internal disorders in Roma children than in non-Roma children (53.2% vs 23.8%).

Conclusion: This study showed different results on child mental health depending on the informant with children reporting most mental health disorders, teachers reporting only internal disorders and parents reporting none. The inconsistencies may have social or cultural reasons among the Roma population or may reveal problems in mental health assessment for the Roma population. Future studies should analyze mental health outcomes of the Roma population in more details.

Racial disparity in risk factors for substantiation of child maltreatment

Objective: This study of racial disparity in the impacts that substance abuse, depression, intimate partner violence, and welfare use make on the substantiation of reported child maltreatment.

Method: This is a secondary data analysis of a sample extracted from a longitudinal data set describing children and their caregivers who participated in child protective services (CPS). The present study focused on data obtained from the first interview wave in 1999. The 3 ethnic subsamples used in our data analysis comprised 1,493 African Americans, 848 Hispanics, and 2,144 Whites.

The outcome variable was substantiation (yes/no), a factor indicating whether initial CPS investigation had led to maltreatment being substantiated. We employed 5 groups of explanatory variables: parental substance abuse and depression, IPV, welfare-related factors, maltreatment history, and parent and child demographic characteristics.

We used dummy variables to measure the types of drugs parents reported using: marijuana use, other drug use, and nonmedical use of prescriptions. Parents' alcohol dependence and depression are based on CIDI-SF measures.

Results and Conclusion: Across its 3 ethnic subsamples the study observed no significant differences in substantiation likelihood. For the African American subsample, parental alcohol dependence as well as relatively longer periods spent receiving welfare benefits reduced the likelihood of substantiation. For the Hispanic subsample, while parental alcohol dependence and drug use increased the likelihood of substantiation, welfare receipt

0367

Emmanuelle Leray¹, Eric Lee¹,
Adina Bitfoi², Ondine Pez¹,
Zlatka Mihova³, Elisha Yoon¹,
Christophe Fermandian¹, Viviane Kovess¹

¹EHESP School of Public Health,
Epidemiology, Rennes, France

²Mental Health Romanian League,
Budapest, Romania

³Foundation for human relations, Sofia,
Bulgaria

0074

Tyrone Cheng¹, Celia Lo¹

¹University of Alabama, School of
Social Work, Tuscaloosa, Alabama,
United States

lowered such likelihood. For the White subsample, parental depression significantly raised the risk of substantiation, but substance abuse and welfare receipt showed no significant impact.

0062

Chesmal Siriwardhana^{1,2},
Kolitha Wickramage³,
Anushka Adikari², Sisira Siribaddana²,
Athula Sumathipala^{1,2}

¹Institute of Psychiatry, King's College
London, Health Services & Population
Research, London, UK

²Institute for Research & Development,
Colombo, Sri Lanka

³International Organization of
Migration, Sri Lanka

Assessment of mental health and physical wellbeing of 'left behind' family members of international labour migrants: A national comparative study in Sri Lanka

Background: PLoS medicine series 'Migration & Health' in 2011 prompted a calling for an evidence-based research agenda on migrant health. Nearly one-in-ten Sri Lankans are employed abroad as International Labor Migrants (ILM). Little is known about actual health status and impact migration has on the families they 'leave behind'.

Methods: This national study utilized both quantitative and qualitative methods to study associations between health status of 'left-behind' spouse, children and caregivers, and comparative non-migrant families. A cross-sectional study design with multi-stage random sampling was used. We surveyed a total of 1,625 adults and 820 children from 410 migrant and 410 non-migrant families, matched for both age and sex. Socio-demographic and health status data were derived using standardized pre-validated instruments. Univariate and multivariate analyses were used.

Findings: Nearly one-in-three migrant families were from single-parent households. 44% of left-behind children had some form of psychopathology with a quarter of them under 5-years being underweight (25.4%). Association of emotional disorders and psychiatric diagnosis was strongest within single-parent households, exacerbated where sole parent was the migrant worker [OR 0.75(0.34-1.64)]. Significantly high levels of depression were found in caregivers [12.3% (CI: 12.23-12.31)] and spouses from left-behind families [25.5% (CI: 25.47-25.60)], with physical health status showing similar trends.

Conclusions: Findings provide empirical evidence of the health consequences of heavy out-migration for families 'left-behind', and may be relevant for many labour 'sending countries' in Asia relying on ILM remittances. Whilst cross-sectional studies can only suggest, but not prove a cause-effect relation, it highlights a number of major challenges for policy makers at the nexus of balancing rights, remittances and health consequences. We advocate the adaptation of migrant sensitive health policy frameworks guided by the 2008 World Health Assembly Health of Migrants Resolution, which promotes safe, healthy and economically beneficial 'migration for all'.

0320

Tekleh Zandi¹

¹GGZCentraal, social psychiatry, Zeist,
Netherlands

The importance of culturally informed diagnosis of schizophrenia among immigrants

An increased incidence of schizophrenia among non-western immigrants has repeatedly been reported in different European countries. Several explanations have been suggested, however these explanations all assume that the higher incidence of schizophrenia in non-western migrants is a valid observation based on adequate assessment. Although the possibility of an overestimation of the incidence in migrants due to cross-cultural bias in the assessment has been discussed from the very beginning of these studies, however rarely a cultural sensitive diagnostic procedure has been applied to prevent such overestimation. In our incidence study (Zandi et al. 2010), we found discrepancies between a standard diagnostic interview for schizophrenia (CASH) and a culture sensitive version of this instrument (CASH-CS) in Moroccan patients.

In this present study we hypothesize that the cultural informed diagnosis of schizophrenia shows better stability than the standard diagnosis of schizophrenia in Moroccan patients and that the cultural informed diagnosis is a better predictor of course and outcome than the standard diagnosis. In this study we compared the predictive validity of a diagnosis of

schizophrenia according to the CASH and CASH-CS.

Method and results: Thirty months after referral, 26 Moroccan and 26 native Dutch patients with a suspected first psychotic episode were compared with regard to 30-month diagnostic stability and different variables using baseline diagnoses based on the two versions of this instrument. Diagnostic stability according to the CASH was high for native Dutch, but low for Moroccan patients, whereas diagnostic stability according to the CASH-CS was high for both groups.

Conclusion: These data raise questions regarding the validity of the standard CASH in Moroccan immigrants in the Netherlands and support the validity of the CASH-CS. As a consequence, there are serious doubts about the validity of previous studies showing an increased incidence of schizophrenia in immigrants using standard diagnostic procedures. This study is already published: Zandi, T., Havenaar, J., Laan, W., Kahn, R., van den Brink, W., 2011. Predictive validity of a culturally informed diagnosis of schizophrenia. *Schizophr. Res.* 133, 29–35.

Emotional distress in people with Turkish descent: Results from two population based studies in Berlin

Background: The population of people with Turkish descent constitutes one of the largest populations with an immigration background in Germany. Despite of comparatively long period of residence in Germany and being an integral part of the German economic development key points on determinants of health and prevalence of health conditions are largely missing. In particular population data on mental health of people with Turkish descent is limited, mainly due to barriers of recruitment in large population health surveys, such as language.

Objective: The aim of this analysis is to assess the level of emotional distress of people with Turkish descent living in Berlin, Germany facilitating data from two population based studies.

Methods: The data derives from the BMBF- funded study 'Suicide rates and suicide attempt rates in women of Turkish origin in Berlin' (N=205) and the VW- funded study SEGEMI (N=601). The validated Turkish version of GHQ-28 was used in both studies to assess the level of emotional distress.

Results: Both studies found that for the recruitment of people with Turkish descent alternative recruitment approaches are needed (such as snowballing and intensified personal contacts). Levels of emotional distress were high in women in both studies.

Has the population prevalence of sensation seeking personality traits and their relation to substance use changed over time? Implications for neurobiological theories of developmental psychology

Question: Theories of developmental psychology posit that sensation-seeking behavior has a neurologically mediated trajectory, with a peak in adolescence and decrease in early adulthood. We examine population-level trends in sensation seeking among adolescents in the past 30 years.

Methods: Data were drawn from Monitoring the Future, a yearly cross-sectional nationally representative survey of adolescents in the United States. Sensation seeking assessed with two items asked among a random subset of the total sample ("I get a real kick out of doing something a little dangerous" and "Sometimes I like to test myself by something a little risky"). Respondents were dichotomized at agree or mostly agree versus all others. Total sample size for analysis was 96,734.

0422

Marion Aichberger¹, Ulrike Kluge¹,
Mike Mösko², Meryam Schouler-Ocak³,
Andreas Heinz¹

¹Charité University Medicine, Psychiatry
and Psychotherapy, Berlin, Germany

²University Medical Center Hamburg-
Eppendorf, Department of Medical
Psychology, Hamburg, Germany

³Charité-University Medicine,
Department of Psychiatry and
Psychotherapy at St Hedwigs Hospital,
Berlin, Germany

0142

Katherine Keyes¹

¹Columbia University, New York, United
States

Results: Endorsement of sensation seeking personality traits substantially varies across time. For example, high school seniors were more than twice as likely to report that they get a real kick out of doing something dangerous in 1992 compared with 1978 (19.4% versus 8.5%, respectively). Older adolescents in the 1980s demonstrated particularly strong increases in sensation seeking, indicative of a cohort effect. Further, the relation between sensation seeking and substance use varies over time. For example, as sensation seeking increased in the 1980s, the relation with marijuana use was null throughout the decade; by 1990 there was a consistent and significant 1.5-2.0 fold increase in marijuana use among adolescents who reported high levels of sensation seeking.

Conclusions: These data suggest that environmental factors may be important in shaping the population prevalence of externalizing attributes. Sensation seeking increased among older adolescents in the 1980s, and associations with substance use do not emerge until the 1990s. These data indicate that aspects of the social environment are critical to understanding the population distribution of sensation seeking behaviors.

0115

Ardesheer Talati¹, Katherine Keyes²,
Deborah Hasin²

¹Columbia University/NYSPI, Psychiatry,
New York, United States

²Columbia University, Epidemiology,
New York, United States

Smoking among recent birth-cohorts increasingly associated with both Axis I & II psychopathology

Aims: Although tobacco use has decreased over the last several decades, it has concurrently become increasingly stigmatized. Given that a number of deviant behaviors show genetic underpinnings, more recent generation smokers may have greater concentrations of psychiatric and genetic vulnerability than previous generations. We examined this question empirically in a large US-population representative sample, hypothesizing that the magnitude of associations between smoking behaviors and psychiatric disorders would increase from earlier- to later- birth-cohorts of the 20th century.

Method: The 34,653 subjects who participated in both waves of the National Epidemiological Survey on Alcohol and Related Conditions (NESARC) were directly interviewed using DSM-IV criteria. Eight birth cohorts were defined by decade of birth (1910s through 1980s). Outcomes included drug and alcohol use disorders, major depression, anxiety disorders, ADHD, and antisocial and borderline personality disorders. Analyses were modeled in SUDAAN, using nested logistic regressions weighted for sample design and non-response, and adjusted for gender, race, education, and income.

Result: Rates of smoking decreased from the earliest- to latest-born cohorts; however, proportion of smokers who were nicotine dependent correspondingly increased. Significant cohort-by-smoking interactions were observed for all tested outcomes ($p < .05$ for alcohol; $p < 0.001$ all others), indicating that associations between smoking and psychopathology were increasing across cohorts. Further stratification revealed interactions to be greatest among smokers meeting criteria for nicotine dependence, but also significant among non-dependent smokers, except for depression and anxiety disorders. For drug use, cohort-by-smoking interactions were observed for both dependence and abuse, and among both cannabis and non-cannabis users.

Conclusions: Although more recent generations may include fewer persons who smoke, their smoking is associated with greater psychiatric morbidity, even if they are only casual smokers. This high-risk group may benefit from more routine mental health screenings and treatment strategies that address both nicotine dependence and other psychiatric comorbidity.

Illegal substance use across the life course: A comparison of veterans and nonveterans

Objective: We present an age-period-cohort (APC) analysis of substance use among veterans as compared to nonveterans. To our knowledge this is the first-ever APC analysis of veteran substance use. A focal point is 1985, when the military introduced stringent policies to curb illegal drug use. These policies include random urinalysis testing and discharge upon the first failed test. While these policies have reduced illegal substance use among active-duty personnel to near-zero prevalence, their potential impact on substance use after the completion of military service is unknown.

Materials and Methods: Data come from the National Survey on Drug Use and Health, a series of annual, nationally-representative, cross-sectional surveys of the U.S. civilian population. The analysis focuses on years 1985-2010 and estimates independent effects of age, period, and cohort. The analysis includes birth cohorts from the 1930s through the 1990s.

Results: Results indicate a life-long reduction in illegal drug use for veterans as compared to nonveterans. This result is specific to veterans who entered service after 1985, and is pronounced among respondents with a history of adolescent substance use.

Conclusions: Social policies to curb substance use that are in force during young adulthood can have lifelong effects, as this study demonstrates that the military policies implemented in the mid-1980s had lasting effects on veterans' substance use long after they left the service. Of particular note is that military service attenuates the influence of early substance use on later substance use in adulthood - one of the strongest and most intractable influences in the field. This finding is consistent with the notion that the military can "knife off" negative early-life influences and provide a "bridging environment" that can generate a positive turning point in the life course. It also provides a unique example of a social policy that has reduced substance use at the population level.

The impact of sex and birth cohort on the transition from alcohol use to DSM-IV alcohol use disorders: Results of the 2007 Australian National Survey of Mental Health and Wellbeing

Question: Much is known about the predictors of both risky alcohol use and DSM-IV alcohol use disorders (i.e. abuse and dependence). Relatively little is known about factors that are associated with the transition from alcohol use to alcohol use disorder. The objective of this study is to examine the sociodemographic and mental disorder correlates of transitions from alcohol use to alcohol use disorder. This is the first examination of such transitions in the Australian general population.

Methods: Lifetime histories of alcohol use and alcohol use disorder were obtained from participants in the 2007 National Survey of Mental Health and Wellbeing, a nationally representative epidemiological survey (response rate 60%). Survival analysis techniques were used to model the speed of transition from first alcohol use to onset of alcohol use disorders.

Results: Gender and age showed important relationships with the transition from alcohol use to alcohol use disorder. The temporal sequence of comorbid mood and anxiety disorders as well as a family history of mental disorder and the age of onset of first alcohol use were also critical factors explaining the speed of transition from alcohol use to disorder.

Discussion: The results of this study allow for the identification of specific periods of greatest risk for the development of alcohol use disorders. Such knowledge can help to guide prevention programs.

0166

Richard Miech¹, Andrew London²,
Janet Wilmoth², Stephen Koester^{1,2}

¹University of Colorado Denver, Health and Behavioral Sciences, Denver, CO, United States

²Syracuse University, Syracuse, NY, United States

0267

Tim Slade¹, Cath Chapman¹,
Maree Teesson¹

¹University of New South Wales, National Drug and Alcohol Research Centre, Sydney, Australia

0312

Aline Drapeau^{1,2}, Charlotte Forest³,
Alain Marchand⁴

¹Centre de recherche Fernand-Seguin,
Psychosocial epidemiology, Montreal,
Canada

²Université de Montréal, Psychiatrie
& Médecine sociale et préventive,
Montreal, Canada

³Université de Montréal, Médecine,
Montréal, Canada

⁴Université de Montréal, École des
relations industrielles, Montréal,
Canada

Age and cohort effects on the distribution of psychological distress in Canadian adults

Objective: Psychological distress is used as an indicator of the mental health of the population in several countries. Some studies have shown that the mean level of psychological distress follows a U-shaped distribution peaking in young adults and, to lesser degree, in seniors. However, this association between age and distress could be biased by a cohort effect similar to that observed for depressive symptoms. The objective of this study was to investigate the effects of age and cohort on the distribution of psychological distress.

Material: Data were extracted from the National Population Health Survey, a Canadian longitudinal survey conducted every two years from 1994 to 2010. The sample was made up of 15701 Canadians aged 18 years and over and born between 1892 and 1992. Growth curve analysis was used to estimate the effects of age and cohort and the interaction between age and cohort on psychological distress controlling for gender, education, employment and marital status. Psychological distress was assessed with the K6, a scale developed by Kessler and his colleagues and used in surveys worldwide. Years of birth were split in eight cohorts. Data were weighted to account for the complex sampling design of the survey.

Results: Descriptive analyses showed that the mean level of psychological distress was highest between 18 and 29 years old, lowest between 60 and 69 years old and rise slightly in seniors, and that it increased steadily from the oldest to the more recent cohorts. Growth curve analysis revealed significant effects of age and of cohort on the distribution of psychological distress in Canadian adults.

Conclusion: These findings indicate that the age distribution of psychological distress is partly explained by a cohort effect. They suggest that public mental health interventions should target young adults and that the mental health of the population may be worsening in the future since psychological distress is higher in more recent cohorts.

0183

Richard Burns¹, Kaarin Anstey¹

¹Australian National University, Centre
for Research on Ageing, Health and
Wellbeing, Canberra, Australia

Flourishing across the lifespan: Does the absence of mental health really reflect psychological health?

Objective: The preamble to this conference, the 14th International Congress of the IFPE, states that "there is no health without mental health". This presentation will explore this statement with a working hypothesis that optimal psychological health is more than simply the absence of mental ill health. It is proposed that optimal psychological flourishing reflects both an absence of ill health and the presence of positive psychological vitality which provides additional benefit to overall health.

Material and methods: Participants (n = 12, 941) were adults (aged: 18 - 92 years) from the Household Income and Labour Dynamics in Australia (HILDA), a large longitudinal population study. We utilised mixture modelling to identify flourishing participants, operationalized in terms of participants' vitality and mental health scores from the mental health scales of the Short Form Health Survey (SF-36). Comparisons were made between flourishers and non-flourishers on a range of health and wellbeing measures.

Results: At baseline, 88% of participants who reported mental health according to accepted cut-offs of the SF-36 Mental Health scale, were not flourishers. Across the 10-years of HILDA, data consistently revealed flourishing prevalence of between 8.5 and 11%. Of those participants who experienced flourishing, 36% reported a single episode whilst 21% reported 5 or more episodes. Overall, increased age was associated with increased likelihood of flourishing, though physical health appears to play a significant role in moderating this finding. Significant differences between flourishers and non-flourishers on health outcomes were reported. Specifically, flourishers reported better health and wellbeing outcomes than those with high mental health only.

Conclusion: There are significant benefits to promoting flourishing in a community population. Those with higher levels of mental health and vitality were afforded greater health benefits in comparison with those with only improved mental health.

Different risk factors for different psychosis syndromes

Objective: Heterogeneity and complexity are major obstacles in research on brain systems and psychiatric diseases. In psychosis research, such as in quite a few other domains and disciplines, only unsatisfactory efforts have been made to bring study designs and methods in line with these challenges. This study approached the heterogeneity of psychosis syndromes with regard to different risk factors.

Material and methods: The data was derived from the ZInEP Epidemiology Survey which assessed comprehensive data about mental health in a stratified sample of 1,500 adults aged 20 to 40 years. In contrast to its precursor, the Zurich Study, psychosis was a priority issue in the ZInEP survey. We focussed particularly on two psychoticism subscales derived from the SCL-90-R (SNS (schizophrenia nuclear symptoms, derived from the original psychoticism subscale) and STS (schizotypal signs, mostly identical with the original paranoia subscale) - see Rössler et al., 2007). The statistical analysis was based on a two-step approach applying firstly cluster analysis to determine subgroups with different figurations of SNS and STS scores. In the second step, we used regression analysis to differentiate risk factors associated with these subgroups.

Results: We differentiated five subgroups: high scorers on SNS and STS, high scorers on STS, medium scorers in both combinations, and low scorers. High scorers on both subscales were more often runaways from home and suffered physical abuse. However, STS high scorers were more often left alone at home and suffered more serious emotional abuse.

Conclusions: Psychosis syndromes which are highly intertwined depict a certain degree of etiological and probably also physiological heterogeneity. Having been a victim of violence and physical abuse or having been a victim of neglect and emotional abuse creates different vulnerabilities and outcomes with regard to psychosis syndromes.

A population-level prediction tool for the incidence of first episode psychosis: Development and validation

Background: Mental health commissioners require precise information on local populations needs; these vary enormously according to social and demographic factors. A nationally-implemented, uniform and unrealistically low expected incidence rate of first episode psychosis [FEP] greatly underestimated the actual activity of early intervention in psychosis services (EIS) in parts of England and Wales.

Objectives: To develop a realistically complex, widely available population-based prediction tool for FEP taking into account recent epidemiological findings.

Design: Data from over 1000 FEP participants from two epidemiological studies were refitted to several different negative binomial regression models to estimate risk coefficients across combinations of different sociodemographic and socioenvironmental factors. We applied these coefficients to the population at-risk of a third, socioeconomically different region to predict the expected caseload over a 2.5 year period, where observed rates had been concurrently ascertained.

Main outcome measures: We compared observed counts with predicted counts (with 95% prediction intervals) at regional, EIS and local authority district [LAD] levels in East Anglia to establish the predictive validity of each model.

Setting: Empirical data from London, Nottingham and Bristol predicting counts in the population at-risk of East Anglia.

0229

Vladeta Ajdacic-Gross¹, Mario Müller¹,
Stephanie Rodgers¹, Wolfram Kawohl¹,
Helene Haker¹, Wulf Rössler¹

¹Psychiatric University Hospital, Zurich,
Switzerland

0008

James Kirkbride¹, Daniel Jackson²,
Jesus Perez³, David Fowler⁴,
Francis Winton⁵, Jeremy Coid⁶,
Robin Murray⁷, Peter Jones¹

¹University of Cambridge, Department
of Psychiatry, Cambridge, United
Kingdom

²University of Cambridge, MRC
Biostatistics Unit, Cambridge, United
Kingdom

³Cambridgeshire & Peterborough NHS
Foundation Trust, CAMEO, Cambridge,
United Kingdom

⁴Norfolk & Suffolk Partnership Trust,
Norwich, United Kingdom

⁵Norfolk & Suffolk Partnership Trust,
SEIPS, Stowmarket, United Kingdom

⁶Queen Mary's University London,
Forensic Psychiatry Research Unit,
London, United Kingdom

⁷Institute of Psychiatry, KCL, Department
of Psychosis Studies, London, United
Kingdom

Results: A model with age, sex, ethnicity and population density performed most strongly, predicting 508 FEP participants in EIS in East Anglia (95% PI: 459, 559) compared with 528 FEP participants observed over the same period. This model predicted correctly in 5 of 6 EIS (83.3%) and 19 of 21 LAD (90.5%). All models performed better than the current gold standard for EISservicecommissioning (210 cases; 95% PI: 183-239).

Conclusions: Our prediction model integrated epidemiological data and local population variation to precisely forecast psychosis incidence. We have developed a free tool (Psychiatric Mapping Translated into Innovations for Care; www.psymaptic.org) to predict expected annual FEP counts for major sociodemographic groups at LAD and national levels in England and Wales.

0165

Simona A. Stilo¹, Marta Di Forti¹, Robin M. Murray¹, Craig Morgan¹

¹Institute of Psychiatry, King's College London, London, United Kingdom

Are there evidences that social adversity over the life course increase risk of psychosis?

Question: Although there is agreement on the remarkable social decline following the onset of psychosis, less is known regarding social adversity in patients before first admission. We conducted a systematic review on adversities over the life course of patients who go on to experience a first psychotic episode.

Methods: We searched five electronic databases (Pubmed/Medline, Psychinfo, Ovid/Medline, Embase, and Web of Science) to identify original studies related to adversity and psychosis at and prior to onset of psychosis (published between 1806 and 2012). Further studies were identified via reviewing citations and writing to the authors. Studies were included if they were data-based and study populations consisted of first episode psychosis (FEP) patients.

Results: Preliminary results show that individuals with psychosis differ from the general population with respect to living status, marital status, work status, housing status, welfare, social class at birth, and adversity in childhood such as parental separation, and parental death.

Conclusions: Different studies have different strengths. While some findings are conflicting, the importance of these factors in the pathophysiology of psychosis is overall convincing. There are a number of positive studies which suggest that adversity in childhood and in adulthood, through several pathways, accentuate vulnerability for psychosis. Further, exposure to single adverse factors appears to be less important than the cumulative effect of exposure to multiple factors over the long-term.

0140

Esme Jordaan¹, Dana Niehaus², Liezl Koen², Louise Warnich³

¹Medical Research Council, Biostatistics unit, Tygerberg, Parow, South Africa

²University of Stellenbosch, Department of Psychiatry, Tygerberg, Parow, South Africa

³University of Stellenbosch, Faculty of AgriScience, Stellenbosch, South Africa

The use of latent class analysis to assist in subtyping schizophrenia and to investigate relationships with covariates in the Xhosa population

Background and Objectives: Schizophrenia is a phenotypically heterogeneous disorder believed to have a strong genetic component. Our previous research work described the subtypes in a sample of Xhosa-speaking subjects from a sub-Saharan African population. The current research study in the same population investigates the role of lifetime symptoms as well as the effect of environmental and genetic factors in the model.

Material and Methods: Latent class analysis (LCA) refers to modelling with categorical latent variables (subtypes). The latent classes represent subpopulations where population membership is not known but is inferred from the data. The latent classes explain the relationships among the observed dependent variables (symptoms) similar to factor analysis, but in contrast LCA provides posterior classification of individuals. Two correlated latent variables (LVs) were incorporated, the first LV represents the SANS/SAPS structure and the second LV represents the lifetime structure. The LCA model was extended to investigate the

types of individuals belonging to each latent class by relating latent classes to covariates.

Results: A four-class LCA model with 3 SANS (poor eye contact, affective non-responsiveness, and decreased spontaneous movement) and 3 SAPS items (auditory hallucinations, global hallucinations score, and global delusions score) provided the optimal fit. For the lifetime LCA model, a four-class model including the seven symptoms conversing voices, voices commenting, voices conversing, reference delusions, religious delusions, threat and command delusions provided the optimal fit. The entropy indicated that individuals could be classified very well with the SANS/SAPS structure (entropy=0.92), but the classification was much poorer with the lifetime structure (entropy=0.62). For the lifetime model 13% of the individuals had a lower than 60% probability of being classified to any one of the four groups, while this was less than 1% for the SANS/SAPS structure.

Conclusions: LCA can effectively be used to investigate the subtypes in Schizophrenia, the relationship between two latent structures, and the relationships between the latent structures and covariates to help shed light on some of the environmental and genetic underpinnings of the disease.

Indicated prevention in people at-risk of psychosis: What is the evidence?

In recent years, criteria based on sub-threshold levels of psychotic symptoms or self-perceived cognitive deficits have been found to predict psychosis onset within 12 months in 20-30 % of the cases. These findings have provided the opportunity to develop indicated prevention efforts in order to reduce or prevent the sometimes devastating consequences of schizophrenia. It has been argued that cognitive behaviour therapy (CBT) may have some advantages compared with antipsychotics (AN): (a) more acceptable, tolerable and less stigmatizing to (b) no risk of exposing false positives to pharmacological side effects, (c) effective treatment for false positives (depression, anxiety disorders). Eight randomized controlled trials (RCTs) in the at-risk population have been completed so far. They have included evaluations of low dose risperidone and cognitive behavioural therapy (CBT) combined, CBT or an integrated psychological intervention, olanzapine and omega-3 fatty acids. The trial results of the treatment phase indicate advantages on a descriptive level or significant results in favour of the respective experimental condition. The author of the paper was recently involved in two meta-analysis which indicted advantages of specific interventions on several primary and secondary outcomes.

The results of these meta-analyses will be presented and discussed with respect to integration of early detection and early intervention in people at-risk of psychosis in routine mental health care.

Association between symptoms of psychosis and work and non-work stressors the 2007 Adult Psychiatric Morbidity Survey

Objective: Increasingly psychosis is being viewed as a continuum of symptoms rather than as a discrete entity. Relationships between precursors of psychosis and stressful stimuli in the home and work environment are not clearly delineated. We sought to identify associations between self-reported symptoms of psychosis and work and non-work stressors.

Material and methods: We conducted secondary analysis of the 2007 Adult Psychiatric Morbidity Survey. The response rate was 57%. We derived responses indicating psychotic symptoms from the Psychosis Screening Questionnaire and evaluated their association with parameters such as effort reward imbalance, job strain, stressful life events, and social support. We profiled responses to examine collective associations of groups of symptoms.

Expected Results: We hypothesise that adverse work characteristics are associated with

0190

Andreas Bechdolf¹

¹University of Cologne, Dept. of Psychiatry, Cologne, Germany

0191

Andrew Cummings¹,
Stephen Stansfeld¹, Charlotte Clark¹,
Scott Weich², Sally McManus³,
Rachel Jenkins⁴, Howard Meltzer⁵,
Paul Bebbington⁶

¹Queen Mary University London,
London, United Kingdom

²University of Warwick, Psychiatry,
Warwick, United Kingdom

³NatCen, London, United Kingdom

⁴King's College London, London,
United Kingdom

⁵University of Leicester, Leicester, United
Kingdom

⁶University College London, London,
United Kingdom

symptoms of psychosis after adjustment for non-work stressors. We expect that non-work stressors such as social support outside work, domestic violence and recent life events will show associations with symptoms of psychosis.

Conclusion: We hypothesise that this study will lend weight to the view that symptoms of psychosis are related to on-going exposure to stressors in and out of work and that these could make up a continuum which lead to overt clinical episodes.

0444

Hanna Falk¹, Svante Östling¹,
Lena Johansson¹, Ingmar Skoog¹

¹University of Gothenburg, Mölndal,
Sweden

Secular trends in functional ability, quality of life, and depression among Swedish 75-year-olds: A comparative study of two birth cohorts born 30 years apart.

Objective: To compare the level of functional ability, quality of life defined as involvement in leisure activities, and depression, diagnosed according to DSM-IV-TR in two birth cohorts of Swedish 75-year-olds examined in 1976-77 and 2005-06.

Design: Cohort comparison.

Setting: The multidisciplinary H70 study, Gothenburg, Sweden.

Participants: 1322 men and women aged 75-years-old from a representative population sample (1976-77; 331 men and 413 women. 2005-06; 321 men and 187 women).

Measurements: Basic activities of daily living using the Katz ADL scale, and instrumental activities of daily living using the Lawton IADL scale.

Results: In both men and women, dependence in cleaning (25% vs. 10.26%, $p < .001$), transport (18.53% vs. 11.48%, $p < .001$), and bathing (11.26% vs. 5.2%) decreased between the cohorts. Dependence in at least one ADL/IADL item decreased from 37.5% to 13% ($p < .001$), with the largest decrease seen in women (42.3% vs. 15.1%, $p < .001$). Surprisingly, dependence in transferring from bed and/or chair increased between the cohorts (1.22% vs. 2.73 $p < .05$). Involvement in leisure activities increased between the cohorts. A larger proportion reported to drive their own car (15.6% in cohort 1901-02 vs. 67.4% in cohort 1930, $p < .001$), to go on holidays abroad (13.3% in cohort 1901-02 vs. 22.8% in cohort 1930, $p < .05$), and be a member in seniors association and/other clubs (13.4% in cohort 1901-02 vs. 25.5% in cohort 1930, $p < .05$). Objective characteristics of the home environment included questions regarding outdoor accessibility and bathroom prerequisites. In the 1901-02 cohort, the majority had bath tubs (83.1% vs. 20.1%, $p < .001$), while the majority in the 1930 cohort used walk-in showers (43.6% vs. 3.4%, $p < .001$). The proportion self-rating their health as very good also increased between the cohorts (24.8% vs. 43.4%, $p < .001$). Among those dependent in at least one ADL/IADL item 25.5% was diagnosed with depression according to DSM-IV-TR in the 1901-02 cohort and 38.2% in the 1930 cohort ($p < .001$).

Conclusion: This study suggests that later born cohorts of 75-year-olds are better equipped to maintain a non-age related identity by being less dependent in activities of daily living and more engaged in leisure activities compared to earlier born cohorts, although the proportion diagnosed with depression has increased. In light of the overall improvement in self rated health and quality of life, the increased prevalence of depression might be a reflection of improved diagnostic criteria rather than secular change. This is of great relevance due to the unprecedented growth of the aging population and the importance of maintaining independent living.

Key words: functional ability; quality of life; activities of daily living; instrumental activities of daily living; leisure activities; 75-year-olds; cohort comparison.

Functional disability and death wishes in elderly Europeans: Results from the EURODEP Consortium

Objective: To examine the relationship between functional disability and death wishes in late life. Further, to examine possible sex differences, as it has been suggested that men are more prone to both attempted and completed suicide in the context of physical illness.

Methods: Data from 11 population studies on depression in persons aged 65 and above were pooled, yielding a total of 16 091 respondents. A person was considered to have death wishes if the death wish/suicidal ideation item of the EURODEP scale was endorsed. Most centres rated functional disability in accordance with the Katz scale. Level of functional disability was trichotomised (no, intermediate, high). Odds ratios for death wishes associated with functional disability were calculated in a multilevel logistic regression model.

Results: In total, 4 % of the men and 6 % of the women reported death wishes. Both intermediate and high functional disability was associated with death wishes. No sex differences could be shown. The association between functional disability and death wishes did not vary by country as tested by a random slope term for functional disability.

Conclusions: Functional disability was associated with death wishes in older adults. Physicians who care for elderly persons with functional disability should inquire about death wishes and suicidal ideation and initiate interventions when appropriate.

0443

Madeleine Mellqvist Fässberg¹,
Kristoffer Bäckman¹,
Svante Östling¹, Ingmar Skoog¹,
Margda Waern¹, EURODEP
Consortium¹

¹University of Gothenburg,
Neuropsychiatric Epidemiology,
Mölnådal, Sweden

Role of loss in the development of depressive symptoms and major depression

Question: Losing one's spouse has been classified one of the most impacting life events an adult can experience. Bereavement is even more common in old age and may have a much larger impact on the individuals' lives. So far, bereavement is the only life event that is an exclusion criterion for major depression. In development of the subsequent DSM-V, an elimination of the bereavement exclusion is proposed, as a debate has evolved questioning the validity of the bereavement criterion. These studies have mainly been conducted in younger samples; neglecting the importance of bereavement in older age. This study therefore aims to contribute knowledge to the debate and investigates the role of bereavement in the development of depression in old age.

Methods: The sample was derived from the longitudinal German Study on Ageing, Cognition, and Dementia in Primary Care Patients (AgeCoDe). The baseline assessment took place from January 2003 to November 2004 and patients were re-assessed every 1.5 years for four times. We defined three subsamples: (1) depressive symptoms according to GDS, cut-off 6, (2) depressive symptoms according to GDS, cut-off 10 and (3) categorical diagnosis of Major Depression. Experience of loss was defined as a change in family status from "married" to "widowed" in the next follow-up before onset of depression.

Results: In the multivariate Cox proportional hazards model with change of family status as a time-dependent covariate, experiencing a loss of spouse during follow-up periods was predictive of a higher HR and a shorter time to depression in GDS scores greater than 6 (HR 2.2, 95% CI 1.5-3.2) and 10 (HR 3.0, 95% CI 1.4-6.4). Such an association was not found in incident major depression.

Conclusions: The DSM-V has not been able to take the different phenotype of late-life depression into account as no diagnosis of sub threshold or old age depression category was added. Eliminating the bereavement exclusion criterion from DSM-V will most likely not have a large impact on MD in late-life as the prevalence is low, ranging from 1.1 to 6.9%, while, as outlined before, depressive symptoms may be of more importance. As 20 to 30% of patients with a dimensional diagnosis of depressive symptoms develop a DSM-IV mood disorder, this study suggests that bereavement exclusion on dimensional scales is not appropriate either.

0206

Claudia Sikorski¹, Melanie Lupp¹,
Horst Bickel², Michael Pentzek³,
Siegfried Weyerer⁴, Wolfgang Maier⁵,
Birgitt Wiese⁶, Hendrik van den
Bussche⁷, Martin Scherer⁷, Hans-
Helmut König⁸, Steffi G. Riedel-Heller¹

¹University of Leipzig, Institute of Social
Medicine, Occupational Health and
Public Health, Leipzig, Germany

²Technical University of Munich,
Department of Psychiatry, Munich,
Germany

³University of Dusseldorf, Department
of General Practice, Medical Faculty,
Dusseldorf, Germany

⁴Central Institute of Mental Health,
Mannheim, Germany

⁵Department of Psychiatry and
Psychotherapy, University of Bonn,
Bonn, Germany

⁶Institute for Biometry, Hannover
Medical School, Hannover, Germany

⁷Hamburg-Eppendorf University
Medical Center, Department of Primary
Medical Care, Hamburg, Germany

⁸Hamburg-Eppendorf University
Medical Center, Department of Medical
Sociology, Social Medicine and Health
Economics, Hamburg, Germany

0282

Björn Karlsson¹, Robert Sigström¹,
Ingmar Skoog¹¹University of Gothenburg, Institute of
Neuroscience and Physiology, Mölndal,
Sweden

Social phobia in non-demented 75- and 85-year olds: Associated factors

Objective: Social phobia is one of the most common psychiatric disorders. There is a lack of knowledge on the relationship between social phobia and cognitive functioning among older adults. We aimed to examine cognitive functioning, prevalence and psychiatric comorbidity of social phobia in a population sample of 75- and 85-year olds.

Material and Methods: A general population sample of non-demented 75-year olds (N=768) and 85-year olds (N=432) was investigated in 2005-2006 (75-year olds) and 2009-2010 (85-year olds) by psychiatric nurses. The procedure was identical with a semi-structured psychiatric examination including the Comprehensive Psychopathological Rating Scale, and the Mini International Neuropsychiatric Interview. Social phobia was diagnosed according to the DSM-IV criteria. Cognitive function was measured with the Mini-Mental State Examination (MMSE), and a battery of eight different psychometric tests measuring short- and long-term memory, non-verbal memory, logical reasoning and visuospatial and executive ability.

Results: The one-month prevalence of social phobia was 2.5% (N=30), this was more common among women than among men (3.2% vs. 1.3%). Almost one quarter (N=291) of the total sample feared social situations, this was more common in women than in men (28.8% vs. 17.0%). Individuals with social phobia more often had major depression compared to individuals without symptoms of social phobia (33.3% vs. 4.3%). MMSE-score did not differ between individuals with and without social phobia. Individuals with social phobia had worse visuospatial and executive ability measured with Clock Test, compared to individuals with no symptoms of social phobia.

Conclusions: Our results indicate that social phobia is not unusual in old age and that comorbidity with depression is common. Social phobia does not have an impact on global cognitive functioning. Social phobia influenced visuospatial and executive ability but not performance on several other cognitive tests.

0445

Svante Östling¹, Ingmar Skoog¹¹University of Gothenburg, Department
of Psychiatry, Mölndal, Sweden

Psychotic symptoms and paranoid ideation in non-demented 85-years old: A birth cohort comparison

Background: A previous study on psychotic symptoms, showed a prevalence of 10% of psychotic symptoms in non-demented 85 years old examined in 1986-87 and these symptoms were associated with a broad psychopathology. Psychotic symptoms in older people increase the risk for developing dementia between 2.5 to 8 times compared to those without these symptoms depending on observation time and age. There are indications that the incidence of dementia is decreasing in later born cohorts. If so, there could be a subsequent decrease in the prevalence of psychotic symptoms.

Objective: To elucidate whether there is a difference in the prevalence of psychotic symptoms and the association of psychopathological factors to psychotic symptoms in two birth cohorts of non-demented 85-year-olds examined more than two decades apart.

Design: Cross-sectional survey.

Setting: Two samples representative of the general population in Gothenburg, Sweden.

Participants: Non-demented 85-year-olds examined in 1986-87 (n=347) and 2009 (n=441).

Methods: Participants took part in face to face interviews as part of a multidisciplinary study on health and aging. Dementia was diagnosed according to DSM-III-R. A psychiatric examination was performed including ratings of delusions, hallucinations and paranoid ideation. A close informant was interviewed by a psychiatrist or a research nurse. The interview included questions about delusions, hallucinations and paranoid personality traits.

Results: The prevalence of dementia was 30% in cohort 1986-87 and 22% in cohort 2009. The prevalence of psychotic symptoms was 10.1 % in cohort 1986-87 and 3.2% in cohort 2009. There were associations to other psychopathology in both cohorts including depressed mood, irritability, flat affects, suicidal ideation and paranoid personality traits.

Conclusions: The prevalence of psychotic symptoms has decreased among non-demented 85-years-old. To elucidate whether this is due to a decreasing prevalence of dementia, longitudinal studies are needed. Although a lower prevalence of psychotic symptoms was found in the later born cohort these symptoms were still associated with a broad psychopathology.

Enriched environment at work and the incidence of dementia: Results of the Leipzig Longitudinal Study of the Aged (LEILA 75+)

Objective: The high incidence of cognitive impairments in the aging population together with the challenges it imposes on health systems raise the question of what effect working life has on cognitive abilities. Animal models have demonstrated that so called enriched environments protect against neurodegenerative diseases, such as dementia. The objective was to investigate the impact of an enriched environment at work on the incidence of dementia.

Methods: The Leipzig Longitudinal Study of the Aged (LEILA 75+) is an ongoing representative population cohort study, that examines cognitive functioning and dementia in individuals aged 75 years and older six times with an average interval of 18 months. The participants' occupational information was matched to O*NET SOC codes and relevant job descriptors were used to create occupational context indices describing enriched environment at work: Novelty (intensity of confrontation with new stimuli), Executive (level of independent planning and performance of work tasks), and Indices for the level of cognitive stimulation of work tasks.

Results: Results of regression modeling suggest that a higher level of independent planning and performance of work tasks was associated with a lower risk of developing dementia. Adjustment for various confounders did not alter the associations. Indices for the level of cognitive stimulation were only weakly associated with the incidence of dementia.

Conclusions: The results suggest that occupational contexts enriched with executive tasks might protect cognitive functioning in old age

0156

Francisca S. Then¹, Melanie Lupp¹,
Matthias C. Angermeyer^{2,3}, Steffi
G. Riedel-Heller¹

¹Institut für Sozialmedizin,
Arbeitsmedizin und Public Health,
Leipzig, Germany

²Center for Public Mental Health,
Gösing a. W., Austria

³University of Cagliari, Department of
Public Health, Cagliari, Italy

Maternal and early postnatal nutrition associated with the mental health of children

Question: Diet quality is related to the risk for the common mental disorders, depression and anxiety, in adults and adolescents. However, the impact of maternal and early postnatal nutritional exposures on children's subsequent mental health is unexplored. This study aimed to examine the relationship between both the quality of both mothers' diets during pregnancy and children's diets in the first years of life, and markers of mental health in children over five years of follow up.

Methods: The large prospective observational Norwegian Mother and Child Cohort Study recruited pregnant women between 1999 and December 2008. Data were collected from mothers during pregnancy and when children were 6 months, 1.5, 3, and 5 years old. Latent growth curve models were used to model linear development in internalizing and externalizing problems from 1.5 to 5 years of age as a function of diet quality during pregnancy and at 1.5 and 3 years.

Results: The final sample comprised 23,020 eligible women and their children. After

0011

Felice Jacka¹, Eivind Ystrom², Anne
Lise Brantsaeter², Evalill Karevold²,
Christine Roth², Margarethe Haugen²,
Helle Margarete Meltzer²,
Synnve Schjølberg², Michael Berk¹

¹Barwon Psychiatric Research Unit,
Dept of Medicine, Deakin University,
Geelong, Australia

²Norwegian Institute for Public Health,
Division of Mental Health, Oslo,
Norway

adjustments for variables that included gender of the child, maternal depression, maternal and paternal age, maternal educational attainment, household income, maternal smoking before and during pregnancy, mothers' parental locus of control and marital status, higher intakes of sugary, 'unhealthy' foods during pregnancy predicted both internalizing and externalizing problems among children throughout early childhood. Similarly, children with a high level of unhealthy postnatal diet had higher levels of both internalizing and externalizing problems. Children with a low level of postnatal wholesome diet also had higher levels of both internalizing and externalizing problems.

Conclusion: These novel data suggest an important role for habitual dietary intakes in modulating early vulnerability factors for mental health problems in children.

0338

Annette M. Klein¹, Yvonne Otto¹,
Sandra Fuchs¹, Kai von Klitzing¹

¹University of Leipzig, Department
of Child and Adolescent Psychiatry,
Psychotherapy and Psychosomatics,
Leipzig, Germany

A prospective study of child mental health problems in a large preschool sample

A substantial number of preschoolers experience mental health problems that have an impact on their own and their families' lives. There exist several large longitudinal studies on the epidemiology of child mental health, but longitudinal assessments during the preschool years are rare.

The aim of the current study was to explore prevalence, stability and change of mental health problems at two assessment points (t1, t2) in preschool age.

The sample consisted of 1026 children (510 girls, 49.8%) with a mean age of 51 months, (SD=5.1) at t1 and 72 months (SD=3.7) at t2 drawn from the general population. Parents completed basic demographic information and the Strengths and Difficulties Questionnaire extended version (SDQ; Goodman, 1997; 1999).

At t1, 8.1% of the preschoolers showed total difficulties in the borderline and 6.9% in the abnormal range. At t2, these were 6.6% and 5.8% respectively. We found a moderate stability of symptoms and strengths, with the lowest ICC for prosocial behavior (ICC=.41) and the highest for hyperactivity/inattention (ICC=.65). From t1 to t2, emotional symptoms and prosocial behavior significantly increased, whereas hyperactivity/inattention, conduct problems, peer problems and total difficulties decreased (all $p < .05$). The mean total impact score did not change. Boys showed higher levels of symptoms (except emotional symptoms) and impact and lower prosocial behavior than girls (all $p < .05$). Moreover, there was a significant time x gender interaction, girls showing a larger decrease of hyperactivity/inattention and total difficulties than boys (all $p < .05$). By using multiple regression, we investigated which variables predict total difficulties score at t2. We found that the variables gender, education of the mother and symptoms of t1 were significant with the highest contribution of hyperactivity/inattention.

Our findings support the need for early detection of children with mental health problems and intervention.

0029

Janni Niclasen¹, Anne-Marie Nybo
Andersen², Thomas William Teasdale¹,
Katrine Strandberg-Larsen²

¹Institute of Psychology, Copenhagen,
Denmark

²Institute of Public Health, Dept. Social
Medicine, Copenhagen, Denmark

Prenatal exposure to alcohol and neurobehavioural development at age seven: A large-scale cohort study

Objectives: European public health campaigns primarily focus on preventing alcohol intake in pregnant women, rather than on women planning their pregnancy. The purpose of the present study was to investigate possible effects of prenatal cumulated alcohol exposure and binge drinking on neurobehavioural development at age seven.

Materials and methods: Sample: the Danish National Birth Cohort, comprising information on 100.000 pregnant women and their offspring. Exposure: separate information on average alcohol intake and binge drinking in pregnancy. Outcome measure: The

four problem scales of the Strengths and Difficulties Questionnaire (SDQ) measuring hyperactivity/inattention, conduct disorder, emotional and peer-problems. Confounders: register-based information on parental education and parental past history of psychiatric problems, and self-reported information on parental smoking and maternal well-being in pregnancy. Mediators: self-reported information on family/home environment, parental alcohol intake and child physical activity and BMI at age seven. Analysis strategies: multivariable linear regression measuring continuous externalising (combined hyperactivity and conduct problems) and internalising (combined emotional and peer-problems) problems and multivariable logistic regression measuring above cut-off hyperactivity, conduct, emotional and peer-problem scores.

Results: The multivariable linear regressions revealed that binge drinking had a negative effect on boys' internalising problems. The multivariable logistic regressions showed that binge drinking was associated with >1 odd ratios (OR) on all four problem scales for boys and >1 OR on hyperactivity and emotional scales for girls. No effects of cumulated alcohol exposure was found.

Conclusion: Binge drinking is negatively associated with emotional and behavioural scores for boys at age seven, and to a smaller extent for girls. Considering the damaging effects of binge drinking, and that these for most women occur in the early, unrecognised part of pregnancy, public health campaigns should to a larger extent focus on pregnancy-planners rather than on pregnant women only. This seems to be a better strategy for preventing emotional and behavioural problems in children exposed to binge episodes.

Risk factors of disagreement between parents' and children's reports on child mental health disorders

Objectives: The aims of this study were (1) to compare child's and parent's report on child's mental health disorders and (2) to determine relationships between demographic, socioeconomic or relational factors and parents-child disagreement.

Material and methods: A cross-sectional study was conducted in 2004 in PACA region in France. A total of 2341 children aged 6-11 years old were randomized. Mental disorders were assessed using the Dominic interactive (Valla) for children's report and the Strengths and difficulties questionnaire (Goodman) for parent's report. Multivariate logistic regression models were performed to explain (1) overall disagreement, (2) parents reporting more symptoms than their children and (3) children reporting more symptoms than their parents, separately for internalizing and externalizing disorders.

Results: Low agreement was found between parents' and children's reports for both internalizing and externalizing disorders (Kappa between 0,03 and 0,12), parents reporting more externalizing symptoms than their children (18,9 vs 10,7%) and children reporting more internalizing symptoms than their parents (17,6 vs 10,9%). Age, sex, single child, parent's mental health, life events, chronic disease, socio-economic characteristics and parental attitudes were related with overall disagreement. Parent's mental disorders and parental attitudes were mainly related with parents reporting more symptoms than their children while socio-economic factors were mainly related with children reporting more symptoms than their parents.

Conclusion: According to previous studies, our findings highlight the need to take into account the views of both parents and children to assess child mental disorders. Thus, parents' underreporting child mental disorders notably for internalizing disorders may hinder use of mental health services. Understanding risk factors of parent/child disagreement could help to target children at risk of mental health disease.

0159

Emma Bajoux¹, Emmanuelle Leray¹,
Aymery Constant¹, Taraneh Shojaei¹,
Christine Chan Chee¹, Isabelle Pitrou¹,
Viviane Kovess¹

¹EHESP, Rennes, France

0387

Daniel Fatori¹, Giovanni Salum²,
Pedro Pan³, Ary Gadelha³,
Euripedes Miguel¹, Ana
Soledade Graeff-Martins¹

¹University of Sao Paulo Medical
School, Institute of Psychiatry, São
Paulo, Brazil

²Federal University of Rio Grande do
Sul, Department of Psychiatry, Porto
Alegre, Brazil

³Federal University of Sao Paulo,
Department of Psychiatry, Sao Paulo,
Brazil

Unmet need in mental health care among Brazilian children

Purpose: Child mental health service use in Brazil and other low and middle-income countries is poorly described. **Objective:** (1) to estimate child mental health unmet need (2) to describe the mental health service use (pharmacological and/or psychological treatments) among Brazilian children;

Method: After a community screening phase, when we evaluated 9.937 children (6 to 12 years old) from two Brazilian cities using the Family History Screening (FHS); 2512 children (958 randomly selected and 1554 enriched for psychopathology) were further assessed for psychiatric disorders and mental health service use. Psychiatric disorders (mental health need) were assessed using the Development and Well-Being Assessment (DAWBA).

Results: 651 (26%) children met criteria for a psychiatric diagnosis, of which 512 (78.6%) have never received any type of formal treatment. Considering children with mental health needs, only 127 (19.5%) received pharmacological treatment and 210 (32.2%) had psychological treatment.

Conclusions: Our data provide further support to the idea that mental health unmet need is a prevailing problem among Brazilian children. Adequate public policies are needed to ensure that children's mental health needs are met.

0042

Laura Pedrini¹, Alessandra Tiberti²,
Davide Sisti³, Giovanni de Girolamo¹

¹IRCCS San Giovanni di Dio,
Fatebenefratelli di Brescia, Brescia, Italy

²AO Spedali Civili di Brescia, UONPIA,
Brescia, Italy

³University of Urbino, Institute of
Biomathematics, Urbino, Italy

Who and how comes in contact with the child and adolescent mental health services in Italy?

Objective: To assess the characteristics of children and adolescents in contact with CAMHS and to analyse the pathways through which they referred to services.

Material and methods: All public outpatient CAMHS operating in a Region of 633,725 inhabitants aged 6-17 years participated to the study. A total of 710 consecutive patients were enrolled and were evaluated with a detailed Sociodemographic Form, and standardized assessment instruments, including the CBCL, the HoNOSCA, the C-GAS, the CGI.

Results: The frequency of children aged 6-10 (N=329; 46.3%) and adolescents aged 11-18 years (N=380, 53.5%) was similar. One-third of the sample had one or two parents suffering from a mental disorder; 93 (17.7%) had a sibling with a mental disorder. A total of 414 (59%) patients had received no previous treatment before their first CAMHS contact. Approximately half of the parents (N=344; 48.4%) first consulted the CAMHS due to their children's school difficulties. Most parents had been CAMHS-referred by other clinicians or school teachers. A higher educational level for mothers was associated with consultation without prior referral. Patients were diagnosed within the broad groups of emotional (N=276; 39%), specific developmental (N=267; 38%); and behavioural disorder (n=107; 15%); 61 (8%) did not satisfy criteria for any mental disorders. Patients in the behavioural disorder group showed the highest levels of symptom severity.

Conclusions: Referral might benefit from intervention programmes for parents and teacher, aimed at improving their knowledge of mental health problems and addressed services. Psychosocial intervention should be offered to families with higher family burden. Priority should be placed on developing intervention for patients affected by behavioural disorder. Given the high frequency of specific developmental disorders and the likelihood of emotional consequence thereof, affected patients should receive special focus and assistance.

UPBEAT-UK, a 5 year programme of research to improve the management in primary care for people with coronary heart disease and depression

This will be the introductory talk for the session on UPBEAT-UK, outlining the five year NIHR funded programme and the four studies that have been undertaken. The talk will cover;

1. Depression and CHD data in primary care settings to discuss the paucity of relevant primary care work to date despite the well known bi-directional links between CHD and depression from cardiac services populations.
2. Known mechanisms linking depression and CHD.
3. The UK GP structure with National funding mechanisms for paying GPs to screen their CHD patients for depression and for keeping practice based registers for their patients with CHD.
4. The four Upbeat-UK Programme studies will be outlined as an introduction to the following talks by the UPBEAT-UK team. The studies comprise a cohort study of 803 patients recruited from the CHD registers of 16 South London GP practices for up to 4 years; systematic reviews of depression in primary care, nested qualitative studies with patients, GPs and practice nurses and finally a pilot RCT of nurse personalised care for people with symptomatic CHD and depression in primary care.

Depression in primary care patients with coronary heart disease: The UP-BEAT UK Study

Background: An association between depression and coronary heart disease is now accepted but there has been little primary care research on this topic. The UPBEAT-UK studies are centred on a cohort of patients with coronary heart disease assessed every six months for up to four years.

Aims: To determine the prevalence and associations of depression in this cohort at baseline.

Method: Participants with coronary heart disease were recruited from general practice registers and assessed for cardiac symptoms, depression, quality of life and social problems.

Results: 803 people participated. 42% had a documented history of myocardial infarction, 54% a diagnosis of ischaemic heart disease or angina. 44% still experienced chest pain. 7% had an ICD-10 defined depressive disorder. Factors independently associated with this diagnosis were problems living alone (OR 5.49, 95% CI 2.11-13.30), problems carrying out usual activities (OR 3.71, 95% CI 1.93-7.14), experiencing chest pain (OR 3.27, 95% CI 1.58-6.76), other pains or discomfort (OR 3.39, 95% CI 1.42-8.10), younger age (OR 0.95 per year 95% CI 0.92-0.98).

Conclusion: CHD registers are an efficient means to access people with coronary heart disease. Problems living alone, chest pain and disability are important predictors of depression in this population.

An investigation of psychosocial associations of continuing chest pain in primary care population with coronary heart disease (CHD)

In view of the uncertain aetiology of angina like pain among those with a completed myocardial infarct -possibly continuing coronary insufficiency, anxiety or the category medically unexplained symptoms all being considered- we have investigated the associations of this pain in the UPBEAT UK cohort.

0246

[Andre Tylee](#)¹

¹Institute of Psychiatry, HSPRD, London, United Kingdom

0249

[Paul Walters](#)¹, [Elizabeth Barley](#)²,
[Anthony Mann](#)², [Rachel Phillips](#)²,
[Andre Tylee](#)²

¹Dorset HealthCare University NHS Foundation Trust, Weymouth & Portland CMHT, Weymouth, United Kingdom

²King's College London, Health Services and Population Research Dept, London, United Kingdom

0240

[Anthony Mann](#)¹

¹Institute of Psychiatry, Kings College, London, United Kingdom

The Rose Angina questionnaire was used to further subcategorise the chest pain. 44% of the cohort of 803 drawn from GP CHD registers under followup reported currently experiencing chest pain at baseline. This figure appeared high, given that the patients are under review by their GP and 51% of this population had received an intervention for CHD.

Reporting chest pain was strongly associated with both anxiety and depression along with numerous social problem in the univariable analyses. However only anxiety along with reporting financial problems, being of non white ethnicity and there being an evidence supported current GP case-note diagnosis of ischaemic heart disease rather than MI The Rose allows the pain to be classed as probable angina or not as according to the pattern of symptoms. We predicted that the strength of the association with anxiety would weaken in those with the more typical angina pain, compared to non specific chest pain.

This proved not to be the case. The findings are discussed in the context of current research on this topic.

0261

Elizabeth Barley¹, Mark Haddad², Paul Walters³, Rachel Phillips³, Evanthia Achilla³, Paul McCrone³, Anthony Mann³, Andre Tylee³

¹King's College London, Florence Nightingale School of Nursing and Midwifery, London, United Kingdom

²City University London, School of Health Sciences, London, United Kingdom

³King's College London, Institute of Psychiatry, London, United Kingdom

UPBEAT-UK practice nurse-led personalised care for CHD and depression: Pilot RCT to test feasibility and acceptability over 1 year

Objective: To determine the feasibility and acceptability of a practice nurse-led personalised care intervention for people with CHD and depression.

Materials and Methods: The intervention, informed by qualitative research and systematic review, was designed to fit within UK practice. After biopsychosocial assessment, patients identify up to 3 problems. The PN, via telephone follow up, uses behaviour change techniques and sign posting to help patients achieve their goals. In a pilot RCT, personalised care delivered by nurse researchers was compared with usual care over 6 months with FU at 1 year. 81 patients on 17 practice CHD registers, screened as depressed (HADS ≥ 8) and reporting chest pain (Rose angina questionnaire) participated. Outcomes included depression, chest pain, QoL and wellbeing.

Results: Participants (52 male) were aged 38 to 95 yrs (mean 65 SD11). Intervention patients (n=41) received a mean 203 SD100 mins of PN time (78 SD19 for assessment + 125 SD91 in telephone FU). Mean number of FU calls was 9 SD5. Problems addressed included (patients): pain (18), exercise (17), sleep (13), anxiety (11), overweight (11). Behaviour change techniques used were: general encouragement (27), information linking health and behaviour (18), goal setting (15), barrier identification (13), focus on past success (13). PN actions were: lifestyle advice, provide information, promote adherence, supportive counselling, referrals. Data were available at one or more assessment points for 79 people (98%). Both groups improved on all measured outcomes; differences were not statistically significant ($p > 0.05$). Health economic analyses indicated no between group difference in cost.

Conclusions: CHD patients with depression reported varied problems and nurse researchers utilised a range of techniques to address them. Attrition was low. The intervention appears acceptable to patients and requires minimal PN time. A full trial is needed to test effectiveness when delivered by PNs.

0182

Richard Burns¹, Kaarin Anstey¹

¹Australian National University, Centre for Research on Ageing, Health and Wellbeing, Canberra, Australia

The role of physical health in explaining associations between mental health and wellbeing with mortality

Objective: Several reviews report declining mental health and wellbeing in the years preceding death and as risk factors for mortality in older adults. However, many studies fail to adequately control for the role of physical health which may mediate these findings. This presentation will describe how decline in wellbeing in the years approaching mortality and the mental health risk for mortality can be accounted for by declining physical health.

Material and methods: Participants were female community-dwelling participants (n = 31, 401) from the Dynamic Analyses to Optimise Ageing (DYNOPTA) project, a harmonisation project of 9 Australian longitudinal studies of ageing. Participants were aged 45-98 and were assessed on up to four occasions for up to 16 years from death. Multi-level random effects models assessed the effect of declining physical health on changes in levels of wellbeing and mental health in the years preceding death. Cox proportional hazards regressions within a Bayesian structural equation modelling framework tested the extent to which poor mental health and wellbeing was a risk factor for mortality when adjusting for declining physical health.

Results: Unadjusted analyses indicated decline in wellbeing and mental health in the years preceding death. However, most decline was accounted for by parallel decline in physical health. Similarly, whilst mental health and wellbeing were risk factors for mortality in models that were unadjusted for physical health, the inclusion of declining physical health accounted for most of this risk.

Conclusion: Whilst there appear to be robust associations between declining mental health and wellbeing with mortality these associations are as a consequence of corresponding decline in physical health.

Long-term sickness absence for psychiatric disorder and cause-specific mortality

Background: Psychiatric diagnoses constitute one of the most common reasons for sickness absence. Studies are needed to examine whether long-term sickness absence for psychiatric disorders is associated with cause-specific mortality.

Objective: The aim of this study was to examine if long-term psychiatric sickness absence in 1990 were predictive with mortality due to all-cause, suicide, cardiovascular disease (CVD) and cancer during follow-up 1991-2007.

Methods: Data derived from register data on sickness absence exceeding 90 days is the source material. The information is taken from the AFA Insurance Company that insures all blue collar workers and employees within the municipalities and county councils including all public employee health care professionals in Sweden. The data is linked to the longitudinal integration database for health insurance and labour market studies (LISA) from Statistics Sweden, the national inpatient register (NPR), and the cause of death register (CDR) from the National board of health and welfare. Employees within the municipalities and county councils were included. The final study group comprised 246,774 individuals. Analyses were conducted by using flexible parametric survival models.

Results: Compared with employees with no sick-leave, individuals with long-term sickness absence due to a psychiatric disorder were at increased risk of mortality (Hazard ratios (HR) adjusted for age, sex, SES, country of origin, family situation, inpatient care due to the outcome disease and (other) somatic diseases at baseline - all-cause: 2.24, 95% confidence interval (CI) 1.98-2.53; cardiovascular disease: 1.78, 95% CI 1.33-2.37; overall cancer: 1.26, 95% CI 1.01-1.56; and suicide: 10.69, 95% CI 7.79-14.66). After full adjustments also for inpatient care due to psychiatric disorders, these associations remained statistically significant for all-cause mortality and suicide deaths.

Conclusion: Long-term psychiatric sickness absence can contribute to identify groups with an increased mortality risk and define primary prevention and intervention strategies.

0016

Anna Bryngelson¹, Marie Åsberg¹,
Åke Nygren¹, Irene Jensen²,
Ellenor Mittendorfer-Rutz³

¹Karolinska Institutet, Department of Clinical Sciences, Stockholm, Sweden

²Karolinska Institutet, The Institute of Environmental Medicine, Stockholm, Sweden

³Karolinska Institutet, Department of Clinical Neuroscience, Stockholm, Sweden

0432

Patryk Piotrowski¹, Bogdan Wojtyniak²,
Jacek Moskalewicz³, Jacek Wciórka³,
Andrzej Kiejna¹

¹Wroclaw Medical University,
Department of Psychiatry, Wroclaw,
Poland

²National Institute of Hygiene, National
Institute of Public Health, Warsaw,
Poland

³Institute of Psychiatry and Neurology,
Warsaw, Poland

Health conditions of Polish population in working age and its influence on health policy: Analysis of EZOP results and statistical data

Objectives: In 2010 in Poland mental disorders staked out third place among the most common causes of incapacity to work and second among the longest sick leaves with 16,27 days. Moreover in 2009 costs of incapacity to work due to mental health were second highest in our country with 1 053 859 095 Euro (15,6%). In Poland register data are often biased by National Health Fund's contract terms and its medical supplies' refund policy. Important is the fact that such data cover diagnosed patients only ignoring potential beneficiaries of mental health service.

Aim: The aim of the project "Epidemiology of Mental Disorders and Access to Care - EZOP Poland" was the assessment of prevalence of mental disorders, service provision and attitudes towards treatment in working age population. Project was funded by EEA Grants - Norway Grants.

Method: Computer based WHO's CIDI questionnaire was adopted to Polish population according to World Mental Health protocol. The survey was performed by certified interviewers from international poll agency on the basis of face-to-face interviews.

Material: The survey was built on a representative stratified randomly selected sample group of 10,081 adults between the ages of 18 and 64.

Results: 23,4% of the population suffered from at least one mental disorder (lifetime prevalence). Apart from clinical sections regarding anxiety, mood and substance use disorders citizens' "health conditions" were assessed. Poor (i.e. bad or tolerable) mental health was reported by 5,3% of interviewed subjects, moderate by 24,7%, good (i.e. very good or excellent) by 70%. Hence 30% of subjects might seek for support.

Discussion: Results of EZOP study support the hypothesis that rising trend of use of social funds will be maintained. Lack of preventive programmes in terms of mental health in Poland and delays in shifting towards social psychiatry may lead to further austerity of public resources.

0136

Lean O'Brien¹, Helen Berry¹

¹University of Canberra, Centre for
Research and Action in Public Health,
Canberra, ACT, Australia

Community, family and work: Social participation and social connections to promote mental health and wellbeing

Question: Social participation is typically associated with better mental health, but the practical utility of this pattern is undermined by inconsistencies in the strength and direction of the relationship. To understand why this is, we tested two hypotheses. Firstly, community, family and work spheres cumulatively produce different outcomes for different socio-demographic subpopulations in society. Secondly, these different outcomes occur because the quality and personal significance of different forms of participation is different for different socio-demographic subpopulations in society.

Methods: Two studies were conducted to test our hypotheses. Study 1 used cluster analysis to examine a nationally representative Australian dataset (Household Income and Labour Dynamics in Australia survey, wave 6, N=1503) and identify distinct groupings of people. Regressions were then performed to examine how different participation profiles affected wellbeing for the different groupings of people. Study 2 used a community sample of adults living in Canberra, Australia (N=900) to intensively examine the psychological mechanisms that positively and negatively link social participation with mental health for different subpopulations.

Results: Family structure, gender, ethnicity, age and income were relevant when grouping people into different subpopulations, and there were distinct relationships between participation and wellbeing for different subpopulations, especially disadvantaged people.

Results also showed that community, family and work participation gave different types of people access to different psychological resources like a sense of belonging and a sense of mastery, and these resources moderated the impact of participation on mental health.

Conclusions: Recommendations are made for health promotion strategies regarding optimal modes of social participation for different sections of society.

A population-based longitudinal study on work environment and major depressive disorder

Objectives: To investigate the relationships between work environmental factors and the risk of major depressive disorder (MDD) over one year and to identify demographic, socioeconomic, workplace psychosocial and clinical factors associated with the outcomes of individuals with MDD.

Methods: We conducted a population-based longitudinal study of employees who were randomly selected in Alberta, Canada (n = 4239). MDD was assessed using the World Health Organization's Composite International Diagnostic Interview - Auto 2.1.

Results: The one-year incidence of MDD was 3.6% (95% CI: 2.8%-4.6%) overall. It was 2.9% (95% CI: 1.9% - 4.2%) in men and 4.5% (95% CI: 3.3% - 6.2%) in women. The relationships between work environmental factors and MDD differed by sex. In men, high job strain increased the risk of MDD in those who worked 35-40 hours per week; job insecurity and family-work conflict were predictive of MDD. Women who worked 35-40 hours, who reported job insecurity, high effort-reward imbalance and work-family conflict were at higher risk of MDD. Long working hours, negative thinking and having comorbid social phobia were predictive of persistence of MDD. Perceived work-family conflict, severity of major depressive episode and symptom of depressed mood were significantly associated with recurrence of MDD.

Conclusions: Job strain, effort-reward imbalance, job insecurity and work-family conflicts are important risk factors for the onset of MDD, and should be targets of primary prevention. However, these work environmental factors appear to operate differently in men and in women. Clinical and psychosocial factors are important in the prognosis of MDD. The factors associated with persistence and recurrence of MDD may be different.

Psychological distress, absenteeism and presenteeism in an Australian sample of small business managers

Objective: Little is known about prevalence of poor mental health or presenteeism within the small-medium business sector. Owners and managers may be particularly at risk due to high workloads, multiple roles within the organisation, and no access to traditional supports such as employee assistance programs. This exploratory study reports psychological distress, absenteeism and presenteeism among small business owners or managers enrolled in a national health promotion trial.

Material and methods: Owner/managers (N=220) of Australian small-medium businesses completed the K10 measure of psychological distress and self-reports of past-month absenteeism and presenteeism days and associated lost productivity. Negative binomial regression explored cross-sectional correlates of absenteeism and presenteeism days.

Results: Eighty percent of the businesses had less than 20 employees. Seventy percent of the sample were female, two-thirds were aged 40-59 years with none under the age of 40, and 72% worked more than 40 hours per week. High psychological distress was reported by 39% of managers, of whom 43% reported absenteeism and 84% reported presenteeism in the past month with half of these reporting some loss of productivity at work. Health-related

0084

JianLi Wang¹, Norbert Schmitz²,
Jitender Sareen^{2,3}, Scott Patten¹,
Shawn Currie¹

¹University of Calgary, Psychiatry,
Calgary, Canada

²McGill University, Montreal, Canada

³University of Manitoba, Winnipeg,
Canada

0279

Fiona Cocker¹, Angela Martin²,
Jenn Scott³, Alison Venn^{1,3},
Kristy Sanderson^{1,3}

¹University of Tasmania, Menzies
Research Institute Tasmania, Hobart,
Australia

²University of Tasmania, School of
Management, Hobart, Australia

³University of Tasmania, School of
Psychology, Hobart, Australia

factors were the strongest correlates of higher presenteeism days ($p < 0.05$), with a trend for fewer absenteeism days among the more conscientious managers, those with higher job tension, and those with poorer work/life balance ($p < 0.10$).

Conclusions: In this exploratory study psychological distress was common among owner/managers, and a high proportion continued to work when ill with significant impact on their productivity. Small business is the "engine room" of most economies and tailored support strategies to this time-poor sector are warranted.

0079

Beate Muschalla¹

¹University of Potsdam, Work and Organizational Psychology, Potsdam, Germany

Differential diagnostic of workplace-related anxieties and work-participation impairment in psychosomatic rehabilitation patients

Work is an important domain of life. Problems at the workplace and mental disorders must therefore have negative interactions. Of special importance are work-related anxieties as any workplace is causing anxiety by its very nature.

There are different phenotypes in which workplace-anxiety can present. They are differently related to sickness absence. A generalized anxiety with worrying about minor matters at work rather leads to overtime-working while staying at work (in 79% of cases), whereas phobic anxieties are associated with avoidance and sickness absence. Workplace phobia has the most serious negative consequences. It leads most often to sick leave (in 80% of cases), loss of the job (20%) or even early retirement.

0361

Peter Szatmari¹,
Anahita Hadioonzadeh¹,
Magdalena Janus¹

¹McMaster University, Offord Centre for Child Studies, Hamilton, Canada

Prevalence rates of autism spectrum disorder vary by administrative region in Ontario, Canada

Objective: prevalence rates of ASD have increased substantially in recent years although the reasons for that increase are uncertain. There is however little information in the literature on geographic variation other than the recent Centre for Disease Control (CDC) data which show substantial variation by state. The objectives of this presentation are to see whether such variation exists in Canada as well and to identify potential variables associated with this variation.

Methods: the Early Development Instrument (EDI) is a measurement tool filled out by all kindergarten teachers in Ontario, Canada, to estimate "children's developmental health at school entry". Teachers are also requested to report whether a child has a medical diagnosis, from a provided list, including autism, ASD and Asperger Disorder, based on parent information. Prevalence rates of ASD were calculated for the province and for several covariates that might be associated with the diagnosis. The province is divided into nine regions associated with different assessment and treatment centres. A heterogeneity test was performed to see if rates between regions were heterogeneous.

Results: The overall prevalence rate was 1.07%, consistent with recent reports. There was however considerable variability in prevalence by administrative region (0.5%-1.8%). In addition, children with first language other than English or French were less likely to receive a parent reported diagnosis of ASD compared to those whose first language was English or French.

Conclusion; ASD is a common disorder among kindergarten children in Ontario. Considerable variation exists in prevalence rates by region of the province and by demographic characteristics of the children. This variation is hard to reconcile with an environmental risk factor or with significant gene by environment interactions. The implications of these findings for service planning will be discussed as well.

Difference in impaired sustained attention, focused attention, and vigilance between autistic disorder and Asperger's disorder

Objective: Despite evidence of executive dysfunction in individuals with autism spectrum disorders (ASD), results regarding attention deficit were inconsistent across studies. Little is known about differential attention capacity between autistic disorder and Asperger's disorder. We compared the attention capacity of youths with autistic disorder, youths with Asperger's disorder and typically developing (TD) youths.

Methods: We assessed 354 youths with ASD, aged 10.96 ± 3.15 (male, 90%), either clinically diagnosed with autistic disorder ($n=216$) or Asperger's disorder ($n=138$) according to the DSM-IV criteria and confirmed by the Autism Diagnostic Interview-Revised, and 255 TD youths (aged 11.78 ± 2.25 ; male, 80%) using the Conners' Continuous Performance Test (CCPT) and a questionnaire for symptoms related to attention-deficit hyperactivity disorder (ADHD).

Results: Compared with TD youths, youths with ASD showed more inattentive, hyperactive/impulsive, and oppositional symptoms. Youths with Asperger's disorder also showed more oppositional symptoms than youths with autistic disorder. Youths with ASD had significantly worse focused attention, cognitive control, and vigilance as assessed using the CCPT than TD youths. Besides, youths with autistic disorder had more omission errors and longer reaction time than youths with Asperger's Disorder; whereas, youths with Asperger's disorder demonstrated worse sustained attention than youths with autistic disorder.

Conclusions: Our findings support behavioral and neuropsychological aspects of attention deficits in youths with ASD and suggest differential performance in attention tasks and clinical symptoms between youths with Asperger's disorder and youths with autistic disorder. Hence, our findings highlight the importance of clinical treatment with specific measures on attention deficits for youths with ASD.

Susan Shur-Fen Gau¹, Yi-Ling Chien¹

¹National Taiwan University Hospital & College of Medicine, Psychiatry, Taipei, Taiwan

0300

Risk factors and clinical correlates of CNVs associated with Autism spectrum disorders and schizophrenia: Evidence for joint contribution of genetic and environmental risk factors

Background: Emerging evidence on the association between copy number variants (CNVs), a type of DNA structural variation, and neuropsychiatric disorders provides a new vista on understanding unique and pleiotropic susceptibility to neuropsychiatric disorders such as Autism Spectrum Disorders (ASD) and schizophrenia. Specific CNVs have been associated with a range of phenotypic manifestations that characterize several neurodevelopmental disorders including ASDs, schizophrenia, bipolar disorder and attention deficit disorder. Therefore, rather than the traditional approach of attempting to identify genes for particular diagnoses, we investigate CNVs affecting brain-related genes as risk factors for sub-phenotypes. We hypothesized that there will be both common and unique risk factors and clinical manifestations of CNVs.

Methods: Rare CNV and detailed phenotype data were derived from the Autism Genome Project ($N=1590$ cases) and Irish schizophrenia cases ($n=396$). Patients were classified by the presence or absence of a rare CNV that impacts genes previously implicated in ASD/intellectual disability (ID), or that are differentially brain expressed, and association with candidate neurodevelopmental phenotypes were examined. Random forests and mixture models were used to explore whether phenomic features identify CNV-defined sub-groups.

Results: Paternal age was associated with deletions in brain expressed genes in both the samples, suggesting a general influence of advanced paternal age on neurodevelopmental disorders. ASD/ID-implicated CNVs were associated with sub-phenotypes that tapped communication and language, and were rare in the schizophrenia sample, suggesting some specificity of the core features of ASDs. CNVs were 50% less common in those with a family history of mental disorders in the schizophrenia sample suggesting that family history may

0350

Alison Merikangas¹, Elizabeth Heron¹, Richard Anney¹, Aiden Corvin¹, Louise Gallagher¹

¹Trinity College Dublin, Psychiatry, Dublin, Ireland

index heritable genes rather than de novo mutations.

Discussion: These analyses demonstrate the importance of investigation of both common and unique genetic and environmental factors that may underlie discrete disorders such as schizophrenia and ASDs, as well as sub-phenotypes that may represent more direct links with biologic and genetic pathways underlying these disorders.

0056

Freya Tyrer¹, Terry Brugha¹, Kobus van Rensburg², Samantha Lewis², Andrew Leaver¹, Caroline Lovett¹

¹University of Leicester, Health Sciences, Leicester, United Kingdom
²Northamptonshire Healthcare NHS Foundation Trust, Kettering, United Kingdom

Screening adults for social and communication disorders, including autism spectrum disorders

Objective: The objective of this study was to assess the validity of two self-report questionnaires, the Ritvo Autism and Asperger's Diagnostic Scale - Revised (RAADS-R) and the Autism-Spectrum Quotient (AQ), as methods for screening adults for ASD.

Material and Methods: Content validity of the RAADS-R and AQ was assessed by an expert panel of 8 health professionals who rated items on the questionnaires by relevance, clarity and comprehensiveness. Criterion-related validity was assessed by asking more than 700 mental health service users to complete the RAADS-R and AQ in Northamptonshire and Leicestershire, UK. Scores on the questionnaires were compared with a reference standard, the Autism Diagnostic Observation Schedule Module 4 (ADOS Mod 4).

Results: The results of the study will be presented.

Conclusion: The implications of the findings will be presented.

0096

Aurelie Lasserre¹, Jennifer Glaus¹, Caroline Vandeleur¹, Pedro Marques-Vidal², Murielle Bochud², Pascal Bovet², Gerard Waeber³, Peter Vollenweider³, Martin Preisig¹

¹CEPP, Department of Psychiatry, Prilly, Switzerland
²IUMSP, Lausanne, Switzerland
³CHUV, Lausanne, Switzerland

Prospective association between depression subtypes and BMI, waist circumference and body fat change in the community

Question: Obesity and depression are increasingly prevalent in the general population and are two major health burdens. Previous research on the association between these diseases has produced inconsistent results which could be attributable to the heterogeneity of depression and the lack of longitudinal data. The aim of this study was to investigate the association between depression subtypes and subsequent changes in body mass index (BMI), waist circumference and body fat.

Methods: The CoLaus|PsyCoLaus Study is a prospective cohort study including 35 to 66 year-old randomly sampled residents of the city of Lausanne (Switzerland). A total of 2997 participants (86% participation rate at follow-up) underwent an extensive physical and psychiatric evaluation at baseline (53.3% females; mean age 51.0 years) and the physical evaluation at the 5-year follow-up. DSM-IV Axis-I criteria were elicited using the semi-structured Diagnostic Interview for Genetic Studies. Weight, height, waist circumference and body fat (bioimpedance) were measured at baseline and follow-up by trained nurses. Obesity was defined as having a BMI ≥ 30 kg/m².

Results: After adjustment for socio-demographic and lifestyle characteristics, psychiatric comorbidities and drug treatment, individuals with current atypical depression at baseline showed a higher annual increase of BMI and waist circumference and had a more than tripled incidence of obesity during follow-up than never depressed subjects. Similarly, the annual increase of body fat was higher in males with current atypical depression at baseline compared to never depressed males.

Conclusions: The atypical depression subtype is a strong and specific predictor of adiposity. This emphasizes the need to subtype depression in future research and to pay particular attention in clinical settings to the atypical subtype regarding the risk of obesity in these subjects.

Prevalence and treatment of eating disorders in Switzerland

Background: Few population-based studies exist on the prevalence of eating disorders, although some have shown that the prevalence of eating disorders has increased in recent decades. To date, the prevalence of eating disorders in Switzerland has remained unknown. The main purpose of the present study was to estimate the prevalence and treatments of eating disorders in Switzerland.

Methods: The study was a cross-sectional household survey that included a national representative sample of 10'038 residents, ages 15-60 years old, across all three language regions in Switzerland. A computer-assisted telephone interview was conducted between April and October 2010. Eating disorders were assessed using "WHO Composite International Diagnostic Interviews" (WHO-CIDI) that applied DSM-IV criteria. It allows the investigators to assess prevalence, severity, treatment and service use of mental disorders.

Results: The lifetime and 12-month prevalence rates for any eating disorder (anorexia nervosa, bulimia nervosa, or binge eating disorder) were found to be 3.5% and 1.1%, respectively. The lifetime prevalence of anorexia nervosa (AN), bulimia nervosa (BN), binge eating (BED), and any other eating disorder were 1.2%, 2.4%, 2.4%, and 5.3%, respectively, for women, and 0.2%, 0.9%, 0.7%, and 2.9%, respectively, for men. Among those who met the criteria of AN, BN or BED, only 49% of men and 67.9% women ever sought consultation about their problems with eating or weight. Furthermore, about half of those who met the criteria of AN, BN or BED got treatments that they considered effective or helpful.

Conclusions: In Switzerland, the prevalence of eating disorders is comparable to that of other developed countries, and therefore, not rare. However, it is alarming that more than half of the men and about one third of the women who met the criteria of eating disorder have never consulted any professionals about their problems with eating or weight. Due to the serious consequences of eating disorder, it is important to make the population aware of the risks of either being overweight or being underweight. It is an important public health concern to help those who are at-risk of developing an eating disorder to get consultation or treatment, especially among men.

Mortality in eating disorders: A case-control study of adult eating disorder patients treated in tertiary-care, 1995-2010

Objective: To determine mortality in eating disorder patients treated in tertiary-care.

Method: Case-control study of adults (N=2450, 95% women) admitted to the eating disorder clinic of the Helsinki University Central Hospital in the period 1995-2010. For each patient four controls were selected and matched for age, sex and place of residence. Poisson regression model was used to calculate mortality rate ratios (RR) with 95% confidence intervals (CI).

Results: The RR for all cause mortality was 6.52 (95% CI 3.42-12.42) in broad anorexia nervosa (AN), 2.97 (95% CI 1.89-4.65) in broad bulimia nervosa (BN) and 1.78 (95% CI 0.55-5.77) in binge eating disorder (BED). Mortality risk in broad AN was highest during the first years after admission but declined thereafter, while in broad BN the mortality risk started to rise two years after the first admission. The rate ratio for suicide was elevated both in broad AN (RR 5.10; 95% CL 1.37-18.98) and in broad BN (RR 6.07; 95% CI 2.48-14.86).

Conclusion: Mortality rates in the study confirm the serious nature of eating disorders and the increased risk of suicide both among AN and BN patients.

0169

Meichun Mohler-Kuo¹, Petra Dermota¹,
Gabriella Milos², Ulrich Schnyder²

¹Institute of Social and Preventive
Medicine, University of Zurich, Mental
Health and Social Epidemiology,
Zurich, Switzerland

²University Hospital Zurich, Department
of Psychiatry and Psychotherapy, Zurich,
Switzerland

0314

Jari Haukka¹, Jaana Suokas²,
Jaana Suvisaari³, Mika Gissler³,
Rasmus Löfman¹, Anu Raevuori¹,
Milla Linna¹

¹University of Helsinki, Hjelt Institute,
Helsinki, Finland

²Helsinki University Central Hospital,
Department of Psychiatry, Helsinki,
Finland

³National Institute for Health and
Welfare, Helsinki, Finland

0207

Claudia Sikorski^{1,2}, Melanie Lippa¹,
Wolfgang Maier³, Horst Bickel⁴,
Jochen Gensichen⁵, Juliana J Petersen⁶,
Michael Pentzek⁷, Siegfried Weyerer⁸,
Birgitt Wiese⁹, Hans-Helmut König¹⁰,
Hendrik van den Bussche¹¹,
Martin Scherer¹¹, Steffi G. Riedel-Heller¹

¹University of Leipzig, Institute of Social
Medicine, Occupational Health and
Public Health, Leipzig, Germany

²University of Leipzig, IFB
AdiposityDiseases, Leipzig, Germany

³University of Bonn, Department of
Psychiatry and Psychotherapy, Bonn,
Germany

⁴Technical University of Munich,
Department of Psychiatry, Munich,
Germany

⁵Jena University Hospital, Department
of General Practice, Jena, Germany

⁶Goethe-University Frankfurt am Main,
Institute of General Practice, Frankfurt
am Main, Germany

⁷University of Dusseldorf, Department of
General Practice, Dusseldorf, Germany

⁸Central Institute of Mental Health,
Mannheim, Germany

⁹Hannover Medical School, Institute for
Biometry, Hannover, Germany

¹⁰Hamburg-Eppendorf University
Medical Center, Department of Medical
Sociology, Social Medicine and Health
Economics, Hamburg, Germany

¹¹Hamburg-Eppendorf University
Medical Center, Department of Primary
Medical Care, Hamburg, Germany

Obesity and associated lifestyle in a large sample of multi-morbid German primary care attendees

Question: Obesity and the accompanying increased morbidity and mortality risk is highly prevalent among older adults. As obese elderly might benefit from intentional weight reduction, it is necessary to determine associated and potentially modifiable factors on senior obesity. This study focuses on multi-morbid patients which make up the majority in primary care.

Methods: A total of 3,189 non-demented, multi-morbid participants aged 65-85 years were recruited in primary care within the German MultiCare-study in 2008 to 2009. A healthy lifestyle score (HLS) was introduced. BMI (e.g. general obesity) and waist circumference (WC, abdominal obesity) were used as outcome measures.

Results: About one third of all patients were classified as obese according to BMI. The prevalence of abdominal obesity was 75%. Adjusted for sociodemographic variables and disease burden, participants with the highest HLS displayed a lower BMI (-0.7 kg/m², p<0.016) and WC (-4.3 cm, p<0.001). Additionally, in multivariate regression, higher subjective and objective health-related impairment were associated with lower WC and BMI. For individual lifestyle choices, higher physical activity ($\beta = 1.111$; p < .01) and current smoking ($\beta = -1.543$; p < .01) were associated with BMI.

Conclusion: Assessment of WC as a measure of obesity in multi-morbid elderly seems inevitable in order to identify individuals at risk. Yet, age-specific thresholds for the BMI are needed likewise. The general practitioner plays an essential role in delivering weight counseling to older patients and is able to assess relevant lifestyle choices. Encouraging and promoting physical activity in older adults might a starting point for weight reduction efforts.

0257

Nicholas Turner¹, Carol Joinson¹,
Tim Peters¹, Nicola Wiles¹, Glyn Lewis¹

¹University of Bristol, School of Social
and Community Medicine, Bristol,
United Kingdom

Validity of the short mood and feelings questionnaire in young adults

Background: The validation literature surrounding the Short Mood and Feelings Questionnaire (SMFQ) has largely focussed on selected or clinical samples of children (6-11 years) or adolescents (12-16 years), without an investigation of potential misclassifications or how the SMFQ relates to adult depression measures.

Objective: To assess the validity of the SMFQ in young adults (aged 17-18), with respect to an adult measure of depression, and to investigate the potential impact of socio-demographic and clinical variables previously shown to affect misclassification of depression diagnosis.

Methods: Participants came from the Avon Longitudinal Study of Parents and Children (ALSPAC), a large and ongoing population-based birth cohort.

Construct validity was assessed using factor analysis and item response theory (IRT) analysis. To investigate content validity, the 13 items of the SMFQ were tabulated against the ICD-10 and DSM-IV criteria for depression. Criterion validity was tested using Receiver Operating Characteristics (ROC) analysis. Potential misclassifications were investigated using logistic regression and multiple indicator multiple cause (MIMIC) modelling.

Results: Factor analysis produced high factor loadings, low residual variances and appropriate model fit indices. Seven of the ten ICD-10 diagnostic criteria were covered by at least one SMFQ item. The general discriminatory ability of the SMFQ for depression diagnosis was very high (Area under ROC curve 0.90). Subjects with symptoms of generalised anxiety disorder (GAD) over-reported depressive symptoms on the SMFQ.

Conclusions: The SMFQ is a valid instrument capturing a latent trait of depression in a community population of young adults, but it over-estimates depression in subjects with GAD symptoms. The study highlights the need for further research to better understand misclassifications in depression instruments and the need for mapping exercises to permit score conversions between instruments.

The reliability of the Standard for Clinicians' Interview in Psychiatry (SCIP): A comparison of inter-rater reliability between USA and Egypt

0083

Ahmed Aboraya¹, Cheryl Hill¹,
Daniel Elswick¹, James Berry¹

¹West Virginia University, Psychiatry,
Morgantown, West Virginia, United
States

Background: The Standard for Clinicians' Interview in Psychiatry (SCIP) is a method of assessment of psychopathology, administered by clinicians (psychiatrists and experienced mental health professionals) and includes the SCIP interview and the SCIP manual. The SCIP method of psychiatric assessment has three components: the SCIP interview (dimensional) component, the etiological component, and the disorders classification component. The SCIP has three main types of output: a diagnostic classification of the disorder, dimensional scores, and numerical data. The SCIP provides diagnoses according to the Diagnostic and Statistical Manual (DSM) and International Classification of Disease (ICD) criteria. A dimensional score is provided for the following types of psychopathology: obsessions, compulsions, depression, mania, suicide, delusions, hallucination, agitation, disorganized behavior, negative symptoms, catatonia, drug addiction, posttraumatic stress, attention, and hyperactivity. The SCIP produces numeric data for psychopathological symptoms and signs that can be used for research.

Methods: The SCIP was tested in an international multisite study in three countries (USA, Canada and Egypt) between 2002 and 2010. The total sample size of all the sites is 1,010 subjects making the SCIP project the largest validity and reliability study ever. Ten sites participated in the SCIP project; five sites in the USA and five sites in Canada and Egypt. Three reliability methods were used in the analyses: inter-rater, test-retest and internal consistency.

Results and conclusions: The data show the SCIP items are reliable in the two communities (USA and Egypt). Kappas of SCIP items in both communities will be presented. Kappas with different values and the role of cultural differences will be discussed.

LEGASCREEN - A multimodal test for early indicators of dyslexia

0369

Arndt Wilcke¹, Jens Brauer²,
Holger Kirsten^{1,3}, Regine Oberecker²,
Johannes Boltze¹, Angela Friederici²

¹Fraunhofer Institute for Cell Therapy and Immunology, Department of Cell Therapy, Leipzig, Germany
²Max-Planck-Institute for Human Cognitive and Brain Sciences, Department of Neuropsychology, Leipzig, Germany
³Institute for Medical Informatics, Statistics and Epidemiology (IMISE), Leipzig, Germany

Objective: Dyslexia, a severe disorder of learning to read and write, is one of the most common developmental disorders, affecting 4-5% of all school children (often persisting into adulthood) and causing enormous individual and societal expenses.

To date, effective, but cost-intensive therapies/trainings exist in form of special classes for dyslexic children. However, the possibility to identify affected children at an early stage of speech development, when specialised training is most promising, is still very limited.

The project's aim is the closer investigation of early indicators for dyslexia in young children. The project's agenda is a multimodal approach based on genetics, brain function (electroencephalography, EEG), and brain structure (magnetic resonance imaging, MRI).

Material and Methods: Within the LEGASCREEN project, three approaches are combined to identify early and reliable indicators for dyslexia: genetics, EEG, and MRI.

Dyslexia has a strong genetic background. Up to 50-70% of this disorder can be explained by genetics. In this project, we will investigate the predictive potential of pre-validated genetic markers. Furthermore, it is known that dyslexics show characteristically altered EEG-signatures. These alterations are present in the mismatch response (mismatch negativity, MMN). They are found even in infants at risk for dyslexia and therefore are potentially suitable early markers.

A third component of the project are MRI measurements to study structural differences of the brains of children at risk for dyslexia. This information can be related e.g. to reading ability and the individual's genetic profile.

Results and Conclusions: Results of the LEGASCREEN project will deepen the understanding of dyslexia related processes and its neural and genetic backgrounds. Eventually, this knowledge will be applied to develop a test for early identification of dyslexia in preschool age.

0294

Nina Rieckmann¹,
Sarah McFarland², Volker Arolt³,
Wilhelm Haverkamp⁴, Andreas Ströhle⁵,
Johannes Waltenberger⁶,
Jacqueline Müller-Nordhorn¹

¹Charité Universitätsmedizin Berlin,
Berlin School of Public Health, Berlin,
Germany

²University of Florida, College of
Public Health and Health Professions,
Gainesville, United States

³Universitätsklinikum Münster, Klinik
für Psychiatrie und Psychotherapie,
Münster, Germany

⁴Charité Universitätsmedizin Berlin,
Medizinische Klinik mit Schwerpunkt
Kardiologie, Berlin, Germany

⁵Charité Universitätsmedizin
Berlin, Klinik für Psychiatrie und
Psychotherapie, Berlin, Germany

⁶Universitätsklinikum Münster,
Department für Kardiologie und
Angiologie, Münster, Germany

Comparative accuracy of German language depression screening instruments

Objective: To review the comparative accuracy of German language depression screening instruments for adults.

Methods:

- Systematic review of studies comparing the diagnostic accuracy (area under the curve, AUC) of a) short and long versions of the same instrument or b) two or more instruments within one sample against a gold standard clinical depression diagnosis.
- Cohort study with coronary heart disease patients, comparing the accuracy of the patient Health Questionnaire (PHQ) and the Hospital Anxiety and Depression Scale (HADS) in detecting clinical depression assessed by standardized clinical interview.

Results: Three studies compared long and short versions of the same instrument (Geriatric Depression Scale [GDS] and Beck Depression Inventory). AUC, sensitivity and specificity were satisfactory and comparable between long- and short versions with the exception of the GDS-4 which performed worse than the GDS-8.

Nine studies (N from 204 to 569) compared two or more different instruments (most studied were the WHO-5 Well-Being Index, General Health Questionnaire, PHQ, HADS). AUC ranged from 0.68 to 0.95 (median 0.84). Sensitivity ranged from 53% to 98% (median 82%), specificity from 52% to 97% (median 76%), optimal cut-offs for the same instruments varied between studies.

Eight studies performed a statistical test to compare diagnostic accuracy of instruments. In 4 studies, one instrument performed significantly better than others, however, no single instrument was more accurate than others in more than one study.

This review will be supplemented with data from the ongoing cohort study available in May 2013. Preliminary analyses suggest similar diagnostic accuracy of the HADS and the PHQ.

Conclusion: The majority of depression screening instruments had fair - good accuracy for the detection of clinical depression. No single instrument appears more accurate than others. In clinical settings, cut-offs need to be set weighing the need for higher sensitivity versus specificity.

0328

Angus Thompson¹, Kate Woodman²,
Carolyn Dewa³, Jaspal Sandhu⁴,
Philip Jacobs¹

¹Institute of Health Economics,
Edmonton, Canada

²Charis Consulting, Edmonton, Canada

³Centre for Addiction & Mental Health,
Toronto, Canada

⁴R.A. Malatest & Associates, Edmonton,
Canada

Improving response rates during a survey: Intervention or practice effects?

Objectives: It is often difficult to obtain suitable response rates in community surveys. Our objective was to examine a response rate problem in a workforce survey of addictive behaviours and mental disorder.

Method: Data were collected over a 13-week period from a representative sample of 2817 Canadian workers. Respondents were asked to complete a telephone survey about their

experience with these issues, the impact of them on their job performance, and overall mental health. The discovery of an initial low compliance rate prompted a number of remedial adjustments throughout survey administration. This included (1) detailed sessions with survey staff to provide additional training and to garner their observations and suggestions, (2) daily monitoring of interviewee engagement and on-going communication with survey supervisors to address concerns as soon as possible, (3) dissemination of recruitment techniques used by successful interviewers, and (4) adjustment of caller disposition procedures to allow surveyors more opportunity to recruit initially reluctant respondents. Initially we analyzed the survey results in the context of a single-group design, but we were able to gain later access to the response rates from two other surveys for comparison.

Results: Survey response rates increased from less than 30% during the first two weeks of administration (28.8% & 27.0%) to more than 70% by the final two weeks (72.5% & 72.8%). Initially, the results were thought to demonstrate the impact that working closely with survey supervisors and staff can have on the successful surveying. However, the analysis of our comparison data indicated that the other two surveys also showed a remarkable improvement from beginning to end and that the rate of improvement did not differ across surveys.

Conclusions: The implications of this will be discussed in terms of interviewer training and experience, "true" vs. effective response rate, and midstream alterations in survey procedure.

Relevance of the sampling frame for telephone surveys in the field of psychiatric epidemiology: Evidence from a national prevalence study on pathological gambling

Background: The proportion of individuals who were accessible via cell phones but not via landline phone rapidly increased over the past decade. Accordingly dual sampling frames including random samples of mobile phone and landline numbers had been developed by survey research. The aim of the present study is to analyze if the increased efforts were justified by reduced coverage bias in the field of mental health telephone surveys.

Method: A total of 14,022 individuals aged 14 to 64 and recruited from a random sample of landline telephone numbers have been interviewed. Further 13,273 individuals from a random sample of mobile phone numbers were screened for accessibility by landline phone and 1001 participants who reported to be exclusively accessible via mobile phone (mobile only) have been included in the study. The gambling section of the Composite International Diagnostic Interview (CIDI) was used as a case finding instrument. Data were analyzed by logistic regression adjusted for the complex sampling design.

Results: Compared to the landline telephone sample, participants in the mobile only sample were younger, had a lower educational level, and were more likely to be male or unemployed. No differences were found with respect to migration. The odds of pathological gambling was increased by the factor 2.5 (OR 95%-CI: 1.9-3.5) in the mobile only compared to the landline sample. A significant difference remained after adjustment for the aforementioned socio-demographic variables (adj. OR = 1.6; 95%-CI: 1.2-2.2). Estimates for the lifetime prevalence of pathological gambling based on the combination of both samples were elevated by 11% compared to estimates derived from the landline sample alone.

Conclusion: The present study demonstrated a substantial coverage bias for a survey relying on a landline telephone sample. Extended weighting procedures including social indicators only partially compensate for such differences. Recent trends towards decreasing accessibility via landline telephone have to be considered in the field of mental health survey research. Dual sampling frame methodology provides a feasible approach to cover the general population.

0372

Christian Meyer¹, Nadin Kastirke¹, Anja Bischof², Diana Gürtler¹, Reiner Gilberg³, Doris Hess³, Hans-Jürgen Rumpf², Ulrich John¹

¹Institute of Epidemiology and Social Medicine, University of Greifswald, Greifswald, Germany

²Department of Psychiatry and Psychotherapy, Research Group S:TEP (Substance Abuse: Treatment, Epidemiology and Prevention), University of Lübeck, Lübeck, Germany
³infas Institute for Applied Social Sciences, Bonn, Germany

0157

Sam Adams^{1,2}, [Stephanie Sampson](#)¹,
Natalie English³

¹Institute of Mental Health, University of
Nottingham Innovation Park, C Floor,
Nottingham, United Kingdom

²Minster School, Southwell,
Nottingham, United Kingdom

³Bilborough College, Nottingham,
United Kingdom

Medication reminder apps using Android and Apple technologies

Objectives: Over 144.9 million smartphones were sold worldwide last year; in the UK alone, almost half of the population use smartphone technology, including Android and Apple devices. If 20% of this population require regular medication and 10% forget to take them, $\frac{2}{3}$ m people could be helped by so-called 'medication reminder' mobile apps (mobile software applications).

As of July 2012, Janssen Pharmaceuticals launched their first free-to-use app in the US, in their bid to improve medication adherence. Against this backdrop, we were interested to review the currently available apps for Android and Apple smartphones that set reminders for medication use.

Materials and methods: By using the term 'medication reminder', we searched both online Apple and Android stores in July 2012, iTunes and Google Play sources for apps, we then selected only the free apps that were common to both providers and downloaded onto an iPad. These features were tested and reviewed by students, in an effort to investigate their efficacy, including information retrieval and general productivity.

Results: The search for Android yielded more relevant apps (115) than the Apple search (20); however, we only found six to compare. We constructed a comparison table using basic MS Excel tools, which assessed each app on an individual basis. We found that most were designed to enable the user to add specific times in order to set medication reminders; most had the facilities to store doctor/ pharmacy details and all apps provided text banner alerts to inform users of times to take medication. However, none of these selected apps had the capability of defining possible limits for incorrect dosing, and only one provided the user with the option of using an 'emergency call button'.

Conclusions: The limited free apps that were available at the time of the search generally demonstrated very different functions, with only text banner alerts serving as a common theme between each. Due to the ever-changing, dynamic nature of this technology, and the input of drug companies, another update search is needed, with a comparison between the services of free and priced apps.

0171

[Neeltje van den Berg](#)¹, Hans
J Grabe², Harald J Freyberger²,
Wolfgang Hoffmann¹

¹University Medicine Greifswald,
Institute for Community Medicine,
Greifswald, Germany

²University Medicine Greifswald,
Department of Psychiatry and
Psychotherapy, Greifswald, Germany

A telemedical healthcare concept for patients after treatment in a psychiatric day hospital

Introduction: As in other countries worldwide, the prevalence of mental disorders (e.g. depression, somatoform, and anxiety disorders) in Germany is high. Treatment rates are usually low. Especially in rural regions, gaps in the ambulatory treatment for patients with mental disorders are apparent.

To bridge these gaps, a low threshold telemedical care concept was developed in which patients after treatment in a day hospital receive telephone contacts and individual text-messages. Aim of the study is to evaluate the effects of the telemedical interventions on the psychopathological outcomes anxiety, depressive symptoms, and somatization.

Methods: Since September 2009, a three-armed randomized is conducted. Patients shortly before discharge from the psychiatric day hospital, with diagnoses of depression, somatoform, anxiety, and adjustment disorders are included. The interventions consist of regular telephone consultations (study-arm 1) or telephone consultations with complementing text-messages (study-arm 2) during a time period of 6 months. The third arm is a control group receiving usual care. Outcomes are measured with the separate components of the Brief Symptom Inventory (BSI-18) including depression, anxiety, and somatization.

Results: With data as from January 2012, an explorative interim analysis was carried out. 97 patients were included in the analysis (29 females, 68 males). The mean age of the participants was 44.8 years (SD: 10.5; range: 19.8-66.1 years). Thereof, 88 patients could

be included in the 6-month follow-up (29 and 32 in the respective intervention arms, 27 in the control group). The score for depression of the BSI-18 improved in the intervention group with telephone contacts and short-text-messages from 8.1 to 5.9 ($p=0.046$). The scores for anxiety and somatization showed a positive trend. The end of the study is scheduled to the end of 2012.

An online intervention for reducing depressive symptoms: Secondary benefits for self-esteem, empowerment and perceived quality of life.

Objective(s): Breaking through some of the barriers associated with the availability and accessibility of health services, the Internet is increasingly being recognized as an effective avenue for the delivery of psychological interventions for the treatment and prevention of various mental health conditions. While some evidence exists for the effectiveness of online programs for reducing symptoms of depression, the current study sought to extend this to an exploration of the secondary benefits which may be obtained through participation in such an intervention. This presentation will report on the effectiveness of a 12-week randomized controlled trial, designed to reduce depressive symptoms, on individuals' self-esteem, empowerment, quality of life and perceptions of social support.

Material and Methods: Participants for the study comprised 298 Australian adults aged 18 to 66 years displaying elevated psychological distress scores on the Kessler 10. Participants were randomised to receive one of four conditions: a depression Internet support group, a multi-modal automated depression Internet training program comprising psycho-educational and evidence-based modules (e-couch), a combination of these first two conditions, or a control website. Analyses were performed on an intent-to-treat basis.

Results: Results support that there are extended benefits to the delivery of online psycho-educational and skills training for reducing and preventing depression. These included immediate improvements in self-esteem and empowerment for participants completing the e-couch program, and improvements in perceived quality of life 6-months following the completion of the intervention when e-couch was combined with the online support group.

Conclusions: It is considered that these findings provide strong evidence for the utility of this online intervention for improving psychological wellbeing and resilience extending beyond the intended treatment.

Continuous monitoring of detoxified patients with alcohol dependence with mobile phone short message service (SMS)

Question: Growing evidence supports the assumption, that continuous outpatient therapy with reduction of consumption as target is successful for a large number of patients with alcohol dependence. In this study we tested the feasibility of mobile phone short message service (SMS) as cost-effective element for alcohol dependence treatment.

Method: In a controlled open pilot study a 2-months outpatient interactive mobile phone SMS intervention ($n = 42$) was tested against treatment as usual (TAU; $n = 38$) in consecutive blocks. Patients were asked for help-need by automatically generated SMS twice weekly and called back by the therapist when required. After 4 and 8 weeks alcohol consumption was assessed via telephone with the FORM-90 telephone-questionnaire. Response was defined as attaining low risk consumption (WHO) after 8 weeks (primary endpoint).

Results: The system performed 3006 operations automatically to maintain contact (SMS-transmission, notification of the therapist). Only 20.5% of the SMS-replies led to a phone call, highlighting the efficient filtering performance of the system. No treatment effects were

0162

Dimitry Crisp^{1,2}, Kathleen Griffiths¹¹Australian National University, Centre for Mental Health Research, Canberra, Australia²Australian National University, Centre for Research on Ageing Health & Wellbeing, Canberra, Australia

0054

Michael Lucht¹, Luise Hoffmann¹, Severin Haug¹, Anne Quellmalz¹, Christian Meyer², Harald J. Freyberger¹, Georg Schomerus¹, Ulrich John²¹Greifswald University HELIOS Hansehospital, Psychiatry and Psychotherapy, Stralsund, Germany²Greifswald University, Epidemiology and Social Medicine, Greifswald, Germany

found for the total group. On a trend level the intervention increased the percentage of patients who achieved low risk consumption, when extreme consumers (upper quartile) were excluded (risk ratio: 1.70, 95% CI: .97 - 3.08; risk difference: 0.27, 95% CI: -.02 - 0.51; NNT = 3.7 (95%CI: 2.5 - ∞); $\chi^2 = 4.893$, $p = 0.087$). This group showed a pretreatment alcohol consumption which is comparable to other relevant studies in this field. Small effects ($\eta_p^2 > 0.1$) in reducing alcohol consumption were found for SMS depending on pre-treatment consumption and sex. SMS patients reported a higher time to relapse ($p = 0.004$) and increased detoxification-readmission ($p = .048$).

Conclusion: Study results indicate that SMS based follow-up is feasible. The hypothesis that the SMS therapy has advantages over TAU is currently studied in an adequately powered randomized multi-centre study.

0393

Stephanie Bauer¹, Markus Moessner¹,
Carla Minarik¹, Fikret Özer¹

¹University Hospital Heidelberg,
Center for Psychotherapy Research,
Heidelberg, Germany

Internet-based prevention and early intervention in eating disorders: Reaching an underserved population?

Question: Only a minority of individuals affected by eating disorders seek professional help. Furthermore we often see a substantial delay between symptom onset and the uptake of treatment. The present research aims to identify barriers towards help seeking and explores the potential of an online platform in facilitating access to professional help. The research is conducted as part of the European project ProYouth which aims at the prevention and early intervention in eating disorders via an Internet-based platform.

Methods: In study 1 we assessed participants' mental health literacy, their help seeking intentions concerning face-to-face and online support, and potential barriers towards seeking professional help (e.g. stigmatization of eating disorders) in a sample of 507 high school students. Study 2 includes individuals who registered for participation in the online ProYouth platform since its launch end of 2011 (N = 914). Their impairment and utilization of professional support is assessed at registration and at 3-month intervals thereafter, their utilization of the online modules is tracked automatically by the system.

Results: Results of study 1 indicate that only approx. 30% of students would seek face-to-face professional help in case of an eating disorder. They confirm lack of mental health literacy, shame, and stigmatization as barriers in the help seeking process. Attitudes towards an online support platform were overall positive with approx. 60% of participants stating that they would use the program if they were in need of help. Baseline data from study 2 indicate that only 24% of individuals who report severe symptoms of an eating disorder currently undergo treatment. Results of the 6-months follow-up (available in spring 2013) will inform us on participants' utilization of online and face-to-face support over time.

Conclusions: Firstly, our findings point to the need for low-threshold programs for education around mental health and de-stigmatization of eating disorders. Secondly, they indicate that an Internet-based platform may make an important contribution in reducing barriers towards help seeking and that such a program may reach an underserved population. We will discuss the potential and limitations of the ProYouth platform in facilitating timely access to regular care.

0436

Chiara Samele¹, Stuart Frew¹,
Norman Urquía¹, Nick Manning¹,
Justine Schneider¹, Peter Bartlett¹,
Eddie Kane¹

¹Institute of Mental Health, Research,
Nottingham, United Kingdom

Mental health promotion and prevention of mental illness initiatives across Europe Union Member States: Evidence and practice based examples

Background: Mental health promotion and prevention of mental illness has received a great deal of attention since 2005 with the introduction of a number of important European policies and action plans to improve the mental health of the population. Concerns regarding the high prevalence of mental illness across Europe (Wittchen et al 2011; 2005) and its associated economic costs (Gustavsson et al 2011); together with the growth in

the evidence base for prevention and promotion of mental health prompted policy makers to approve the: 'Mental Health Declaration' (World Health Organization 2005) and a 12-point action plan; European Commission's Green Paper 'Improving the Mental Health of the Population' (2005) and 'European Pact for Mental Health and Well-Being' (2008). Subsequently, Member States have been encouraged to implement prevention and mental health promotion activities through these policies and their recommendations.

Aims: In a project entitled 'Profiling mental health systems in the European Union Member States and activities in prevention and promotion of mental health' (EuroPoPP-MH) we aimed to profile mental health systems in EU Member States, describe the mental health status of the population and the types of mental health promotion and prevention initiatives implemented over the past five to ten years in schools, the workplace and with older people in long-term care institutions. Here we report on the prevention of mental illness and mental health promotion programs and activities.

Methods: Using a multi-method approach we:

- a) conducted a review of the literature using many techniques of a systematic review
- b) used a structured template to collect, via country collaborators, information/data from secondary sources on 29 countries, including all 27 Member States, Croatia and Norway
- c) searched EU and WHO databases for European statistics on mental health indicators
- d) conducted a survey of mental health promotion and prevention experts from participating countries

Results: Numerous examples of prevention and promotion of mental health initiatives were identified both from literature review and those reported by country collaborators. A total of 428 mental health promotion and prevention initiatives were cited by country collaborators; predominantly practice based examples. Of all the initiatives reported, 185 (43.2%) took place in schools, 100 (23.4%) in the workplace, 32 (7.5%) for older people in long-term care institutions and 111 (25.9%) general programs targeting other populations. Evidence based examples were mostly gathered from the literature.

Overall, 40 types of prevention and promotion activities were categorised from the programs reported. The top ten activities (drug and alcohol prevention, improving life skills, mental health illness prevention, mental health promotion and counselling/advice etc) accounted for 57% of all activities.

Conclusions: Steady progress has been made across European Member States in implementing mental health prevention and promotion initiatives over the past 5 years. Maintaining this momentum is an important next step.

Project funders: The Executive Agency for Health and Consumers (a related agency of the European Commission)

Shared decision making in the treatment of people with chronic mental illness: Qualitative study with focus groups

Objective(s): Shared decision making during the course of treatment is also a concern of people with severe mental illness. However there is still insufficient knowledge about how the understanding is about decisions in routine care, what kind of decisions are made and how patients experience and perceive the concrete process of participation.

Material and methods: A qualitative study with focus groups was conducted with patients with chronic mental illness currently treated in outpatient setting (N=23). Interviews were audio taped, transcribed, coded and analyzed using the method of content analysis.

Results: Six main categories were extracted from the data: 1. perception of the clinician, 2. process of communication 3. information, 4. decision and transfer, 5. participation and 6. stigma.

0354

Sabine Loos¹, Petra Neumann²,
Katrin Arnold¹, Mike Slade³,
Andrea Fiorillo⁴, Malene Krogsgaard
Bording⁵, Tibor Ivanka⁶,
Wolfram Kawohl⁷, Bernd Puschner¹

¹Ulm University, Dept. of Psychiatry II,
Section Process-Outcome Research,
Günzburg, Germany

²Ulm University, Psychiatry III, Ulm,
Germany

³King's College London, Institute
of Psychiatry, Section for Recovery,
London, United Kingdom

⁴University of Naples SUN, Dept. of
Psychiatry, Naples, Italy

▽

⁵Aalborg Psychiatric Hospital, Unit for Psychiatric Research, Aalborg, Denmark
⁶Dept. of Psychiatry, University of Debrecen, Debrecen, Hungary
⁷University of Zurich, Department of General and Social Psychiatry, Zurich, Switzerland

0357

Jana Konrad¹, Nadja Zentner¹,
 Mike Slade^{1,2}, Benjamin Mayer³,
 Bernd Puschner¹

¹Ulm University, Dept. of Psychiatry II,
 Section Process-Outcome Research,
 Günzburg, Germany

²King's College London, Institute
 of Psychiatry, Section for Recovery,
 London, United Kingdom

³Ulm University, Institute of
 Epidemiology and Medical Biometry,
 Ulm, Germany

Conclusion(s): Decisions in the course of an outpatient long term treatment are complex and multifaceted and are often not reached during one single appointment. Frequently, there are many more people from the private environment or other professionals engaged in decisions. The perception of participation in the decision process depends on a good relationship with the clinician.

A five-language multiperspective instrument to assess clinical decision making in the routine care of people with severe mental illness (CDRC)

Objective(s): To report on rational, development and psychometric properties of an instrument which measures vital aspects of clinical decision making in the routine care of people with severe mental illness from patient and staff perspectives.

Material and methods: The Clinical Decision-Making in Routine Care Scale (CDRC) was developed on the basis of results of literature search, expert consultations, and focus groups. The scale measures three main aspects of decision making at the previous treatment session: context (duration of sessions and live events), content (areas discussed and decided upon including a brief written description of the decision made), and implementation. Translations followed ISPOR Task Force principles of good practice for the translation and cultural adaptation of patient-reported outcome measures. Psychometric properties and decisions identified were evaluated using data (N=588 patients and N=212 clinicians) of the European multicentre observational study CEDAR. Concordance between patient and staff ratings was tested by Cohen's Kappa, and categories of decisions identified were cross-validated against pre-defined topics.

Results: Agreement between patients and staff was high for context items ($k=0.631$ for duration of meetings) and moderate for other items ($k=0.202$ to 0.488). Cross-validation of content of decisions (coded qualitative vs. quantitative categories) showed considerable overlap but also some marked differences. Levels of implementation of recent decisions were reported high by both patients (71.8%) and staff (74.0%).

Conclusion(s): Overall, results indicate striking similarities between patient and clinician accounts of decision making. After some final changes, e.g. refinement of the decision categories, with the CDRC a valid, reliable and feasible instrument will be available to assess crucial aspects of clinical decision making in routine mental health care.

0360

Nadja Zentner¹, Mike Slade²,
 Sabine Loos¹, Bernd Puschner¹

¹Ulm University, Dept. of Psychiatry II,
 Section Process-Outcome Research,
 Günzburg, Germany

²King's College London, Institute
 of Psychiatry, Section for Recovery,
 London, United Kingdom

The relation between clinical decision making and service use in people with severe mental illness across Europe

Objective(s): To examine the relation between clinical decision making (CDM) and service utilization and its moderators in patients with severe mental illness in six European countries.

Material and methods: 588 participants in Ulm (DE), London (UK), Naples (IT), Debrecen (HU), Aalborg (DK), and Zurich (CH) gave informed consent to take part in the European multicenter study "Clinical Decision-Making and Outcome in Routine Care for People with Severe Mental Illness" (CEDAR). CDM was assessed with three measures from patient and staff perspectives (CDM Style, CDMS; CDM Involvement and Satisfaction, CDIS; and CDM in Routine Care, CDRC). Self-reported mental health service use during one year before intake was measured via the "Client Sociodemographic and Service Use Inventory" (CSSRI-EU). Multivariate analyses will examine the relation between CDM and different aspects of service use including hospital in-patient days, out-patient/day care attendances, community-based service contacts (mental health, social services and primary care), criminal justice service contacts, and medication profile. In a second step, moderators of the CDM-service use relation (e.g. SES, symptom severity, helping alliance) will be examined.

Results: At intake, participants were on their early forties on average. The majority were female, and were diagnosed with a psychotic disorder (DSM IV). 25% were married, and only 19% were in paid employment. Participants' average LOS of inpatient mental health treatment during one year before study intake was 11.07 (SD = 32.07). More specifically, 476 (81%) had not received inpatient treatment, while 80 (14%) reported one and 32 (5%) reported two inpatient stays.

Conclusion(s): Results will be discussed in order to demonstrate whether clinical decision making is related to health service use. Also moderator effects will be discussed which may impact upon the relationship between clinical decision making and health service utilization.

The effect of clinical decision making on outcome over one year in people with severe mental illness across Europe

Objective(s): To examine the relation between clinical decision making (CDM) and outcome in people receiving routine mental health care.

Material and methods: CEDAR (www.cedar-net.eu) is a naturalistic prospective observational study with bimonthly assessments during a 12-month observation period. Between Nov 2009 and Dec 2011, 588 participants have been recruited from caseloads of outpatient/community mental health services at six study sites across Europe (Ulm/DE, London/UK, Naples/IT, Debrecen/HU, Aalborg/DK, and Zurich/CH). Crucial aspects of CDM from patient and staff perspectives at baseline were assessed by three scales: CDMS (Style, subscales Participation and Information); CDIS (Involvement and Satisfaction), and CDRC (CDM in Routine Care). Outcome (patient-rated unmet needs) was measured by the "Camberwell Assessment of Needs Short Appraisal Schedule" (CANSAS). Hierarchical linear modeling controlling for clustering of patients among clinicians was used to ascertain the relation between CDM and outcome over time.

Results: Reduction of unmet needs was predicted by satisfaction with the decision made at last treatment session, but not by clinical decision making style (participation in information) or involvement.

Conclusion(s): Enactment of CDM in the actual patient-staff encounter seems to contribute substantially to outcome while trait aspects of CDM (style: passive vs. shared vs. active) are apparently less important. Further analysis will show whether the CDM-outcome relation will prevail when taking into account moderator variables (e.g. study site, SES, type and severity of illness).

Family functioning, social support, mental health and use of health services: Preliminary findings from a longitudinal study of rural families

Objectives: We examined associations between family functioning, social support, mental health and health service utilisation. Methods and Materials: Participants were a stratified random sample of men (n=717) and women (n=1103) recruited from non-metropolitan NSW.

Results: Strong associations were observed between both poorer family functioning and poorer perceived social support and mental health impairment. Of those respondents with clinically significant levels of general psychological distress, a significant proportion reported avoiding discussing fears and concerns with their family. Participants who reported lower family functioning and social support were more likely to have used a mental health service in the past year. Older and married participants reported lower levels of distress than younger and non-married participants.

0352

Bernd Puschner¹, Thomas Becker²,
Andrea Fiorillo³, Aniko Égerházi⁴,
Malene Krogsgaard Bording⁵,
Wolfram Kawohl⁶, Mike Slade⁷

¹Ulm University, Dept. of Psychiatry II,
Section Process-Outcome Research,
Günzburg, Germany

²Ulm University, Dept. of Psychiatry II,
Günzburg, Germany

³University of Naples SUN, Dept. of
Psychiatry, Naples, Italy

⁴Dept. of Psychiatry, University of
Debrecen, Debrecen, Hungary

⁵Aalborg Psychiatric Hospital, Unit for
Psychiatric Research, Aalborg, Denmark

⁶University of Zurich, Department of
General and Social Psychiatry, Zurich,
Switzerland

⁷King's College London, Institute
of Psychiatry, Section for Recovery,
London, United Kingdom

0324

Peter Butterworth¹, Prasuna Reddy²,
Jonathan Mond², Emily Killen²,
Helen Stain³, Brian Kelly⁴, Kerry Inder⁴,
Lynette Fragar⁵

¹The Australian National University,
Canberra, Australia

²University of Newcastle, Centre for
Rural and Remote Mental Health,
ORANGE, Australia

³Durham University, School of
Medicine, Pharmacy and Health,
Stockton-on-Tees, United Kingdom

⁴University of Newcastle, Centre for
Brain and Mental Health, Newcastle,
Australia

⁵University of Sydney, School of Public
Health, Moree, Australia

Conclusions: The findings confirm that family functioning is central to the mental health of women and men in rural and remote regions. Extension of the current, cross-sectional findings to a prospective analysis of associations over a 3-year period will be discussed

0122

Louise Fournier^{1,2,3}, Elise Chartrand²,
Pasquale Roberge^{1,2,3,4,5},
Arnaud Duhoux^{1,2,3}, Isabelle Doré^{1,2,3}

¹CRCHUM, Montreal, Canada

²Institut national de santé publique du Québec, Montréal, Canada

³Université de Montréal, Montréal, Canada

⁴Université de Sherbrooke, Sherbrooke, Canada

⁵CRC Centre Etienne-Lebel, Sherbrooke, Canada

A mental health picture of general practitioners' clientele: Results of the dialogue project

Objectives: 1) Provide a mental health picture of general practitioners' clients: prevalence rates of high level of anxiety or depressive symptoms, comorbidity with physical illness, disabilities, use of medication or services for mental health reasons; 2) examine the risk of disability according to different combinations of problems.

Material and methods: A sample consisting of 14,833 individuals recruited in waiting rooms of 64 medical clinics in 15 local areas of services across Quebec as part of the Dialogue project's clientele survey. Participants were asked to complete a self-administered questionnaire. Level of anxiety and depressive symptoms was assessed with the HADS and disabilities with the WHO-DAS-12. Chronic disease was defined as three or more chronic physical conditions, or a cancer diagnosed by a physician.

Results: A third of participants had a high level of anxiety or depressive symptoms and about half of them presented with chronic diseases. Among participants, 33% reported high levels of disability, 24% were taking medication for anxiety or depression and 31% consulted a GP for mental health reasons. Compared to individuals without mental health problems or chronic diseases, those with only chronic diseases were twice as likely to present with a high level of disability (OR=2.0), those with only mental health problems were six times more likely (OR=6.0) and those with both types of problems were 12 times more likely (OR=12.0).

Conclusion: Individuals with a high level of anxiety or depressive symptoms make up a high proportion of a GP's daily clientele. When disabilities are also present, such individuals represent a more significant burden than those presenting with only chronic physical conditions. Finally, comorbidity between physical and mental health problems is frequent and appears to have a multiplying effect on disability. Supporting GPs in their work with clients suffering from common mental disorders should therefore be a priority.

0332

Katarina Stengler¹, Sebastian Olbrich¹,
D Heider¹, Steffi Riedel-Heller¹, I Jahn¹

¹Universität Leipzig, Klinik und Poliklinik für Psychiatrie und Psychotherapie, Leipzig, Germany

Utilization of first professional help by patients with obsessive-compulsive disorder (OCD): Impact of age of onset

Objective: Several studies have described the deficits in the health care provided to persons with obsessive-compulsive disorder (OCD), however, without making any distinction between psychiatric-psychotherapeutic professionals and general practitioners or other professionals. Also, the relation between subjectively defined early signs of the disorder, diagnosis and utilization of professional help has not yet been investigated systematically. The present study addresses these questions, using a self-rating questionnaire for patients with OCD (Questionnaire on the utilization of professional help by patients with OCD).

Method: Eighty-eight patients with OCD, who came at our university hospital outpatient clinic for obsessive-compulsive disorders of Leipzig, participated in the study. The questionnaire, which has been developed specially for this survey, asked study participants to remember when they first had perceived signs of their disorder and their first-time utilization of professional help.

Results: Patients with OCD and early onset of disorder sought professional help later than did patients with later onset of disorder. When professional help was utilized, it took two years on average before the diagnosis was made. In contrast to patients with depression or anxiety disorders, patients with OCD first consulted a psychiatrist or psychotherapist and not the general practitioner as their first professional contact person.

Conclusions: First signs in the early stages of OCD, particularly with an onset in childhood and adolescence have to be diagnosed earlier for appropriate treatment. Psychiatrists and psychotherapists, not primarily general practitioners, have a particularly high demand for further education about early diagnosis and treatment of OCD.

Attitudes of the German general population toward early diagnosis of dementia: Results of a representative telephone survey

0020

Question: Early detection of dementia has clearly improved. Even though none of the currently available treatments for the most common form of dementia, Alzheimer's dementia, promises a cure, early diagnosis provides several benefits for patients, caregivers, and health care systems. This study aimed to describe attitudes toward early diagnosis of dementia in the German general population.

Methods: A representative telephone survey of the German population aged 18+ years (n = 1,002) was conducted in 2011.

Results: The majority of respondents (69%) would be willing to be examined for early diagnosis of dementia. Almost two thirds reported that they would prefer their general practitioner (GP) as the first source of professional help. More than half of the respondents (55%) stated their belief that dementia could be prevented. Respondents mostly indicated psychosocial prevention options.

Conclusions: The general population in Germany is very open to early diagnosis of dementia; however, this seems connected with large expectations on the effectiveness of prevention options. Dementia awareness campaigns may be employed to carefully inform the public about the prevention options currently available and their efficacy. To exploit GPs' potential as a gatekeeper for early detection of dementia, their ability to identify patients with antecedent and mild stages of the disease must be improved.

Tobias Luck^{1,2}, Melanie Lupp¹, Georg Schomerus^{3,4}, Perla Werner⁵, Hans-Helmut König⁶, Steffi G. Riedel-Heller¹

¹University of Leipzig, Institute of Social Medicine, Occupational Health and Public Health, Leipzig, Germany

²University of Leipzig, LIFE—Leipzig Research Center for Civilization Diseases, Leipzig, Germany

³Greifswald University, Department of Psychiatry, Greifswald, Germany

⁴Helios Hansekllinikum Stralsund, Stralsund, Germany

⁵University of Haifa, Department of Gerontology, Haifa, Israel

⁶University Medical Center Hamburg-Eppendorf, Department of Medical Sociology and Health Economics, Hamburg-Eppendorf, Germany

Quality of care for severe mental illness in Lombardy (Italy)

0243

Objective: to evaluate routinely quality of care in severe mental illness through a set of clinical indicators. These indicators are related to the process of care, specific for each disorder and can be totally drawn from information systems.

Materials and method: 41 clinical indicators for schizophrenia, 33 for bipolar disorders and 13 for depression have been identified by experts of the Italian Society of Psychiatric Epidemiology (SIEP) through Delphi rounds. Indicators have been subsequently applied to health databases of Region Lombardy containing data on mental health activities, hospital admissions, health treatments and pharmaceutical prescriptions. The sample is composed by 28,191 patients with schizophrenic disorder (ICD 10 F2 category), 7,752 with bipolar disorder (ICD 10 F30-31 categories) and 19,271 with depressive disorders (F32-33 categories) that during 2009 were cared by the Departments of Mental Health (DMHs) of the Region. Benchmarking has been adopted to evaluate DMHs.

Results Indicators have been analyzed by axis of the quality (i.e. accessibility, continuity, appropriateness, safety, sentinel events) and by phase of care (onset, acute phase, maintenance), showing strengths and weaknesses of the mental health care in Lombardy.

Conclusions: Clinical indicators are useful for evaluating quality of care in the mental health system and quality assessment could be done routinely using current information system data.

Antonio Lora¹, Emiliano Monzani²

¹Azienda Ospedaliera Lecco, Psichiatria, Lecco, Italy

²Azienda Ospedaliera Niguarda Ca' Granda, Psichiatria, Milan, Italy

0259

Anke Bramesfeld¹, Natascha Reker¹,
Constance Stegbauer¹, Erik Bauer¹,
Joachim Szecsenyi¹

¹AQUA-Institute for Applied Quality
Improvement and Research, Göttingen,
Germany

Cross-sectoral quality assurance in mental health care in Germany: A countrywide approach using routine data

In 2012 the highest decision-making body in health care in Germany, the Federal Joint Commission, commissioned the AQUA-Institute to develop cross-sectoral quality assurance in mental health care. This quality assurance is supposed to cover generic aspect in mental health care as well as specific aspects that focus on the care provided to persons with a severe course of the illness. Further the quality assurance should cover all sectors involved in care for mentally ill persons, and consider process as well as outcome quality. As much as possible quality assurance data should be collected through routine data, in particular claims data of health insurances. However, also the perspective of patient and their family's on the quality of care should be considered and questionnaires developed for that.

The presentation will report on the proceeding in the development of this nationwide quality assurance program. In particular the methodology for using claims data of health insurances for identifying target persons for specific quality assurance, and for collecting process and outcome data will be discussed.

0081

Helen Killaspy¹

¹University College London, Mental
Health Sciences Unit, London, United
Kingdom

Development and application of the Quality Indicator for Rehabilitative Care; a pan-European quality assessment tool for longer term mental health care facilities

Across Europe, many people with severe mental illness continue to reside in institutions (WHO, 2005). In less economically developed countries, large institutions continue to predominate and concerns have been raised about the quality of care provided (Muijen, 2008). However, even in countries with better established community mental health care, a process of institutionalisation of those with more complex mental health problems has been noted (Priebe et al, 2005) and concerns about the quality of care and lack of rehabilitative ethos of these services raised (Killaspy and Meier, 2010). Service quality is a complex, multidimensional construct that extends beyond the delivery of specific evidence based treatments and interventions, making it difficult to operationalise and measure, particularly at an international level influenced by different socioeconomic and political contexts.

This session will report on the development and application of an internationally validated quality assessment tool for longer term mental health care facilities, the Quality Indicator for Rehabilitative Care (QuIRC). The presentation will include details of the methods used to build the tool that ensured its content validity and reliability. It will also include examples of how the QuIRC is being incorporated into national quality assessment processes in European countries. Finally, results from a national study of mental health rehabilitation units across England, that included quality assessment using the QuIRC, will be reported.

0349

Niek Klazinga¹

¹OECD, Health Division (ELS), Paris,
France

International comparative indicators on the quality of mental health care: 2013 indicators of the organization of Economic Cooperation and Development (OECD).

As part of OECD's Health Care Quality Indicators program, since 2002 efforts have been made to establish international comparative indicators on quality of mental health. Initial work between 2002-2009 identified various potential indicators but the information infrastructure of the OECD member states on mental health proved too heterogeneous and limited in standardized coding practices and use of unique patient identifiers to link various registries and administrative databases, to produce meaningful comparative measures. After pilot-testing several sets of indicators, the only indicators that have been reported since 2007 are unplanned hospital re-admission rates for schizophrenia and bipolar disorder. The last version of Health at a Glance, OECD's flagship publication on health care statistics, reported the re-admission rates on 16 member states (OECD 2011). Over the past year new efforts have been made to explore more in depth the interpretation of the

hospital re-admission indicators and data-collection on new indicators. With the practice of using unique patient identifiers expanding to more countries and the availability of more refined mental health care databases, often associated with changes in mental health care governance and financing, more seems possible than 10 years ago. Data collection efforts have been made on average life expectancy of persons diagnosed with schizophrenia and bipolar disorder as well as suicide rates amongst persons treated in mental health care facilities. This presentation will summarize the various methodological hurdles experienced in the OECD work on mental health care quality indicators in the past 10 years and will present the latest findings that are foreseen to be published in *Health at a Glance 2013*. Reflections will be shared on how to balance epidemiological rigor with the political demand to produce meaningful international comparative statistics on the performance of mental health care services. *Health at a Glance 2011*. OECD, Paris Niek Klazinga, coordinator of OECD's Health Care Quality Indicator program, Paris and professor of Social Medicine at the Academic Medical Centre / University of Amsterdam niek.klazinga@oecd.org

Quality of mental health care across 9 European countries: The experience of the EU REFINEMENT project

Objectives: The REFINEMENT project is a collaboration between 9 research institutions (Italy, Austria, UK, Finland, Spain, Norway, Estonia, France and Romania) looking at the relationship between different models of health care financing and the extent to which mental health care services can meet the goals of high quality of care. One of the eight work packages focuses on the descriptions of indicators of quality of care and met and unmet needs.

Methods: The selection of the indicators was based on a hand search in organizational websites and reports and on a literature review of published papers. According to the international literature field, the selection of the emerged indicators have maximized the relevance, the scientific soundness and the feasibility of indicators, which were evaluated using numerical rating scales and a consensus process. Indicators are addressed according to phases, quality dimensions and services type and they are focused on both health care and social care.

Results: A toolkit (named REQUALIT) on quality of mental health care indicators has been prepared. The REQUALIT focuses on the most frequent domains of quality of care in mental health care and tries to broadly cover process and outcome level and type of services. This instrument will be used to collect data from national or regional reports, interviews of main stakeholders and data at individual level from local, regional or national informatics systems.

Conclusions: These indicators will provide data on different dimensions of mental health system performance including among other accessibility, equity in access, continuity of care, quality of life, employment status, satisfaction with care in a descriptive and comparative way across Europe. Moreover, the data will be connected to results of other work packages in order to suggest the best practice health care financing models that may be used in different parts of Europe.

Equality in health services for patients suffering from severe psychiatric illness

Question: The "Convention on the Rights of Persons with Disabilities" calls for equality of health services for all people. Numerous studies have reported increased risk and higher mortality rates from cardiovascular disease and diabetes, as well as increased mortality from cancer among people with severe mental illness. Early intervention is critical to attain better treatment and prognosis and reduce the burden associated with a disease. The study aimed to test if the right for equality in health services is fulfilled among persons with severe mental illness.

0365

Valeria Donisi¹, Federico Tedeschi¹,
Gaia Cetrano¹, Anna Ruffato¹,
Francesco Amaddeo¹

¹University of Verona, Department
of Public Health and Community
Medicine, Verona, Italy

0260

Gilad Gal¹, Itzhak Levav²,
Hanan Munitz³

¹Tel Aviv Yaffo Academic College,
School of Behavioral Sciences, Tel Aviv,
Israel

²Ministry of Health, Mental Health
Services, Jerusalem, Israel

³Clalit Health Services, Management,
Tel Aviv, Israel

Methods: A cross-linkage was performed between the Israeli National Psychiatric Case Registry (INPCR) and the database of Clalit Health Services (CHS), Israel's largest health care provider. The INPCR applied the inclusion criteria of hospitalized patients with a release diagnose of schizophrenia or bipolar disorder, for adult (born before 1960) patients. A matched comparison group of CHS members was built according to age, sex, and socioeconomic status in a ratio of 5:1. Measures of visits (GPs and specialists), preventive medical procedures (fasting blood glucose, blood lipids, and electrocardiography), and screening procedures (colon and prostate cancer) were compared between patients of the two groups.

Results: The cross linkage identified 20,017 patients registered both in the INPCR and CHS. The sex ratio was 51% women, average age was 66 (range 53-86), 40% were born in Israel, and 94% were Jews. For 6514 (32%) of the patients no diagnose of schizophrenia or bipolar disorder was present in CHS's records.

Conclusions: Our database can shed light on the question of whether the right for equality in health services is kept among persons with severe mental illness. Further analysis will enable us to draw the appropriate conclusions

0273

Margaret Heslin¹, Gill Doody², Peter B Jones³, Paul Fearon⁴, Kevin Morgan⁵, Tom K J Craig¹, Robin Murray¹, Paola Dazzan¹, Helen Fisher¹, Craig Morgan¹

¹Institute of Psychiatry, KCL, London, United Kingdom

²University of Nottingham, Nottingham, United Kingdom

³University of Cambridge, Cambridge, United Kingdom

⁴Trinity College, Dublin, Ireland

⁵University of Westminster, London, United Kingdom

Psychosocial risk factors for psychotic major depression

Question: Psychosocial risk factors such as life events & childhood abuse are important in the development of psychosis (Lim et al, 2009). However, studies on risk factors & psychosis often focus on schizophrenia, ignoring other diagnoses or amalgamating them into other diagnostic groups. Using data from the AESOP study, we sought to examine the demographic & psychosocial risk factors for psychotic major depression (PMD).

Methods: AESOP is a multi-centre incidence & case-control study of first-episode psychosis. Cases were all individuals presenting to specialist mental health services for a first time with a psychotic disorder over a two-year period in specified catchment areas in London & Nottingham. Controls were a group of randomly selected, population-based volunteers recruited over the same time period. We collected data on clinical presentation & a range of potential social risk factors including childhood adversity using CECA-Q & life events (acute stressor) & difficulties (stress lasting at least 4 weeks) using the LEDS.

Results: 33 PMD & 68 schizophrenia cases had CECA-Q data; 22 PMD & 37 schizophrenia cases had LEDS data. Unadjusted regression analyses revealed that the presence of childhood adversity was not associated with increased odds of being diagnosed with PMD (OR 1.31, CI 0.61-2.79) but was for schizophrenia (OR 6.51, CI 2.85-14.87). Compared to healthy comparison controls, PMD cases were more likely to have experienced at least one severe event during the year before onset (OR 4.57, CI 1.75-11.93) & were also more likely to have experienced one or more severe difficulty (OR 4.49, CI 1.65-12.21). In contrast, compared to the healthy controls, cases with schizophrenia were not more likely to have experienced a severe event (OR 1.47, CI 0.65-3.35) though they too were more likely to report ongoing severe difficulties (OR 3.51, CI 1.63-7.57).

Conclusions: Results suggest that stress as an aetiological factor in PMD may be operating in differently to stress as an aetiological factor in schizophrenia.

0278

Andrew Bulloch¹, Scott Patten¹

¹University of Calgary, Community Health Sciences, Calgary, Canada

The recurrence of major depression is strongly dependent on the number of previous episodes

A history of major depression is known to be a risk factor for recurrence of future episodes. Also those with recurrent episodes are likely to experience poorer response to treatment than those with first episodes. It is therefore important to fully understand the epidemiology of major depression to guide clinical practice. In most population based studies in this area

a history of depression takes into account the occurrence of a single episode. In this study we quantify and characterize the relationship between the number of previous episodes and the probability of recurrence

We used data from the Canadian National Population Health Survey (the NPHS). This survey has been repeated every 2 years since 1994/1995, beginning with a cohort of over 17,000 individuals from the general population. Prior year depression was assessed with the CIDI Short Form. We estimated the total number of episodes of depression in individuals over the first 7 cycles (ie until 2006/2007) and examined recurrence in these individuals in the 8th cycle (2008/2009). These analyses employed logistic regression where recurrence in cycle 8 was the outcome and the predictor variables included the number of episodes in the first 7 cycles, as well as gender and age.

The odds ratio for recurrence of depression in cycle 8 was found to be strongly dependent on the number of episodes in the first 7 cycles. The odds ratios for recurrence were 3.3, 6.9, 11.6 and 22.0 for 1, 2, 3 and 4+ prior episodes respectively. These estimates were not affected by inclusion of gender and continuous age in the models, whose odds ratios were 2.1 (females vs males) and 0.98 (ie decreasing prevalence with age) respectively as expected.

Our results show a striking increase of the risk of depression recurrence depending on the number of preceding episodes, with no evidence of threshold or saturation effects. Clinical strategies to manage recurrent depression may need to take into account the detailed history of episode number to be most effective.

Movement as medicine: The relationship between physical activity and psychotropic drug use among the depressed in the Canadian Community Health Survey Cycle 1.2

0327

Marc-André Bélair¹, Ian Colman¹

Objective: To investigate the relationship between psychotropic medication use and physical activity among depressed individuals in the Canadian Community Health Survey (CCHS), Cycle 1.2.

Materials & Methods: Respondents were included based on their Composite International Diagnostic Interview - Short Form (CIDI-SF) score of 5 or greater for lifetime major depressive episode (MDE) or a MDE in the last 12-months. Multivariate logistic regression was used to assess the relationship between physical activity and psychotropic drug usage. Physical activity was measured through a physical activity index classifying individuals as "Active", "Moderate" or "Inactive". Psychotropic drug use was measured as the use of any anti-depressants, anxiolytics or mood stabilizers in the past 12 months. Variables controlled for include 12-month: MDE (for lifetime MDE respondents); panic disorder; mania; social phobia; and agoraphobia; as well as sex, BMI, country of birth, household income and age.

Results: In respondents with lifetime MDE (n=4,342), individuals who were moderately active had odds 0.77 (95% CI: 0.62, 0.95) times lower of having taken psychotropic medication in the past twelve months compared to inactive respondents. Active respondents had odds 0.74 (95% CI: 0.59, 0.93) times lower than inactive respondents. In respondents with an MDE in the past 12 months (n=1,849), respondents who were moderately active had odds 0.78 (95% CI: 0.59, 1.03) times lower than those who were inactive. Respondents who were physically active had odds 0.73 (95% CI: 0.55, 0.98) times lower than those who were inactive.

Conclusions: Physical activity has been demonstrated as an effective adjunct to drug therapy for depression. A relationship between physical activity and psychotropic drug use appears to exist. Further research is required to determine whether physical activity can be used to reduce the use of psychotropic medication among those experiencing major depressive episodes.

¹University of Ottawa, Department of Epidemiology and Community Medicine, Ottawa, Canada

0254

Laura Khil¹, Michale Unrath¹, Bernhard T. Baune², Klaus Berger¹

¹University of Münster, Institute of Epidemiology and Social Medicine, Münster, Germany

²University of Adelaide, School of Medicine, Adelaide, Australia

Variations in the prevalence of severe depressive symptoms between neighborhoods are explained by individual characteristics: The Dortmund Health Study (DHS)

Background: An inverse association of socio-economic status (SES) and several mental illnesses is widely accepted. But only few studies examined the relations between social neighborhood characteristics and variations in the prevalence of mental illness. The aim of this study was to investigate the impact of social composition and context factors between neighborhoods on the prevalence of severe depressive symptoms (SDS) in the city of Dortmund, Germany.

Methods: For the DHS a sample of 1312 participants aged between 25 and 74 years, randomly selected from the city registry, was interviewed. SDS was assessed using the Center of Epidemiologic Studies Depression Scale. A cut off score of ≥ 23 , severe enough to indicate an acute depressive episode, was chosen for SDS. Participants without any information on SDS were excluded from further analyses ($n=20$). SES was measured by using the Winkler Index [1]. Participants were assigned to one of the 62 neighborhoods of Dortmund through their addresses. Neighborhood deprivation was measured by the unemployment rate divided into quintiles. Two-level logistic regression models were performed and the median odds ratio (MOR) was estimated as a measure of between neighborhood variance. First, an empty random effect model was fitted. Second, neighborhood deprivation was introduced to the model as a fixed effect. Finally, age, sex, social, employment, and partnership status were subsequently included to adjust for individual characteristics (fixed effects).

Results and conclusion: SDS were present in 7.7% ($n=100$), with more affected women than men (10.7% vs. 4.4%; $p<0.01$). Those suffering from depressive symptoms were younger (48.9 ± 12.6 vs. 52.4 ± 13.9 years; $p=0.014$) on average. In the empty model the chance of having SDS varied among neighborhoods (MOR=1.12). This variation further increased after accounting for neighborhood deprivation (MOR=1.23). Adjustment for age and sex attenuated the variance. Further adjusting for partnership, employment and social status did not change the insignificant result. The relation between the prevalence of severe depressive symptoms and neighborhood deprivation is explained by age, gender and individual social status.

1. Winkler J, Stolzenberg H. Social class index in the Federal Health Survey. Gesundheitswesen (Bundesverband der Ärzte des Öffentlichen Gesundheitsdienstes (Germany)). 1999;61 Spec No:S178-83.

0071

Patricia Manzoli¹, Maria Angelica Nunes², Maria Ines Schmidt², Cleusa Ferri³

¹Universidade Federal de Pelotas, Mental Health, Porto Alegre, Brazil

²Universidade Federal do Rio Grande do sul, Graduate Studies Program in Epidemiology, Porto Alegre, Brazil

³Federal University of Sao Paulo, Department of Psychiatry, Sao Paulo, Brazil

Abuse against women, depression, and infant morbidity: A primary care cohort study in Brazil

Background: The relationship between abuse against women and maternal depression as risk factors for infant morbidity is unclear. The aim of the study was to describe the association of pre and postnatal abuse against women on infant physical morbidity and examine the potential mediating effect of maternal depression on these associations.

Methods: Prospective cohort study of 375 women from pregnancy (16 to 36th week) to the fifth month postpartum, who attended 18 primary care units in Southern Brazil between 2006 and 2008. Abuse and depression were measured at the pre and postnatal interviews using standardized instruments. Infant outcomes were diarrhea and respiratory infection during the first 5 months after birth.

Results: Overall, 35% of participants reported having suffered abuse during pregnancy and/or in the postnatal period. In addition, 10.1% reported infant diarrhea and 20.5% respiratory infection. Infants of mothers abused at the postnatal period were at increased risk for diarrhea (adjusted RR 2.20, 95% CI 1.15-4.19) and for respiratory infection (adjusted RR 1.68, 95%CI 1.12-2.52). The mediating effect of depression was not statistically significant for both outcomes.

Conclusions: Postnatal abuse against women is associated with risk of infant diarrhea and respiratory infection. The current findings highlight the importance of getting abuse against women into the public health agenda.

Neurobiological measurements in an epidemiological survey: Inhibitory deficits are related to psychopathological symptoms in a stratified population sample

Objectives: The Zurich Impulse Program for Sustainable Development of Mental Health Services (ZInEP) links basic and mental health services research and clinical practice. We present data from an epidemiological survey with a neurobiological arm comprising, among others, several neurophysiological tasks. The aim of this study is to identify biological markers of subdiagnostic psychotic syndromes.

High frequency components of somatosensory evoked potentials (SEP) reflect inhibitory interneuron activity. Changes of HF-SEP have been shown to be prevalent in schizophrenia and to be associated with psychopathological symptoms such as delusion. This supports the hypotheses of an inhibitory deficit with less filtering of somatosensory information in schizophrenia. The aim of this study was to control for the existence of such a disturbance also in subclinical psychotic symptoms in a population sample.

Material and Methods: The data was derived from The ZInEP Epidemiological Survey which assessed comprehensive data about mental health in a stratified sample of 1,500 adults aged 20 to 40 years. Evoked potential and other neurophysiological data was measured in a stratified subsample of more than 230 persons. Data of somatosensory evoked potentials were related to psychopathological scales by regression analysis.

Results: High frequency components of somatosensory evoked potentials are associated with age and gender and with psychopathological symptoms such as ideas of greatness, attention deficit and social avoidance.

Conclusions: These findings support the association of inhibitory deficits with psychotic symptoms, even in a population sample on subdiagnostic levels. The integration of neurophysiological and other neurobiological measurements into epidemiological studies improves the explanatory power of epidemiological surveys.

Epidemiology of perceived stress, anxiety, depression, related symptoms and psychosocial impairments in patients with chronic diseases: A German survey in patients with inflammatory bowel diseases (IBD)

Background: IBD (Crohn's disease/CD, ulcerative colitis/UC) are chronic recidivating diseases, related with various bodily and psychosocial impairments [1]. Previous studies showed associations of exposure to stress and acute episodes of disease [2,3]. We report epidemiologic data for perceived stress, psychosocial impairments and related symptoms from a German questionnaire survey.

Methods: A postal survey was conducted in 2005 in four regions in Germany. Patients with CD or UC were recruited from specialized gastroenterological practices, university outpatient clinics, and the registry of the patient organization DCCV. The questionnaire followed the concept and distinctions of WHO's ICF [4] and incorporated (inter-) nationally established items and scales, i.a. HADS [5].

Results: Survey responders (n = 1083, CD: 58%, 65% female) had a mean age of 42 years with an average disease duration of 13 years. 25% suffered severely or very severely from their disease in general, one third stated at least severe fatigue and 18 % sleep disorders. 52% felt profoundly affected by stress. Clinically relevant anxiety was observed in 24% with

0290

Wolfram Kawohl¹,
Florence Hagenmuller¹, Helene Haker¹,
Vladeta Ajdacic¹, Wulf Rössler¹

¹Psychiatric University Hospital, Zurich,
Switzerland

0209

Juliane Hardt^{1,2}, Susann Conrad^{2,3},
Bernd Bokemeyer^{4,5}, Heiner Raspe^{2,6}
¹Essen University Hospital, Institute
of Computer Science in Medicine,
Biostatistics and Epidemiology, Essen,
Germany

²University of Luebeck / University
Hospital of Schleswig-Holstein, Institute
for Social Medicine, Lübeck, Germany

³Agency for Quality in Medicine
(AQuMed/ÄZQ), Department of
Evidence-based Medicine and
Guidelines, Berlin, Germany

⁴Gastroenterologic Practice Minden,
Minden, Germany

⁵University Medical Center Schleswig-
Holstein, Campus Kiel, Clinic of
General Internal Medicine I, Kiel,
Germany

⁶University of Luebeck / University
Medical Center Schleswig-Holstein,
Professor of Population-based
Medicine, Lübeck, Germany

no differences for males and females. Depression was more common in men (29%) than in women (21%). Restrictions in social participation (family life, work) were actually prominent in at least a quarter of the responders.

Conclusions: Beside somatic ailments typical for the disease, patients also reported multiple psychosocial impairments and participation restrictions and should hence profit from a multi- and interdisciplinary team care [6]. A standard screening for psychosocial impairments should be introduced into regular health care for IBD in the future.

References:

- [1] Hardt J et al. [Inflammatory bowel diseases as multi-focal disorders ...]. *Z Gastro* 2010; 48: 381-91
- [2] Hoffmann JC et al. [Clinical practice guideline on diagnosis and treatment of Crohn's disease]. *Z Gastro* 2008; 46: 1094-146
- [3] Hoffmann C et al. [Diagnosis and therapy of ulcerative colitis ...]. *Z Gastro* 2004; 42: 979-83
- [4] World Health Organization. International classification of functioning, disability, and health: ICF. Geneva: WHO, 2001
- [5] Herrmann C et al. [HADS-D Hospital Anxiety and Depression Scale - German Version]. Bern: Huber, 1995
- [6] Raspe H et al. [Evidence-based and consented pathways for patients with inflammatory bowel diseases (IBD)]. *Z Gastro* 2009;47:541-62

0135

Julie Pasco^{1,2}, Lana Williams^{1,3},
Sharon Brennan^{1,2}, Felice Jacka^{1,3},
Michael Berk^{1,3}

¹Deakin University, School of Medicine,
Geelong, Australia

²The University of Melbourne,
NorthWest Academic Centre,
Department of Medicine, St Albans,
Australia

³The University of Melbourne,
Department of Psychiatry, Melbourne,
Australia

Obesity and disturbances in mood

Objectives: There is growing awareness of bi-directional links between obesity and mood. We aimed to explore the complex inter-relationship between overweight and obesity and depression using data generated by the established population-based cohort health study known as the Geelong Osteoporosis Study (GOS).

Material and methods: For nearly two decades the GOS has prospectively documented clinical and lifestyle data for large cohorts of young, middle-aged and elderly men and women residing in south-eastern Australia. Positive and negative affect scores were derived from the PANAS self-report and mood disorders were identified using the Structured Clinical Interview for DSM-IV-TR Research Version, Non-patient edition (SCID-I/NP). Overweight and obesity were defined using anthropometry and dual energy x-ray absorptiometry.

Results: We report a pattern of greater negative affect scores for increasing body mass index (BMI) values. With normal weight as the reference, odds for having a negative affect score in the highest tertile were sequentially increased for women who were overweight (OR=1.31, 95%CI 0.72-2.40) and obese (OR=1.95, 95%CI 1.02-3.73); this association was attenuated by physical illness (OR=1.76, 95%CI 0.91-3.42). We also report an increased likelihood for women with BMI>25.0 to experience first episode major depressive disorder (MDD) compared to women with BMI<25.0 (OR=1.79, 95%CI 0.95-3.36). The risk for de novo MDD over a decade more than doubled for women with high percentage body fat (%BF) compared to those with healthy %BF (adjusted HR=2.59, 95%CI 1.24-5.42). These latter associations were attenuated when the statistical models were adjusted for serum markers of inflammation suggesting that circulating inflammatory cytokines, characteristic of the obese state, increase the risk for depression.

Conclusion: The role of obesity as a chronic stressful state is thus identified as being associated with poor mood and predisposing individuals to mood disorders.

0301

Sandy Berzins¹, Andrew Bulloch¹,
Jodie Burton¹, Gordon Fick¹,
Keith Dobson¹, Scott Patten¹

¹University of Calgary, Community
Health Sciences, Calgary, Canada

Determinants of depression in multiple sclerosis

Mental illness is an important dimension of multiple sclerosis (MS). People with MS have an elevated prevalence of anxiety, psychotic and mood disorders. The objective of this study was to estimate the prevalence of depression in people with MS and examine potential determinants of its incidence and prognosis.

Methods: Participants in this prospective cohort study (n=190) were followed for six months, starting with two baseline risk factor assessments then completing a depression screening instrument, the PHQ-9, every 2 weeks. At monthly intervals, information was collected on potential risk factors, using standard items from existing validated scales and instruments. Participants had the option of completing their surveys either online (n=99), by mail (n=43), or by telephone interviews (n=48).

Results: Baseline cross-sectional analyses found a depression prevalence estimate of 22% using the PHQ-9 cut-point method ($n=182$). Risk factors for depression included smoking (OR= 3.3, 95% CI 1.5-7.2), previous episode of depression (OR=6.9 (95% CI 2.6-18), major life events stress (OR 6.8, 95% CI 2.7-17.1), pain level during previous 2 weeks (OR 5.4, 95% CI 2.4-12.4). Adverse childhood experiences were also associated with depression; for example, childhood emotional abuse (OR= 4.9, 95% CI 2.3-10.6) and physical/sexual abuse (OR=2.7, 95% CI 1.3-5.7). No significant associations were found for other chronic conditions, including history of migraine (OR= .77, 95% CI .28-2.1), asthma (OR=1.44, 95% CI 0.5- 4.6), hypertension (OR=.8, 95% CI 0.3-2), and diabetes (OR=1.9, 95% CI 0-14.6). Results of the longitudinal analyses still in progress will also provide valuable insights into how the various risk factors for depression affect the course and outcomes for the condition.

Conclusion: Depression in MS is often regarded as being neurologically induced due to brain lesions. However, these results provide a clear indication that depression in MS exhibits a risk factor profile characterized prominently by psychological and social factors. Future research should adopt a greater focus on such determinants, which may provide unrecognized opportunities for prevention and/or treatment of depression in this population.

Co-morbid mental health conditions in cancer patients are frequently untreated: A prospective study

Question: This study examined the prevalence of non-psychotic mental health conditions in working-age cancer patients and their use of mental health care.

Methods: Prospective cohort study with four measurements: at the beginning of inpatient treatment (baseline), and 3 months, 9 months, and 15 months after baseline using structured clinical interviews based on the DSM-IV (SCID), questionnaires, and medical records.

Results: At baseline, 149 out of 502 cancer patients (30%) were diagnosed with a mental health condition. Prevalence was associated with unemployment (Odds Ratio [OR] 2.0), fatigue (OR 1.9), and pain (OR 1.7).

Of those with a mental health condition, 9% saw a mental health professional within three months of the diagnosis, 19% within nine months, and 11% within 15 months. Mental health care use was higher in patients with children ≤ 18 years (OR 3.3) and somatic co-morbidity (OR 2.6). There was no evidence for an effect of sex on the use of mental health care.

Conclusions: Few cancer patients with co-morbid psychiatric disorders receive professional mental health care. If patients are unemployed or if they suffer from fatigue or pain, special attention should be paid because the risk of having a mental health condition is increased in these patients.

0009

Susanne Singer¹, Carina Ehrensperger², Susanne Briest³, Anna Brown⁴, Andreas Dietz⁵, Jens Einenkel³, Sven Jonas⁶, Alexander Konnopka⁷, Kirsten Papsdorf⁸, Dagmar Langanke⁹, Margrit Löbner¹⁰, Franziska Schiefke¹¹, Jens-Uwe Stolzenburg¹², Arved Weimann¹³, Hubertus Wirtz¹⁴, Hans Helmut König⁷, Steffi Riedel-Heller¹⁰

¹University Medical Centre Mainz, Institute of Medical Biostatistics, Epidemiology and Informatics, Mainz, Germany

²University of Leipzig, Department of Medical Psychology and Medical Sociology, Leipzig, Germany

³University of Leipzig, Department of Obstetrics and Gynecology, Leipzig, Germany

⁴University of Oxford, Cancer Epidemiology Unit, Oxford, United Kingdom

⁵University of Leipzig, Department of Otolaryngology, Leipzig, Germany

⁶University of Leipzig, Department of Surgery, Leipzig, Germany

⁷University of Hamburg, Department of Medical Sociology and Health Economics, Hamburg, Germany

⁸University of Leipzig, Department of Radiation Therapy, Leipzig, Germany

⁹Hospital St. Elisabeth, Breast Cancer Centre, Leipzig, Germany

¹⁰University of Leipzig, Department of Social Medicine, Occupational Health and Public Health, Leipzig, Germany

¹¹University of Leipzig, Department of Maxillofacial Surgery, Leipzig, Germany

¹²University of Leipzig, Department of Urology, Leipzig, Germany

¹³Hospital St. Georg, Cancer Centre, Leipzig, Germany

¹⁴University of Leipzig, Department of Pulmology, Leipzig, Germany

0148

Norbert Schmitz¹, Geneviève Gariépy¹, Kimberley J Smith², Ashok Malla², Ashok Malla², Richard Boyer³, Irene Strychar³, Alain Lesage³, JianLi Wang^{3,4}

¹McGill University, Psychiatry & Epidemiology, Montreal, Canada
²McGill University, Montreal, Canada
³University of Montreal, Montreal, Canada
⁴University of Calgary, Calgary, Canada

Effects of depression on functioning in people with type 2 diabetes: A prospective community study

Objective: The reciprocal relationship between depression and poor functioning in general population samples is poorly understood, especially in the context of people with chronic conditions. The aim of the present study was to analyse the dynamic relationship between depression and functioning over time using path analysis techniques in a community sample of people with diabetes assessed at baseline and three yearly follow-up assessments.

Research Design and Methods: A prospective community based study (Diabetes Health and Wellbeing Study, DHS) in Quebec was carried out between 2008 and 2011. Participants with self-reported diabetes were assessed at baseline and at 1,2 and 3 years follow-ups (n= 1388). Depression was assessed using the Patient Health Questionnaire (PHQ-9). Global functioning was assessed using the World Health Organization Disability Assessment Schedule II (WHO-DAS-II).

Results: Path analysis suggested that depression at baseline had no direct effect on physical functioning after three years (direct effect: 0.03, 95% CI -0.07 to 0.11). However, baseline depression might have an indirect effect on three years functioning through depression and functioning at one and two years follow up assessments (indirect effect: 0.20, 95% CI 0.14 to 0.26).

Conclusions: Our results suggest that depression might have a direct effect on short-term functioning and an indirect effect on long-term functioning in people with type 2 diabetes and that statistical models should take into the temporal relationship between depression and functioning. Path analysis is one approach to model these reciprocal relationships.

0471

Arnstein Mykletun¹

¹Norwegian Institute of Public Health, Bergen, Norway

Universal prevention of sick leave and permanent disability in patients with common mental disorder

One well-known burden of mental illness is increased sickness absence and permanent disability. The proportion of disability benefits awarded for mental illness has for long been on the increase, which calls for strategies for universal prevention of these adverse consequences of mental illness. The minority of patients with severe mental illness holds a job, but there is increasing evidence that Individual Placement and Support (IPS) can increase this proportion quite much. The majority of individuals of working age with common mental illness hold a job, but still the vast majority of disability pensions awarded for mental illness are for common mental illness. The group at risk is probably too large for IPS-like interventions to be cost-effective. Under-treatment of common mental illness is still very common, but improved access to evidence based treatments has shown to be surprisingly inefficient in promoting return to work in individuals on sickness absence for common mental illness. Sick leave may be regarded as treatment with side-effects like reduced self-efficacy, reduced activity, increased stigma and return-to-work-phobia. Thus, there is a need for evidence based strategies for universal prevention of long-term sick leave and disability in individuals with mental illness beyond clinical interventions. Over the last decade, strategies to promote partial sick-leave as an alternative to full sick leave was promoted in Norway in 2004 and 2010. Total sickness absence dropped in periods where partial sickness absence increased. There is, however, still considerable variation between general practitioners (GPs) in their preference for using partial sickness absence. In a pseudo-experiment, we examined the effect of the GPs preference for partial versus full sickness absence. Patients listed with GPs who preferred partial sickness absence (that is: who often used partial sickness absence in their patients) had shorter duration of sick leave and higher rates of return to work two years later than patients listed with GPs who preferred full sickness absence for their patients. Mechanisms for this effect are largely unknown, but may involve reduced side-effects of the sickness absence. Promoting partial sickness absence as an alternative to full sickness absence is reasonably cheap, and may be a cost-effective strategy for universal prevention of long-term sickness absence and permanent disability in the general population.

Preventing mental illnesses: Using epidemiological tools to provide an evidence-based approach for population intervention to reduce the prevalence of depression

Background. National epidemiological survey data (2002) showed that more than 1 in 10 Canadians reported a mental illness in the last year. Administrative data for the Canadian province of Saskatchewan show that some 12.32% of the population were dispensed a psychotropic medication in 2007.

Given the high volumes of mental illnesses reported in most developed and developing countries it is unlikely there will be enough trained manpower available to treatment mental disorders, a prevention strategy is more practical, desirable and cost-effective.

We focus on developing a public mental health prevention strategy for reducing the prevalence of a common mental illness in Canada by reducing the prevalence modifiable risk factors. Using population-based datasets we estimate the impact of various modifiable risk factors on the prevalence and incidence of depression among Canadians.

Methods: Data were from a nationally representative longitudinal health survey of the National Population Health Survey (NPHS) 1994/95 to 2010/11. We used multivariate logistic regression to explore the relationships between modifiable risk factors and depression. PAFs are calculated for each risk factor for depression.

Results: The data suggest that on a population health basis reducing the prevalence of modifiable risk factors would substantially reduce the prevalence of depression among Canadian.

Interpretation: In terms of a mental illness prevention strategy there is a critical need for investigation into the prevalence of modifiable risk factors for common mental illnesses and to triage these factors according to their prevalence and significance using PAF techniques. We need to adopt evidence-based a prevention strategies for these modifiable risk factors using comprehensive systematic reviews, and documenting the potential prevalence reducing effects of these evidence based intervention in a population.

The prevention strategy should be population based rather than targeted to high risk individuals (Rose).

We need to develop up-to-date evidence for mental illness prevention strategies customized to the Canadian population by prioritizing strategies to reduce modifiable risk factors.

Transferring epidemiology to Mental Health Policies

Data collected at population level should be the basis for policies implementation and evaluation.

Beside the complexities of designing and running such policies, the data collection has to cover territories at the scales planning is made or to be able to produce data at the required level. It has also to gather pertinent information on mental health problems, determinants, disabilities and access to care since general population surveys is the only way to catch persons who do not have access to care. The transformation of mental health problems to needs for care and to levels of care complexity (primary, secondary) has to be set up as well according to best practices guidelines.

We will then illustrate the epidemiological data use into planning in diverse occurrences

1) The use of "social indicators" to plan mental health resources in diverse countries; this application is stemming from the link between social determinants and mental health needs. As a consequence once the link has been established by surveys, extrapolation could be done using routinely collected social data to plan for resources in different territories according to their "needs"

0382

K. Carl D'Arcy¹, XiangFei Meng¹¹University of Saskatchewan, Psychiatry, Saskatoon, Canada

0436

Viviane Kovess Masfety¹¹Paris Descartes University, Dpt Epidémiologie et Biostatistiques, Paris, France

- 2) The confrontation of geographical distribution of MH professionals (psychiatrists, psychologists) and geographical distribution of mental health needs by grouping survey results on individual into territories average level of MH needs
- 3) The comparison on mental care use including psychotropic drugs in different EU countries as reflected by epidemiologic surveys and the consequence for MH planning in some of the countries thanks to these comparisons
- 4) Evaluation of two policies with potential influence on MH across some EU state members using child mental health surveys: the tobacco banning policies and prevalence of parents smoking in the vicinity of their kids, and the corporal punishments banning and the reporting of physical punishment by parents both risk factors for children mental health.

0462

Terry Brugha¹

¹University of Leicester, Department of Health Sciences, Leicester, United Kingdom

Why should autism be of importance to psychiatrists and epidemiologists?

When first described in the mid 1940s autism was viewed as a rare childhood disorder that was almost always accompanied by significant intellectual disability. It was certainly not a topic that caught the attention of professionals responsible for adults at a clinical or population level. The adult psychiatric epidemiology revolution that the IFPE has played a fundamental role in promoting has singularly ignored the topic of autism particularly as it did not seem to be relevant to the major issues facing adult mental health. But we were wrong!

This presentation will briefly touch on the evolution of concepts and definitions of autism up to the latest DSM-5 lead controversies. Evidence is what matters most however: the main thrust of the presentation will be on the key demographic associations of autism - culminating in the just emerging GBD 2010 syntheses - making use of emerging epidemiological evidence.

If you don't make it to this session you will miss the facts that underpin the following assertions:

Autism prevalence is probably not increasing - it has probably always been with us!
Most people in the world who have autism are undiagnosed - and that includes in the most affluent high income countries!

Autism is a brain disorder and brain disorders are the business of neurologists, psychiatrists, psychiatric epidemiologists and primary care medicine - yet a strategy does not yet exist to address these collective responsibilities - but what we know points to where we might begin: All psychiatrists and neurologists should be able to readily recognise and quickly diagnose autism?

All primary care physicians should be able to quickly and appropriately suspect autism in their practice population and know some quick and low cost strategies for immediately helping those affected and their families without having to wait - in many parts of the world forever - for specialist advice or "the triumph of the perfect for a few over the good of many"?

The influence of parental depression, family functioning, and social support on the self-concept of adolescents with chronic illness

Question: The objectives of this study were to investigate the influence of parental depression on self-concept of youth aged 10-21 years diagnosed with chronic illness and to examine family processes that moderate and mediate this relationship during a 16-year follow-up.

Methods: Data were obtained from all eight cycles of the National Longitudinal Survey of Children and Youth (NLSCY) with N=4037 participants diagnosed with chronic illness providing at least one assessment. Self-concept was measured using a four-item scale based on the Self-Description Questionnaire. Growth curve modeling was used to examine the influence of parental depression on youth self-concept. Product term interactions were used to assess potential moderating effects of family functioning and social support, whereas the product of coefficients method was used to examine mediating effects.

Results: Parental depression had a negative influence on youth self-concept - as levels of depression increase in parents, there is a corresponding decline in youth self-concept over time ($\beta_{\text{DEP}} = -0.71$, $p = 0.0015$; $\beta_{\text{DEP} \times \text{TIME}} = -0.14$, $p = 0.0030$). There was no evidence to suggest a moderating effect of family functioning or social support; however, family function was found to partially mediate the relationship ($\alpha\beta = -0.03$, $p = 0.0054$).

Conclusions: The negative influence of parental depression on youth self-concept is significant. It is important for health care providers to be mindful of how chronic illness diagnoses can affect parents' mental health, disrupt family processes, and impact youth self-concept. Family-centred approaches may allow clinicians to intervene at the parent or family level to promote favourable mental health outcomes in youth with chronic illness.

Development and trajectories of depressive disorders between childhood and adulthood

Depressive disorders are one of the most prevalent and cost intensive psychiatric disorders among adults. First symptoms and precursors like unspecific psychopathological problems are often found in childhood. However, few studies have studied the course of this illness from childhood to adulthood prospectively.

In our prospective longitudinal study „LIFE CHILD Depression“ at the LIFE- Leipzig Research Center for Civilization Diseases & the Department of Child and Adolescent Psychiatry, Psychotherapy and Psychosomatics (Universität Leipzig) we plan to study the developmental trajectories of depressive symptoms within a cohort of 1200 children every 2 years up to 10 years.

The aim of the study is to identify risk and protective factors of depressive disorders between childhood and adulthood to improve prevention and therapeutic interventions. Assessments encompass the psychopathological phenotype and psychosocial, neurobiological and genetic risk and protective factors using diagnostic interviews, questionnaires, a psychosocial stress test, blood-, saliva- and hairanalyses (e.g. cortisol) and EEG.

The poster will present the design of the study and first results of the pilot phase.

Emotional-behavioral outcomes and living status in adolescents born preterm with very low birth weight

Objective: We attempted to examine the prevalence of emotional-behavioral problems and living status in a 1996-1999 birth cohort of very-low-birth-weight (VLBW, birth weight < 1500gm) infants in their early adolescence in Taiwan.

Material and methods: The VLBW subjects who were born from Jan 1, 1993 to Dec 31,

0117

Mark Ferro^{1,2}, Michael Boyle^{1,2,3}

¹McMaster University, Psychiatry & Behavioural Neurosciences, Hamilton, Canada

²McMaster University, Offord Centre for Child Studies, Hamilton, Canada

³McMaster University, Clinical Epidemiology & Biostatistics, Hamilton, Canada

0376

Sonia Jaeger¹, Mirko Döhnert^{1,2}, Stephanie Stadelmann¹, Steffi Waskewitz¹, Tina Matuschek¹, Kai von Klitzing²

¹Universität Leipzig, LIFE Research Center, Leipzig, Germany

²Universität Leipzig, Department of Child and Adolescent Psychiatry, Psychotherapy and Psychosomatics, Leipzig, Germany

0263

I-Hsuan Lin¹, Yu-Hsien Chen², San-Nan Yang³, Pinchen Yang¹

¹Kaohsiung Medical University Hospital, Department of Psychiatry, Kaohsiung, Taiwan

Poster Session I-01

²Kaohsiung Medical University,
Graduate Institute of Psychology,
Kaohsiung, Taiwan

³Kaohsiung Medical University Hospital,
Department of Pediatrics, Kaohsiung,
Taiwan

1999 were recruited from Kaohsiung Medical University Hospital (KMUH). The range of this cohort was chosen so that subjects would be adolescents aged 12 to 17-year-old by 2011. The total number of the eligible subjects is 148.

Child Behavioral Checklist (CBCL-Chinese version) and the Living Status Questionnaire were used for the parents to fill out in assessing these adolescents' current status.

Results: At follow-up, 37 children were confirmed death (62.1% of them died within the first week after birth), and 61 subjects/families gave consents to be interviewed and returned their questionnaires back. Of these final 61 participating subjects, the current average age is 13.4 years, and 32(52.4%) subjects are male.

CBCLs revealed 24.6% of the subjects were of clinical significance in total Competence score as abnormal. In CBCL-Syndrome Scale, 14.7% of adolescents were of emotional or behavioral problems above clinical cutoff, and in CBCL-DSM-oriented Scale, total 21.5% of the adolescents were reported to be above the clinical cutoff in the domain of Affective and Anxiety Problems.

In the Living Status Questionnaire, 90.16% of the parents worried about their children, and they especially concerned academic performance, interpersonal relationship and attention problems. 16.39% of the adolescents are still receiving physical rehabilitation programs; 26.2% of the adolescents were currently receiving with special individualized educational plans. 32.8% of the adolescents are eligible for "handicap" claim to receive social welfare services.

Conclusions: In our follow-up survey, we found high percentage of subjects having parental reported emotional-behavioral problems, impaired cognitive status, psychiatric diagnosis and impaired living status.

0118

Murray Weeks¹, John Cairney²,
Cameron Wild³, George Ploubidis⁴,
Ian Colman¹

¹University of Ottawa, Epidemiology
and Community Medicine, Ottawa,
Canada

²McMaster University, Hamilton,
Canada

³University of Alberta, Edmonton,
Canada

⁴London School of Hygiene and
Tropical Medicine, London, UK

Trajectories of anxious and depressive symptoms in Canadian children: Predictors of child- versus adolescent-onset

Objective: The purpose of this study was to identify distinct trajectories of anxious and depressive symptoms from childhood to adolescence, and to identify risk factors for membership in these trajectory groups. In particular, the goal was to identify risk factors for trajectories suggesting child- versus adolescent-onset symptoms.

Material and methods: The sample included N=6289 individuals from the National Longitudinal Study of Children and Youth (NLSCY). Symptoms of anxiety and depression were assessed with parent reports from age 2 to 11, and were self-reported by children from age 12 onward. Latent class growth modeling (LCGM) was used to identify distinct trajectories of anxious and depressive symptoms from age 4-5 to 14-15. Multinomial regression was used to examine potential early-life risk factors for membership in a particular trajectory group.

Results: The following distinct trajectories were identified: consistently low symptoms— 'low stable' (reference group), low symptoms changing to high — 'low rising', consistently moderate symptoms— 'moderate', high symptoms changing to low — 'high falling', and consistently high symptoms— 'high stable'. Membership in the 'low rising' group (i.e., adolescent onset) was predicted by gender (odds greater for females), mother smoking during pregnancy, and early behaviour problems. In contrast, membership in the 'high stable' and 'high falling' trajectory groups (i.e., early onset) was predicted by maternal depression, presence of a chronic illness, hostile parenting style, difficult temperament, and early behaviour problems. Also, numerous interactions by gender were observed, particularly with respect to parental factors.

Conclusion: Causal mechanisms for child and adolescent depression and anxiety may differ according to time of onset, as well as sex.

0040

Internet counseling services in adolescent: A national study of Taiwan, 2007-2010

Background/objectives: In the past, the Internet technology was grown and evolves rapidly. A lot of new study has found that psychiatrists can correctly judgment a patient's mental health by web-base as well as e-mail, chatting online, internet phone, or real-time video. Taiwan information center (2008) has point out that adolescent intent user has more than one million, approximately 68.51% of total population. There is an enormous chance for helping people, especially teenagers who often feel embarrassed and loneliness. For them the internet is sometimes literally their lifeline.

This study focuses on the prevalence of adolescent access to, use of, and result of, internet counseling services in Taiwan from 2007 to 2010.

Methods: The research was a quantitative design utilizing survey methodology. The subjects from Homepage: secret garden-Web-counseling (<http://www.young.gov.tw>) was obtained and analyzed. The database was collected all adolescent access to, and use of, secret garden-Web-counseling services in Taiwan from 2007 to 2010.

Results: The result showed a striking effect of access to and use of, secret garden-Web-counseling services in Taiwan from 2007 to 2010. The data analysis as follows: The adolescent access homepage: secret garden increased from 177 people to 1522 people and internet counseling expanded rapidly from 77 to 2744 people. Adolescent in Taiwan, a frequency of use internet counseling were average 4.7 per person. The approximately 71.16% of the question was sexual problems that is priority of adolescent. The secondary and tertiary concerned was mood problems about 37%, and interpersonal relationship about 16.92%. Adolescent who used internet counseling are about 71.2% by email or chatting online and 20.8% via real-time video.

Conclusion: In this research paper, we present the results of intent counseling service for adolescent in Taiwan from 2007 to 2010. We can summarize the advantages to internet counseling including: anonymous, reach young people right in their homes, young people can tell you what their parents are saying and doing as they say it and do it, may be young people are much more articulate when they write them when they talk, 24 hour service, you can save and copy the files for later review, documentation, you can send them links to online resources, have them to exercises online etc.

Therefore, the findings and implications of the investigated should be generalized to the future groups of adolescents are similar to the subject.

Unmet needs for mental health care primary care in Quebec: Correlates with evolution of the mental health status, reasons and organisational factors.

Objective: This study aimed 1) to assess the evolution in depressive and/or anxious symptomatology (DAS) among adult primary care users reporting unmet needs for mental health care (UNC); 2) to identify individual and organisational factors, and 3) reasons underpinning the various UNC.

Material and methods: The data derived from "Projet Dialogue 2006-2010" concerns 1,956 adults presenting a DAS and consulting a general practitioner in primary care in Quebec. The Hospital Anxiety and Depression Scale enabled assessment of DAS and the Perceived Need for Care Questionnaire enabled evaluation of the different UNC and the reasons behind them, each being measured at three time-points (T1, T2, T3) at six-month intervals.

Result: Among the subjects reporting an UNC at T1 and T3 or at T3 only, i.e. one year after T1 (n=508), 69.1% presented ongoing DAS and 8.3% a deterioration in their mental

Hsuan Chi^{1,2}, Joseph Jror-Serk Cheng³, Ching-Feng Lin³, Wei-Ting Lee³, Chia-Chien Lee³

¹Department of Health, Executive, Yuan, Food and Drug Administration, Taipei, Taiwan

²National Taipei University of Technology, Taipei, Taiwan

³Bali Psychiatric Center Department of Health, Executive Yuan, New Taipei City, Taiwan

0123

Anne Dezetter^{1,2,3,4}, Louise Fournier^{1,2,3}, Arnaud Duhoux^{1,2,3}, Pasquale Roberge^{1,2,3,5,6}, Elise Chartrand²

¹CRCHUM, Montreal, Canada

²Institut national de santé publique du Québec, Montréal, Canada

³Université de Montréal, Montréal, Canada

⁴Université Paris Descartes, CERMES3-CESAMES, Paris, Canada

⁵Université de Sherbrooke, Sherbrooke, Canada

⁶CRC Centre Etienne-Label, Sherbrooke, Canada

health. Among subjects not reporting any UNC at either time point (n=616), 48.4% showed an improvement in their mental health and 18.7% had no DAS (p

All other things being equal, subjects under 45 years (vs. 45-64 years) with deteriorated mental health, considering themselves to be poor or very poor, without complementary health insurance or without a family doctor were more likely to report UNC. Psychotherapies and information on mental health and services available were the most frequent unmet needs. Whatever the nature of the UNC, the main reason cited was "not knowing where to seek help" and, with regard to psychotherapy and psycho-social help, "not being able to afford it".

Conclusions: With a view to reducing UNC, and beyond that reducing DAS among patients consulting in primary care, several organisational solutions can be envisaged in the services involved. Financial access to psychotherapies should be improved, the whole population should have access to a regular family doctor, and users should be informed as to the types of services available and how to access them.

0160

Karolina Leopold¹, Steffi Pfeiffer¹,
Christoph U. Correll², Michael Bauer¹,
Andrea Pfennig¹

¹Universitätsklinikum Dresden, Klinik
für Psychiatrie und Psychotherapie,
Dresden, Germany

²Feinstein Institute, Psychiatry Research,
New York, United States

Early recognition centers for mental disorders: A reasonable and needful complementary supply in the German health system

Objective: mental disorders are identified and treated too late, because of stigma, deficient information in the population and lack of specific supply in the public health systems. Another problem is the deficient cooperation between psychiatry and child psychiatry. Therefor early recognition centers were founded, in Germany primarily with focus on psychosis and in research settings.

Material and methods: the early recognition center in Dresden offers a low-threshold and anonym service for young people independent of diagnosis. The multiprofessional team including psychologists, psychiatrists and child psychiatrists applies defined standards. In addition to standard history taking and formally assessing psychopathology, early recognition instruments for psychosis and bipolar disorders are used as appropriate.

Results: In 167 out of 192 individuals a structured diagnostic procedure was recommended, 149 persons (89%) completed the procedure. Thereof 78 (52%) persons fulfilled criteria for one, 21 (14%) persons for two and 10 (7%) persons for three mental disorders. 49 (33%) persons fulfilled criteria for (Ultra)Highrisk for psychosis and/or bipolar disorders.

Conclusions: In the majority of cases diagnostic criteria for at least one mental illness was already fulfilled. All diagnosis and stages from prodromal till chronic were represented. The high percentage of subjects fulfilling criteria for (ultra)Highrisk-constellations offers the chance for early interventions. The implementation of early detection centers for psychiatric disorders seems reasonable and necessary.

0210

Anne Ruehlmann¹, Jan Lange¹,
Philipp Ritter¹, Carolin Marx¹,
Karolina Leopold¹, Steffi Pfeiffer¹,
Michael Bauer¹, Andrea Pfennig¹

¹Universitätsklinikum Carl Gustav
Carus, Klinik für Psychiatrie und
Psychotherapie, Dresden, Germany

Clinical registry for patients with bipolar disorders hospitalized in the catchment area of the city of Dresden

Introduction: Bipolar Disorders are severe, frequently recurrent psychiatric disorders resulting in individual limitations and social impacts. Despite the relevance of the disorder (with a life-time prevalence of about 3%), there is still insufficient prospective longitudinal data on psychosocial functioning, health care utilization, socioeconomic situation, treatment decision making, guideline and treatment adherence and side effects of pharmacological treatment.

Methods: The aim of the registry is a systematic, standardized prospective longitudinal observation of patients with bipolar disorder in the catchment area of Dresden. As a first step, all bipolar patients hospitalized in one of the four psychiatric hospitals serving

the catchment area of the city of Dresden were included. Psychopathological status and treatment are monitored weekly. After discharge, patients are followed up for a minimum of 24 months with regular visits every 3 to 6 months. Outcome parameter monitored are psychosocial functioning, health care utilization, socioeconomic situation, treatment decision making, guideline and treatment adherence and side effects of pharmacological treatment.

Results and conclusion: The first patient was recruited in March 2011 at the University hospital in Dresden. Meanwhile patients are recruited in all four psychiatric hospitals. To date, 68 patients are followed up regularly. Of all recruited patients, 54% are female, the mean age is 45 years. The majority of patients meet the diagnostic criteria for Bipolar I disorder according to DSM-IV (87%). Co-morbid psychiatric disorders occurred in 22% of the patients, somatic disorders were recorded in 67%. About one-third of the hospitalized bipolar patients refused participation due to various reasons. They were of higher age and severity of the disorder compared to the participants.

The goal of the project is to implement the registry on a long-term basis and to broaden the inclusion to outpatients in the catchment area.

Self-reported utilization of diabetes healthcare in a Quebec community based sample: Impact of major depression

Objectives: Ascertain self-reported utilization of diabetes healthcare in a Quebec population with type 2 diabetes, and the impact of major depression on reported utilization of and access to diabetes healthcare and received care components.

Methods: Adults with type 2 diabetes who took part in baseline and 1-year follow-up telephone interviews were assessed (n=1,175). Information was collected regarding utilization of and access to diabetes healthcare, sociodemographic and diabetes characteristics, treatment, diabetes complications, disability, body-mass index, residential area, and depression.

Results: People who reported not utilizing diabetes healthcare were more likely to have a household income less than \$15,000, be controlling diabetes through diet/exercise, have a normal body-mass index, not have received recommended care components and have major depression. People with major depression were more likely to report problems getting advice and being less likely to have feet checked by their doctor.

Conclusions: People with diabetes need to utilize healthcare services in order to receive recommended care components. People with major depression are less likely to report utilizing healthcare services and also perceive more problems with the healthcare they receive.

Treatment contact and help-seeking for mental disorders in a multi-ethnic Asian community

Objectives: This study examined the prevalence of treatment contact and help-seeking behaviours in adults with life-time mood, anxiety or alcohol use disorders. Correlates of treatment contact and barriers to help-seeking are also investigated.

Material and methods: Data was collected as part of the Singapore Mental Health Study, a nationally representative cross-sectional survey of adult residents aged 18 years and above. Total of 6616 people were interviewed in the year 2010 giving an interview response rate of 75.9%. Socio-demographic information was obtained. Composite International Diagnostic Interview version 3.0 was used to diagnose mental disorders and determine the age at onset of illness, treatment contact and help-seeking behaviours in this group. All estimates were weight-adjusted for the population.

0172

Kimberley Smith^{1,2}, Genevieve Gariépy¹, Norbert Schmitz^{1,2}

¹Douglas University Mental Health Institute, Psychiatry, Montreal, Canada
²McGill University, Psychiatry, Montreal, Canada

0053

Janhavi Ajit Vaingankar¹, Mythily Subramaniam¹, Edimansyah Abidin¹, Siow Ann Chong¹

¹Institute of Mental Health, Research Division, Singapore, Singapore

Results: Of the 12% of people who had at least one life-time episode of mood, anxiety or alcohol use disorders, only 16.3% had ever sought treatment. The lowest proportion of treatment contact was observed among those with alcohol abuse (3.8%), followed by obsessive compulsive disorder (OCD) (10.2%) and alcohol dependence (11.7%). While younger cohorts (18 - 34 years) were more likely to make treatment contact for mood and anxiety disorders, people with early disorder onset were less likely to make treatment contact. Mental health providers (15.7%), other professionals in social support setting (12.7%) and other medical professionals (9.1%) were the most commonly accessed sources of help. Key barriers to help-seeking were the perception that they could handle the problem by themselves (55.6%), lack of recognition of the problem (31.6%) and doubts about helpfulness of treatments (8%).

Conclusions: Prevalence of treatment contact and help-seeking for mental disorders is low; cohort age and age of onset are important predictors of treatment contact. Study findings also highlight the need for strategies to enhance mental health services in the community.

0007

Nazan Bilgel¹, Alis Ozcakir¹

¹Uludag University Faculty of Medicine, Family Medicine, Bursa, Turkey

Depression, anxiety and stress among medical students

Objective: To evaluate the prevalence of depression, anxiety and stress among medical students and to assess the possible related factors

Material and Methods: This is a descriptive and cross-sectional study performed in one public medical faculty in Turkey. Participants were medical students from 1-6 th classes of medical study. During the study period there were a total of 1338 enrolled medical students of whom 928 participated to the study. Participation was voluntarily and based on given informed consent. Participants filled out the Turkish version of Depression Anxiety Stress -42 Scale (DASS-42) together with a questionnaire about the students' socio-demographic characteristics. SPSS V 13.0 package program was used for the statistical analyses.

Results and Conclusion: Among medical students 25.8% had mild and moderate whereas 8.6% had severe depression. Severe anxiety and stress were found among 10 % and 20.1% of participants respectively. Depression and anxiety were more frequently reported by female students than males. Depression was more frequent among students who were in poor economic situation. Depression, anxiety and stress were more frequently reported by students who were not satisfied with their medical education. The frequency of depression and anxiety were decreasing with the increasing years in medical education.

Our study indicated that medical students' psychological distress was influenced only to a modest degree by the traditional demographic characteristics that we employed in our study. A more complete understanding of what constitutes the risk for developing mental problems for medical students will demand a broader approach to studying in this field, including measurement of student's personality, social network and social support known from other studies to be predictors for the development of psychological distress.

0345

Margareta Schonder¹

¹Institut für Pädagogische Psychologie, Braunschweig, Germany

Sense of coherence among religious and non-religious students from Germany and Poland.

Introduction: There is a construct in psychology called the sense of coherence (SOC). The author of this concept, Aaron Antonovsky, defined it as a global perceptual predisposition in responding to life stress. It is based on a feeling of confidence that life is predictable and structured, that resources needed to cope with demands in life are accessible and that these demands are challenges always worth of investment and engagement. (Antonovsky, 1979) This study attempts to examine the level of SOC in a sample of students from Germany and Poland.

The major questions are: How do they cope with hassles and which role do religion and socio-demographic factors play in this process? Background In the large body of literature

SOC has been positive connected with the subjective sense of health, self-esteem, and life satisfaction. Moreover, a negative correlation between SOC stress, anxiety, depression, school-stress, burnt out, and RLE has been found. (Zirke et. al., 2007, Johnson 2004) Additionally, studies present a positive association between better health (mental and physical) and religious devotion. (Dunn 2005, Willis et al. 2003, Koenig 2001) Despite of many thesis about the relation between the sense of coherence and health or religion and health, there is still a neglected area of research concerning the role of SOC and religion in a coping process. Religion may provide the sense of coherence and meaning in life, so that people understand their role in the universe, and can develop their courage to cope with crisis. A particular interest of this study is dedicated to the ratio of SOC and religion (strength of religion devotion and organisational and non- organisational religious activities).

Methods: The sense of coherence (SOC) was assessed on Orientation to Life Questionnaire 29 Items (Antonovsky). The strength of religious devotion was evaluated on Santa Clara Strength of Religious Faith Questionnaire (SCSRF) (Plante & Boccaccini). In order to value organisational and non-organisational religious activities Duke religion index (DUREL) was employed (Koenig et al.). Coping and resistance resources was assessed on Perceived Stress Scale (PSS 10Item, Cohen) and General Self-Efficacy Scale (GSE, Schwarzer & Jerusalem). In order to collect socio-demographic information a simply 13Items questionnaire was to fill up. The sample consisted of 1623 German and 643 Polish religious (N=1372) and non-religious (N=893) students. The religious denominational preference of the sample was: Protestants N= 493, Catholics N=737and Buddhists N=142.

Prevalence and age-of-onset distributions of DSM IV major depressive disorder and its severity among students of nine public universities in Wroclaw, Poland: WMH-CIDI findings

0051

Marta Zagdańska¹, Andrzej Kiejna¹

¹Wroclaw Medical University, Psychiatriy, Wroclaw, Poland

Objectives: So far only a few studies have explored the prevalence of psychiatric disorders (PD) among university students. This study aimed to estimate the prevalence of Major Depressive Disorder among students of nine public universities in Wroclaw, Poland.

Method: A representative quota sample of 370 (2,78%) out of 102160 students of nine public universities in Wroclaw, Poland participated in the face-to-face structured interview using the polish-version of WMH-CIDI 3.0. Respondents were recruited due to following criteria: sex, age, year of the studies, field of studies, faculty and university.

Results: The lifetime prevalence of Major Depressive Disorder (MDD) was 15,41%. The percentage of students who meet criteria of MDD during past 12 months was also high - 10,27%. Young people who suffered because MDD symptoms during 30 days before the interview accounted for 2,70%. In most cases first episode of MDD started after the age of 14 (87,72%). Nearly half of the depressed students experienced the onset of the disorder between the age of 16 and 19 (50,88%). Another interesting trend regards recency. Last episode of MDD occur typically between 20 and 21 (46,56%) or in the age of 24 (15,52%). In almost all cases depressive symptoms caused clinically significant distress (95,65%) and impairment in social, occupational, or other important areas of functioning (98,65%). Alarmingly high percentage of students diagnosed with MDD reported recurrent thoughts of death (not just fear of dying), suicidal ideations, plans or attempts (55,95%).

Conclusions: Based on this study, estimated prevalence of MDD in the population of students reminds high. Symptoms of MDD are severe and occur early in lifetime. Recency rates indicate that those who has just started their studies as well as the last year students might be in a greater risk of mood disorders. All presented results should be used to improve prevention and care of MDD in university students in Poland.

0373

Valbona Zhjeqi¹, Sanije Gashi¹,
Rina Hoxha¹, Merita Berisha¹,
Ilir Begolli¹, Drita Salihu¹,
Naser Ramadani²

¹National Institute of Public Health of
Kosova, Social Medicine, Prishtina,
Albania

²National Public Health of Kosovo,
Epidemiology, Prishtina, Albania

Exam stress among nursery and midwifery students in a Prishtina University, Kosovo

Objectives: Different studies revealed fact that significant number of medical branches students is characterized with high level of stress and had psychological morbidity. The aims of this study are to assess the prevalence of exam stress, to find out main exam stressors, main stress symptoms and stress reactions, among nursing and midwifery students.

Material and method: A cross-sectional study was conducted among 117 Nurse and Midwife faculty students of the University of Prishtina, Kosova in 2012. Students completed a self-administered anonymous questionnaire consisted of 21 questions, structured in four parts. Chi-square, F-tests and correlation analysis were performed.

Results: Among 117 students, 72 were from nurse branch and 38 from midwife branch. Regarding sex 94.0% were females with average age 21.1 years and 19.9 years for males.

Among all students, 90.6% have declared that they are stressed during exams. Main reasons for exam stress were desire for better achievement 88.9% and short time for exam preparation 14.5%. Main symptoms for exam stress were defined body and hand shaking with 30.8%, stomach upset 27.4%, anxiety 24.8%, rapid heartbeat 22.2%, over petite 17.9%, nervousness 13.7%.

With overeating high percentage of students 42.7% have reacted. More than one third of students 31.6% started to make new action plan and about one fifth of students hoped for miracle to happen. From supportive factors, professors had highest impact and significant role on decreasing exam stress 47.9% whereas parents 32.5% and friends 30.8%.

Exam stress students rated with average mark 3.6 and average optimism for exam success is marked with 4.0. Correlation between questions: 'if they are stresses for exams' and 'how much do they rate their stress from 1-5', is strong ($r=-0.71$).

Conclusion: Introduction of stress management module into nurse and midwife faculty curricula is proposed.

0167

Marion Aichberger¹, Amanda Heredia
Montesinos¹, Rahsan Yesil¹,
Zohra Bromand¹, Selver Temur-Erman¹,
Michael Rapp¹, Andreas Heinz¹,
Meryam Schouler-Ocak¹

¹Charité University Medicine, Psychiatry
and Psychotherapy, Berlin, Germany

Suicide attempts of women of Turkish descent in emergency units in Berlin

Question: Elevated suicide attempt rates of girls and young women of Turkish origin have been found in studies in the Netherland and Switzerland. In Germany a similar pattern was suggested by the WHO multicentre study of suicidal behaviour with a fivefold increased rate of suicide attempts. Furthermore, Razum & Zeeb (2004) found an almost twofold relative risk for suicide in girls and young women of Turkish origin in Germany in comparison to their German peers in an analysis of death registration data. For the development of effective (indicated) prevention of suicide in immigrant groups, such as women of Turkish origin in Germany, patterns of suicidal behaviour need to be understood. Therefore the aim was to estimate the incidence of suicide attempts in women of Turkish origin aged 18 years or older residing in Berlin, Germany. This investigation was part of a large-scale multi-modal intervention study aiming to increase help-seeking behaviour in suicidal crisis (ISRCTN96382348).

Methods: The incidence of suicides and suicide attempts were estimated analogous to the WHO/EURO suicide prevention study. All suicide attempts among women of Turkish origin who presented in a hospital based emergency unit in Berlin (N=42) were included in the analyses. Basic socio-demographic characteristics, method used, psychiatric diagnosis (if applicable), follow-up treatment and motifs were collected. Suicide attempt rates were calculated per 100,000 population per year. The study was conducted from 2009 to 2011.

Results: During the study (05/2009-09/2011) a total of N=163 suicide attempts of women of Turkish origin aged 18 years or older were reported at all the emergency departments in

Berlin. The mean age was 30.8 years (range: 18-66 years). The highest fraction was in the age-group 18-35 years. 52.2% (N=85) were women belonging to the second generation. Rates declined in the youngest age stratum over the time of the study. The most common psychiatric diagnosis was adjustment disorder (ICD-10:F43.2) with 49.7% (N=81). The majority of cases was reported in the inner-city districts of Mitte, Kreuzberg-Friedrichshain, and Neukölln, the districts with the highest density of immigrants of Turkish origin.

Conclusions: Our findings show that particularly young second generation women of Turkish origin present at emergency department after suicide attempts. This might indicate an increased risk for suicide attempts in this group.

Obesity and rates of suicide in the OECD: An ecological study

Objective: Historically a positive association between obesity and completed suicide has been reported. However, there is emerging evidence of an inverse correlation both from cohort studies and an ecological study comparing the States of USA. To date there has been no ecological inter-country comparison of the phenomenon. We compared national suicide rates with the prevalence of obesity in the 34 member countries of the Organisation for Economic Co-operation and Development (OECD).

Material and methods: We collated data from the OECD website concerning national age and sex standardised suicide rates for each member country. Other data were collected to match the year of the suicide data most closely. Linear regression modelling was used. The fully adjusted models incorporated annual alcohol consumption, tobacco use, health spending per capita, life expectancy at birth and gross domestic product (GDP) per capita as potential confounders.

Results: The median proportion of adults who were obese was 15.3%, ranging from 2.0% in Korea to 26.4% in USA. The median suicide rate was 11.7 per 100,000 ranging from 3.2 per 100,000 in Greece to 33.8 per 100,000 in Korea. The crude linear regression found national suicide rates inversely related to obesity prevalence: $B = -0.52 (-0.89, -0.15)$, $P = 0.008$; for each percentage point increase in obesity, suicide was reduced by 0.52 deaths/100,000 population/year. The fully adjusted model showed similar but stronger results: $B = -0.75 (-1.14, -0.37)$, $P = 0.0004$; a percentage point increase in obesity was related to a fall in 0.75 deaths from suicide/100,000 population/year.

Conclusions: Attempts to reduce obesity prevalence may have an adverse consequence of increasing national rates of suicide. Falling suicide rates in developed nations may be partially explained by increasing obesity.

Suicide ideation and attempt among substance misusers: The second Brazilian National Alcohol and Drug Survey

Objective: This study examined the association between alcohol and drugs consumption with suicide ideation and attempt.

Method: The Second Brazilian National Alcohol and Drugs Survey developed by the National Institute of Policies on Alcohol and Drugs and the Federal University of Sao Paulo, investigated the consumption of all psychotropic drugs. Suicide ideation and attempt were self-reported. The survey used probability multistage cluster sample design to select 4607 participants aged 14 and older from 149 municipalities across the country, achieving a total response rate of 77%. Data were analyzed using Poisson Regression.

Results: Suicide ideation and attempts affected 9.9% and 5.4% of the sample, respectively; this prevalence was 31.5% and 16.5% among cannabis users and 40.0% and 20.8% among cocaine users respectively. After adjusting for demographic characteristics, religion, tobacco consumption, family history of suicide and depression we found that suicide

0181

Dutta Rina¹, [William Lee](#)¹,
Matthew Hotopf¹

¹Institute of Psychiatry, Psychological
Medicine, London, United Kingdom

0237

[Patricia Manzolli](#)¹, Clarice Madruga²,
Ilana Pinsky², Raul Caetano²,
Ronaldo Laranjeira², Cleusa Ferri²

¹Universidade Federal de Pelotas,
Mental Health, Porto Alegre, Brazil

²Universidade Federal de São Paulo,
Departamento de Psiquiatria, São
Paulo, Brazil

ideation was associated with alcohol PR1.47 (1.12-1.92); cannabis PR 2.22 (1.40-3.53) and cocaine use PR 2.55 (1.53-4.24). Suicide attempt was not associated with cannabis use PR 1.74 (0.90-3.40) but it was with alcohol use PR 1.44 (1.02-2.05) and cocaine use PR2.40 (1.09-5.34).

Conclusion: There was a high report of suicide ideation and attempt and this was even more common among substance misusers (cocaine, alcohol and cannabis). Public health campaigns to prevent suicide should integrate the assessment and management of illegal substance use and alcohol consumption. Therapeutic approaches for substance misuse must attempt to identify this risk.

0199

Lena Spangenberg¹,
Andrey Haydabrus², Anna Kobińska³,
Nataliia Orlova⁴, Agata Żesławska-
Faleńczyk⁵

¹University of Leipzig, Medical
Psychology and Medical Sociology,
Leipzig, Germany

²Head Department of Addiction in
Military Medicine Clinical Center of the
Northern Region, Kharkiv, Ukraine

³Kazimierz Wielki University, Department
of Clinical Psychology, Institute of
Psychology, Bydgoszcz, Poland

⁴Kiev City Clinical Psychoneurological
Hospital I, Kiev, Ukraine

⁵Wrocław Medical University,
Department of Psychiatry, Wrocław,
Poland

Internet search trends in epidemiological research. The association between the search of suicide-related terms via Google and suicide rates in Poland, Ukraine and Germany

Objectives: Epidemiologic research has supported the usefulness of internet search trends in monitoring infectious disease outbreaks. Some studies have also examined the association between internet search trends and mental health problems, i.e. suicide. Internet search volumes for suicide-related terms have been linked to increased suicide rates in Japan, Taiwan and the USA. To our knowledge, studies examining this association in Europe do not exist to date. Thus, we aim to analyze the association between suicide rates in different age groups in the general population and internet search trends regarding suicide-related terms in Ukraine, Poland and Germany.

Materials and Methods: In every country, monthly suicide rates will be obtained from national registers from January 2004 to December 2010. The corresponding search volume for suicide-related search terms in google will be provided by google insights for search. Associations between internet search trends and the course of suicide rates will be investigated using time series analysis.

Results: We expect to find an association between internet search trends and suicide rates, especially in younger age groups, potentially with a certain time delay. As Ukraine, Poland and Germany differ largely in terms of percentage of internet users, suicide rates and socio-economic variables we consider our cross-cultural approach as very promising to get further insights in the association of internet search trends and suicide rates on population level.

Conclusion: Whereas national trends in suicide rates are usually reported with a certain lag of time, internet search trends are accessible any time. Hence, monitoring internet search trends regarding suicide-related terms might offer public health initiatives a chance to implement specific prevention programs on time. However, the validity, comparability and the access of data regarding suicide might be challenging.

0065

Kyla Thomas¹, Neil Davies¹,
Chris Metcalfe¹, Frank Windmeijer²,
Richard Martin¹, David Gunnell¹

¹University of Bristol, School of Social
and Community Medicine, Bristol,
United Kingdom

²University of Bristol, Department of
Economics, Centre for Market and
Public Organisation, Bristol, United
Kingdom

Validation of suicide and self-harm records in the clinical practice research datalink

Objectives: The UK's Clinical Practice Research Datalink (CPRD), formerly known as the General Practice Research Database (GPRD), is increasingly used to investigate suicidal behaviour. No studies have comprehensively validated the recording of suicide and non-fatal self-harm in the CPRD. We validated GP's recording of these outcomes using linked Office for National Statistics (ONS) mortality and hospital episode statistics (HES) admission data.

Methods: We identified cases of suicide and self-harm recorded using appropriate Read codes in the CPRD between 1998 and 2010 in patients aged ≥ 15 years. Suicides were defined as patients with Read codes for suicide recorded within 95 days of their death. ICD codes were used to identify suicides in the linked ONS and HES datasets. We compared CPRD derived cases of suicide and self-harm (and incidence rates) with those identified

from linked ONS mortality and HES data, national suicide incidence rates and published self-harm incidence data.

Results: Only 26.1% (n=590) of the 'true' (ONS-confirmed) suicides were identified using Read codes. Furthermore, only 55.5% of Read code identified suicides were confirmed as suicide by the ONS data.

68.4% of HES-identified cases of self-harm were identified in the CPRD using Read codes for self-harm. CPRD self-harm rates based on Read codes had similar age and sex distributions to rates observed in self-harm hospital registers although rates were underestimated in all age groups.

Conclusions: CPRD recording of suicide using Read codes is unreliable, with significant inaccuracy (over and under-reporting). Future CPRD suicide studies should use linked ONS mortality data. The under-reporting of self-harm appears to be less marked and because of limitations with HES data (only hospital admitted cases are recorded) might usefully be studied using CPRD-derived Read codes for self-harm.

Epidemiology of self-poisoning in Bamako

Objective: This study was conducted to describe the main characteristics of self-poisoning in Bamako, Mali's capital.

Material and Methods: A retrospective analysis of voluntary poisoning cases, notified between 2000 and 2010 by two University Hospitals (CHU) and six Health Reference Centers (HRC) in Bamako, was performed.

Results: During the period of study, a total of 641 self-poisoning cases (170 male and 471 female) have been identified, constituting 37% of poisoning cases notified during this period. The average age of victims is 23 years. According to data available, suicide attempts and induced abortion by voluntary ingestion of toxic products are the most common forms of self-poisoning (respectively 64,6% and 27,5% of cases). The medication intake is the primary means employed by victims (75,6%), followed by industrial products (10,4%). The poisoning symptoms are varied, depending on involved toxins, the ingested quantity and the delay before treatment. Among the 639 cases for whom the evolution is known, 38 of them died. For other cases, the outcome was favorable with or without sequelae.

Conclusion: The real number of voluntary poisoning is probably underestimated, because of the undiagnosed and unreported cases.

Prediction of incident dementia: Impact of impairment in instrumental activities of daily living and mild cognitive impairment — Results from the German study on ageing, cognition, and dementia in primary care patients

Question: There is an increasing call for a stronger consideration of impairment in instrumental activities of daily living (IADL) in the diagnostic criteria of Mild Cognitive Impairment (MCI) to improve the prediction of dementia. Thus, the aim of the study was to determine the predictive capability of MCI and IADL impairment for incident dementia.

Methods:

Design: Longitudinal cohort study with four assessments at 1.5-year intervals over a period of 4.5 years.

Setting: Primary care medical record registry sample.

0299

Hinde Hami¹, Tidiane Diallo²,
Ababacar Maïga²,
Abdelrhani Mokhtari¹,
Rachida Soulaymani-Bencheikh³,
Abdelmajid Soulaymani¹

¹Laboratory of Genetics and Biometry,
Faculty of Sciences, Ibn Tofail University,
Kenitra, Morocco

²Faculty of Medicine, Pharmacy and
Odonto-Stomatology, Bamako, Mali

³Moroccan Poison Control Center,
Rabat, Morocco

0021

Tobias Luck^{1,2}, Melanie Lupp¹,
Birgitt Wiese³, Wolfgang Maier^{4,5},
Hendrik van den Bussche⁶,
Frank Jessen^{4,5}, Siegfried Weyerer⁷,
Michael Pentzek⁸, Hans-Helmut König⁹,
Steffi G. Riedel-Heller¹

¹University of Leipzig, Institute of Social
Medicine, Occupational Health and
Public Health, Leipzig, Germany

²University of Leipzig, LIFE — Leipzig
Research Center for Civilization
Diseases, Leipzig, Germany

³Hannover Medical School, Institute for
Biometrics, Hannover, Germany

⁴University of Bonn, Department of
Psychiatry, Bonn, Germany

⁵DZNE, German Center for
Neurodegenerative Diseases, Bonn,
Germany

⁶University Medical Center Hamburg-Eppendorf, Department of Primary Medical Care, Hamburg-Eppendorf, Germany

⁷Central Institute of Mental Health, Mannheim, Germany

⁸Heinrich-Heine-University Düsseldorf, Institute of General Practice, Düsseldorf, Germany

⁹University Medical Center Hamburg-Eppendorf, Department of Medical Sociology and Health Economics, Hamburg-Eppendorf, Germany

Participants: As part of the German Study on Ageing, Cognition, and Dementia in Primary Care Patients (AgeCoDe), a sample of 3,327 patients from general practitioners, aged 75 years and older, was assessed.

Measurement: The predictive capability of MCI and IADL impairment for incident dementia was analysed using receiver operating characteristics, Kaplan-Meier survival analyses, and Cox proportional hazards models.

Results: MCI and IADL impairment were found to be significantly associated with higher conversion to, shorter time to, and better predictive power for future dementia. Regarding IADL, a significant impact was particularly found for impairment in responsibility for one's own medication, shopping, and housekeeping, and in the ability to use public transport.

Conclusions: Combining MCI with IADL impairment significantly improves the prediction of future dementia. Even though information on a set of risk factors is required to achieve a predictive accuracy for dementia in subjects with MCI being clinically useful, IADL impairment should be a very important element of such a risk factor set.

0256

Melanie Lippa¹, Steffi G. Riedel-Heller¹, Janine Stein¹, Hanna Leicht², Hans-Helmut König², Hendrik van den Bussche³, Wolfgang Maier⁴, Martin Scherer³, Horst Bickel⁵, Edelgard Mösch⁵, Jochen Werle⁶, Michael Pentzek⁷, Angela Fuchs⁷, Marion Eisele³, Frank Jessen⁴, Franziska Tebarth⁴, Birgitt Wiese⁸, Siegfried Weyerer⁶

¹University of Leipzig, Institute of Social Medicine, Occupational Health and Public Health, Leipzig, Germany

²University Medical Center Hamburg-Eppendorf, University Medical Center Hamburg-Eppendorf, Department of Medical Sociology and Health Economics, Hamburg, Germany

³University Medical Center Hamburg-Eppendorf, Department of Primary Medical Care, Hamburg, Germany

⁴University of Bonn, Department of Psychiatry, Bonn, Germany

⁵Technical University of Munich, Department of Psychiatry, Munich, Germany

⁶Central Institute of Mental Health, Mannheim, Germany

⁷Medical Faculty of the Heinrich-Heine-University Düsseldorf, Institute of General Practice, Düsseldorf, Germany

⁸Hannover Medical School, Institute for Biometrics, Hannover, Germany

Predictors of institutionalisation in incident dementia - Results of the German Study on Ageing, Cognition and Dementia in Primary Care Patients (AgeCoDe study)

Background/Aims: In the past decades a number of studies investigated risk factors of nursing home placement (NHP) in dementia patients. The aim of the study was to investigate risk factors of NHP in incident dementia cases, considering characteristics at the time of the dementia diagnosis.

Methods: 254 incident dementia cases from a German GP-sample aged 75 years which were assessed every 1.5 years over four waves were included. A Cox proportional hazard regression model was used to determine predictors of NHP. Kaplan-Meier survival curves were used to evaluate the time until NHP.

Results: Of the 254 incident dementia cases, 77 (30%) were institutionalised over the study course. The mean time until NHP was 4.1 years. Significant characteristics of NHP at the time of the dementia diagnosis were marital status (being single or widowed), higher severity of cognitive impairment and mobility impairment.

Conclusion: Marital status seems to play a decisive role in NHP. Early initiation of support of sufferers may ensure remaining in the familiar surroundings as long as possible.

Long-term prognosis of older people with dementia and milder forms of cognitive impairment: A 22- year follow-up

Objective: To examine the long-term prognosis of older people with different degrees of cognitive impairment in terms of survival time and institutionalisation and to evaluate the prognostic power of a wide range of sociodemographic and clinical variables.

Methods: A long-term community survey was conducted in the German city of Mannheim. It was based on a total of 3.721 elderly patients in primary care who had seen their GPs during a four-week interval. A stratified random sample of patients (N=407) underwent a standardised research interview, including cognitive testing, assessment of dementia (degree of severity, type), physical impairment, as well as the global dependency of the patients and their care situation. At baseline 117 of the 407 patients were identified as suffering from mild, moderate, or severe dementia, 290 were affected by milder forms of cognitive impairment or were cognitively unimpaired. Over a total period of 22 years after the baseline examination, mortality was assessed repeatedly. Using different statistical procedures (including Cox proportional hazards regression) the prognostic power of baseline cognitive impairment and other variables was evaluated.

Results: During 22 years 91.5% of the patients had died and 29.2 % of the initially non-institutionalised patients were admitted to long-term care facilities. Higher age and the severity of cognitive impairment at baseline were among the strongest predictors for the long-term outcome, even when considering other sociodemographic features or physical impairment.

Conclusions: Estimates of the long-term prognosis of older people with cognitive impairment and dementia may be helpful for service planning as well as for patients and their families.

Cognitive efficiency shaped by the psychosocial working environment? A systematic review

Objectives: The high incidence of cognitive impairments in the aging population together with the challenges it imposes on health systems raise the question of what impact working life has on cognitive abilities. The objective was to assess whether there is an association between psychosocial work factors and cognitive functioning.

Methods: Systematic literature searches in PubMed and PsycInfo were based on a standardized search string and strict exclusion criteria. Two independent reviewers evaluated the results in detail.

Results: Quality assessment resulted in 17 adequate quality studies. Moderate evidence was found for high job control, high work complexity with people and data, and napping in nightshifts as beneficial factors as well as long working hours as risk factors for cognitive abilities.

Conclusion: Overall, the results imply that mentally challenging psychosocial work conditions preserve cognitive abilities. Additional studies are necessary in order to arrive at more concise conclusions.

Variability of depressive symptoms in six European countries: Results from the ESEMeD survey

Using common diagnostic systems together with structured interviews to assess mental disorders has made it possible to compare diagnostic groups of mental disorders across countries. The implicit assumption is that the symptomatology of a particular disorder as

0296

Martina Schaeufele¹, Horst Bickel²,
Andreas Hoell³, Ingrid Hendlmeier¹,
Siegfried Weyerer³

¹University of Applied Sciences,
Mannheim, Germany

²Technical University, Psychiatry,
Munich, Germany

³Central Institute of Mental Health,
Mannheim, Germany

0103

Francisca S. Then¹, Tobias Luck¹,
Melanie Luppa¹, Marleen Thinschmidt²,
Stefanie Deckert²,
Karen Nieuwenhuijsen³,
Andreas Seidler², Steffi Riedel-Heller¹

¹Institut für Sozialmedizin,
Arbeitsmedizin und Public Health,
Leipzig, Germany

²TU Dresden, Dresden, Germany

³Coronel Institute of Occupational
Health, Amsterdam, Netherlands

0439

Sebastian Bernert¹

¹Charité-Universitätsmedizin Berlin,
Berlin, Germany

defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) will not vary between different countries. However, it is conceivable that there will be some variability in the symptom patterns.

The talk will examine if differences in depressive symptom patterns across European countries can be found and if there are different associations between symptoms and the latent construct depression. Data from 4025 individuals of the European Study of the Epidemiology of Mental Disorders (ESEMED) project were analysed. Individuals were interviewed using the Composite International Diagnostic Interview (CIDI 3.0). Confirmatory factor analysis was used to examine the associations between depressive symptoms and the latent construct of depression in each country.

The proportions of endorsed symptoms of depression showed only slight variation across European countries and only minor to moderate differences in the associations between depressive symptoms and the latent construct depression. The results demonstrated that in European countries using a fully structured and standardized interview based on European-American diagnostic concepts leads to similar results with regard to depressive symptom patterns.

0274

Margaret Heslin¹, Julia Lappin¹, Kim Donoghue², Ben Lomas², Gill Doody², Tim Croudace³, Peter B Jones³, Paul Fearon⁴, Tom K J Craig¹, Robin Murray¹, Paola Dazzan¹, Craig Morgan¹

¹Institute of Psychiatry, KCL, London, United Kingdom

²University of Nottingham, Nottingham, United Kingdom

³University of Cambridge, Cambridge, United Kingdom

⁴Trinity College, Dublin, Ireland

Outcomes 10 years after first episode of psychotic major depression and schizoaffective disorder, depressed type

Question: Although there are a number of studies on the long-term course of illness and outcomes in Psychotic Major Depression (PMD) and Schizoaffective Disorder, Depressed Type (SAD), these studies are often methodologically flawed. The major flaws being that studies are not limited to first episode psychosis (FEP) cases and often sample from inpatient populations only. Cases with a chronic course of illness and poor outcomes are more likely to be in services and this may lead to sampling from a sicker population resulting in an overestimation of poor course and outcomes. Using data from the AESOP study, we sought to examine the long term outcomes from PMD & SAD.

Methods: AESOP is a multi-centre incidence and case-control study of first-episode psychosis. Cases were all individuals presenting to specialist mental health services for a first time with a psychotic disorder over a two-year period in specified catchment areas in London and Nottingham. Follow-up was conducted 10 years later.

Results: Seventy-five percent of PMD cases and 90% of SAD cases were followed up at 10 years. Of the 72 PMD cases identified at baseline, 3 were no longer alive at follow-up. All of the 20 SAD cases were alive. Of the cases who had a baseline and follow-up diagnosis, 49.3% of PMD and 38.9% of SAD cases retained the same diagnosis at follow-up. 11.1% of PMD cases and 16.7% of SAD cases had not had a remission of symptoms of 6 months or more. 29.6% and 26.3% had made at least one suicide attempt, and 21.8% and 26.3% had experienced at least one episode of non-suicidal self harm.

Conclusions: These preliminary findings suggest that outcomes from PMD and SAD are similar suggesting that PMD and SAD may be more alike than is reflected in current nosology.

0346

Luisa Pesce^{1,2}, Erik Giltay¹, Tineke van Veen¹, Martijn van Noorden¹, Ingrid Carlier¹, Albert van Hemert¹

¹Leiden University Medical Center, Psychiatry, Leiden, Netherlands

²University of Milan, Psychiatry, Milan, Italy

Gender differences in prevalence, severity and symptomatology of outpatients with anxiety disorders: The Leiden Routine Outcome Monitoring Study

Objective: Epidemiological data derived from the general population showed the increased prevalence rate of different anxiety disorders in women compared to men. These data may not necessarily be applicable to outpatients presented at psychiatric department. We therefore analyzed gender differences in a naturalistic sample of outpatients with anxiety disorders in a mental healthcare setting.

Materials and Methods: A total of 1333 patients (age range: 18-65; 63.3% women) fulfilled DSM-IV criteria of current anxiety disorder according to the Mini-International Neuropsychiatric Interview (MINIplus) between 2004 through 2006. Routine Outcome Monitoring (ROM) comprised Comprehensive Psychopathological Rating Scale (vCPRS), Brief Symptom Inventory (BSI), Short Form Health Survey (SF-36), and Mood and anxiety symptom questionnaire (MASQ). Comparisons between the genders were analyzed using logistic regression models and analysis of covariance, while adjusting for age, education level, ethnicity and comorbidity.

Results: The gender ratio (844 women and 489 men) for any anxiety disorder was skewed (1.73; 95% confidence interval [CI]: 1.63-1.83), with the strongest skewness for post-traumatic stress disorder (PTSD; 2.80) and the smallest one for social phobia (1.18). Most self-report severity (sub) scores of the BSI, SF-36, and MASQ were higher in women than in men, but the three subscales of the observer-based vCPRS were not. Women were more likely to suffer from comorbid depression and bulimia nervosa, and less likely from substance abuse.

Conclusions: The prevalence rate of anxiety disorders was 1.7 times higher in female than male outpatients. Female outpatients showed higher subjective severity scores than male outpatients, but not when based on the more objective observer-based data. These findings may have implications for clinical decision making and therapeutic interventions.

Estimates of residual depressive symptoms in the Canadian population

Incomplete recovery from a major depressive episode (MDE) is often accompanied by residual symptoms (RS), which are associated with a higher risk of relapse and recurrence of depression. The objective of the study was to provide the first population estimates of RS prevalence in the general community.

Methods: The Canadian Community Health Survey (CCHS 1.2.), a large nationally representative cross-sectional study, was used (N = 36,984). The Composite International Diagnostic Interview identified those with a history of a past MDE but not currently (N = 3,790). The K10 Distress scale was used to profile symptomatology.

Results: Those who reported symptoms "some of the time" or more frequent were identified. Of individuals who have had an MDE but are not currently depressed, 81.4% have at least one symptom present (95% CI: 86.3-88.4); males 80.4% (95% CI: 78.1-82.6); females 81.9% (95% CI: 80.4-83.4). The most common residual symptoms were sleep difficulties at 50.7% (95% CI: 49.1-52.3) and diminished energy at 54.9% (95% CI: 53.3-56.5), consistent with clinical studies. In the national population of Canada, the prevalence of individuals with RS is estimated to be 8.4% (weighted). Alternative approaches to estimation will be presented. Furthermore, using regression modelling individuals with RS will be differentiated from those with a history of MDE but not symptomatic, and those without a history of MDE, with and without symptoms.

Conclusion: These results represent the first attempt at quantifying the prevalence of RS among the general population. The prevalence of RS is unexpectedly high; with more conservative estimates approaching that of the annual prevalence of MDE's in Canada (4.8%). The high frequency of RS within the population may partially represent a failure of treatment systems to achieve satisfactory outcomes or it may mean that complete symptomatic remission is either an unusual or unrealistic expectation for outcome in major depression. These issues will be further discussed in conjunction with the presentation of data from on-going longitudinal analyses that quantifies the association between recurrence risk with RS.

0015

Reginald Ryan Reyes¹, Scott Patten¹¹University of Calgary, Community Health Sciences, Calgary, Alberta, Canada

0451

Matthew Sunderland¹

¹National Drug and Alcohol Research Centre, Sydney, Australia

Change across ten year age bands in the level of internalizing psychopathology amongst the Australian general population

Objectives: Two methodological criticisms have limited the reliability and validity of findings from previous studies that seek to examine change across age in levels of psychopathology using general population surveys. The first criticism involves the use of a single form of measurement to compare levels of internalizing while the second involves the potential influence of cohort effects that confound changes across age. This study seeks to minimise potential bias by modelling change across age using multiple measures and multiple surveys.

Material and Methods: Data from two epidemiological surveys conducted ten years apart in Australian were combined and utilised for the current study. The latent construct of internalizing was modelled using a combination of DSM-IV depression and anxiety diagnoses as well as items from the Kessler Psychological Distress scale (K10). Measurement invariance of the latent internalizing construct across survey administrations and age bands was examined using multi-group confirmatory factor analysis. Given the presence of measurement invariance, the latent means were compared across the same ten year birth cohorts in each survey (i.e. 20-29 year olds in 1997 were compared with 30-39 year olds in 2007, etc.)

Results and Conclusions: Confirmatory factor analysis indicated that a single latent variable of internalizing provided good model fit to the data. Multi-group confirmatory factor analysis indicated that strict measurement invariance of the model can be assumed across survey administrations and age bands. Significant changes in latent internalizing construct were evident between the 30-39 year olds in 1997 and the 40-49 year olds in 2007, suggesting a small but significant increase in psychopathology across middle age. Whereas a slight but significant decrease in psychopathology was noted when transitioning from late middle age (50-59 years old) to old age (60-69 years old). The implications of these results are discussed further.

0175

Alexandra Blair^{1,2}, Nancy Ross^{3,4},
Geneviève Gariepy³, Norbert Schmitz^{5,3}

¹McGill University, Psychiatry, Montreal, Canada

²Douglas Institute Research Center, Montreal, Canada

³McGill University, Department of Biostatistics, Montreal, Canada

⁴McGill University, Department of Geography, Montreal, Canada

⁵McGill University, Douglas Hospital Research Centre, Department of Psychiatry, Verdun, Canada

Why do neighbourhoods affect depression outcomes? A realist review of causal pathways

Background: Depression is one of the leading causes of disease burden worldwide, and is related to a reduction in quality of life, increased functional disability, somatic diseases, and early mortality. Previous research linking disciplines of psychiatric epidemiology, urban social geography, and community health suggests that neighbourhoods can act as stressors or mediate social connections to affect depression outcomes. The causal mechanisms at play are not yet fully understood.

Objective: This study employs systematic realist review methods to determine the causal pathways and mechanisms through which neighbourhoods affect depression symptoms in adults.

Methods: Studies were identified using Medline, PubMed, PsycInfo, Geobase, and Web of Science databases, and chosen using reproducible selection criteria and systematic critical appraisal.

Results: A total of 14 longitudinal studies, published between 2003 and 2011, were included in this review. Eleven of the fourteen articles observed a significant relationship between depression and at least one of the following neighbourhood-level variables: deprivation, disorder, instability, and social ties. These variables affected depression by: 1) placing stress on individuals, 2) affecting networks of support, 3) shaping the resiliency of residents to stress and negative affects, 4) affecting how residents perceived the aesthetic and form of their neighbourhoods, and 5) shaping residents' sense of control and agency in their neighbourhoods.

Conclusions: Future research requires a more systematic use of longitudinal design, relevant control variables, and a diversity of neighbourhood-level measures that account both for the physical and social environment. Interventions aimed at improving affective resiliency along the pathways discussed above need to be tested.

The externalising spectrum and ADHD: Evaluating latent structure

Objectives: Converging lines of evidence indicate that alcohol use disorders, other substance use disorders, and antisocial personality disorder share a common externalising liability. Attention-deficit hyperactivity disorder (ADHD) demonstrates high levels of comorbidity and genetic overlap with these disorders. A small number of studies have formally tested the fit of ADHD in the externalising spectrum. However, these studies were based on a priori assumptions about underlying latent structure. This is a significant limitation in the literature. To adequately characterise the structure of externalising syndromes, this study compared the relative fit of continuous (i.e., latent trait), categorical (i.e., latent class), and hybrid (i.e., factor mixture) models.

Method: Data were derived from the 2004-2005 National Epidemiologic Survey on Alcohol and Related Conditions (N = 34,653). Seven disorders were modelled: childhood ADHD and lifetime antisocial personality disorder, nicotine dependence, alcohol dependence, marijuana dependence, cocaine dependence, and other substance dependence.

Results: In the entire sample, and among men and women separately, the continuous latent trait model provided the best fit to the data. Simultaneous measurement invariance analyses provided support for the fit of the model across genders, with females displaying a significantly lower probability of experiencing externalising disorders compared to males.

Conclusions: Liability to externalising disorders is continuous in nature and dimensional in severity. The findings have important implications for the organisational structure of externalising psychopathology in future editions of the DSM and other nomenclatures.

0452

Natacha Carragher¹, Robert F. Krueger², Nicholas R. Eaton², Kristian E. Markon³, Katherine M. Keyes⁴, Carlos Blanco⁵, Tulshi D. Saha^{6,7}, Deborah S. Hasin⁴

¹University of New South Wales, National Drug and Alcohol Research Centre, Sydney, Australia

²University of Minnesota, Minnesota, United States

³University of Iowa, Iowa, United States

⁴Columbia University, New York, United States

⁵Columbia University, College of Physicians and Surgeons, New York, United States

⁶National Institute on Alcohol Abuse and Alcoholism, (NIAAA), United States

⁷National Institutes of Health, Rockville Pike, United States

Delay to seek treatment for alcohol use disorders in the Australian population

Question: Despite the high prevalence of alcohol use disorders (AUD), significant associated burden and availability of effective interventions, most people with an AUD fail to seek treatment. Many of those who do, delay treatment-seeking for many years after onset of symptoms. Given the substantial negative social and health consequences of AUDs, this represents an important public health concern. This paper will examine the projected lifetime rates of treatment seeking, median delay in treatment seeking, and the factors associated with delays to seek treatment for AUDs in Australia.

Methods: Data come from the 2007 Australian National Survey of Mental Health and Wellbeing. Kaplan-Meier survival curves and multivariate discrete-time survival models were used to examine delay between onset of symptoms and first treatment seeking for an AUD.

Results: Projected lifetime rates of treatment seeking were 27.5% among persons with alcohol abuse and 78.1% among those with alcohol dependence. Rates of treatment seeking within one year of onset were low among both groups and median delays among those who eventually sought treatment were substantial (14-23 years). Patterns of service use were similar for men and women but other sociodemographic and clinical factors demonstrated significant relationships with treatment delay.

Conclusions: This is the first study to examine delay to seek treatment for an AUD in an Australian population sample. Projected rates of treatment seeking are low compared to estimates from other countries and median delays to first treatment seeking are high. The findings have implications for service delivery for AUDs in Australia.

0388

Catherine Chapman¹, Maree Teesson¹, Tim Slade¹, Caroline Hunt²

¹UNSW, NDARC, Sydney, Australia

²University of Sydney, School of Psychology, Sydney, Australia

0101

Carolin Donath¹, Elmar Gräßel¹,
Dirk Baier², Stefan Bleich³,
Thomas Hillemacher³

¹Psychiatric University Hospital
Erlangen, Medical Psychology/
Sociology, Erlangen, Germany
²Criminological Research Institute of
Lower Saxony, Hannover, Germany
³Hannover Medical School, Center
for Addiction Research, Hannover,
Germany

Epidemiology of binge drinking in a representative sample of adolescents living in Germany

Objectives: Binge Drinking constitutes prevalent problem behaviour in adolescents across Europe. However, epidemiological data on alcohol consumption of adolescents with different migration backgrounds are rare. The aim of the study is to create insight on alcohol consumption patterns in adolescents with different migration backgrounds living in Germany.

Material and Methods: A representative written survey of N = 44,610 students in the 9th grade of different school types in Germany was carried out. 27.4 % of the adolescents surveyed have a migration background whereby the Turkish culture is the largest group followed by adolescents who emigrated from former Soviet Union states. Binge Drinking was defined as having had at least 5 drinks on one occasion.

Results: More than half (57.4 %) of the German 9th-graders engaged in Binge Drinking at least once during the 4 weeks prior to the survey. Students with migration background of the former Soviet Union showed mainly similar Binge Drinking behaviour like German adolescents (56.2 %). Adolescents with Turkish roots engaged in Binge Drinking less frequently than adolescents of German descent (23.6 %). However, in those adolescents who consumed alcohol in the last 4 weeks, Binge Drinking is very prominent across all cultural backgrounds.

Conclusions: Common expectations concerning drinking behaviour of adolescents of certain cultural backgrounds ('migrants with Russian background drink more' / 'migrants from Islamic imprinted countries drink less') are only partly affirmed. Possibly, the degree of acculturation to the permissive German alcohol culture plays a role here.

0225

Celia Lo¹, Tyrone Cheng¹, Junsoo Lee²

¹University of Alabama, School of
Social Work, Tuscaloosa, United States
²University of Alabama, Economics,
Finance & Legal Studies, Tuscaloosa,
United States

Race, age, and problem drinking: A 14-year trend study of American adults

Objectives: Disaggregating respondents by race, this study examined trends in American adults' problem drinking, assessing changes in problem drinking over time and asking if respondent age and survey year played roles in racial differences in problem drinking.

Methods: Combined National Health Interview Survey data collected between 1997 and 2010 was used. Data analyses were performed for 2 sets of respondents: the sample as a whole and a subsample of respondents classified as problem drinkers.

Results: Problem drinking among American adults was observed to be a relatively stable phenomenon. However, compared to 1997 data, problem drinking indicators (frequency of problem drinking and quantity of alcohol consumed) did drop somewhat in the early 2000s and then rose slightly in latter survey years. For the problem-drinkers subsample, frequency of problem drinking rose from 1998 to 2002 and fell from 2003 to 2010. Respondent age and survey year played roles in observed significant differences in problem drinking between racial/ethnic groups.

Conclusions: The present study found distinctive racial differences in problem drinking—for the sample as a whole and for the subsample of problem drinkers—which we attributed to the observed higher prevalence of problem drinking among Whites and among younger adults. Compared to Whites, however, those Blacks and Hispanics who did exhibit problem drinking exhibited more serious overindulgence and engaged in it at older ages.

Methodological considerations in epidemiological research: On how to classify women who drink, and do not drink, alcohol in pregnancy - Experiences from a large-scale descriptive cohort study

Objectives: Most studies investigating possible long-term effects of a prenatal exposure to alcohol define alcohol exposure solely on the basis of early pregnancy intake. The present study aimed 1. to compare possible effects of this type of classification with a classification using information from the full pregnancy and pre-pregnancy intake; and 2. to compare possible trends in background characteristics between exposure groups with trends in estimates of multivariable regressions between alcohol exposure and behavioural scores on the Strengths and Difficulties Questionnaire (SDQ) controlling for relevant confounders.

Materials and methods: Sample: The Danish National Birth Cohort (DNBC), comprising information on 100.000 pregnant women and their offspring. Alcohol consumption in early pregnancy: grouped 0, >0-2, >2-4, >4+ units/ week. Alcohol consumption pre-pregnancy and during entire pregnancy: grouped 0, >0-5, >5-15, >15-45, >45-90, >90+ full pregnancy cumulated alcohol exposure.

Outcome measures: 1. background characteristics including demographic and lifestyle factors derived from registries or self-reports. 2. SDQ scores for use in relevant regressions.

Results (preliminary): 1. Abstainers defined from full pregnancy information were more extreme (in either direction) on background characteristics compared to abstainers defined from early pregnancy. Reversely, the high intakers defined from early pregnancy was more extreme on several parameters compared to the high intakers defined from full pregnancy information. 2. No effects of alcohol was observed in the regressions with SDQ outcomes. However, the trends in estimates from the regressions for the two types of alcohol defined groups resembled the trends observed for the key background characteristics.

Conclusion (preliminary): The study shows the immense impact classification of exposures have on the results. Although studies may control for relevant confounders there seem to be immense amounts of residual confounding that that is not possible to control for. The findings question whether this type of epidemiologic design is at all appropriate to investigate the association between small exposures and outcomes later in life. The finding may also explain the alcohol j-shape curve that has puzzled researchers for years.

Prevention of anxiety, depression and burnout during residency training: The experts', medical students' and young doctors point of view

Studies have shown higher incidence levels of anxiety, depression and burnout in the medical profession than in the general population or other professions (Angerer et al. 2008; Buddeberg-Fischer et al. 2009; Nienhaus et al. 2008). Especially young doctors still in training are affected. Researchers have mainly identified the career entry phase as an extremely stressful period. (Buddenberg Fischer et al, 2009; Püschel and Schalinski 2006, Stiller and Kulka 2007). It is vital to reduce these to prevent detrimental individual consequences and to maintain high standards of patient care. The present study aims to analyse the reasons and potential interventions at the early career stage.

As the topic has not received much scientific attention in the German - speaking countries so far, at first qualitative interviews with four experts in the fields of career development, occupational health and occupational psychology were conducted. In the second step in-depth interviews with young doctors doing their residency and medical students were done.

The main causes of anxiety, depression and burnout during residency were identified by the interviewed groups as resulting from institutional restrictions like financial and personnel shortages, a stressful and busy job design as well as interpersonal difficulties at the work setting. Especially the interviewed medical students and young doctors mentioned that they found it difficult to cope with a low basis payment, a lot of routine and administrative

0037

Janni Niclasen¹¹Institute of Psychology, Copenhagen, Denmark

0302

Gertrude Hamader¹¹UMIT, Vienna, Austria

work, and having little responsibility during the day but a lot during night shifts. Prevention and intervention during residency such as institutional changes are thus mentioned as very important. Also, more institutional support is needed, such as providing stress management trainings, mentoring programs, supervision and anonymous psychological advisory centres in the work area. Furthermore, well-being can be promoted during residency with trainings to increase individual SOC.

0303

Gertrude Hamader¹

¹UMIT, Vienna, Austria

Prevention and intervention of anxiety, depression and burnout during medical studies - The experts', medical students' and young doctors point of view

A study by Seliger and Brähler (2007) indicates that the psychological health of medical students is significantly more challenged than that of the general population and therefore extensive prevention concepts are required. And even young doctors still in training are affected by anxiety, depression and burnout. Researchers have mainly identified the career entry phase as an extremely stressful period. (Buddenberg Fischer et al, 2009; Püschel and Schalinski 2006, Stiller and Kulka 2007). The present study aims to analyse the reasons and potential interventions especially during medical studies.

As the topic has not received much scientific attention in the German - speaking countries so far, in the first qualitative interviews with four experts in the fields of career development, occupational health and occupational psychology were conducted. In the second step in-depth interviews with medical students and young doctors doing their residency were done. The analysis of all transcribed interviews was done based on Mayring's (2008) method of content analysis.

During medical studies, the main causes of anxiety, depression and burnout were described as resulting from high academic demands and exam stress due to concentration on theory rather than practical skills. According to the interviewees, there are opportunities at medical university to change the curriculum, and students can also do a lot of things to reduce the likelihood of the above mentioned issues to result in psychological problems. More training in practical clinical skills as well as mentoring programs at the beginning of the studies are required. Students should also learn efficient learning strategies and how to keep a good work-life-balance. Moreover, well-being can be promoted with trainings to increase individual SOC. Furthermore a large-scale quantitative questionnaire survey will serve to validate and obtain a more detailed insight into the above-described facts.

0252

Michael Unrath¹, Klaus Berger¹

¹Universität Münster, Institut für Epidemiologie und Sozialmedizin, Münster, Germany

Mental health problems among physicians in Germany – A systematic review

Objectives: Physicians form a professional group which is exposed to high levels of specific occupational stressors, such as a high work load, time constraints and the involvement in emotionally demanding tasks (e.g. 1, 2). Impairments in the mental and psychosomatic health domain may be a long-term consequence of these specific stressors. Accordingly, international studies have frequently reported high prevalences of mental health problems such as depressive disorders, burnout syndrome or substance use disorders in physician samples (e.g. 3-5). In Germany, research on this topic is rather scarce, and there is a lack of systematic reviews. Aim of this review is to summarize the existing evidence on the frequency of mental health problems among German physicians and to identify risk factors and protective factors for mental health problems.

Material and methods: A systematic literature research is currently conducted in the databases Pubmed and Scopus using a complex search string. Studies on German physicians from 1992-2012 will be included. Inclusion and exclusion criteria will be checked by two different reviewers. Studies will be classified and combined according to their main features, i.e. study sample, study design, and outcomes under study.

Results and conclusions: The main results of the literature research will be presented. The discussion addresses the question if physicians form a special risk group for mental health problems. Moreover, knowledge about risk factors and possible preventive approaches will be discussed.

Literature:

- [1] McCue JD. The effects of stress on physicians and their medical practice. *N Engl J Med.* 1982;306:458-463.
- [2] Unrath M, Zeeb H, Letzel S, Claus M, Escobar Pinzón LC. Working conditions and health of general practitioners in Rhineland-Palatinate, Germany: first results of a state-wide survey. *Gesundheitswesen.* 2011. Epub ahead of print, doi:10.1055/s-0031-1280758.
- [3] Buddeberg-Fischer B, Klaghofer R, Stamm M, Siegrist J, Buddeberg C. Work stress and reduced health in young physicians: prospective evidence from Swiss residents. *Int Arch Occup Environ Health.* 2008;82:31-38.
- [4] Lee FJ, Stewart M, Brown JB. Stress, burnout, and strategies for reducing them: what's the situation among Canadian family physicians? *Can Fam Physician.* 2008;54:234-235.
- [5] Sebo P, Bouvier Gallacchi M, Goehring C, Kunzi B, Bovier PA. Use of tobacco and alcohol by Swiss primary care physicians: a cross-sectional survey. *BMC Public Health.* 2007;7:5. doi:1471-2458-7-5 [pii] 10.1186/1471-2458-7-5

Incidents with violence against clients in treatment for psychosis using a routine outcome monitor to assess prevalence, context and professional awareness

Questions: This study aimed to assess the prevalence of violence against clients with psychosis with a screenings instrument imbedded in routine outcome monitoring (ROM). With ROM large samples of clients can be reached with less effort than in a specially targeted study. Since the monitor had been implemented over a longer period of time and with a broad scope, there is more potential and incentive to overcome or control for bias caused by structural non response . Also, a ROM instrument could offer information on an individual base that can be used in clinical practice.

Method: Rom interviews were held with 600 clients both outpatients and inpatients.

Results: The data showed a high risk of victimization for clients compared to the general population in the target region. Clients with psychosis in outpatient care reported more incidents than clients who were hospitalized or living in sheltered housing. Never the less this last group also encountered more aggressive social behavior like scolding and physical abuse then could be expected in a protected environment. In one out of three cases, the responsible professionals are aware of the more serious incidents.

Discussion: The study showed that is possible to develop a valid screening instrument for victimization in ROM. In these cases where ROM uses both clients and professionals as a source, information on these dyads can be matched and mirrored and this has positive implications for mutual understanding and proper service provision. However, during the study both clients and professional's expressed concerns about poor implementation of the ROM procedures that hinder adequate clinical use.

0316

Joske van Busschbach¹,
Richard Bruggeman¹

¹University Medical Center Groningen, RGOc/UCP, Groningen, Netherlands

Validation of depression coding in administrative data and recommendations for case ascertainment

Objectives: The aims of the current study were to: (1) systematically review the literature to identify validated International Classification of Disease (ICD) -9 and ICD-10 case definitions (CD) for depression; (2) retest the validity of previously published and validated CD in ICD-10 coded administrative data, using chart review as the gold standard; and (3) test the validity of suggested CDs for depression in the same administrative data.

Materials & Methods: We searched Medline and Embase (up to May 2012) for relevant articles. Two reviewers independently screened all abstracts and abstracted data from selected full-text papers. We reviewed charts from 4008 randomly selected discharges (Jan.1-Jun. 30, 2003) from a hospitalization database to test the previously published and new CDs for depression. Ten CD algorithms for depression were tested.

Results: 1860 abstracts were screened and 39 reviewed in full text, of which two articles were included, both validating ICD-9 definitions. There were no prior ICD-10 validations

0124

Kirsten Fiest¹, Nathalie Jette^{1,2},
Hude Quan¹, Scott Patten^{1,3},
Christine St. Germaine-Smith²,
Amy Metcalfe^{2,3}, Cynthia Beck^{1,3}

¹University of Calgary, Department of Psychiatry, Calgary, Canada

²University of Calgary, Department of Clinical Neurosciences, Calgary, Canada

³University of Calgary, Department of Community Health Sciences, Calgary, Canada

meeting criteria for inclusion. Sensitivity (Se), specificity (Sp), positive predictive value (PPV) and negative predictive value (NPV) were reported by both papers: Se were 13% and 34%, Sp were both approximately 93%, PPV were 37% and 83% and NPV was 66% and 79%. 477 of the 4,008 charts reviewed indicated the presence of depression, resulting in a prevalence of 11.9%. Three new ICD-9 and 3 new ICD-10 CDs were tested. All new ICD-9 CDs resulted in Sp of >99%, PPV of ≥89% and NPV > 91%. Se ranged from 28.9-32.9%. For ICD-10 coding, Sp were > 99%, PPV were ≥89% and NPV were > 91%. Se were similar for all three ICD-10 CDs, ranging from 34.2-35.6%.

Conclusions: Two CDs were identified through a systematic review of the literature and six new CDs were validated for ICD-9 and ICD-10. We recommend several new ICD-9 and -10 CDs tailored for surveillance and diagnostic accuracy purposes.

0196

Inci Ozgur Ilhan¹, Fatma Yildirim²,
Duru Gundogar³, Mehmet Colak⁴,
Sila Yuca¹, Nail Dertli², Yildirim Dogan¹

¹Ankara University Faculty of Medicine,
Psychiatry, Ankara, Turkey

²Ankara University, Faculty of Political
Sciences, Ankara, Turkey

³Suleyman Demirel University, Faculty of
Medicine, Psychiatry, Isparta, Turkey

⁴Mardin Government Hospital, Child
Psychiatry, Mardin, Turkey

Development and validity and reliability study of the social well-being scale for Turkey

Objective: A small number of the present tools for measuring mental health in positive terms (beyond absence of disease) allow assessment of positive mental health at individual level. However, a wider understanding of positive mental health requires seeing mental health at community level including a healthy network of relations in the community. In this study it was aimed to develop a culturally appropriate scale that can be used in the assessment of social well-being.

Material and Methods: First a pool of items was formed by three investigators independently on the basis of review of the relevant literature, then all items were reviewed by the research team. A list of 73 items was finally approved by a psychiatrist, a clinical psychologist, and a social psychologist. The 73-item Collective Efficacy Scale-draft was administered to 415 individuals with at least 18 years of age. Following the reliability and exploratory factor analyses, a total of 43 items were reanalysed using confirmatory factor analysis. Criterion validity testing (using the UCLA Loneliness Scale, the Multidimensional Scale of Perceived Social Support, and the Satisfaction with Life Scale), internal consistency analysis, and test-retest reliability analysis were performed.

Results: The three-factor structure of the scale explained 48.1% of the observed variance. Correlations between the Collective Efficacy Scale for Turkey and the other measures were statistically significant. The Cronbach's alpha coefficient for the entire scale was 0.95, and the test-retest reliability coefficient estimated from data for 171 individuals, that could be contacted after an average interval of two weeks, was 0.78.

Conclusion: The Social Well-Being Scale for Turkey is a valid and reliable instrument that can be used in field studies.

0197

Inci Ozgur Ilhan¹, Fatma Yildirim²,
Duru Gundogar³, Sila Yuca¹,
Mehmet Colak⁴, Nail Dertli²,
Yildirim Dogan¹

¹Ankara University Faculty of Medicine,
Psychiatry, Ankara, Turkey

²Ankara University, Faculty of Political
Sciences, Ankara, Turkey

³Suleyman Demirel University, Faculty of
Medicine, Psychiatry, Isparta, Turkey

⁴Mardin Government Hospital, Child
Psychiatry, Mardin, Turkey

Development and validity and reliability study of the collective efficacy scale for Turkey

Objective: Collective efficacy is defined as peoples' sense that they can solve their problems and improve their lives through collective action. In this study it was aimed to develop an original and culturally appropriate scale depending on individuals' assessment of collective efficacy of their community.

Materials and Methods: First a pool of items was formed by three investigators independently on the basis of review of the relevant literature, then all items were reviewed by the research team. A list of 43 items was finally approved by a psychiatrist, a clinical psychologist, and a social psychologist. The 43-item Collective Efficacy Scale-draft was administered to 415 individuals with at least 18 years of age. Following the reliability and exploratory factor analyses, a total of 28 items were reanalysed using confirmatory factor

analysis. Criterion validity testing (using the UCLA Loneliness Scale, the Multidimensional Scale of Perceived Social Support, and the Satisfaction with Life Scale), internal consistency analysis, and test-retest reliability analysis were performed.

Results: The three-factor structure of the scale explained 59.0% of the observed variance. Correlations between the Collective Efficacy Scale for Turkey and the other measures were statistically significant. The Cronbach's alpha coefficient for the entire scale was 0.96, and the test-retest reliability coefficient estimated from data for 168 individuals, that could be contacted after an average interval of two weeks, was 0.59.

Conclusions: The Collective Efficacy Scale for Turkey is a valid and reliable instrument that can be used in field studies and collective efficacy construct can be further studied on as a dimension of positive mental health.

Measuring data quality in epidemiological research

Validity and reliability of results of statistical analyses are essential for epidemiological studies. The crucial importance of data quality for the outcome of those analyses is often underestimated.

Based on two epidemiological studies a framework of procedures for quality assurance and for measurement of data quality were developed and implemented.

The AgeCoDe-study (German Study on Aging, Cognition and Dementia in Primary Care) and the German MultiCare-study (Patterns of Multimorbidity in Primary Health care) are both longitudinal cohort studies. For each study more than 3000 participants were recruited by six respective eight German study centres.

The procedures for management of data quality include prevention actions before starting the study as well as quality checks during data capture and actions of quality improvement after data entry. Among the actions are reviews of pCRFs and eCRFs, conduction of training courses, detection of errors during data collection via a web-based electronic data capture system e.g. online plausibility checks, queries after collection of data and data control reports.

To measure data quality a set of quality indicators were calculated. There are several indicators significant for different aspects of data quality like completeness, accuracy, reliability and consistency. Threshold values were defined for acceptance or non-acceptance of the different error rates. The indicators were calculated centre-wise, visit-wise, CRF-wise and study-wise. An overall score based on the weighted indicators was calculated to compare centres and studies. Data quality reports for the participating study centres were generated and further actions of quality assurance were put into effect based on the results of the calculations.

Quality indicators enable provable evaluation of data quality. The implemented system of quality management allows for high data quality and meaningful statistical analyses.

Psychoeducation for relatives of patients with depressive disorders: The situation in inpatient depression treatment in Germany

Objectives: Relapse constitutes one of the main problems in depression treatment. It is common in depressive disorders and contributes to the high burden of the disease. Depression affects not only patients but also their relatives. Family psychoeducation may reduce the burden for relatives as well as relapse rates in patients. Therefore, psychoeducation is recommended by the German S3-Guideline/National Disease Management Guideline Unipolar Depression as a sensible addition to treatment. Accordingly, family psychoeducation is offered as psychoeducational groups for relatives of

0139

Birgitt Wiese¹, Susanne Steinmann¹,
Jana Prokein¹

¹Hannover Medical School, Hannover,
Germany

0144

Lars P. Hölzel¹, Christine Rummel-
Kluge^{2,3}, Mathias Berger¹, Eva-
Maria Bitzer⁴, Fabian Frank¹

¹University Medical Center Freiburg,
Psychiatry and Psychotherapy, Freiburg,
Germany

²University of Leipzig, Department of
Psychiatry, Leipzig, Germany

³German Foundation Against Depression, Leipzig, Germany
⁴University of Education Freiburg, Public Health & Health Education, Freiburg, Germany

depressed patients in inpatient care. However, data on the healthcare situation in Germany are largely lacking. Our study aims to investigate the healthcare situation regarding family psychoeducation for relatives in inpatient depression treatment in Germany.

Methods: A healthcare epidemiological survey was conducted by means of a cross-sectional postal survey. All psychiatric or psychosomatic acute-care hospitals in Germany were included. In a first step, the medical directors of the hospitals were asked about basic characteristics of the hospital and whether their hospital offers family psychoeducation for relatives. In hospitals without family psychoeducational groups, barriers were explored; in hospitals with such groups, contact details of the responsible therapist were requested. In a second step, responsible therapists were asked about framework conditions, criteria for participation, acceptance of the group, theoretical background of the group, and group content. Descriptive data analyses will be performed.

Results and Conclusion: The study will yield important results regarding the provision of family psychoeducation for relatives of patients in inpatient care in Germany. Additional information on group content and barriers for the implementation of family psychoeducation will be gathered. Results of this healthcare epidemiological survey will be available by December 2012.

0292

Patricia Manzolli^{1,2}, Cristiane Silvestre de Paula^{2,3}, Rosane Lowental², Isabel Bordin², Wagner Ribeiro², Felipe Paraventi², Ary Maciel², Hugo Cogo-Moreira², Jair Jesus Mari²

¹Universidade Federal de Pelotas, Mental Health, Pelotas, Brazil

²Universidade Federal de São Paulo, Departamento de psiquiatria, São Paulo, Brazil

³Universidade Presbiteriana Mackenzie, São Paulo, Brazil

Mental health of mothers of school-age children with disabilities in four schools of different geographical areas in Brazil

Objective: The present study investigated the mental health status of mothers of children with disabilities in four schools of different geographical areas in Brazil.

Method: A cross sectional study was conducted in schools of four regions of Brazil, with a total sample of 1562 children aged 6 to 16 years. All children aged 6 to 9 years ($n=890$) entered the present study. Disability was assessed by a ten-question screening questionnaire and maternal mental health problems were identified by a total score greater than 7 in the Self-Report Questionnaire (SRQ-20). Data were analyzed using Poisson Regression.

Results: 37% of children were screened positive for disability (22% had one positive question and 15% had two or more positive questions in the applied scale). The prevalence rate of maternal common mental disorders was significantly higher among children with disability (30% and 40% respectively for children with one positive and two or more positive questions for disability) compared to healthy children (21%). Children presenting one positive question for disability were 1.26 (95% CI 0.97-1.63) more likely to have a mother with common mental disorders than healthy children, while the adjusted odds ratio for children presenting two or more positive questions was 1.91 (95% CI 1.48-2.44).

Conclusion: The cross-sectional design of the study precludes any conclusion about the direction of the association though it is important to include treatment of maternal common mental disorders when planning psychosocial interventions for these vulnerable children.

0453

Matthäus Fellinger¹, Daniel Holzinger², Martin Aigner¹, Christoph Beitel², Johannes Fellinger²

¹Medical University of Vienna, Department of Psychiatry and Psychotherapy, Wien, Austria

²Hospital of St. John, Health Centre for the Deaf, Linz, Austria

Motor performance and emotional problems of children with hearing impairment

Objective: Children with hearing impairment (HI) suffer from 2-5 time higher rates of reduced motor performance and emotional problems. The aim of this study is to assess possible correlations between emotional problems and the degree of HI, motor performance and IQ in a population-based representative sample of children with HI.

Methods: Of all pupils in Upper Austria (145 000) those with $HI > 40\text{dB}$ were invited. 93 pupils (6-16 years) with a nonverbal IQ > 70 were assessed with the Zürich Neuromotor Assessment (ZNA) and the parent version of the Strengths and Difficulties Questionnaire (SDQ).

Results: Children with HI had lower motor performance scores in all ZNA domains (mean Z-scores: pure motor -1.975, pegboard -2.275, dynamic balance -2.670 and static balance 1.418). Motor delays and emotional problems were not related to the degree of HI or to the use of Cochlear Implant. Peer-relationship problems correlated negatively ($p=.001$) with pure motor performance. Performance in pure motor tasks ($p=<.001$) and dynamic balance ($p=.001$) correlated negatively with age.

Conclusion: Results show that a high percentage of children with HI have reduced motor performance. These problems are associated with difficulties in social relationships. Specific awareness should stimulate interventions to remediate the burden of these children.

Needs and burden of caregiving relatives of patients with eating disorders

Objective: Relatives of individuals with eating disorders have an essential role in informal caregiving. Consecutively, this may lead to a high level of burden in this group. The aim of the present study was to assess the needs, burden and demand for supporting interventions among caring relatives of patients with eating disorders.

Methods: 65 relatives caring for persons with anorexia nervosa or bulimia nervosa were investigated by means of the ²Carer's Needs Assessment² (CNA-S), assessing relevant problem areas as well as needs for helpful interventions. The Eating Disorder Examination (EDE) was used to assess the severity of patients' symptoms.

Results: According to the CNA-S, the most frequent problem area mentioned by caregiving relatives was "disappointment caused by the course of the illness". The most frequently reported unmet needs for support were informative literature, group psychoeducation and 'counselling/support by a professional'. Significant group differences between the total number of problem areas or unmet needs of caregivers of anorectic and bulimic patients could not be detected.

Conclusion: Our results suggest that caregivers of patients with eating disorders have high levels of needs that are currently not addressed in clinical practice.

Wishes and worries of caregiving relatives concerning volunteers

Objektive: Most people requiring nursing remain in their homes, attended by family members. These caregiving relatives need supporting structures as well. A possibility of lightening the burden on family carers is to provide help by volunteers especially in terms of emotional support.

This study examined the situation of the caregiving relatives (stress and nature of provided nursing). Caregiving relatives were asked about their wishes and needs as well as their worries and fears concerning potential support provided by volunteers.

Methods: Using a qualitative study design a sample of $n=46$ caregiving relatives were interviewed. Thirty three of the respondents had a migration background speaking Russian, Arabic and Farsi as their mother tongue.

Results: Respondents are focused on receiving help directly for the people they care for. They want volunteers to accompany and to supervise the person in need of care. Personal needs of the caregiving relatives are of secondary importance for themselves. Although caregiving relatives express reservations about potential help from volunteers, they are likely to make use of it. There are only slight differences between the wishes and worries of caregiving relatives with or without a migrant background.

Conclusions: Voluntary help for caregiving relatives is an option lightening the burden on family carers, even for people with a migration background. Results indicate that it is

0454

Stefanie Süßenbacher¹,
Michael Ossege¹, Daniel Ritter¹,
Martin Aigner¹, Johannes Wancata¹

¹Medical University of Vienna,
Department of Psychiatry and
Psychotherapy, Wien, Austria

0470

Astrid Sonntag¹, Gesine Grande¹

¹HTWK Leipzig, Fakultät Angewandte
Sozialwissenschaften, Leipzig, Germany

important to address the person who is in need of caring first, when establishing voluntary help for the caregiving relatives.

0028

Michael Linden¹, Juliane Wächter¹,
Samia Little Elk¹

¹Charité Univ. Med. & Rehab. Center
Seehof, Research Group Psychosomatic
Rehabilitation, Teltow/Berlin, Germany

Prevalence of sleep complaints and disorders in unselected psychosomatic inpatients

Background: Sleep problems are amongst the most frequent disorders in the general population with prevalence rates of up to 50%. They are associated with a broad spectrum of mental problems. They can be an indicator of mental illness, like in depression. They can also be the cause of mental illness, like in sleep apnoea and dementia. Some sleep problems can effectively be treated. Recognition of sleep problems in clinical practice is therefore of high importance. In patients with psychological problems sleep problems should have an even increased rate. The present study aimed at assessing the base rate of sleep disorders in patients in psychosomatic rehabilitation.

Method: 1348 unselected patients of a department of psychosomatic medicine have been assessed with the Pittsburg Sleep Quality Indicator, PSQI. Patients were 19 to 87 years old (mean = 48,04, SD= 9,035), 64,8% were female.

Results: 34,6% had a score between 6 and 10, and 52,1% above 10, i.e. in total 86,6% with a PSQI score of 5 or more, which is indicative for sleep problems. 66,6% had problems to fall asleep, 64,3% of patients complained about disturbed sleep, and 71,3% about tiredness during the day. 35,1% fulfilled diagnostic criteria for insomnia according to ICD-10, i.e. a minimum score of 2 in the PSQI in respect to quality, latency, disruption, and tiredness.

Conclusion: Complaints about sleep problems can be found in the vast majority of patients in psychosomatic rehabilitation. The high frequency poses several problems: What is their diagnostic value? Can subtypes be described? Do they need special attention or treatments? In any case, sleep disorders need proper attention in psychosomatic rehabilitation.

0262

Carolin Marx¹, Philipp Ritter¹,
Michael Bauer¹, Karolina Leopold¹,
Andrea Pfennig¹

¹Uniklinikum Dresden, Klinik und
Poliklinik für Psychiatrie, Dresden,
Germany

Dynamic of sleep disorders

Almost every second general practitioner patient suffers from sleep disorders. Approx. 1/4 of the German population (Wittchen et al., 2001) suffers from continuous insomnias. These can appear as a single syndrome or as one of many symptoms of different physical or mental illnesses. Only half of all persons with insomnia is recognized and only half of the recognized patients receives a therapy. Till now, psychotherapy is seldom used, most get nature remedies, hypnotics, sedativa and antidepressants treats (Wittchen et al., 2001).

On the one hand, the reasons for it are the insufficient supply in the area of the mental diseases and on the other hand a lack of specific, individual and economic therapy possibilities of sleep disorders.

With a questionnaire called SLEEP QUI (SLEEP QUality Inventory) which asks for both, possible causes for sleep disorders as a symptom in the context of other mental illnesses and as a primary sleep disorder, found a visible model of the dynamics of the sleep disorders extracted over many persons.

The SLEEP QUI is also used for a systematic composition and adaption of single therapy constituents.

This model was replicated in a randomized controlled clinical study (group intervention vs. waiting condition) 1 pre, 4 post measuring (last Follow-up after 6 months with alt together 5 measuring times). The results of the interim analysis (N=60) are presented.

Quantitative Exposure of Antipsychotics in Relation to the Risk of Neuroleptic Malignant Syndrome

Objective: Neuroleptic malignant syndrome (NMS) is rare but deadly to people under antipsychotic treatments. We attempted to assess the exposure of antipsychotics among people in Southeast London for the effect of antipsychotic exposure to the risk of NMS.

Material and methods: An anonymised electronic database in South London and Maudsley NHS Foundation Trust covering 1.2 million population was utilised for a 1:4 case-control study matched on age in five years, gender and psychiatric diagnosis. Cases were confirmed by at least one of the six well-established criteria of NMS or fulfilled the definition of probable cases suggested by Pope et al. from 2003 to 2008. Clinically active controls were randomly selected on the index date of NMS diagnosis for matched cases. Antipsychotics were identified in clinical notes and correspondence letters within five days for oral and 15 days for depot antipsychotics before the index date. Quantification of antipsychotics was done by Olanzapine equivalent dosage. Conditional logistic regressions were used for statistical analyses and ethnicity was considered as a potential confounder.

Results and conclusion: A total of 67 cases of NMS and 254 random controls were enrolled for analyses. Ever uses of typical oral and depot antipsychotics were found to significantly increase the relative risks of NMS with odds ratios (ORs) of 4.48 (95% CI: 2.24-8.95) and 2.92 (95% CI: 1.17-7.27) separately after adjustment, but not for atypical antipsychotics. Number of antipsychotic prescriptions was also identified as a remarkable risk factor of NMS (OR for "2"=2.28, 95% CI: 1.18-4.44; OR for ">3"=6.22, 95% CI: 2.31-16.73; in relative to "0 or 1" as reference group) with a significant linear trend. Besides, clear dose-response effects on the summed Olanzapine equivalent doses in tertiles for both oral and depot antipsychotics were significantly revealed. Risk of NMS incidence is related to higher exposure to specific antipsychotics, especially for typical and depot antipsychotics.

Health promoting workplaces and association with psychological distress

Objective: The current revival in workplace health promotion may be having mental health benefits, even when they are not the specific focus of the intervention. This study examined the association of individual and organisational health promoting strategies with prevalence of psychological distress.

Material and methods: Partnering Healthy@Work is a 5-year evaluation of a health promotion program being rolled out to all 30,000 state public sector employees in Tasmania, Australia. An anonymous online survey (N=7,715, 25% response) was conducted as part of needs assessment at baseline. Psychological distress was assessed with the K10. All Departments (n=15) reported which health strategies with an individual focus they were providing (e.g. health seminars, exercise sessions) in addition to organisational strategies (e.g. health policies, health champion). Age- and sex-adjusted prevalence ratios (PR) from log binomial regression provided the cross-sectional association of health strategies with prevalence of psychological distress (K10 \geq 22).

Results: Lower psychological distress was observed for most individual- and organisational-level interventions, including sports/activity days (PR=0.73, 95% CI 0.59-0.90, p=0.003), exercise sessions (PR=0.78, 95% CI 0.71-0.86, p<0.0001), injury/rehabilitation support (PR=0.70, 95% CI 0.59-0.84, p=0.0001), health seminars (PR=0.84, 95% CI 0.76-0.93, p=0.0005), and having a health champion (PR=0.86, 95% CI 0.78-0.96, p=0.005) or health policies (PR=0.79, 95% CI 0.64-0.97, p=0.03).

Conclusions: Departments that offered health promotion interventions had significantly lower prevalence of psychological distress, irrespective of type of intervention/s offered. It is not known whether this reflects direct effects on mental health risk factors, selection effects, or a positive organisational culture that values employee health. Analyses over the 4-year follow-up period will investigate whether observed associations are potentially causal.

0147

Chin-Kuo Chang¹, Yu-Ping Su¹, Richard Hayes¹, Simon Harrison², William Lee³, David Taylor⁴, Robert Stewart¹

¹Institute of Psychiatry, Health Service and Population Research, London, United Kingdom

²South London and Maudsley NHS Foundation Trust, Assertive Outreach Service, London, United Kingdom

³South London and Maudsley NHS Foundation Trust, Psychological

Medicine, London, United Kingdom

⁴South London and Maudsley NHS Foundation Trust, Pharmacy, London, United Kingdom

0126

Kristy Sanderson¹, Brook Teale², Roscoe Taylor³, Leigh Blizzard¹, Alison Venn¹

¹Menzies Research Institute Tasmania, Hobart, Australia

²Tasmanian Government, Premier and Cabinet, Hobart, Australia

³Tasmanian Government, Department of Health and Human Services, Hobart, Australia

0270

Wolfgang Freidl¹, Sandra Schönberger¹,
Ilse Neuberger¹, Nathalie Burkert¹

¹Medical University of Graz, Institute
of Social Medicine and Epidemiology,
Graz, Austria

Stalking and health - An Austrian prevalence study

Question: The aim of this study was to estimate the prevalence of stalking and related subjective health impairment, based on concrete definitions of stalking, for a representative random sample of the female population in the Austrian Federal State of Styria.

Methods: A representative random sample (randomised last digits procedure) of 2 000 women selected from the female population of Styria aged 18 years or older underwent a computeraided phone interview survey (CATI). Questions centred on the occurrence of stalking, the exact period of stalking, the gender of the stalker, the subjective impairment through stalking, addressing the aspects of life-style and the subjectively perceived state of health, and socio-demographic variables. For data analyses descriptive statistics, chi-square tests and t-tests were applied.

Results: Lifetime prevalence varies between ca. 6 % and 18 %, depending on definition levels. The annual prevalences reveal a range of 1 - 4 %. 39 - 43 % of the stalked women feel they are impaired in their life-style, and 32 - 40 % feel impaired in their health. Higher age and living in a partnership reduce the likelihood of being stalked. 81 % of the stalked women are stalked by a male person.

Conclusion: The prevalences found in this study are in line with other international studies, although, in a direct comparison, they are in the lower range. However, these data document the relevance of the phenomenon of stalking for the female Austrian population.

0119

Genevieve Garipey¹, Norbert Schmitz¹

¹Douglas Institute McGill University,
Verdun, Canada

Neighbourhood characteristics and mental health in people with a chronic condition

Background: Depression and distress are frequent in people with diabetes and can have detrimental effects on disease prognosis and outcomes. The place where people live is thought to affect mental health above and beyond the characteristics of individuals. The neighbourhood environment could be particularly important to people with diabetes, who rely more on their local area for resources and support.

Objective: To investigate if neighbourhood characteristics are associated with depression and diabetes distress in adults with type 2 diabetes.

Material and methods: We used data from a community sample of 600 adults with type 2 diabetes from Quebec, Canada. We collected information on perceived neighbourhood environment from a telephone interview. We conducted a factorial analysis to combine the neighbourhood questionnaire items into meaningful constructs. We assessed depressive symptoms from the Patient Health Questionnaire and diabetes-specific distress from the Diabetes Distress Scale. We performed logistic regressions, adjusting for socioeconomic, lifestyle and health variables.

Results: Factorial analysis uncovered 3 important neighbourhood constructs: order (social and physical order; 13 items), culture (social and cultural environment; 10 items) and access (access to services and facilities; 9 items), with higher score indicating better neighbourhood qualities. All 3 constructs were significantly associated with high depressive symptoms; order and culture were associated with high distress [high depressive symptoms adjusted OR (AOR) 0.8 (95% confidence interval 0.7-0.9), 0.8 (0.6-0.9) and 0.8 (0.7-1.0) and high distress AOR 0.8 (0.7-0.9), 0.8 (0.7-0.9) and 0.9 (0.8-1.1), for order, culture and access scores, respectively].

Conclusion: Neighbourhood characteristics are associated with high depressive symptoms and diabetes distress in people with type 2 diabetes. Clinicians should consider the neighbourhood environment of their diabetic patients when assessing and addressing mental health. Public health interventions to improve the neighbourhood environment may help protect the mental health of people with diabetes.

Racial differences in mental health problems among American adults: A trend analysis

Objective: Mounting financial, social, emotional, and health-related costs of mental health problems globally have prompted the World Health Assembly of the World Health Organization to urge researchers to identify mental health risks and outline mental health trends. The present study employed data from repeated surveys in order to observe trends in American adults' mental problems over 14 years, from 1997 to 2010. The study was able to disaggregate trends by race, assessing whether American adults' mental problems change over time and whether such changes would be attributable to differential trends characterizing the White majority versus Blacks, Hispanics, and Asians.

Material and Methods: This secondary analysis performed trend analyses using combined National Health Interview Survey data collected over nearly 1.5 decades. In the study, mental problems were identified via 2 outcomes. These outcomes, emotional/anxiety problem and any mental illness, were indicators of chronic mental illness.

Results: The study observed a general trend of increasing mental health problems among American adults, finding all 4 of the indicators to rise between the first and last survey years. Preliminary analysis, moreover, confirmed significant differences, between racial/ethnic groups, in the gradient of increase.

Conclusion: The study's results confirm an increase in mental problems and suggest that race/ethnicity plays an important role in said increase. Future research is needed to pin down the dynamics between national- and individual-level risk/protective factors in mental problems.

The stigma of obesity in the general public and its implications for public health

Question: Stigmatization influences morbidity and mortality in obesity, making weight bias reduction efforts an important approach when trying to deal with rising prevalence rates of obesity. Aside from prevalence rates of stigmatizing attitudes, a thorough analysis of determinants is needed. Unlike most previous research, this study provides evidence from a representative sample. This study aims at investigating the prevalence of stigmatizing attitudes in the German general public and determining associated variables of these attitudes.

Methods: A representative study of the German population was conducted via computer-assisted telephone interview. Vignettes were used to determine influences of age and gender of the depicted obese individuals. Stigmatizing attitudes were assessed with a short form of the Fat Phobia Scale (FPS).

Results: The average FPS score of the overweight vignette was 3.65 (s.d. = 0.49, scale range from 1 = positive attribute to 5 = negative attribute) indicating slightly negative attribution overall. Higher education and higher BMI showed to be associated with lower FPS scores. The vignette of the obese child was rated far more negatively compared to that of an adult or senior citizen ($p < 0.001$). Casual attribution to internal as well as external factors was associated with higher FPS scores.

Conclusions: It seems that anti stigma interventions will need to aim at obese children just as much as focusing on the obese adult. Obviously, implementation of an adequate etiological model will still be a base for anti-stigma intervention; however, this study reveals the need for further investigation of other stigma-determining factors.

0005

Celia Lo¹, Tyrone Cheng¹, Jusoo Lee²

¹University of Alabama, School of Social Work, Tuscaloosa, United States

²University of Alabama, Economics, Finance & Legal Studies, Tuscaloosa, United States

0205

Claudia Sikorski^{1,2}, Melanie Lupp¹, Elmar Brähler³, Hans-Helmut König⁴, Steffi G. Riedel-Heller¹

¹University of Leipzig, Institute of Social Medicine, Occupational Health and Public Health, Leipzig, Germany

²University of Leipzig, IFB AdiposityDiseases, Leipzig, Germany

³University of Leipzig, Department of Medical Psychology and Medical Sociology, Leipzig, Germany

⁴Hamburg-Eppendorf University Medical Center, Department of Medical Sociology, Social Medicine and Health Economics, Hamburg, Germany

0333

Sandra Dietrich¹, Katarina Stengler¹

¹Universität Leipzig, Klinik und Poliklinik für Psychiatrie und Psychotherapie, Leipzig, Germany

Sickness absence and disability due to psychiatric disorders from a gender perspective - A systematic literature review

Objective: This work is aimed at providing a review of the literature on gender differences in the prevalence of mental disorders at the workplace. Methods: Systematic literature search of all original works on sickness absence and disability due to psychiatric disorders published in PubMed from 2000 through to 2011. Results: Female employees have more frequent and longer sickness absence due to psychiatric disorders. Male employees are at a high risk of disability due to psychiatric disorders.

Conclusion: Gender specific prevention strategies at the workplace should target the prevention of short and long-term consequences for female employees and the long-term impact of psychiatric disorders in male employees. However, there is still a lack of knowledge about implications for gender specific prevention strategies at the workplace.

0337

Sian Oram¹, Charlotte MacKenzie¹, Cathy Zimmerman², Melanie Abas¹, Matthew Broadbent¹, Louise Howard¹

¹Institute of Psychiatry, London, United Kingdom

²London School of Hygiene and Tropical Medicine, Global Health and Development, London, United Kingdom

Pathways into care among victims of human trafficking in contact with a large inner city Mental Health Service

Objectives: Research has suggested a high prevalence of mental disorder among trafficked people but there are no rigorous data on how trafficked people come into contact with mental health services. We aimed to describe pathways into care among trafficked people in contact with a large inner city mental health service compared with a non-trafficked cohort. We hypothesised that, compared with a non-trafficked cohort matched for gender, age and primary diagnosis, trafficked people would be significantly more likely to have poorer functioning at presentation and adverse pathways into care including detention under the Mental Health Act and contact with police for first contact with mental health services.

Methods and Methods: Study design: Cohort study. Study population: mental health service users who had been trafficked for exploitation and a non-trafficked service user cohort matched for gender, age (+/- 2 years) and primary diagnosis. Data collection: Free text searches of South London and Maudsley NHS Trust (SLaM) Biomedical Research Centre Case Register Interactive Search (CRIS) database were used to identify a cohort of trafficked and non-trafficked service users. The CRIS database allows the search and retrieval of anonymised full patient records for mental health service users in contact with SLaM services between 2006 and 2012. Data were extracted on socio-demographic and clinical characteristics, functioning (using Health of the Nation Outcome Scale) and on episodes of care.

Results and Conclusions: We identified case records of 137 people in contact with SLaM services who had been trafficked for sex work, domestic servitude and other forms of exploitation. 105 (77%) of the trafficked service users were female and age at first SLaM contact ranged from 11 to 50 years (mean 25.7, SD 8.7). Analysis is in progress and scheduled for completion by March 2013.

Incidence of late-life depression: A systematic review

Objectives: In the past years, many studies have examined the prevalence of late-life depression. However, incidence studies, especially those including the oldest age groups, remained rare. The objective of this article is therefore to provide a systematic review on incidence of depressive disorders in latest life.

Materials and Methods: A systematic search of the literature published between 1985 and 2011 was conducted using MEDLINE, Web of Science, PsycInfo and Cochrane databases. Inclusion criteria were: incidence specified for persons aged ≥ 70 years at baseline, population-based sample or primary care sample. Incidence rates or risks were extracted or calculated.

Result: We found 20 studies reporting incidence according to categorical ($n = 14$) or to dimensional diagnoses ($n = 6$). The incidence of depressive disorders varied considerably. Major Depression (MD) was found to occur less often than Minor Depression (MinD), whereas clinically relevant depressive symptoms are at least as frequent as MinD. The incidence rate of MD was 0.2-14.1/100 person-years, and incidence of clinically relevant depressive symptoms was 6.8/100 person-years. Female incidence was mostly higher than male. Associations between age and incidence revealed to be rather inconsistent between studies.

Conclusions: This review is the first to have focused on incidence studies on depression in latest life. The frequent occurrence of clinically relevant depressive symptoms will have to be considered in future health care planning. Physical health and psychosocial influences appear to be key variables in depression prevention.

Natural course of depressive symptoms in late life: An 8-year population-based prospective study

Aims: The aim of the study was to follow the natural course of late-life depressive symptoms within a German population-based study.

Methods: Within the Leipzig Longitudinal Study of the Aged (LEILA 75+), a representative sample of 1,265 individuals aged 75 years and older were interviewed every 1.5 years over 8 years. Depressive symptoms were assessed using the Center for Epidemiologic Studies Depression Scale (CES-D, German-specific cut-off score ≥ 23).

Results: The incidence of depressive symptoms was 34 per 1,000 person-years (95% confidence interval 31-37). In a multivariate regression model, female gender, poor self-rated health status, stroke, risky alcohol consumption, a poor social network, higher number of specialist visits, functional impairment, and CES-D score at baseline were significant risk factors of future depressive symptoms. We observed remission in 60%, an intermittent course in 17% and a chronic course in 23% of the participants. No baseline characteristic distinguished the remission group from the persistently depressed.

Conclusion: Depressive symptoms in late life are common and highly persistent. In the present study encountered risk factors entailed potentialities for secondary prevention.

Social relations and depression in late life: A systematic review

Background: Social relations have become the focus of much research attention when studying depressive symptoms in the elderly. Research indicates that social support and being embedded in a network may reduce the risk for depression. The aim of the review was to analyze the association of social relations and depression in the elderly.

Method: The electronic databases MEDLINE, Web of Science, PSYINDEXplus and Cochrane

0121

Dorothea Büchtemann¹,
Melanie Lupp², Anke Bramesfeld^{3,4},
Steffi Riedel-Heller²
¹Leuphana University, Lüneburg, Germany

²University of Leipzig, Institute of Social
Medicine, Occupational Health and
Public Health, Leipzig, Germany
³Aqua Institute on Applied Quality
Improvement and Research in Health
Care, Göttingen, Germany
⁴Hannover Medical School, Institute
for Epidemiology, Social Medicine and
Health Systems Research, Hannover,
Germany

0018

Melanie Lupp¹, Tobias Luck^{1,2},
Hans-Helmut König³, Matthias
C. Angermeyer^{4,5}, Steffi G. Riedel-
Heller^{1,2}

¹University of Leipzig, Institute of Social
Medicine, Occupational Health and
Public Health, Leipzig, Germany
²University of Leipzig, LIFE – Leipzig
Research Center for Civilization
Diseases, Leipzig, Germany
³University Medical Center Hamburg-
Eppendorf, Department of Medical
Sociology and Health Economics,
Hamburg, Germany
⁴Center for Public Mental Health,
Göding a. W., Austria
⁵University of Cagliari, Department of
Public Health, Cagliari, Italy

0212

Michaela Schwarzbach¹,
Melanie Lupp¹, Simon Forstmeier²,
Hans-Helmut König³, Steffi G. Riedel-
Heller¹

¹Institute for Social Medicine,
Occupational Health and Public Health,
University of Leipzig, Leipzig, Germany

²Division of Psychopathology and Clinical Intervention, Department of Psychology, University of Zurich, Zurich, Switzerland

³Department of Medical Sociology and Health Economics, University Medical Center, Hamburg-Eppendorf, Hamburg, Germany

Library and the bibliographies of relevant studies were searched systematically for potentially relevant articles published from January 2000 to January 2012. Thirty two studies with methodological differences met the inclusion criteria for this review.

Results: Factors of social relations were categorized into 12 domains. Except for the factor 'non-reciprocity in social exchange' each factor was studied in at least two studies. Factors regarding the qualitative aspects of social relationships seem to be more consistent among studies and therefore provide more explicit results. Thus social support, quality of relations and presence of confidants were identified as factors of social relations significantly associated with depression ($p < 0.05$). The quantitative aspects of social relationships seem to be more inconsistent among studies.

Conclusion: Despite the inconsistent results and the methodological limitations of the studies, this review identified a number of social support factors significantly associated with depression. A number of social support factors are modifiable. Their modification could be expected to have an important public health impact.

0106

Lena Spangenberg¹,
Thomas Forkmann², Elmar Brähler¹,
Heide Glaesmer¹

¹University of Leipzig, Medical Psychology and Medical Sociology, Leipzig, Germany

²University Hospital of RWTH Aachen, Institute of Medical Psychology and Medical Sociology, Aachen, Germany

Assessing depression using the PHQ-9 in a sample of the elderly German population - The impact of multimorbidity on the prevalence of depressive syndromes and depression severity

Objectives: In research and in clinical practice the assessment of depression in the elderly needs to be reliable, valid and economical. Existing measures have shown some weaknesses leading to inconsistencies in prevalence rates, maybe because depression assessment might be confounded with somatic morbidity in the elderly. We aim to investigate, if the items of the depression module of the patient health questionnaire (PHQ-9) are confounded by multimorbidity.

Materials and Methods: Multimorbidity (i.e. to have 2+ medical conditions) and the PHQ-9 were assessed in a representative sample of the German population aged 60 to 85 years ($N = 1,659$) and the impact of multimorbidity on depression diagnosis and depression severity estimates based on the PHQ-9 was investigated using χ^2 -tests, analysis of variance and Rasch-analysis (e.g., analysis of Differential Item Functioning [DIF]).

Results: Depressive syndromes are significantly more frequent in multimorbid respondents and higher depression severity levels are reported by multimorbid respondents in comparison to non-multimorbid persons. Multimorbidity is associated with higher item scores, especially in two somatic items (fatigue, trouble sleeping). By means of Rasch-Analysis no DIF regarding multimorbidity was found.

Conclusions: In accordance with existing research, multimorbidity and depression syndromes as well as depression severity appear to be associated in the elderly general population. However, results do not indicate item bias due to multimorbidity in the PHQ-9 suggesting that the PHQ-9 might be eligible in the assessment of depression severity in elderly suffering from multimorbidity. However, although item biases due to multimorbidity were not found in the present study, Forkmann et al. (submitted) report gender-related item biases and violations of the unidimensionality assumption which casts doubt on the valid applicability of the PHQ-9 as a dimensional measure in this population.

0230

Vladeta Ajdacic-Gross¹,
Stephanie Rodgers¹, Mario Müller¹,
Karin Landolt¹, Michael P. Hengartner¹,
Inge Warnke¹, Nicolas Rüschi¹,
Wolfram Kawohl¹, Helene Haker¹,
Wulf Rössler¹

¹Psychiatric University Hospital, Zurich, Switzerland

The ZInEP epidemiology survey: Design and preliminary results

Objectives: The ZInEP Epidemiology Survey is a subproject of the Zurich Program for Sustainable Development of Mental Health Services (ZInEP). Its major aim is to generate comprehensive data about mental health in the general population of adults aged 20 to 40 years. Its design is geared to the longitudinal Zurich Study of Jules Angst.

Material and methods: The Survey was carried out between August 2010 and September 2012. It consisted of three components.

1) Approximately 10'000 subjects representative of the Canton of Zurich were screened with a computer assisted telephone interview using the SCL-27 (enriched by psychoticism, paranoia and irritability items).

2) Applying a stratified sampling procedure, 1'500 participants were selected for a comprehensive face-to-face-interview. 900 participants (60% of the sample) were high-scorers with respect to the SCL-27, and 600 (40%) were low-scorers. The cutoff was defined by the 75th percentile of the SCL-27 total score. The participants were interviewed with the Mini-SPIKE, a short version of the instrument used in the Zurich Study covering most psychiatric syndromes. In addition, they filled in checklists related to psychosis (e.g. SPQ-B, PC, BCSS, CEQ, SIAPA, SIA), personality disorders (e.g. ADP-IV), stigma and barriers to help seeking, and, finally, positive health concepts.

3) Furthermore, 250 participants of the interview-sample were selected for a longitudinal survey and underwent a series of neurophysiological tests. We also assessed stress and other biological markers. Subsequently the subjects were interviewed up to three times in 2-month intervals.

Results and conclusions: We will present the prevalence rates of common mental disorders derived from this study and compare them with the results derived from the Zurich Study and other epidemiological surveys.

Territorial distribution of the use of inpatient mental health services in Spain

Objective: Health Geography is a discipline with a long tradition but which has not been greatly applied in the case of Mental Health. Some studies have been carried out in Andalusia (Spain), including analyses of resources, territorial accessibility and epidemiology of mental disorders. The aim of this study is to analyze the spatial distribution of general hospital mental health unit utilization. These services provide emergency care for psychiatric patients during the acute phase of psychotic episodes.

Material and Methods: For this, the Minimum Data Set (MDS) for the 2004-2009 period was analyzed. The MDS contains a set of variables including admissions numbers, length of stay, psychiatric diagnosis (ICD), sex, age and county of residence of each patient treated with psychiatric diagnoses. These data were analyzed using the STATA statistical package and presented in a Geographic Information System (GIS) and the different were areas assessed according to their geographical features.

Results: The results show a spatial distribution that enables the differences between urban and rural areas, and coastal and inland towns, and demographic and socio-economic characteristics, to be assessed. The rapid ageing of rural and inland populations, together with the emigration of young people and the greater distances to mental health services leads to significant differences in mental patient rates compared to urban and coastal areas.

Conclusion: An analysis of the spatial distribution of mental disorders provides essential information for the epidemiological patterns of each territory to be assessed. An integrated mental health GIS should be applied for mental health resources to be managed more effectively.

This abstract is part of the R&D National Scientific Project of Spain "Development of a model to optimize mental health services access and utilization in Spain (MODEMENT)" CSO2009-13268, funded by the Minister of Science and Innovation of Spain (2010-2012).

0351

Enrique López-Lara¹, Marco Garrido-Cumbreira¹, Olga Braçe¹

¹Universidad de Sevilla, Department of Geography, Seville, Spain

0285

Melanie Luppa¹, Claudia Sikorski¹, Tom Motzek¹, Alexander Konnopka², Hans-Helmut König², Steffi G. Riedel-Heller¹

¹University of Leipzig, Institute of Social Medicine, Occupational Health and Public Health, Leipzig, Germany

²University Medical Center Hamburg-Eppendorf, Department of Medical Sociology and Health Economics, Hamburg, Germany

Health service utilization and costs of depressive symptoms in late life - A systematic review

Objective: The objective of the study is to systematically analyze and summarize research literature regarding health service use and costs of depressive symptoms in late life.

Design: Relevant articles were identified by systematically searching the databases MEDLINE, Web of Science, PSYINDEXplus, PsycINFO, and Cochrane Library. Keywords were 'depression' or 'depressive*', and 'cost' or 'economic burden' or 'utilization' or 'use' and 'old age' or 'elderly'. Studies based on representative samples of elderly individuals aged 55 years and older were included.

Results: 55 studies were found, 34 studies determined health service utilization, 10 studies reported costs, and 11 studies reported both. Studies of health service utilization and costs showed homogeneously that depressive elderly individuals have an increased service use compared to non-depressive, and a one-third increase of outpatient, inpatient, and total healthcare costs of depressive individuals. The majority of studies reported antidepressant (AD) use between 20 and 45% by depressive individuals. Mean annual costs for AD ranged from 108 to 305 US\$ PPP (purchasing power parities). Increased service use and costs are only to a small proportion related to depression treatment.

Conclusions: Depressive symptoms in late life lead to a high economic burden for nations which is not explained by costs for depressive symptom treatment. Strategies for improvement of diagnostic validity and treatment success of depressive symptoms in late life may have an effect on economic burden for societies.

0286

Melanie Luppa¹, Hans-Helmut König¹, Dirk Heider¹, Hanna Leicht¹, Tom Motzek², Georg Schomerus³, Steffi G. Riedel-Heller²

¹University Medical Center Hamburg-Eppendorf, Department of Medical Sociology and Health Economics, Hamburg, Germany

²University of Leipzig, Institute of Social Medicine, Occupational Health and Public Health, Leipzig, Germany

³Ernst-Moritz-Arndt University Greifswald, Department of Psychiatry, Greifswald, Germany

Direct costs associated with depressive symptoms in late life - A 4.5-year prospective study

Background: Depression in old age is common. Only few studies examined the association of depressive symptoms and direct costs in the elderly in a cross-sectional way. This study aims to investigate prospectively health service use and direct costs over a course of 4.5 years considering also different courses of depressive symptomatology

Methods: 305 primary care patients aged 75+ were assessed face-to-face regarding depressive symptoms (Geriatric Depression Scale), and service use and costs at baseline and 4.5 years later. Resource utilisation was monetarily valued using 2004/2005 prices. The association of baseline factors and direct costs after 4.5 years was analysed by multivariate linear regression.

Results: Mean annual direct costs of depressed individuals at baseline and follow-up were almost one third higher than of non-depressed, and highest for individuals with chronic depressive symptoms. Most relevant cost driver were costs for inpatient care, pharmaceuticals and home care. Costs for home care increased at most in individuals with chronic depressive symptoms. Baseline variables which were associated with direct costs after 4.5 years were number of medications as a measure of comorbidity, age, gender and depressive symptoms.

Conclusions: Presence and persistence of depressive symptoms in old age seems to be associated with future direct costs even after adjustment for comorbidity. The findings deign a look to the potential economic consequences of depressive symptoms in the elderly for the health care system in the future.

0409

Thomas Seyde¹

¹Gesundheitsamt der Stadt Leipzig, Coordinator of Psychiatric Community Care in Leipzig, Leipzig, Germany

Community psychiatry in Leipzig - New performance data

Background: A well coordinated system of psychiatric community care is crucial for an effective treatment and care especially for chronically mentally ill.

Question: This work reports descriptive performance data of the psychiatric community care Alliance Leipzig and presents an example of good practice in this field.

Results: The psychiatric care is divided into four sections: (1) inpatient-care (2) the complementary psychiatric services providing support in fields such as day structure, work and housing, (3) out-patient psychiatric care via doctors in private practice and social psychiatric services and (4) the coordination and cooperation of the latter sections. The report is focused on the complementary psychiatric services which are implemented by psychosocial community centers (Psychosoziale Gemeindezentren) and social psychiatric services (Sozialpsychiatrische Dienste). It highlights the importance of a tight interconnection between the four sections. Performance data on outpatient and complementary psychiatric community care are given and time trends are discussed. 1500 chronically mental ill used the complementary services (Psychosoziale Gemeindezentren) in 2011, 1900 received care by Social Psychiatric Services (Sozialpsychiatrische Dienste) often seeing patients in their homes.

Conclusion: Services are traditionally well connected in Leipzig and have a relatively high level of regionalization and regional treatment responsibility. Data are used for regional planning to improve care for chronically mentally ill.

Beyond regular weekly cycles in suicide

Objective: Such as seasonal also weekly cycles in suicide have been described, replicated and poorly understood for long time. Suicides are typically least frequent on weekends and most frequent on Mondays and Tuesdays. To improve the understanding a strategy is required which focuses on anomalous findings within / beyond the regular patterns. We investigated in which instances the weekly suicide patterns disappear or get interrupted.

Material and methods: We used data from the Swiss and the Austrian mortality statistics for the periods 1969-2010 and 1990-2010, respectively. Firstly, the data was crosstabulated by days of the week and the available socio-demographic information (sex, age, religious affiliation, region). Secondly, time series of cumulated daily frequencies of suicide were built and analysed by seasonal ARIMA models (including intervention effects). These analyses targeted in particular the Easter and Pentecost holidays.

Results: The crosstabulations showed that weekly cycles may be absent above all in young persons. The ARIMA analyses displayed subtle preventive effects for holiday Saturdays and Sundays, but stronger effects for holiday Mondays. However, there were no aftereffects on Tuesdays following holiday Mondays.

Conclusions: Such as seasonal also weekly cycles in suicide are not universal phenomena. Our first result indicates that the absence of weekly cycles might be associated with „rash act suicides“, which are probably much more prevalent in young people than in adults. The second result confirms the protective effect of weekends and holidays on suicide. Moreover, it raises the issue of (lacking) aftereffects following an intervention or, in this instance, a natural experiment. If the preliminary conclusion were right, it implies that also „ambivalent suicides“ are similarly responsive to extraordinary preventive measures such as „rash act suicides“.

0313

Vladeta Ajdacic-Gross¹, Ulrich Tran²,
Wulf Rössler¹, Martin Voracek²

¹Psychiatric University Hospital, Zurich,
Switzerland

²University of Vienna, Department of
Psychology, Vienna, Austria

Suicide in penal institutions in Jamaica 2001 to 2010

Objective: Discovery and comparison of suicide rates in incarcerated persons in Jamaica.

Method: Suicide records from 2001 to 2010 were obtained from the Police Constabulary Force Statistics Division. Those for suicide in persons incarcerated in jails, prisons and Places of Safety were analysed using the SPSS statistical package.

0394

Loraine Barnaby¹, Joan Leitch²

¹Health Services Authority, Psychiatry
& Behavioral Health Services, Grand
Cayman Island, Jamaica

²University of the West Indies, Mona
Campus, Mona Information Technology
Services, Kingston, Jamaica

Results: Between 2001 and 2010, 22 persons, charged and in custody (81%) or, as explained, not in custody (19%), committed suicide, 90.5% by hanging. Charges ranged from gun possession to murder, with 14.3% being charged with murder and 14.3% with wounding. Depressive Disorder was noted in 33.3% of the victims, but neither psychiatric nor medical conditions were recorded in others. Suicide rates varied from 42.5 to 81.4 per 100,000 (General population <3/100,000). More suicides occurred in jails (47.6%) than in prisons (38.1%).

Two parishes had the highest percentage of suicides- St Catherine 28.6% and Kingston 14.3%.

In addition to local jails, there is a District prison with Death Row in the first and the large General Penitentiary in the second.

Conclusion: The high suicide rate suggests that greater attention should be paid to preventability, via intake assessments, cell design and policy review of the type and length of incarceration for particular crimes.

0251

Claudia Bukowsky¹

¹Medical University of Vienna, Vienna, Austria

Risks for suicidal behavior based on a study of young Austrian adults

Objective(s): Aim of the study is to determine whether or not suicidal behavior is linked to 1) temperament, 2) consumption of psychoactive substances and 3) subcultural identification.

Material and methods: 107 Austrians from Vienna and Graz between the ages 17 and 28 took part in a questionnaire based survey regarding their educational background (highest completed level), temperament, identification with various subcultures (i.e. athletes, Rock, Punk, Gothic), consumption of psychoactive substances (such as nicotine, alcohol and drugs) and suicidal behavior (assessing the level of suicide risk by 4 different dimensions: 1) lifetime suicide ideation and/or suicide attempt, 2) frequency of suicidal ideation over the past twelve months, 3) threat of a suicide attempt and 4) the self-reported likelihood of suicide in the future).

Results and conclusion(s): Of the 107 participants 8.4% stated attempted suicide, 5.6% reported suicidal ideation over the past twelve months and 3.7% indicated a likelihood of suicide in the future. Connected with this group of higher risked Austrians were the subcultures Hard Rock, Heavy Metal, Grunge, Hippie, Independent/Alternative and Nerd. However, 1.9% of these did not regard themselves being a member of any specific subculture. Yet again of this group 3.7% issued a frequent consumption of alcohol during the week and 5.6% reported experience with drug use. Explanations for these occurrences and the relevance this collected data may have in the future are yet to be discussed.

0245

Benedikt Till¹,
Martin Voracek², Ulrich Tran²,
Thomas Niederkrotenthaler¹

¹Medical University of Vienna, Center for Public Health, Department of General Practice and Family Medicine, Vienna, Austria

²University of Vienna, School of Psychology, Department of Basic Psychological Research and Research Methods, Vienna, Austria

Associations between music preferences and suicidality among young adults

Objectives: Research has often linked exposure to suicide in the media to suicide in the real world, with most of the studies analyzing effects of news media and fictional films on suicide rates. Despite the vast amount of time people spend on listening to music, research on the link between music and suicidality is relatively scarce. The present study analyzed whether exposure to suicide-related music was associated with risk factors of suicidal behaviour among young adults and investigated the association between suicidality and the preference for music genres that are notoriously linked to suicide (e.g., heavy metal music).

Material and Methods: In an online survey, 406 individuals between 17 and 25 years provided ratings on several factors of suicidal risk, on music preferences and on the exposure and liking of 50 popular songs that can be found on YouTube - 25 songs related to suicide, 25 unrelated to suicide.

Results: Preliminary results of this study show that exposure and preference to suicide-related

music was not associated with suicide risk. However, the preference for certain music genres (e.g., heavy metal music) correlated significantly with predictors for suicidal behaviour (e.g., psychoticism).

Conclusions: Suicidal risk is not linked to exposure to suicide-related songs, but associated with the preference for certain music genres (e.g., heavy metal music). The findings of the present study will have several implications for suicide research and prevention.

Admission based prevalence of schizophrenia, schizoaffective disorder and bipolar I disorder in a catchment area in Sinop, Turkey

Objective: To provide admission based prevalence estimates of schizophrenia, schizoaffective and bipolar I (BPI) disorders in a catchment area.

Material and Methods: All patients who were presented to primary, secondary and tertiary services with a diagnosis of psychotic disorder (F20-F29 and F30- F39 in ICD-10) within a tightly defined catchment area (covering a population of 73,503 aged 15-64) over three years time (2009-2011) were included. All accessed case records were pooled. Those provided in the registries were then interviewed with the Composite International Diagnostic Interview 2.1. for diagnostic clarification. Diagnoses of probable cases who were not interviewed were formed by combining the case notes based on registers and/or on the phone check with relatives or spouse. All interviews and case notes were completed between October 2011 and October 2012.

Results: Registries provided 1429 individuals with any ICD-10 diagnosis of F20-29 and F30-39. Successful reinterview rate was 66.8% (n: 955). Misdiagnosis rate of psychosis was 43.2% in the pooled registry based data. Finally 771 individuals were diagnosed with any ICD-10 diagnosis of any psychotic disorder.

Admission based prevalence of schizophrenia, schizoaffective and BPI disorders was 6.88 per 1000. Prevalence of schizophrenia was higher in males (3.38 per 1000) than females (2.85 per 1000). Prevalence of schizoaffective disorder was slightly higher in males (1.12 per 1000) than females (0.98 per 1000). Prevalence of BPI disorder was lower in males (1.12 per 1000) than females (2.38 per 1000).

Prevalence of schizophrenia was lower in urban areas (2.60 per 1000) than rural areas (4.16 per 1000). Prevalence of schizoaffective disorder was slightly lower in urban areas (0.94 per 1000) than rural areas (1.19 per 1000). Prevalence of BPI disorder was slightly lower in urban areas (2.68 per 1000) than rural areas (2.84 per 1000).

Conclusion: Admission based prevalence estimates of schizophrenia, schizoaffective and bipolar I disorders are lower than the estimates of cross-sectional general population studies in Turkey. High rates of external migration in the last two decades from the catchment area might be the underlying cause of higher estimates of schizophrenia in the rural areas.

Risk factors for burden among caregiving relatives of schizophrenia patients

Objective: Studies show, that relatives of individuals with schizophrenia have an essential role in informal caregiving. Consecutively, this may lead to a high level of burden among this group. The aim of the present study was to investigate, if unmet needs among caring relatives of schizophrenia patients increase the risk for burden among these relatives.

Material and methods: 135 caring relatives of persons with schizophrenia or schizoaffective disorders were investigated by means of the "Carer's Needs Assessment for Schizophrenia" (CNA-S) and the "Involvement Evaluation Questionnaire" (IEQ). The „Positive and Negative Syndrome Scale" (PANSS) was used to investigate the patients' symptoms.

0318

Tolga Binbay¹, Koksal Alptekin²,
Deniz Arık Binbay³

¹Ataturk Devlet Hastanesi, Psikiyatri
Bolumu, Sinop, Turkey

²Dokuz Eylul Universitesi Tıp Fakültesi,
Psikiyatri Anabilim Dalı, İzmir, Turkey

³Koza Psikiyatri ve Psikoterapi, Sinop,
Turkey

0233

Fabian Friedrich¹, Annemarie Unger¹,
Marion Freidl¹, Johannes Wancata¹

¹Medical University of Vienna,
Department of Psychiatry and
Psychotherapy, Vienna, Austria

Results: Due to multiple linear regression analyses, a positive association was identified between the frequency of caregivers' unmet needs and the IEQ-sub-scores "tension" and "worrying". Furthermore, the IEQ-sub-core "worrying" was significantly higher among caregivers of inpatients or day hospital patients than among caregivers of outpatients. Further, the patient's negative symptoms were significantly associated with the IEQ-sub-score "urging".

Conclusion: Our study results show, that unmet needs among caring relatives have negative effects on their burden. Further, it seems that the patients' type of treatment setting (inpatient, outpatient, and day hospital) has an impact on caregivers' burden.

0244

Drita Gashi Bytyci¹, Agim Bytyci²

¹Center for Mental Health of Children and Adolescents, Department of Psychiatry in the University Clinical Center, Pristina, Albania

²Center for Mental Health Based in the Community, Department of Psychiatry, Prizren, Albania

The quality of life and life satisfaction of patients suffering from schizophrenia

Introduction:The first goal of Schizophrenia treatment in the past was to reduce positive symptoms. Recently emphasize the improvement of Quality of Life. Goal of treatment has passed from attenuation of symptoms to improvement of social life. In the past, it is thought that due to psychopathology and poor awareness of the disease, patients are unable to assess themselves and their needs, but recently the importance of the assessment of Life Satisfaction in these patients seems to be a priority of service providers.

Aims of the study:The purpose of the study was to explore the Quality of Life and Life Satisfaction in patients suffering from Schizophrenia.

Methods:This research was done in 120 patients from Mental Health Centers in Pristina, Prizren and Mitrovica. Individuals have been diagnosed with a diagnosis of Schizophrenia by a psychiatrist. Questionnaire with demographic data was formulated from research group. The instruments used were: Questionnaire for the Quality of Life measurement, Hopkins Questionnaire for measurement of depression and anxiety, and Questionnaire for the Life Satisfaction measurement. Questionnaires were completed by persons suffering from schizophrenia.

Results:Data collected were worked with SPSS 17. Description of the results included descriptive data, cross table for nominal data and ANOVA and T test for averages.

Conclusions:This study has shown the importance of Quality of Life in individuals suffering from Schizophrenia. Patients who have reported a lower Quality of Life have been shown to have more problems with adherence to treatment.

0235

Richard Hayes¹, Chin-Kuo Chang¹, Andrea Fernandes¹, Aysha Begum¹, David To¹, Matthew Broadbent², Matthew Hotopf¹, Robert Stewart¹

¹King's College London, Institute of Psychiatry, London, United Kingdom

²South London and Maudsley NHS Foundation Trust, London, United Kingdom

Associations between symptoms, functional status and all-cause mortality in people with schizophrenia

Objectives: Compared to the general population, people with schizophrenia have a substantially higher risk of premature mortality which translates into a 10-15 year reduction in life expectancy. The aim of this investigation was to determine if symptoms (including aggression, hallucinations or delusions, and depression) or the environmental and functional status of people with schizophrenia contribute to the high mortality risk observed in this patient group.

Methods: We identified cases of schizophrenia, aged ≥ 15 years in a large secondary mental healthcare case register linked to national mortality tracing. We modelled the effect of specific symptoms, activities of daily living (ADLs), living conditions, occupational and recreational activities (Health of the Nation Outcome Scale [HoNOS] subscales) on all-cause mortality over a 4-year observation period (2007-10) using Cox regression.

Results: We identified 4270 schizophrenia cases (170 deaths) in the observation period. After controlling for a broad range of covariates, mortality was not significantly associated

with hallucinations and delusions or overactive-aggressive behaviour, but was associated with subclinical depression (adjusted HR 1.5; 95% CI 1.1-2.2) and ADL impairment (adjusted HR 1.8; 95% CI 1.2-2.9)

Conclusions: Severity of symptoms, such as delusions and hallucinations, was less important in predicting mortality than subclinical depression and difficulties carrying out activities of daily living. The overall picture appears to be one where the highest all-cause mortality risk is in service users who are least visible to clinical teams.

Antipsychotics use in the elderly with schizophrenia—3-year database from a psychiatric hospital

Objective: Antipsychotics have been rapidly developed during recent decades. Most “real world” information regarding antipsychotic uses has been come from the adults, but not from the elderly. This study is aimed to describe and analyze a 3-year clinical database from a psychiatric hospital to understand antipsychotic uses in the elderly with schizophrenia.

Material and methods: We collected the demographic data, kinds and dosage of prescribed antipsychotics and anti-parkinsonism drugs (APDs) and concurrent medications in the schizophrenia patients who was hospitalized during 2007-2009 in one hospital retrospectively. The ratio of prescribed daily dose (PDD) divided by defined daily dose (DDD) were generated for antipsychotics and APDs. Then we compared the prescribing patterns among the elderly to those among the younger counterpart.

Results: A total of 2,859 patients with schizophrenia were identified, and 102 (3.6%) were the elderly. For the elderly, patterns of antipsychotic use tended to SGA alone (47.1% vs. 21.9%) and SGAs combination (3.9% vs. 1.1%) compared to the counterparts, but not FGAs combination (3.9% vs. 15.9%) and FGA and SGA combination (4.9% vs. 23.9%). For each antipsychotic, the elderly more common use quetiapine, risperidone, and trifluoperazine. The PDD/DDD of antipsychotics were less in the elderly than in the non-elderly (0.82 ± 0.79 vs. 1.79 ± 1.48 ; $p < 0.001$). Regarding concurrent use of other medicine, the elderly less used anxiolytics (35.3% vs. 68.1%), but not antidepressants (14.7% vs. 14.0%), hypnotics (72.5% vs. 69.9%), mood stabilizers (23.5% vs. 23.6%) and APDs (63.7% vs. 65.3%). The PDD/DDD of APDs was no statistically significant in the elderly than in the non-elderly (0.27 ± 0.29 vs. 0.30 ± 0.31 ; $p = 0.328$).

Conclusions: The elderly with schizophrenia tended to use SGA, especially quetiapine and risperidone. Concurrent use of APDs were similar between the elderly and the younger, although the daily dose of antipsychotics was lower in the elderly.

Intermittent drug techniques for schizophrenia: A Cochrane Review

Objectives: Because intermittent use of antipsychotic drugs is the norm rather than the exception for people with schizophrenia, we review best evidence of the effects of different intermittent drug techniques compared to maintenance treatment in people with schizophrenia or related disorders.

Materials and methods: We searched The Cochrane Schizophrenia Group Trials Register (April 2012) and supplemented this by contacting relevant study authors, hand searching relevant intermittent drug treatment articles and manually searching reference lists. We included all randomised controlled trials (RCTs) that compared intermittent drug techniques with standard maintenance therapy for people with schizophrenia. Primary outcomes of interest were relapse and hospitalisation.

Results: Homogenous data demonstrated that relapse rates were significantly higher amongst people receiving any intermittent drug treatment in the short ($n = 358$, 3 RCTs, RR 2.12 95% CI 1.12 to 3.98), medium ($n = 767$, 5 RCTs, RR 2.94 CI 1.71 to 5.05) and

0305

Mei-Feng Huang¹, Yu-San Chang², Chun-Yang Lai², Yu-Hsuan Wu², Yu-Hui Huang², Yi-Chun Yeh¹, Cheng-Sheng Chen¹

¹Kaohsiung Medical University Hospital, Kaohsiung Medical University, Department of Psychiatry, Kaohsiung, Taiwan

²Kaohsiung Municipal Kai-Syuan Psychiatric Hospital, Dept. of Neuropsychiatry, Kaohsiung, Taiwan

0164

Stephanie Sampson¹, Kajal Joshi¹, Mouhamad Mansour², Khaled Boobes³

¹Institute of Mental Health, University of Nottingham Innovation Park, C Floor, Nottingham, United Kingdom

²Henry Ford Hospital, Detroit, United States

³Damascus University, Faculty of Medicine, Damascus, Syrian Arab Republic

long term (n=430, 7 RCTs, RR 2.51 CI 1.72 to 3.67). Intermittent treatment was shown to be more effective than placebo, however, and demonstrated that significantly less people receiving intermittent antipsychotics experienced full relapse by short term (n=260, 1 RCT, RR 0.22 CI 0.10 to 0.45). Hospitalisation rates were higher with people receiving any intermittent drug treatment by long term but data were significantly heterogeneous at medium term. Results demonstrated little difference in instances of tardive dyskinesia amongst groups, with less events occurring amongst people receiving intermittent treatment at medium and slightly heterogeneous data favouring maintenance treatment by long term.

Conclusions: This review supports the view that intermittent antipsychotic treatment is not as effective as continuous, maintained drug therapy for preventing relapse amongst people with schizophrenia. More research is needed to assess any potential benefits or harm of intermittent treatment, regarding adverse effects typically associated with maintained antipsychotic treatment, as well as any potential cost-effectiveness of this experimental treatment as compared to maintenance therapy.

0129

Niranjan Bidargaddi^{1,2},
 Tarun Bastiampillai^{1,3},
 Geoffrey Schrader⁴, Stephen Allison^{1,3},
 Jorg Strobel⁵, Robert Adams⁴,
 Malcolm Battersby¹

¹Flinders University, Medicine, Adelaide, Australia

²CHSA LHN, SA Health, Mental Health Observatory Research Unit, Adelaide, Australia

³SA Health, Mental Health Services, Southern Adelaide Local Health Network, Adelaide, Australia

⁴University of Adelaide, Adelaide, Australia

⁵SA Health, Mental Health Services Country Health SA Local Health Network, Adelaide, Australia

Influence of change in unemployment on emergency department use for mental health conditions in South Australia (SA)

Methods: Recent meta-analysis suggests that unemployment is linked to emotional distress with an effect more evident among men than women (Paul and Moser, 2009). Unemployment increases demand for psychiatric services but the impact on Emergency Department (ED) use has not been studied. While Australia has been less affected by the global economic downturn than Europe, it still experienced a significant slowdown with modestly rising unemployment levels.

Using data over the last 7 years from state health databases and Australian Bureau of Statistics we analysed the effects of unemployment in South Australia on ED mental health presentations through a pre-post interrupted time series.

Results: A 7-year time series analyses of the changes in unemployment rates and psychiatric presentations to ED in South Australia shows that the unemployment rate is a strong predictor of emergency mental health presentations, most significantly at 1-month and effects continued for 3 to 6 months. An increase in the unemployment rate of 1% (in SA around 12,000 people without jobs) is associated with an increase in ED psychiatric presentations of around 400, i.e. from 1000 to 1400. This is a 2-way effect. Nearly 30% of the variance in psychiatric ED fluctuation can be attributed to unemployment fluctuations. ED use for physical health diagnoses were not related to unemployment levels. It is not known if the increased ED presentations are the unemployed or others affected by their job loss.

Conclusions: Unemployment is a strong predictor of crisis presentations to hospital ED. The findings suggest that relatively small changes in unemployment numbers can predict significant changes in emergency department mental health presentations. Unemployment data could therefore be useful for predicting emergency demand, in particular for affective disorders. There seems to be a peak time lag of 1 month to plan for changing demand.

0281

Carmelle Bolo¹, JianLi Wang¹

¹University of Calgary, Calgary, Canada

The effect of receiving workplace mental health accommodations on the outcome of mental disorders

Objectives: Mental disorders are prevalent in the work force and incur considerable personal and economic burdens. Providing workplace mental health accommodations has become a legal obligation for employers. Theoretically, workplace mental health accommodations may promote a productive and healthier work environment for individuals with mental disorders. We examined how receiving workplace mental health accommodations affected the prognosis of mental disorders in people with depressive and anxiety disorders.

Methods: Alberta employees, ages 25-65, with a lifetime or current depressive and anxiety disorder were interviewed by telephone (n=784). Mood and anxiety disorders were determined using the full version of the WHO Composite International Diagnostic Interview. Participants were questioned regarding needs for various workplace accommodations and whether they received any of these accommodations in the last 12 months. The presence of mental disorders was assessed one year later.

Results: In participants who did not need accommodations, 20.9% had a depressive/anxiety disorder one year later. In participants who needed but did not receive accommodations, 30.8% had a depressive/anxiety disorder at the one-year follow-up. Receiving the needed accommodations reduced this percentage to 24.5%. Results of multivariate logistic regression modeling showed that having accommodation needs met was associated with a lower risk of having a mental disorder one year later. Having a mental disorder at follow-up was not associated with sex, age, or full-time/part-time job status but was associated with having a mental disorder and the severity of depression in the previous 12 months.

Conclusions: Receiving necessary accommodations may reduce the risk for having a mental disorder one year later. Since most of these accommodations are fairly simple to employ and are inexpensive, it would be a beneficial way for employers to improve the workplace for employees with mental disorders.

Work-related coping and intention for return-to-work as outcome for a group therapy on work-related anxieties

Background: Work-related anxieties are a frequent and disabling problem in patients with chronic mental (60%) and somatic (30%) disorders. These anxieties often lead to long-term sickness absence and early retirement.

Therefore a cognitive behavioral group psychotherapy was developed in inpatient rehabilitation. This therapy aims at improving patients' capacities for successful coping with work-related anxieties and anxiety-provoking stimuli at work (e.g. superiors, social exposition and conflicts, achievement requirements and possibility for failing, accidents, uncertainty concerning organizational changes), and it aims at increasing the intention for return to work.

It is known from recent research that work-related anxieties rather tend to increase at discharge from an inpatient rehabilitation when workplace exposition comes up (Muschalla & Linden 2012). That is why an independent outcome measure, namely for work-related coping capacities and return-to-work-intention had to be developed.

Methods: Based on established cognitive behavioral programmes for the treatment of anxiety disorders (Alsleben et al 2004; Hillert et al 2007; Hinsch & Pfingsten 1998; Margraf & Schneider 1990) and a systematic search in psychological research on behavior control and action intention (Heckhausen & Gollwitzer 1989; Ajzen 1985, Prochaska & DiClemente, 1983) we developed a self-rating questionnaire which measures specific work-related coping-strategies and return-to-work-intention.

Work-related coping capacities and a stepped measurement of return-to-work intention are an important outcome for the work-anxiety treatment. This questionnaire was evaluated in rehabilitation inpatients in cardiology, neurology, orthopedic and psychosomatic clinics.

Results/Discussion: The results from the evaluation of the questionnaire will be presented.

Return-to-work-intentions can be described according to their degree of concreteness. Specific work-related coping capacities can be described dimensionally.

The development of this self-rating-scale is a model approach for a stepped measuring of therapy outcome, covering a broader scope of relevant concepts (degree of perceived coping capacities, steps of intention for return) than a global measure of subjective return-to-work-prognosis.

0242

Beate Muschalla¹, Karin Hoffmann^{1,2},
Doris Fay^{1,2}

¹University of Potsdam, Work and
Organizational Psychology, Potsdam,
Germany

²University of Potsdam, Psychology,
Potsdam, Germany

0227

Vladeta Ajdacic-Gross¹, Michael P. Hengartner¹, Jules Angst¹, Wulf Rössler¹

¹Psychiatric University Hospital, Zurich, Switzerland

Age at menarche: A risk factor or a protective factor for mental disorders?

Objective: To assess the association between the age at menarche and psychiatric disorders, i.e., common mental disorders (CMD) and two psychosis syndromes.

Material and methods: We examined data from the Zurich Study. The Zurich Study is based on a stratified community sample of 591 persons born in 1958 (women) and 1959 (men). The data were collected at seven time points from 1979 to 2008. The rates of CMD represent cumulative prevalence rates. The diagnoses of the SPIKE, the main instrument in the Zurich Study, follow the DSM-criteria available at the time of interview. The psychosis syndromes were represented by two psychoticism subscales derived from the SCL-90R (SNS and STS; Rössler et al., 2007). The statistical analysis relied on ANOVA, i.e., the F-test.

Results: The average age at menarche in the 1958 cohort was 13.16 years. Higher age at menarche was found particularly in women with agoraphobia (13.73, $p=.011$) and in those with elevated scores on the psychoticism SNS scale representing schizophrenia nuclear symptoms (13.78, $p=.042$). Younger age at menarche was associated with heavy smoking (smoking more than 15 cigarettes per day: 12.76, $p=.033$).

Conclusions: A higher age at menarche appears to be rather a risk than a protective factor for specific mental disorders. The findings either suggest that hormonal changes in adolescence may interfere with brain maturation processes which are critical for specific disorders, or they point to a common underlying factor emerging earlier in life. The results need to be replicated with data from other epidemiological surveys.

0133

Siow Ann Chong¹, Mythily Subramaniam¹, Janhavi Ajit Vaingankar¹, Edimansyah Abidin¹

¹Institute of Mental Health, Singapore, Singapore

Mental disorders: Prevalence, risk factors and ethnic variations in Singapore - Results from the Singapore Mental Health Study

Objectives: To establish the prevalence of mental disorders in the adult general population in Singapore and, to identify risk factors and investigate ethnic differences in the prevalence of these disorders.

Material and methods: A cross-sectional survey was conducted among a nationally representative adult sample (aged 18 years and over) that included participants belonging to the three main ethnic groups in Singapore, the Chinese, Malays and Indians. Disproportionate stratified sampling was performed to sample equivalent number of respondents for each. The Composite International Diagnostic Interview version 3.0 was administered to establish lifetime and 12-months diagnosis of mood, anxiety and alcohol use disorders. Socio-demographic information and history of lifetime chronic physical conditions was self-reported.

Results: Over a one year period, 6616 people were interviewed to generate a response rate of 75.9%. The average age of the sample was 43.9 years. Among the disorders studied, major depressive disorder (MDD) (5.8%), alcohol abuse (3.1%) and obsessive compulsive disorder (3.0%) were the top three prevalent life-time disorders in the population. The lifetime and 12-months prevalence of any one mental disorder were 12% and 4.4%, respectively. After adjusting for socio-demographic variables, odds of any one mental disorder were found to be highest among those aged 18-34 years (compared to the older cohorts), unemployed ($p=0.02$, OR 1.8) (compared to employed), and among those with a history of chronic physical condition ($p<0.001$, OR 1.9). The prevalence of any one mental disorder (15.4%, $p=0.011$), MDD (8.1%, $p=0.020$) and alcohol dependence (1%, $p=0.036$) was highest among the Indians while the prevalence of alcohol abuse was lowest among Malays (2.4% $p=0.022$).

Conclusions: The study identified important risk factors and ethnic differences for mental disorders among the representative adult general population in Singapore.

Parental age and the risk of bipolar disorders

Objective: Advanced paternal age has been associated with increased risk of several neurodevelopmental disorders. However similar studies with bipolar disorders (BPD) are scarce with inconsistent findings. The aim of this study was to examine the association of parental age and age difference between parents with the risk for BPD in offspring.

Material and methods: This nested case control study identified 1916 BPD cases and 3832 sex and date of birth matched controls from the Finnish population based registers. Conditional logistic regression was used to examine the association adjusting for the potential confounding due to parental psychiatric history and age of the other parent.

Results: A U-shaped association of odds ratios (OR) for BPD risks was seen in different paternal age categories with the odds increasing at both ends of the paternal age spectrum. Offspring of fathers aged >50 years had 2.2 fold increased odds (OR = 2.2, 95% Confidence Interval (CI): 1.1- 4.4) of having BPD as compared to fathers aged 30-34 years. The odds were 1.35 fold (OR= 1.35, CI: 1.1-1.7) in fathers aged 20-24 years. Maternal age and age difference between parents was not associated with BPD in offspring.

Conclusion: The findings from the study suggest that different biological and psychosocial factors could be involved in the increased risk of BPD in offspring of young and oldest fathers.

A novel "white-box" epidemiology approach to understand psychiatric disease: Does perinatal light determine susceptibility to mood disorders?

Question: A 2011 report in Nature Neuroscience (Ciarleglio et al. 14:25-7) suggests perinatal light exposure may imprint circadian clocks with lasting effects on rhythm stability in relation to light in later life. Assuming these findings in mice can be substantiated, we considered this premise with regard to mood disorders in humans (Erren et al: Psychopharmacology 2011;216:147-8; Chronobiol Int 2011;28:471-3; Neuro Endocrinol Lett 2012;33:314-7).

Methods: We identified two hypotheses for which the recent results from animal research could be relevant: The 1986 latitude hypothesis (Potkin et al: Clin Neuropharmacol 9:181-3) of an association between latitude and seasonal affective disorders (SAD) and the 1990 instability hypothesis of bipolar disorder (Goodwin, Jamison). We then investigated how these hypotheses could be consolidated by the latest experimental insights and how this novel approach could contribute to "white-box" epidemiology.

Results: Our synthesis evinces that latitude and instability hypotheses may represent facets of the same phenomenon. Cornerstone of the consolidated rationale is that light interacts with circadian rhythms at two developmental levels and in two time windows: Early in life, light could imprint the susceptibility of an individual's circadian system. Later in life, light at unusual times could derange the body's circadian systems.

Conclusions: Our results lead to questions which should be tested by complementing existing studies or by designing new epidemiological studies: Are SAD rates in cohorts of individuals born in winter months at extreme latitudes higher than in cohorts born there at other times of the year and/or in locations closer to the equator? Is the likelihood of having been born in winter months and/or at extreme latitudes higher in cases with SAD than in controls without the disease? Remarkably, when and where people are born might predispose to - and may affect onsets and courses of - mood disorders.

0297

Roshan Chudal¹, Auli Suominen¹, Dan Sucksdorff¹, Susanna Hinkka-Yli-Salomäki¹, Mika Gissler^{1,2,3}, Alan S Brown⁴, Andre Sourander^{1,5}

¹Turku University, Child Psychiatry, Turku, Finland

²Nordic School of Public Health, Gothenburg, Finland

³National Institute for Health and Welfare, Helsinki, Finland

⁴Columbia University, Psychiatry, Epidemiology, New York, United States

⁵Columbia University, Epidemiology, New York, United States

0339

Thomas C Erren¹, Melissa S Koch¹, J. Valérie Groß¹, Russel J Reiter², V. Benno Meyer-Rochow³

¹University of Cologne, Institute and Policlinic for Occupational Medicine, Environmental Medicine and Prevention Research, Cologne, Germany

²University of Texas, Department of Cellular and Structural Biology, San Antonio, TX, United States

³Jacobs University Bremen, School of Engineering and Science, Bremen, Germany

0359

Marion Freidl^{1,2}, Ingrid Sibitz^{1,2},
Peter Berger^{1,2}, Heinz Katschnig¹

¹Ludwig Boltzmann Institute, Social
Psychiatry, Vienna, Austria
²Medical University of Vienna, Social
Psychiatry, Vienna, Austria

Pain symptoms as predictors of mental disorder in general hospital patients

Objective: Pain symptoms are common in General Hospital Patients and are often associated with mental disorders like mood and anxiety disorders (Gerhard et al, 2011). The aim of this study was to investigate the prevalence of pain symptoms and mental disorders among physically ill patients and to explore which pain symptoms have high co-morbidity rates with mental disorders.

Material and Method: 290 patients of non-psychiatric departments of the Vienna General Hospital filled in a modified version of the Patient Questionnaire (Katschnig and Gföllner, 1999; Spiegel et al. 2007) and were subsequently assessed by psychiatrists with the Composite International Diagnostic Interview (CIDI; ICD-10 version). Multiple logistic regression analysis controlled for age, gender and primary somatic diagnosis was performed.

Results: 247 (85, 2%) of the 290 patients reported at least one pain symptom and 105 (36,6%) suffered from a mental disorder, most often from depression (63; 21,7%), anxiety disorders (25; 8,9%) or both (22; 7,6%). Medically ill patients with a mental disorder suffered significantly more often from at least one pain symptom (94% vs. 80%, $p < 0.05$) and reported more often three or more pain symptoms (62% vs. 29%; $p < 0.01$) than those without a mental disorder. Three pain symptoms independently predicted mental disorder: Stomach, back and chest pain.

Conclusion: These findings highlight the significance of pain symptoms reported from General Hospital Patients as possible predictors of mood and anxiety disorders. Therefore, patients suffering from pain symptoms should be thoroughly investigated both physically and psychologically. In particular, they should be treated with an interdisciplinary approach in order to improve both mental health as well as quality of life.

0082

Suchat Paholpak¹,
Manit Srisurapanont²,
Ronnachai Kongsakon³,
Thawatchai Leelahanaj⁴, The
Thai Bipolar Disorder Working
Group Thailand⁵

¹Department of Psychiatry, Faculty of
Medicine, Khon Kaen University, Amper
Muang, Khon Kaen Province, Thailand

²Department of Psychiatry, Faculty of
Medicine, Chiangmai University, Amper
Muang, Chiangmai Province, Thailand

³Department of Psychiatry, Faculty
of Medicine Ramathibodi Hospital,
Mahidol University, Ratchathewi District,
Bangkok, Thailand

⁴Department of Psychiatry and
Neurology, Phramongkutklao
Hospital, Department of Psychiatry and
Neurology, Phramongkutklao Hospital,
Bangkok, Thailand

⁵Thai Bipolar Disorder Working Group,
Thailand

Risk factors for current anxiety disorders comorbidities among Thai patients with bipolar disorder

Objectives: To examine the predictors of current anxiety disorder comorbidities among Thai Bipolar Disorder (BD) patients treated in clinical settings.

Methods: The Thai Bipolar Disorder Registry (TBDR) implemented in Thailand was a multisite naturalistic study conducted in 24 psychiatric units (at university, provincial psychiatric, and government-run general hospitals) between February 2009 and January 2011. Participants were DSM-IV-TR BD in- or out-patients ≥ 18 years of age. The Mini International Neuropsychiatric Interview (MINI) version 5 (Thai), the Montgomery-Asberg Depression Rating Scale (MADRS) (Thai), and the Young Mania Rating Scale (YMRS) (Thai) were the questionnaires used.

Results: Of 424 BD patients, 258 (60.8%) were female; 211 (49.87%) were married or common-law, 147 (34.75%) single and 57 (15.37%) divorced or widow; and, 276 (65.25%) had < 12 years education. BD history revealed: age of onset to be 31.96 ± 11.91 (mean \pm SD) years; age at first diagnosis 36.13 ± 12.18 years; and, duration of illness 46.00 ± 9.04 years. Fifty-three (12.5%) of 424 BD participants had some kind of current anxiety disorder, viz., generalized anxiety [18 (4.25%)], phobia [22 (5.19%)], panic [7 (1.65%)], and/or obsessive compulsive disorder [15 (3.54%)]. Univariate analysis revealed the following statistically significant risk factors for current anxiety disorder comorbidities: older current age; early age of onset of and first treatment for BP disorder; depressive polarity at first mood episode; no previous psychotherapy treatment; higher score of MADRS, YMRS, CGIBPS-mania and CGIBPS-depression; CGI Overall BP illness; depressive polarity of current mood episode; and, having some degree of suicidal risk. Multivariate analysis determined that the final significant risks for current anxiety comorbidities were: earlier age at first diagnosis of bipolar disorder (OR = 0.95, 95% CI = 0.928-0.967,

p-value < 0.01); history of substance abuse (2.18,1.11-4.27,p=0.02); and MADRS (1.10,1.062-1.147,0.01).

Conclusion: Earlier age of first diagnosis of BP disorder, current substance use and a higher MADRS score were the statistically significant factors associated with current anxiety disorder comorbidities among a sample of Thai patients with BP disorders.

Symptom-based subtypes of depression and their psychosocial correlates: A person-centered approach separated by sex

Objectives: Growing dissatisfaction with the heterogeneity of major depressive disorder (MDD) has led researchers to conceptualize more specific depression subtypes. The aims of the current study were to: (i) empirically identify meaningful sex-related subtypes of depressive syndroms in a community sample performing latent class analyses (LCA) separately by sex, and, (ii) validate the resultant classes by relevant psychosocial correlates such as demographic characteristics, comorbid mental disorders inclusive the male depressive syndrome, and the gender role orientation

Material and methods: The epidemiological data were derived from the Zurich Program for Sustainable Development of Mental Health Services (ZInEP; German: Zürcher Impulsprogramm zur nachhaltigen Entwicklung der Psychiatrie). LCA for binary indicators were carried out using data of the section depression assessed in the face-to-face-interview. The analyses were separately performed for males and females. Multinomial logistic regressions were used to characterize the latent classes by psychosocial correlates.

Results and conclusions: The preliminary results showed that models with four classes provided the best fit to the data. The typical and atypical subtypes identified are in line with earlier LCA subtyping studies. Moreover, the findings underscore the concerns raised regarding the validity of mood reactivity as the main criterion of atypical depression. We found a moderate and severe class, respectively, within both the typical and atypical symptom group. However, the differentiation of subclasses on the basis of a severity gradient was more pronounced for females compared to males. The male depressive syndrome captured the typical and atypical high scorers, while the risk of depression was low in males with high scores in masculinity. In summary, the classes indicated distinct symptom profiles and differed with regard to psychosocial correlates. The final results will be presented.

The "Pathological Gambling and Epidemiology" (PAGE) project: Design and fieldwork

Background: The German federal states initiated the Program PAGE to evaluate the public health impact of pathological gambling and to empirically underpin regulatory needs. In detail the aim of PAGE was to estimate the prevalence of pathological gambling including sub-threshold diagnosis and describe the heterogenic presentation in the population with respect to comorbid substance use and mental disorders, dimensional measures of psychopathology, psychosocial resources, course aspects, treatment utilization, triggering and maintenance factors of remission, and biological markers.

Method/Design: The program followed a cross-sectional patched-up design featuring different recruitment channels. Two sampling frames (landline and mobile phone numbers) were used to recruit a random sample from the general population consisting of 15,023 individuals (age 14 to 64) completing a telephone interview. High risk populations have been systematically approached in gambling locations and via a project hotline which was available for volunteers responding to media announcements, or request of outpatient addiction counseling services, debt counselors, probation assistants, and self-help groups. Parallel participants were recruited among patients undergoing specialized inpatient

0311

Stephanie Rodgers¹, Vladeta Ajdacic-Gross¹, Martin Grosse Holtforth², Ingeborg Warnke¹, Mario Müller¹, Karin Landolt¹, Michael P. Hengartner¹, Wulf Rössler¹

¹Psychiatric University Hospital Zurich, Zürich, Switzerland

²University of Zurich, Department of Psychology, Zurich, Switzerland

0374

Christian Meyer¹, Anja Bischof², Nadin Kastirke¹, Diana Gürtler¹, Gallus Bischof², Hans-Jürgen Rumpf², Ulrich John¹

¹Institute of Epidemiology and Social Medicine, University of Greifswald, Greifswald, Germany

²Department of Psychiatry and Psychotherapy, Research Group S:TEP, University of Lübeck, Lübeck, Germany

treatment for pathological gambling. The assessment included two steps: 1) A diagnostic interview comprising the gambling section from the Composite International Diagnostic Interview (CIDI) for case finding and 2) an in-depth clinical interview administered face-to-face with participants reporting gambling problems. In total 444 participants with pathological gambling and 150 participants fulfilling the criteria for the sub-threshold categories problem and at-risk gambling completed the in-depth clinical interview.

Discussion: The project provides a rich epidemiological database from Germany, setting the ground for extended research activities in the gambling field and future longitudinal studies. To ensure a broad use of the data it is intended to provide a scientific use file for non-commercial research purpose to interested scientists. Innovations embedded in the project-design may also contribute to methodological advances in the field of psychiatric epidemiology.

0379

Payam Sheikhattari¹, Fernando Wagner¹

¹Morgan State University, Prevention Sciences Research Center, Baltimore, United States

Comparing the results of two evidence-based smoking cessation trials designed through a participatory approach

Objectives: Utilization and effectiveness of smoking cessation services are usually lower among underserved populations, indicating a need for more sustainable interventions. This study reports the results of two consecutive randomized clinical trials aimed at improving smoking cessation outcomes among residents of low income urban community in the United States.

Materials and Methods: Community-Based Participatory Research (CBPR) approach in conjunction with RCT methodology were used. We compare the effectiveness of a behavior change and pharmacotherapy intervention across participants in the clinic-based and the community-based interventions. A total of 543 participants were recruited. Participants in both trials received training on smoking cessation according to the Fresh Start curriculum for twelve weeks, but the second intervention was delivered by community peer motivators and included use of more motivational techniques, based on lessons learned from the first trial using principles of a CBPR approach.

Results and Conclusion: The smoking cessation rate in the first trial was low (i.e., quit rates of about 10%), with a high level of attrition (i.e., 45% attended between 1 and 5 sessions, and only 14% attended 6-12 sessions). Data shows a very significant increase in the proportion of participants in second trial who quit smoking, as compared to participants in the first trial (OR=4.4; 95%CI= 2.4, 8.3; P<0.001). Community based smoking cessation programs in underserved communities can be more successful if they include proper incentives to retain participants and are supported by community organizations. The process of how the new intervention is informed by the facts of the previous trial in partnership with local community will be described with special attention to a new incentive program that includes non-monetary club membership awards and status.

0176

Cynthia Arfken¹, Allison Aiello², Chao Zhang¹, Sandro Galea³, Karestan Koenen³, Helen Meier², Monica Uddin¹

¹Wayne State University, Detroit, United States

²University of Michigan, Ann Arbor, United States

³Columbia University, New York, United States

Objectively assessed neighborhood disadvantage and risk of drug misuse in the Detroit Neighborhood Health Study

Question: Neighborhood context is associated with several health indicators. Neighborhood disadvantage (ND) has been shown, in many studies, to be associated with risk for individuals to use drugs. However, much of the existing literature has relied on subjectively measured disadvantage. Here we test if objectively measured ND is associated with higher risk of drug misuse.

Methods: Data were obtained from participants (n=791) in the Detroit Neighborhood Health Study, a multi-level study in a population-based sample from an African American-majority city with known high levels of violent and traumatic event exposures. Lifetime drug misuse of heroin, cocaine, marijuana, painkillers, sedatives, stimulants, tranquilizers,

hallucinogens and inhalants were asked. ND, assessed as physical deterioration of participants' neighborhood environment, was measured by trained, independent observers using a validated scale; ratings were then used to calculate quartiles of ND. Lifetime drug misuse was examined for drugs individually and grouped using latent class analysis while controlling for clustering within neighborhoods.

Results: In multilevel analyses accounting for clustering of individual characteristics by neighborhood, residents of neighborhoods characterized by ND were not more likely to use/misuse drugs than residents of more advantaged neighborhoods. On the contrary, residents in the most advantaged neighborhoods were more likely to show lifetime misuse of sedatives, tranquilizers, painkillers and marijuana compared to residents in the least advantaged neighborhoods.

Discussion: Persons living in more advantaged neighborhoods were more likely to report having misused pharmaceutical medications and marijuana in their lifetime. This finding may reflect greater exposure and/or easier access to pharmaceutical medications compared to other drugs. Results await confirmation from ND measured at time points more proximal to reported drug misuse.

Mental effects and factors which general population has held for 30 weeks since the great east Japan earthquake

Objectives: To calculate the PTSD morbidity rate on the general population and to clarify significant correlations among their mental health and environmental factors for 30 weeks since the Great East Japan Earthquake

Material and Methods: An optional questionnaire survey was conducted to general population (n=120) in city A located in Kanto area in Japan. The survey consists of questions on environmental factors, IES-R and GHQ30 and performed in a period from October to November in 2011.

Results and Conclusion: The valid response rate was 86.3% (106/120). Mean age was 51.2 ± 13.8 . The male-to-female ratio was roughly 1:1. 42.5% of the respondents (45/106) viewed themselves as disaster victims, 14.2% of the respondents had a high score that exceeded the cutoff point of IES-R. Otherwise, 26.4% had a high score that exceeded the cutoff point of GHQ30. 7.5% were in both. Correlations couldn't find any significant correlation between the respondent's perception as disaster victims and their mental health. Over a quarter of residents in city A had troubles in their daily mental health. Moreover, the PTSD morbidity rate on the general population under a calamity was presumed to be 7.5%. However, the factor whether being disaster victims or not and the amount of mental trauma have no relation. The PTSD morbidity rate was not influenced by the conditions, such as being exposed directly or indirectly on TV, few weeks or several months after the event, and distance from the areas exposed by a calamity. These results show that the indirect exposures watching TV could be influenced as much as direct exposures. So we suggest that subjects of mental screening for PTSD or mental health shouldn't be limited to disaster victims.

Mental health status of atomic-bomb survivors in Korea. A survey in 2008

More than 60 years have elapsed since the atomic bombings to Hiroshima and Nagasaki, and since all of the atomic bomb survivors have become old, the importance of caring their mental health has become increasing. The objectives of the present study were to elucidate whether the mental health conditions of atomic bomb survivor in Korea are similar to those in Japan. The subjects were 395 Korean atomic bomb survivors living in Korea (cases) and 499 outpatients of a hospital in Seoul who were not exposed to atomic bombs

0276

Takeshi Katsuki¹, Kumiko Shioda¹, Masako Mitsui¹, Chifumi Sato²

¹Shukutoku University, Psychiatric Nursing, Chiba, Japan

²Tokyo Medical and Dental University, Analytical Health Science, Tokyo, Japan

0335

Hirohisa Kinoshita¹, Hideyuki Nakane², Rika Koshimoto³, Akira Ohtsuru⁴, Hiroki Ozawa⁵

¹Nagasaki University Hospital, Neuropsychiatry, Nagasaki, Japan

²Nagasaki University Graduate School of Biomedical Sciences, Psychiatric Rehabilitation Science, Nagasaki, Japan

³Nagasaki Municipal Hospital, Neuropsychiatry, Nagasaki, Japan
⁴Fukushima Medical University, Radiation Health Management, Fukushima, Japan
⁵Nagasaki University Graduate School of Biomedical Sciences, Neuropsychiatry, Nagasaki, Japan

0407

Jutta Lindert^{1,2}, Ondine von Ehrenstein^{1,2}, Marc Weisskopf^{1,2}

¹Protestant University of Ludwigsburg, Ludwigsburg, Germany
²Harvard School of Public Health, Boston, Germany

(controls). Interviewers administered them at the hospital a questionnaire with Impact of Event Scale-Revised, General Health Questionnaire 12 (GHQ-12), Korean version of short form Geriatric Depression Scale and the K scale of the Minnesota Multiphasic Personality Inventory. Excluding subjects with incomplete responses we analyzed 373 cases and 429 controls. The proportion of subjects with high score of GHQ-12 ($4 >$) was significantly higher than in controls. The present results, though preliminary, indicate that atomic bomb survivors in Korea have also mental health problems similar to those observed in Japanese atomic bomb survivors, indicating the necessity of a larger study.

Abuse in early life and depression and anxiety in adulthood

Background: Depression and anxiety in adulthood might be abuse in early life. We aimed to systematically assess for the first time ever epidemiological and clinical evidence on the relation of abuse with depression and anxiety based on community samples.

Methods: To assess evidence on the relationship between abuse and depression and anxiety we reviewed epidemiological and clinical studies. We performed a systematic search of the electronic databases (from August 2011-October 2011, all age groups, any language, any population) of three databases: PUBMED, EMBASE and PSYCHINFO. Data were extracted after consideration of exclusion criteria and quality assessment, and then compiled into summary tables. To quantify the association of abuse with depression and anxiety we performed a meta-analysis and calculated pooled odds ratios (ORs) with respective 95% confidence intervals (CI). To quantify the association of SNE and psychiatric symptoms we calculated pooled Odds Ratios. The I^2 statistic was used to assess heterogeneity. To assess the association of CNE with neuropathologic symptoms we conducted a narrative review.

Results: The search yielded 29 eligible studies with 139,625 participants. There was a statistically significant association between abuse and lifetime psychiatric symptoms of depression (sexual abuse: OR=2.16; 95%CI 1.62-2.87; physical abuse: OR=1.71; 95%CI: 1.39-2.09) and anxiety (sexual abuse: OR=2.42; 95%CI 1.96-2.99; physical abuse: OR=1.90; 95%CI 1.13-3.20). Associations persisted over the life course with peaks in younger and older age groups (age 18-30, over age 60).

Discussion: Early life exposure to abuse is associated with an increased risk of depression and anxiety in later life.

Outlook: Intervention strategies should be developed to improve the life prospects of individuals exposed to early life abuse.

0408

Jutta Lindert^{1,2}, Diogo Costa³, Henrique Barros³

¹Protestant University of Ludwigsburg, Ludwigsburg, Germany
²Harvard School of Public Health, Boston, Germany
³DOVE working group, funded by the European Commission (DG-SANCO), Stockholm, Sweden

Abuse in early life and domestic violence in adulthood

Background: Domestic violence is one of the mayor Public Health problems, worldwide. To understand better the factors associated with domestic violence in adulthood we conducted a multisite study in Europe.

Method: Multi-center observational study of community dwelling persons aged 18-64 in Ghent, Belgium; Stuttgart, Germany; Athens, Greece; Budapest, Hungary; four boroughs in the United London, United Kingdom; Granada, Spain; Porto, Portugal; Ostersund, Sweden.

Results: Total number of participants was xxx. Abuse in early life was significantly associated with past twelve month domestic violence among women (physical violence: OR=1.75; sexual violence: OR=1.75; psychological violence: OR=3.28; neglect: OR=3.84) and among men (physical violence: OR=1.83; sexual violence: OR=2.50; psychological violence: OR=2.30; neglect: OR=3.27).

Discussion: Abuse in early life is significantly associated with domestic violence which might suggest that prevention of domestic violence is related to interventions to prevent child abuse.

Risk factors of domestic violence in Tehran, Iran

Background: Intimate partner violence is a worldwide problem, present in all cultures and societies. A number of studies have looked into identifying individuals who are most at risk for domestic violence to develop preventive strategies. Our objective was to determine the risk factors of domestic violence in a large population of women aged 15 years old and more who resides in Tehran, Iran.

Methods: The target population was all urban non-institutionalized female citizens, aged 15 years or older, having at least once history of marriage, who reside in Tehran city or Hashtgerd county in the year 2009. We used a structured questionnaire in a household survey. The first main question asked women: "have you ever been intentionally hurt physically by your husband lifetime?". The second main question asked the same as first question, but "in the last year". At the first part of questionnaire determinant demographic and medical factors were asked.

Results: One thousands women with mean age 43.4 (13.2) were studied. The lifetime prevalence and last year incidence of intimate partner violence (IPV) were 38.7% and 6.6% respectively. Women with mental illness (OR = 1.62; CI 95%: 0.94 - 2.79), women with low educated husbands 1.59 (CI 95%: 1.01 - 2.54), and women of husbands with history of mental illness 1.70 (CI 95%: 0.92 - 3.12), were more high risk for being the victim of domestic violence almost significantly. Smoker husbands did violate behaviors against their wives 6.50 (CI 95%: 2.73 - 15.6) times more than non smoker husbands.

Conclusion: literacy of husbands, physical and/or mental illness of women or husbands, and smoking of men are independent determinant factors of domestic violence.

0046

Jafar Bolhari¹, Maryam Rasoulia¹, Sepideh Habib¹, Marzieh Nojomi², Mitra Hakim Shoushtari¹, Abolfazl Mohammadi¹

¹Tehran psychiatric Institute, Mental Health Research Center, Tehran, Iran
²Tehran University of Medical Sciences, Community Medicine, Tehran, Iran

Interpersonal psychotherapy for treating post traumatic psychological disturbances in adolescents after natural disaster - Randomized control trial

Background: This randomized control study aimed to assess the intervention effects of intensive interpersonal psychotherapy for adolescents with suicide risk (IPT-A-S) on reducing the severity of disaster-related anxiety and depression in adolescents who experienced disastrous Typhoon .

Methods: A total of 30 adolescents who had major depressive disorder, posttraumatic stress disorder (PTSD) related to Typhoon , or moderate or high current suicide risk after experiencing Typhoon were randomized and allocated to a four-session course of IPT-A-S (N = 15) or to treatment as usual (TAU) (N = 15). Analysis of covariance (MANCOVA) was performed to examine the effect of IPT-A-S on reducing the severity of depression, disaster-related anxiety and general anxiety, using pre-intervention severity values as covariates.

Results: The results of the MANCOVA indicated that the IPT-A-S group had significantly lower post-intervention severity levels of disaster-related anxiety, general anxiety, and depression than the TAU group.

Conclusions: The results of this study support the effectiveness of the IPT-A-S in improving depression, disaster-related anxiety and general anxiety symptoms in adolescents experiencing traumatic disasters.

0004

Tze-Chun Tang¹, Shih-Yin Huang¹

¹Kaohsiung medical University Chung-Ho memorial hospital, Psychiatry, Kaohsiung, Taiwan

Characteristics of violent patients in a psychiatric emergency department in Taiwan

Objective: Violent behaviors occurring in psychiatric emergency Service (PES) is an important issue. However, there was only few literature in Asian countries in this respect. The

0363

Tsu-Hui Yang¹, Tsui-Mei Hung^{1,2}, Yi-Yu Lee¹, Jen-Pang Wang^{1,3}

¹Taipei City Psychiatric Center, Taipei City Hospital, Nursing, Taipei, Taiwan
²Chang Gung University, Graduate Institute of Clinical Medical Sciences of Nursing, Taoyuan County, Taiwan
³Institute of Public Health and Community Medicine Research Center, National Yang-Ming University, Taipei, Taiwan

aim of this study is to investigate the characteristics of patients with violent behaviors in the PES in Taiwan.

Material and method: This was a case-control study. The data was retrospectively gathered from medical records, administrative data. All samples were patients visiting the PES in Taipei City Psychiatric Center, Taiwan from Jan to March 2010. The characteristics of demographics, clinical information, and service use in these patients were collected. The patients were divided into two groups, those who exhibited violent behaviors and those without in PES. Multiple logistic regression was applied to examine the association between violent behaviors and important variables mentioned above in this population.

Results: A total of 965 medical records were reviewed, but 36 missing data were excluded. Among all the 929, there were 158 patients (17%) who exhibited violent behaviors in PES. They were tended to be not in marital status ($p=0.030$), have past histories of violence ($p=0.003$), have severe mental illness ($p=0.001$), and be classified into higher triage degree when arrived ($p<0.001$). No gender difference was noted in the analyses ($p=0.859$). In addition, they stayed longer in the PES ($p=0.002$); and the chief problems for PES were more likely to be violent and destructive behaviors ($p<0.001$) and substance use ($p<0.001$).

Conclusion: Although there was no gender difference found in this study, the results may provide important information about the characteristics of patients with violent behaviors in the PES, which are potentially useful for predicting and preventing from violence in the PES.

0201

Barbara Lay¹, Thekla Schönenberger¹, Marco Bleiker¹, Silke Lengler¹, Christina Blank¹, Wulf Rössler¹

¹Psychiatric University Hospital Zurich, Zurich, Switzerland

Evaluation of an intervention programme in patients at high risk of compulsory admission to psychiatric hospitals: Patient characteristics of study participants and dropouts at 1 year follow-up

Objectives: To evaluate an intervention programme for high-risk patients with multiple compulsory admissions to psychiatry, a randomized controlled trial is currently conducted in four psychiatric hospitals in the Canton of Zurich, Switzerland. The study is implemented within the framework of ZInEP. The intervention aims to reduce the amount and length of compulsory admissions to psychiatric in-patient care. Secondary aims are patients' perceived coercion, empowerment and satisfaction with treatment.

Methods: The intervention programme consists of individualised psycho-education focusing on behaviours prior to and during illness-related crisis, individualised crisis cards and, after discharge from the hospital, a 24-month preventive monitoring of individual risk factors for compulsory readmission to hospital. Detailed follow-up assessments of service use, psychopathology and patient perceptions are scheduled 12 and 24 months after discharge. For the whole study a period of five years is scheduled.

Results: Patients with a variety of psychiatric diagnoses are participating in this study. Many of them are displaying comparatively problematic behaviour (characterised by aggression, suicidal behaviour, substance abuse, low social adjustment and social difficulties).

Of the 238 patients included in the study (119 intervention group; 119 control group) 50 dropped out of the programme so far. Patient characteristics (clinical and social characteristics, health care use) of study participants and dropouts will be compared. Moreover, we will analyse the reasons for drop out and compare retention rate and time to dropout between intervention and control group.

Conclusion: The analysis will provide insight into the factors which are crucial for retention in this intervention programme. After all, it will be useful to better understand which patients might qualify for such a programme and to what extent results can be generalised.

The projected effect of increasing physical activity on reducing the prevalence of common mental disorders among Canadian men and women: A national population-based community study

Question: Little quantitative research has been conducted on the effect of physical activity (PA) modification on the prevalence of mental disorders in a nationally representative sample. We aimed to provide quantitative evidence regarding the potential effectiveness of PA in the management of mental disorders.

Methods: We used data from the national Canadian Community Health Survey of Mental Health and Well-being (CCHS 1.2) designed to represent the approximately the 25 million community population aged 15 years and over in 2002.

Results: Around 1 in 10 Canadians reported a 12-month mental disorder. Women reported more mood and anxiety disorders, men more substance dependence. Almost half of Canadians were physically inactive. After adjusting for covariates, physical inactivity was a significant risk factor for common mental disorders, except manic episode. Approximately 780,000 cases nationally are attributable to physical inactivity. A 10% reduction in the rate of physical inactivity would reduce common mental disorders by 167,000 cases, a 25% reduction would result in 389,000 fewer cases. PA was more beneficial for men.

Conclusions: Clinicians and public health campaigns aimed at increasing the amount of PA and targeting individual patients and general population can improve patients' symptoms and prevent a significant proportion of mental disorders.

Medical rehabilitation by general practitioners in patients with chronic mental disorders

Background: Rehabilitation medicine is the medical specialty for the prevention, diagnosis and treatment of chronic disorders. This is especially relevant in mental disorders. Treatment of chronic disorders requires a complex and multidisciplinary long-term-treatment which is regularly done by general practitioners. However, concepts for rehabilitation-medicine in outpatient settings are until now by and large insufficient.

Methods: 40 general practitioners were asked to give an estimate on how many patients with chronic psychological disorders were among their patients. Next, 1451 patients between 18 and 60 years filled in the WHO-5 wellbeing-rating, the IMET scale on participation disorders, the Burvill scale on multimorbidity and answered questions on their mental and work status.

Results: The general practitioners estimated that on average 41,9% (SD=18,2; Range 15-90%) were suffering from chronic mental disorders. 46,5% of the patients said that they suffered from mental problems, 38,3% had mental problems longer than 6 months, i.e. chronic, and in 26,9% even persistent. 29,7% of the patients suffered from chronic mental problems with relevant participation disorders.

Conclusion: Patients with chronic mental disorders and participation problems are frequent in general practice. Rehabilitation medicine is an important part the daily activities of general practitioners, including diagnosis, treatment, treatment coordination, and sociomedical interventions like sick leave certificates, or initiating inpatient rehabilitation. General practitioners should get more scientific attention when concepts of rehabilitation are discussed.

0236

Xiangfei Meng¹, Carl D'Arcy¹¹University of Saskatchewan, Psychiatry, Saskatoon, Canada

0174

Beate Muschalla¹, Ulrich Keßler¹, Ulrich Schwantes¹, Michael Linden¹¹Research Group Psychosomatic Rehabilitation, Charité University Medicine, Berlin, Germany

0073

Lana Williams¹, Julie Pasco¹,
Felice Jacka¹, Jason Hodge¹, Seetal
Dodd¹, Mark Kotowicz¹, Michael Berk¹

¹Deakin University, Geelong, Australia

Selective serotonin reuptake inhibitor (SSRI) use and bone health in men

Background: The aim of this study was to investigate the association between SSRI use and bone mineral density (BMD) in a population-based sample of men (n=1467; 20-96yr) participating in the Geelong Osteoporosis Study.

Methods: BMD (g/cm²) was measured at the PA-spine, hip and total body using dual energy absorptiometry (Lunar). Anthropometric measurements and socio-economic status (SES) were determined and information on medication use, depression and lifestyle was obtained via questionnaire.

Results: Fifty (3.4%) men reported using SSRIs. After adjustment for age, weight, height and glucocorticoid use, BMD among SSRI users was 4.9% lower at the spine [1.19 (95%CI 1.12-1.25) vs 1.25 (95%CI 1.21-1.28), p=0.03]. Weight was an effect modifier at the hip and total body. Among non-obese men (BMI<30; n=1165), BMD among SSRI users was 6.5% lower at the femoral neck [0.91 (0.85-0.96) vs 0.97 (0.94-0.99), p=0.006], 8.1% lower at the Ward's triangle [0.71 (0.66-0.77) vs 0.78 (0.74-0.81), p=0.02], 7.3% lower at the trochanter [0.83 (0.78-0.88) vs 0.89 (0.86-0.92), p=0.005] and 3.0% at the total body [1.19 (1.15-1.22) vs 1.22 (1.20-1.24), p=0.02]. These patterns were sustained after adjustment for SES, smoking, physical activity, depression, alcohol and dietary calcium intake, bone active medications, and other antidepressants. No differences in BMD were detected among the obese (all p>0.05).

Conclusion: Our data suggest that SSRI use is associated with reduced BMD among men. Considering the growing coalescence of basic and clinical evidence, it may be appropriate for safety monitoring guidelines to incorporate recommendations for prevention and treatment of bone disease in psychiatric patients.

0192

Andrea Pfennig¹, Karolina Leopold¹,
Michael Bauer¹

¹Carl Gustav Carus University Hospital,
TU Dresden, Department of Psychiatry
and Psychotherapy, Dresden, Germany

Strategies for early recognition and intervention in young people at risk for the development of psychiatric disorders

Question: Many psychiatric disorders, like schizophrenia, bipolar disorders and substance dependence, manifest themselves in adolescence or young adulthood. Since this phase in life is an especially sensible one for the psychosocial development of the individual, consequences of late recognition and care as seen in these disorders are immense. Psychiatric epidemiology and illness course research can contribute to identify and validate risk and protective factors along the developmental path of the diseases. And, once young people at risk can be recognized reliably, treatment strategies have to be tested in high-quality study designs.

Methods: The approach of the multi-disease- and -stages early recognition centre of the university hospital Dresden will be presented as an example how research and clinical care are combined to inform each other.

Results: In the previous two years, around 200 help-seeking young individuals from age 12 to 40 did receive counselling and/or did undergo diagnostics followed by psycho-education and advices regarding treatment strategies. An instrument for the detection of high risk states for the development of Bipolar disorders was developed, a validation study is ongoing. Two RCT and several observational studies including long-term follow-up are ongoing or were just finished.

Conclusions: It will be shown that this multi-disease- and -stages approach holds the potential for developing adequate care strategies for at-risk individuals. To facilitate multicentre research and to align standards in early detection and intervention initiatives, a network was founded.

0284

The WHOQOL-OLD - Measurement characteristics in the German population 60+ depending on the cognitive status

Background: The WHOQOL-OLD - an intercultural comparable WHO instrument for measuring subjective quality of life (qol) - is a 24-item 6-facet add-on module which can be used with the WHOQOL-BREF or the WHOQOL-100 for assessment of qol in older adults. A great number of research centres from different cultures (WHOQOL-OLD group) developed this questionnaire under the sponsorship of the WHO. The WHOQOL-OLD applies to healthy people as well as to patients with somatic or psychiatric diseases, 60 years and older.

Objective: The aim of the study was to investigate the measurement characteristics of the WHOQOL-OLD in the German population of older people depending on the cognitive status (no cognitive impairment vs. mild cognitive impairment (MCI)) as well as on other individual characteristics. The main question was: Does MCI have an effect on the assessment of subjective qol?

Methods: In a survey on 1000 German older adults (60+ yrs.), the WHOQOL-OLD was assessed. Participants were also investigated with a measure on cognitive status (DemTect). In order to assess both the dimensionality of the instrument and the sensitivity of the prescriptive forms of answering to individual characteristics Partial Credit Models as well as Mixture General Diagnostic Models are employed. Uniform and non-uniform differential item functioning is explored by means of explanatory IRT models. The impact of the cognitive status on QoL, as well as its effect as a source of DIF in the general population is investigated.

Results: Results of the analyses will be presented.

Ines Conrad¹, Herbert Matschinger¹,
Steffi Riedel-Heller¹

¹University of Leipzig, ISAP, Leipzig,
Germany

0204

Belonging to a peer support group enhance the quality of life and adherence rate in patients affected by breast cancer: A non-randomized controlled clinical trial

Background: Breast cancer is the most common cancer in women. It seems that breast cancer patients benefit from meeting someone who had a similar experience. This study evaluated the effect of two kinds of interventions (peer support and educational program) on quality of life in breast cancer patients.

Methods: This study was a controlled clinical trial on women with non-metastatic breast cancer. The patients studied in two experimental and control groups. Experimental group took part in peer support program and control group passed a routine educational program during 3 months. The authors administered SF-36 for evaluating the quality of life pre-and post intervention. Also, patient's adherence was assessed by means of a simple checklist.

Results: Two groups were similar with respect of age, age of onset of the disease, duration of having breast cancer, marital status, type of the treatment receiving now, and type of the received surgery. In the control group, there were statistically significant improvements in body pain, role-physical, role-emotional and social functioning. In experimental group, role-physical, vitality, social functioning, role-emotional and mental health showed significant improvement. Vitality score and mental health score in experimental group was significantly higher than that of the control group, both with $p < 0.001$. Also, it was shown that adherence was in high levels in both groups and no significant difference was seen after the study was done.

Conclusions: According to the results of this study, supporting the patients with breast cancer by forming peer groups or by means of educational sessions could improve their life qualities.

Ziba Farajzadegan¹,
Afsane Malekpour¹, Fariborz Mokarian¹,
Ahmadreza Zamani¹

¹Medical Science University, Community
and Preventive Medicine, Isfahan, Iran

0344

Päivi Rauma¹, Risto Huang¹,
Heli Koivumaa-Honkanen¹,
Lana Williams¹, Marjo Tuppurainen¹,
Heikki Kröger¹

¹University of Eastern Finland, Clinical
Research Center, Kuopio, Finland

Life satisfaction and bone mineral density in postmenopausal women - A cross-sectional study

Question: The relationship between depression and low bone mineral density (BMD) has been suggested. Self-reported life satisfaction (LS) represents good mental health even if being also a proxy for depression. The purpose was to study the relationship between LS and BMD.

Methods: The study population consisted of the 2167 women (born in 1932-41) of the Kuopio Osteoporosis Risk Factor and Prevention (OSTPRE) Study cohort. Subjects responded to postal enquiry in 1999 and underwent femoral BMD densitometry. The association between LS and femoral BMD was studied with multivariate linear regression including age, body mass index (BMI), dietary calcium and use of bisphosphonates, hormone replacement therapy and corticosteroid as covariates. In addition, other gynecological, health and life style variables were tested. LS was measured with a 4-item scale (range: 4-20): satisfied (4-6), intermediate group (7-11), dissatisfied (12-20).

Results: The mean femoral BMD was 0.880g/cm² (SD 0.125g/cm²). Among the satisfied (N=539) it was 0.892g/cm² (0.120g/cm²), while both in the intermediate group (N=1394) and among the dissatisfied (N=234) it was 0.876g/cm². Higher satisfaction (LS 4-6) was associated with higher BMD (B=0.01 g/cm²) in univariate and multivariate models (p=0.03 and 0.02) regardless of BMI. However, the inclusion of alcohol use in the model decreased the strength of association (p=0.05).

Conclusions: Life satisfaction is associated with higher BMD in postmenopausal women even after multiple adjustments.

0108

Mariangela Lanfredi¹, Giovanni de
Girolamo¹, Valentina Candini¹,
Paolo Maggi¹, Anna Lucia Melegari¹,
Nicoletta Goldschmidt¹,
Perdove Group¹

¹St John of God Clinica Research
Centre, Brescia, Italy

Spiritual needs of patients of four psychiatric residential facilities (RFs) belonging to the St John of God Order in northern Italy

Introduction: In a holistic view of the person, spirituality plays an important role both on physical and mental health. Consequently, this aspect could be taken into account in the development of treatments, specifically in mental health.

Objectives: To assess the dimensions of religion and spirituality in a sample of inpatients living in four Italian RFs of the St John of God Order and their impact on mental health and quality of life (QOL).

Material and Methods: Data were collected within the PERDOVE study (Epidemiological Project on Discharge from Residential Facilities and Outcome Assessment). During the month index, the WHOQOL-SRPB module and the Spiritual Well-Being (SWB) scale were administered to inpatients, in addition QOL, clinical and psychosocial variables were evaluated using standardized scales. The WHOQOL-SRPB questionnaire assesses QOL aspects related to spirituality, religiousness and personal beliefs; the SWBS includes two subscales for Religious and Existential Well-Being and an overall measure of Spiritual Well-being. Two different univariate analyses of covariance (ANCOVA) were performed to assess the associations between these two scales and QOL, clinical and socio-demographic variables at baseline and at one year follow-up.

Results: The study included 215 patients (64% males, mean age 48.1+9.1), with primary diagnosis of schizophrenia spectrum (80%) and personality disorders (20%). Moderate correlations of SWBS and SRPB with all domains of WHOQOL were found. ANCOVA models revealed that the Psychological and Environment domains of WHOQOL were significant contributors to both SWBS and SRPB. Moreover, illness duration predicted for SRPB score. Psychological WHOQOL remained a significant contributor to both scales at follow up.

Conclusions: Findings suggested that religious/spiritual dimensions were associated with a positive perception of quality of life among patients living in RFs, these needs should be considered in their treatment.

Associations between the mental health of parents and the health-related quality of life of children

Objectives: To analyze the influence of the mental health status of parents 1) on the child's HRQOL; and 2) on the agreement between self- and proxy-ratings about a child's HRQOL.

Material and methods: Proxy- and self-rated HRQOL (measured through the KIDSCREEN-27) of children 9-14 years old were assessed among children with mental health problems (N=535), children with physical health problems (N=327) and healthy controls (N= 744) in the National Survey of Children with Special Health Care Needs in Switzerland. Parents' mental health status was assessed through the Mental Health Inventory. Multiple linear regression analyses were conducted to examine the effect of parents' mental health status on 1) self- and proxy-rated HRQOL of the child and 2) agreement between self- and proxy-ratings. Additionally, the health status, age and sex of the child were included as predictors.

Results: The strongest predictors for a reduced self- and proxy-rated HRQOL in psychosocial domains and the total HRQOL score were 1) a decreased mental health status of the parents and 2) the presence of a mental health problem in children. Furthermore, the presence of a physical health problem, female sex and older age were associated with reduced HRQOL scores in some domains. The parent-child agreement decreased in all HRQOL scales with diminished mental health status of the parents. Furthermore, the presence of a mental or physical health problem of the child was negatively associated with parent-child agreement in some HRQOL scales.

Conclusions: A diminished mental health status of parents negatively affects the HRQOL of the child beyond other relevant predictors. Hence, parent-related factors should be considered in order to ameliorate the child's HRQOL. Furthermore, the results indicate that self- and proxy-reports should be used whenever possible in order to comprehensively assess a child's HRQOL, especially since a compromised mental health status of parents may bias the proxy-rating.

Epidemiology of selected treated mental disorders in the Slovak Republic

Information necessary for assessment of mental health of a population comes from population surveys. Data available in the Slovak Republic are on mental health services utilization. They do not give us a real picture of psychiatric morbidity. What exactly do they tell us?

We have analyzed routine psychiatric outpatient care statistics in the Slovak republic for the period 2001 - 2010 for the following ICD-10 diagnostic groups/diagnoses:

F00-03 Dementias
 F10.2 Alcohol dependence syndrome
 F20-21 Schizophrenia and Schizotypal disorder
 F30-39 Mood (affective) disorders
 F40-48 Neurotic, stress-related and somatoform disorders

There is an increasing trend in number of first outpatient visits in a given year (treated prevalence) for all followed diagnostic groups in the period 2001-2010. If we compare the years 2001 and 2010, the increase in treated prevalence per 100 000 inhabitants in dementia is from 140 to 440, in alcohol dependence syndrome from 42 to 428, in schizophrenia from 215 to 641, in affective disorders from 593 to 2066, in neurotic disorders from 957 to 1745.

However, these are just those patients that are for the listed diagnoses treated in psychiatric outpatient offices. The true (population) prevalence must be much higher, as we see from population surveys in other countries.

0224

Michelle Dey¹, Meichun Mohler-Kuo¹¹Institute for Social- and Preventive Medicine, Zurich, Switzerland

0435

Alexandra Bražinová¹,
Dagmara Mastelová^{1,2}¹Trnava University, Faculty of Health Care and Social Work, Trnava, SLOVAKIA²International Neurotrauma Research Organization, Wien, Austria

1-year prevalence of affective disorders in the USA is 9.5%, in Europe 8%.^{1,2} We can estimate the rate is similar for the Slovak republic, but according to health care utilizations statistics, 2.2% of the population is treated for these disorders.

Similarly, European survey shows 1-year prevalence of neurotic disorders in 6-12% of population (varies in individual countries). In the Slovak Republic, 1.8% of population is treated.

Population prevalence of schizophrenia is estimated at 1.1% worldwide. In the Slovak Republic 0.7% of population is treated for schizophrenia and schizotypal disorder.

To be able to effectively set the mental health services network, to explore risk factors and etiopathogenesis of mental disorders in our region, population survey needs to be carried out in the Slovak Republic. In order to allow for international comparison of results, the choice of preference for methodology would be World Mental Health Composite International Interview under the supervision of World Health Organization.³

1. Alonso J, Angermeyer MC, Bernert S, Bruffaerts R, Brugha TS, Bryson H, et al. Use of mental health services in Europe: results from the European Study of the Epidemiology of Mental Disorders (ESEMeD) project. *Acta Psychiatr Scand Suppl* 2004(420):47-54.

2. Hyman S, Chisholm D, Kessler R, Patel V, Whiteford H. *Mental Disorders*. 2006.

3. Kessler RC, Ustun TB. The World Mental Health (WMH) Survey Initiative Version of the World Health Organization (WHO) Composite International Diagnostic Interview (CIDI). *Int J Methods Psychiatr Res* 2004;13(2):93-121.

0304

Michael Colla¹, David Pittrow²,
Franziska Gaese³, Michael Huss⁴,
Christoph Kretschmar⁵, Helmut Peters⁶,
Marc Brinkman⁷, Samuel Elstner⁸,
Frank Häbler⁹

¹Charité-Campus Berlin Buch,
Ambulanz für Fragile-X Syndrom und
ADHS am Experimental and Clinical
Research Center (ECRC), Berlin,
Germany

²Technical University of Dresden,
Institute for Clinical Pharmacology,
Dresden, Germany

³Isar-Amper-Klinikum gGmbH, Abt.
Psychiatrische Therapie für Menschen
mit Geistiger Behinderung, Haar,
Germany

⁴Evangelisches Krankenhaus Königin
Elisabeth Herzberge gGmbH, Abteilung
Psychiatrie, Psychotherapie und
Psychosomatik, Berlin, Germany

⁵Rheinessen Fachklinik Mainz, Kinder-
und Jugendpsychiatrie, Mainz, Germany

⁶Evangelisches Krankenhaus Königin
Elisabeth Herzberge gGmbH, Berlin,
Germany

⁷Novartis Pharma GmbH, Medizinische
Abteilung, Nürnberg, Germany

⁸Städt. Krankenhaus Dresden-Neustadt,
Zentrum für Kinder- und Jugendmedizin
- Sozialpädiatrisches Zentrum, Dresden,
Germany

⁹Zentrum für Nervenheilkunde,
Universität Rostock, Klinik für
Psychiatrie, Neurologie, Psychosomatik
und Psychotherapie im Kindes- und
Jugendalter, Rostock, Germany

Current situation of patients with fragile X syndrome: Aims and methods of the EXPLAIN Registry

Fragile X syndrome (FXS) is the most common hereditary form of intellectual disability and is caused by a mutation of the fragile X mental retardation 1 (FMR1) gene. The main symptom is reduced intelligence of varying severity, manifested in degrees from learning difficulties to severe cognitive impairment. The condition is often associated with speech and attention deficit disorders, signs of autistic behaviour, or epilepsy.

In Germany, there is a lack of representative data on the epidemiology, characteristics and management of patients with FXS.

EXPLAIN is a newly initiated, prospective epidemiological observational study in approximately 50 centres experienced in the management of patients with FXS (psychiatrists, paediatric psychiatrists, neurologists, paediatricians, neurologists, internists). Up to 300 patients irrespective of age can be documented, if FXS has previously been confirmed with genetic testing, and written informed consent of the patient or his/her legal guardian has been obtained. Patients will be followed up over 2 years. Parameters include demographics, psychometric testing if available, previous and concomitant diseases, course of disease, diagnostics, previous and current drug and non-drug therapy, psychosocial characteristics such as life and work situation, as well as resource utilisation (number of physician contacts, hospital stays etc.). Further, the study assesses quality of life and burden of disease of patients and caregivers (EuroQoL-5D-3L, ABC Scales, EBI questionnaire, NOSIE, mini-ICF, life events). Effects and side effects of drugs are recorded. Study quality will be ensured by plausibility checks upon data entry in the internet-based database, queries, and on-site monitoring with source data verification.

It is expected that the EXPLAIN registry will provide robust cross-sectional and longitudinal data on various aspects of the disease and management of FXS patients, with the goal to improve their situation.

Mental disorder in the primary care in Nagasaki

In Japan, the number of outpatients with mood disorders and dementia increases. Therefore, early detection and the early treatment by the primary care physician are regarded as important. Grasp of the actual situation of the mental disorder in the primary care of Japan is necessary. We investigated the mental disorder in the outpatients of the Department of General Medicine, Nagasaki University Hospital.

Method: The subject is the outpatients of the Department of General Medicine, Nagasaki University Hospital. The evaluation tools of the primary investigation were socioeconomic background of the patient, GHQ-12 and AUDIT. In the second investigation, we evaluated it as a more detailed interview in GHQ-28, M.I.N.I. This study receives approval in a Nagasaki University medicine system Ethical Review Board.

Result: A primary investigation: The investigation cooperators were 254 people (a cooperation rate: 61%). The complete respondents were 170 for analysis (male 49.4%, female 50.6%, average age 52.4). In GHQ-12, the high-risk groups more than four points were 34.1%. In AUDIT, the group less than ten points was 87.0%. Both more than 10-14 points and 15 points groups were 6.5%. A second investigation: The investigation cooperators were 27. The average of GHQ-28 was 12.8+7.01 (Mean ±SD). In GHQ-28, six points or more were 22, and one point or less were alone. By the psychiatric diagnosis by M.I.N.I., some kind of mental disorders were 18 (66.7%). Seven people had major depressive episode and five people had panic disorder. The dysthymia and the psychotic disorder were for each two patients.

Conclusion: In the outpatients of the Department of General Medicine, Nagasaki University Hospital, the ratio of patient having a psychiatric problem is high. The ratio that the major depressive episode accounted for was in particular high. The rate of agreement between GP diagnosis and MINI diagnoses was 40.7%. It was higher than the rate of agreement in the former PPGHC study in Nagasaki University. It was suggested that the psychiatric diagnosis technique improved in the Department of General Medicine.

At-risk symptoms of psychosis and help-seeking behaviour in the general population

Objective: An 'Attenuated Psychosis Syndrome' has been proposed for inclusion in Section III of DSM-5, and help-seeking is discussed as one criterion of it. Our aim was therefore to examine help-seeking for mental problems including attenuated psychotic symptoms and other at-risk symptoms in the general population.

Material and Methods: 1233 persons randomly drawn from the general population (age 16-40 yrs.) were interviewed at the telephone by trained psychologists. Ultra-high risk criteria were assessed with the SIPS, basic symptom criteria with the SPI-A, and help-seeking with a modified version of the WHO pathway-to-care questionnaire.

Results: 284 (23.0%) reported help-seeking; of these, 105 (37.0%) reported symptoms included in the at-risk criteria for psychosis, irrespective of them fulfilling the respective time and frequency criteria, i.e. 33.7% of all persons reporting any lifetime at-risk symptom. Those with at-risk symptoms also sought significantly more often help than persons not experiencing risk-symptoms.

Those with at-risk symptoms mainly first contacted a psychiatrist/psychologist or a general practitioner. Main reasons for help-seeking were depressive mood, anxiousness and family problems. No one gave attenuated psychotic symptoms as the main reason for help-seeking at any time; as regards basic symptoms, only two persons spontaneously named cognitive basic symptoms as a main reason for help-seeking.

Conclusions: Persons experiencing mental problems often do not or only with considerable

0250

Hideyuki Nakane¹, Minami Owada¹, Hirohisa Kinoshita², Hitoshi Ichinose², Shunsuke Nonaka², Ryoichiro Iwanaga¹, Goro Tanaka¹, Yoshiyuki Ozono³, Yoshibumi Nakane⁴

¹Nagasaki University Graduate School of Biomedical Sciences, Department of Psychiatric Rehabilitation Science, Nagasaki, Japan

²Nagasaki University Hospital, Department of Neuropsychiatry, Nagasaki, Japan

³Nagasaki University Hospital, Department of General Medicine, Nagasaki, Japan

⁴Dejima Clinic, Department of Neuropsychiatry, Nagasaki, Japan

0044

Frauke Schultze-Lutter¹, Chantal Michel¹, Benno G. Schimmelmann¹

¹Universität Bern, Klinik für Kinder- und Jugendpsychiatrie, Bern 60, Switzerland

delay seek help. In terms of at-risk symptoms of psychosis, comorbidity with depression and anxiety are frequent and a main reason for help-seeking. As regards the proposal of an 'Attenuated Psychosis Syndrome', the obligate criterion of help-seeking for these particular symptoms seem to set the threshold too high to be usable in the general population.

0287

Matthias Schützwohl¹, Bernd Puschner²,
Kristina Klein², Hans-Joachim Salize³,
Andrea Pfennig¹, MEMENTA-Study
Group

¹Technische Universität Dresden,
Psychiatry and Psychotherapy, Dresden,
Germany

²Ulm University, Department of
Psychiatry and Psychotherapy II, Ulm,
Germany

³Zentralinstitut für Seelische
Gesundheit, Mannheim, Germany

Mental health status and needs for care in adults with intellectual disabilities - the MEMENTA-Study

Question: Quality of mental health services provision for adults with intellectual disabilities and comorbid mental illness is considered as inadequately and therefore in need of further improvement. However, empirical findings on this topic are rather scarce. The MEMENTA-Study therefore aims to compare adults with an intellectual disability and a comorbid psychiatric diagnosis to adults with an intellectual disability who do not suffer from a psychiatric disorder with respect to a set of clinical parameters. Quality of mental health care will be assessed and examined by open questions to mentally ill adults with an intellectual disability as well as with formal and informal caregivers.

Methods: The MEMENTA-Study is an observational, epidemiological, cross-sectional study. The target sample is a representative sample of approximately $n = 600$ mentally retarded adults working at work centres. A cluster sampling with probability proportional to service provider and size (n of persons cared for) will be followed by a simple random sampling of persons of these institutions. A number of parameters such as needs for care, quality of life (QoL), social functioning, caregiver burden, health services utilization, and costs for care will be assessed by using a set of well-established standardised instruments and by open questions. Data analyses comprise χ^2 -tests and t-tests, exploratory regression analyses as well as a content analysis.

Results: The MEMENTA-Study will provide data on the special needs for care of mentally ill adults with an intellectual disability.

Conclusion: It is expected that findings from the MEMENTA-Study will inspire further research in the field and strengthen advocacy for the improvement of specialised and non-specialised services.

0033

Mythily Subramaniam¹,
Edimansyah Abidin¹,
Janhavi Vaingankar¹, Siow Ann Chong¹

¹Institute of Mental Health, Research,
Singapore, Singapore

Prevalence and correlates of hoarding in individuals with obsessive compulsive disorder

Objective(s): The objectives of the study were to establish the prevalence of hoarding behavior among individuals with obsessive compulsive disorder (OCD) in the Singapore Mental Health Study (SMHS) and to investigate socio-demographic and clinical differences between individuals with OCD with and without hoarding symptoms.

Material and methods: The SMHS was a cross-sectional study of nationally representative sample of adult residents aged 18 years or older, living in households in Singapore. The diagnoses of mental disorders were established using the Version 3.0 of the World Mental Health Composite International Diagnostic Interview (CIDI 3.0). Face-to-face interviews were completed with 6616 respondents between December 2009 and December 2010. The survey response rate was 75.9%.

Results: The weighted prevalence of lifetime and 12-month compulsive hoarding was 2% and 0.8%, respectively. The weighted prevalence of lifetime and 12-month compulsive hoarding among those with obsessive compulsive disorder was 22.6% and 17.1% respectively. The odds of having lifetime compulsive hoarding was higher among Malays (OR=1.9) than Chinese. The age of onset and severity of illness (as measured by Y-BOCS) were not significantly different among those with compulsive hoarding vs. those without hoarding. The odds of lifetime major depressive disorder (MDD) (1.4), Bipolar disorder

(2.0), generalized anxiety disorder (GAD) (1.5), and Alcohol Dependence (1.6) were not significantly higher among those with lifetime compulsive hoarding than those without compulsive hoarding after controlling for age, gender and ethnicity in multivariate analyses.

Conclusion(s): Hoarding was the most prevalent compulsive dimension in our multi-ethnic Asian population. However among individuals with OCD, those with hoarding compulsions were not significantly different from those without hoarding compulsions.

Age of onset of mental disorders and organization of mental health services: Is there a correlation?

Objectives: Our aim is to analyze the correlation between the Age Of Onset (AOO) of mental disorders and the organization of mental health services. Suggestions on how to redirect these services using an “age-appropriate” approach will be given.

Materials and Methods: We will present an update of the latest studies on AOO of severe mental disorders, and how these data relate to the personal profiles of patients treated in Italian mental health services.

Results and conclusions: The studies revised confirm that the onset of the vast majority of serious mental disorders occurs in childhood and adolescence. In particular, behavior disorders and anxiety disorders emerge in childhood, while most of the high prevalence disorders (mood disorders, substance abuse and eating disorders) occurs during adolescence and early adulthood, as well as psychotic disorders. An early AOO is associated with a longer duration of untreated illness and with poorer clinical and functional outcomes.

Although the onset of most mental disorders usually takes place in the first three decades of life, effective treatment usually does not begin until a number of years later. There is growing evidence that effective intervention, if implemented in the early stages of the disease, can reduce the severity and/or persistence of the disorder itself, and prevent secondary disorders. However, further research is needed to evaluate the effectiveness of early interventions, and long-term effects of such interventions, implementing appropriate services (ie ‘age-appropriate’) for people with severe mental disorders. This means not only strengthening and re-engineering of existing systems of care, but especially the construction of new care pathways for young people in transition to adulthood.

The functioning of child and adolescent mental health services and the issue of the treatment gap: Results from the PREMIA study

Objective: To collect data on the physical characteristics, staffing arrangements, and activity data of Child and Adolescents Mental Health Services (CAMHS) in Emilia-Romagna, a densely populated Italian region (over 4 million inhabitants) with a target population of 633,725 subjects aged 0-17 years.

Material and Methods: Two specific forms were developed for the CAMHS survey-the “Outpatient Facility form (OFF)” and the “Inpatient Facility Form (IFF)”- that covered the following sections: general information, environmental characteristics, technical equipment, staff, available treatments, collaboration with other health services and with schools, procedures, and annual data activity. All 11 regional CAMHS agreed to participate in the study.

Results: Eleven CAMHS were operative, including 110 outpatient units, with a ratio of approximately 20 child psychiatrists and 23 psychologists per 100,000 inhabitants aged 0-17 years. All outpatient units granted free service access. Hospital bed availability was 5 per 100,000 inhabitants aged 0-17 years. In 2008, across all units, the 6% of the target population was in contact with CAMHS. Among patients at their first-ever contact (30% of annual visits across all units), an high proportion (41%) received a language disorder- or learning disability diagnosis.

0039

Giovanni de Girolamo¹,
Jessica Dagani¹

¹St John of God Clinica Research
Centre, Brescia, Italy

0041

Giovanni de Girolamo¹, Laura Pedrini¹,
Davide Sisti², Stefano Palazzi³

¹IRCCS San Giovanni di Dio,
Fatebenefratelli di Brescia, Brescia, Italy
²University of Urbino, Institute of
Biomathematics, Urbino, Italy
³AUSI Ferrara, UONPIA, Ferrara, Italy

Conclusions: The overall number of child psychiatrists per 100,000 inhabitants is one of the highest in Europe and is comparable with the most well equipped areas in the US. This comparison should be interpreted with caution, however, because in Italy, child psychiatrists also treat neurological disorders. We assume that, even in Italy, there is a substantial treatment gap as we consider that in Italy the prevalence of mental disorder among child is about 8% not including language and learning disorders, which conversely represent the largest share of disorders treated at the CAMHS surveyed in the present study.

0238

Ken Gu¹, Dulce Trindade¹

¹Macao Polytechnic Institute, School of Health Science, Macao, Macau

Anxiety prevalence in the Macao people age 18+ and its relationship with other diseases

Objective: Anxiety is a common mental disorder in the modern society. Its risk factors may include being a female, having childhood trauma, a chronic disease, stress, personality problem, genetics and substance abuse. This report will present the prevalence of anxiety and explore its relationship to the demographic variables and other diseases.

Methods: A household randomly sampling health survey was conducted in Macao 2006. The questionnaire, physical exam and lab tests were used for data collection. A total 2930 adults were included for the analysis. Anxiety was defined by answering "yes" for the question that "if a doctor told you that you had anxiety". SPSS (17.0) was used for data analysis.

Results: Anxiety prevalence was 2.5%. After adjusting the effect of age and sex, the adjusted rate was 2.3%, more female than males had anxiety (3.2% vs. 1.4%). Compared with those without anxiety, people with anxiety were more in divorced or widowed (11.1% vs. 3.7%), lower individual income (50.7% vs. 34% below the median), unemployed (43.1% vs. 28.5%). They also had high prevalence in asthma (7.2% vs. 2.2%), bronchitis (15.2% vs. 5.7%), osteoporosis (20.8% vs. 6.7%), arthritis (46.6% vs. 12.5%), migraine (43.3% vs. 9.4%), anemia (26.7% vs. 12%), kidney stone (14.3% vs. 3.4%), glaucoma (4.7% vs. 0.6%), skin allergy (31% vs. 11.8%), ischemic heart disease (14.1% vs. 4.3%), and higher mean value in the number of comorbid status (3.74 + -2.61 vs. 2.25 + 1.83). No statistical significance was found in age, SBP, DBP, diabetes, hypertension, metabolic syndrome, and hyperlipidemia etc. In a logistic regression model with all significant independent variables listed above by a forward method, only arthritis, migraine and kidney stone were significantly related to anxiety.

Conclusion: Anxiety prevalence was 2.3% after adjusted by age and sex in Macao people. Arthritis, migraine and kidney stone were significantly related to anxiety after a multiple adjustment.

0247

Qianhong Ye¹, Ken Gu¹

¹Macao Polytechnic Institute, Macao, Macau

Depression prevalence in the Macao females age 18+ and its comorbid status with other diseases

Objective: Depression is a common mental problem in modern society and its risk factors had been pointed to hypertension, diabetes and cardiovascular diseases. This report will present the prevalence of depression in the females and relationship between depression and the demographic variables and other diseases would be explored.

Methods: The study data came from a household random health survey in Macao 2006. Total of 1763 females aged 18+ were included for analysis. Depression was defined based on "yes" for the question that "if a doctor told you that you had depression". Most of the demographic information and disease was based questionnaire except hypertension, diabetes and metabolic syndrome which were combined with self-reported status and physical exam or lab test results. SPSS (17.0) was used for data analysis.

Results: Depression prevalence was 2.1% in Macao females. Compared with those without depression, women with depression were more in divorced/ widowed (13.5% vs. 5.4%),

primary or lower educated (48.6% vs. 31.3%); lower personal income (62.2% vs. 43.9%), unemployed (54.1% vs. 34.9%). They also had high prevalence in bronchitis (16.7% vs. 4.9%), arthritis (45.2% vs. 15.2%), migraine (40% vs. 12.8%), anemia (32.4% vs. 18.4%), glaucoma (6.3% vs. 0.8%), skin allergy (35.1% vs. 9.8%), ischemic heart disease (12.1% vs. 4.6%), hyperlipidemia (29.7% vs. 16.8%) and higher mean value in the number of comorbid status (3.81 + -2.2 vs. 2.28 + 1.9). In a logistic regression model with all significant independent variables listed above by a forward method, only arthritis and skin allergy were significantly related to depression.

Conclusion: Depression prevalence was 2.1% in Macao females. The comorbid status was common in the ladies with depression. Arthritis and skin allergy were two predictors significantly related to depression. However, we could not find hypertension, diabetes, metabolic syndrome. These results were inconsistent with other previous studies.

Life-time psychiatric disorders over half a century in patients with obsessive compulsive disorder

Objectives: Presence of other psychiatric conditions in patients with obsessive-compulsive disorder (OCD) has not been studied longitudinally throughout the life-span. The aim of this study was to determine the frequency of comorbid psychiatric disorders, and their relation to onset and prognosis, in patients with OCD followed for almost half a century.

Methods: Patients hospitalized with a diagnosis of OCD in 1947-53 were examined with structured interviews by the same psychiatrist in 1954-56 and 1989-93. Mean follow-up since onset was 47 years. During 1947-53, 285 OCD patients were admitted as inpatient to a university hospital in Göteborg, Sweden. Among these, 251 (88%) accepted a comprehensive psychiatric examination in 1954-56. In 1989-93, 176 survivors were eligible and 144 (response rate 82%) were re-examined. OCD was diagnosed according to Schneider criteria and other mental disorders according to DSM-IV.

Results: The life-time frequency of depressive disorders was 84.7% (major depression 43.8%), generalized anxiety disorder (GAD) 71.5%, panic anxiety disorder (PAD) 47.9%, agoraphobia 52.1%, specific phobias 64.6%, social phobia 47.9%, paranoid conditions 40.3% (paranoid ideation 29.1%), psychotic disorder 15.3%, alcohol abuse 13.2% (39% in men), and substance abuse 17.4%. Specific phobia most often started before OCD, while depression had a varied onset in relation to OCD. Social phobia, agoraphobia, GAD, alcohol and substance abuse, psychotic disorders and paranoid conditions most often started after OCD. Presence of GAD, psychotic disorder and substance abuse worsened prognosis of OCD.

Conclusion: Comorbid psychiatric conditions are common in patients with OCD, and their onset occurs throughout the course, OCD probably signals vulnerability for other psychiatric conditions.

Anxiety disorders and anxious symptoms in Canadian adults with type 2 diabetes: Cross-sectional associations with diabetes self-management and quality of diabetes care

Background: Cross sectional studies widely report elevated prevalences of anxiety disorders (20% to 30%) in Type 2 diabetics, but little is known about the impact of anxiety disorders on processes of medical care in this population. This study examines the delivery of recommended diabetes care measures, as well as diabetes self-management activities, in anxious versus non-anxious Type 2 diabetics across Canada.

Methods: The Canadian Community Health Survey is conducted every year on a representative sample of approximately 130,000 Canadians. Logistic regression was used

0447

Ingmar Skoog¹, [Isak Fredén Klenfeldt](#)¹,
Gunnar Skoog¹

¹University of Gothenburg,
Neuropsychiatric Epidemiology,
Mölndal, Sweden

0437

Ian Colman¹, [Kiyuri Naicker](#)¹

¹University of Ottawa, Department of
Epidemiology & Community Medicine,
Ottawa, Canada

to explore associations between anxiety disorders and anxious symptoms (i.e., feelings of nervousness, inability to calm down, restlessness and motor agitation) and measures of diabetes care and self-management (i.e., HbA1c testing, examination for foot ulcers, urine tests for protein levels, eye exams, glucose monitoring, and administration of aspirin and lipid-lowering agents).

Results: Of the 9,473 participants who report having diabetes in In 2007/2008, the prevalence of anxiety disorders was found to be 8.3%, with the prevalence of anxious symptoms ranging up to 20%. Anxiety disorders and anxious symptoms in diabetics were significantly associated with specific measures of care such as having feet checked by a health professional, as well as glucose self-monitoring.

Implications for patient care and future research are discussed.

0269

Tim Slade¹, Peter McEvoy²,
Cath Chapman¹, Rachel Grove¹,
Maree Teesson¹

¹University of New South Wales,
National Drug and Alcohol Research
Centre, Sydney, Australia

²University of Western Australia, School
of Psychology, Perth, Australia

Comorbidity and temporal ordering of anxiety, mood and substance use disorders in the Australian general population: Which comes first and what does this tell us?

Comorbidity between mental and substance use disorders is common. Around one in four Australians who meet criteria for a mental disorder will meet criteria for more than one over a 12 month period. Over lifetime these rates are even higher. However, relatively little is known about the temporal sequencing of mental and substance use disorders in the population. Examining the order of onset of disorders over lifetime can inform understanding of their development and can guide timing and targeting of prevention and treatment efforts. This study will use data from the 2007 Australian National Survey of Mental Health and Wellbeing to examine patterns of comorbidity in the population with a particular focus on the temporal ordering of disorder groups. Specifically, the paper will address the questions: how common is comorbidity in the Australian population? Which disorders come first? Do patterns of comorbidity differ for males and females? And how do these findings inform research and treatment? Results showed that comorbidity is more common than chance and more common in females than males. Anxiety disorders are typically primary when they are comorbid, but there are important sex differences in sequencing of comorbidity. These findings have implications for prevention, etiology and classification of mental disorders.

A		Chabaud, Francis	8
Aboraya, Ahmed	123	Chang, Shu-Sen	58
Aichberger, Marion	99, 152	Chang, Chin-Kuo	171
Ajdacic-Gross, Vladeta	103, 176, 179, 186	Chapman, Catherine	161
Allen, Joanne	46	Chaudieu, Isabelle	34
Andreas, Sylke	24	Cheng, Andrew	90
Angermeyer, Matthias	4	Cheng, Tyrone	97
Anthony, James	27	Chi, Hsuan	147
Arolt, Volker	23	Chiu, Wei Che	60
B		Chong, Siow Ann	186
Bajeux, Emma	111	Chudal, Roshan	187
Barley, Elizabeth	114	Clark, Charlotte	77
Barnaby, Loraine	179	Cocker, Fiona	117
Bastiampillai, Tarun	184	Colla, Michael	200
Bauer, Stephanie	128	Colman, Ian	80
Baune, Bernhard	20	Compton, Wilson	75
Baxter, Amanda	7	Conrad, Ines	197
Bechdolf, Andreas	105	Cook, Trevor	26
Beck, Cynthia A	47	Cooper, Brian	3
Becker, Thomas	22	Copeland, William	27
Beer, Katja	96	Costello, Jane	2
Bélair, Marc-André	137	Crisp, Dimity	26, 127
Berger, Klaus	21	Cummings, Andrew	105
Bernert, Sebastian	157	D	
Berzins, Sandy	49, 140	D'Arcy, Karl	143
Bickel, Horst	30	Davies, Simon	20
Bidargaddi, Niranjan	11	de Girolamo, Giovanni	14, 112, 203, 203
Bilgel, Nazan	150	De Santi, Katia	54, 56
Binbay, Tolga	181	Dominguez, Dolores	9
Blair, Alexandra	160	Donath, Carolin	82
Bland, Roger	11	Donisi, Valeria	135
Bolo, Carmelle	184	Drapeau, Aline	102
Boulos, David	37	E	
Bramesfeld, Anke	134	Erren, Thomas C	187
Bražinová, Alexandra	199	Erskine, Holly	7
Breitner, John	3	Eschweiler, Gerhard W.	33
Brugha, Terry	144	Evans, Jonathan	92
Bryngelson, Anna	115	Evans-Lacko, Sara	83
Büchtemann, Dorothea	175	F	
Bukowsky, Claudia	180	Falk, Hanna	83
Bulloch, Andrew	136	Farajzadegan, Ziba	197
Burns, Richard	102, 114	Fatori, Daniel	112
Burr, Hermann	39	Fellinger, Matthäus	168
Busch, Markus	14	Ferro, Mark	145
Butterworth, Peter	40, 131	Fiest, Kirsten	165
C		Fioravanti, Giulia	56
Caron, Jean	71	Fournier, Louise	132, 147
Carragher, Natacha	161	Freidl, Wolfgang	172
Cervilla, Jorge	10		

Plenary Session 1

Freidl, Marion	188	Kirkbride, James	103
Freude, Gabriele	38	Klasen, Fionna	42
Friedrich, Fabian	181	Klazinga, Niek	134
G			
Gage, Suzi	62	Klein, Annette M.	110
Gal, Gilad	135	Klenfeldt, Isak Fredén	205
Gariepy, Genevieve	172	Kohn, Robert	93
Garrido-Cumbrera, Marco	79, 177	König, Hans-Helmut	30
Gashi Bytyci, Drita	182	Konnopka, Alexander	76
Gasse, Christiane	21	Konrad, Jana	130
Gau, Susan Shur-Fen	119	Kosidou, Kyriaki	81
Glaesmer, Heide	35	Kovess Masfety, Viviane	143
Grabe, Hans	2	Kreisel, Stefan	86
Griffiths, Kathleen	89	Kühner, Christine	
Gu, Ken	204	Kuwert, Philipp	36
Gudmundsson, Pia	73	L	
H			
Hamader, Gertrude	163, 164	Lanfredi, Mariangela	198
Hami, Hinde	155	Lasalvia, Antonio	54
Hardt, Juliane	50, 139	Lasserre, Aurelie	120
Haukka, Jari	121	Lay, Barbara	12, 194
Hayes, Richard	182	Lee, William	153
Heslin, Margaret	136, 158	Leopold, Karolina	148
Hickmann, Matt	90	Leray, Emmanuelle	81, 111
Hoffmann, Holger	67	Lien, Yin-Ju	68
Hölzel, Lars P.	68, 167	Lin, IHsuan	145
Honkanen, Risto	198	Lindal, Eirikur	73
Huang, Mei-Feng	183	Linden, Michael	77, 170
I			
Ihara, Kazushige	51	Lindert, Jutta	45, 192
J			
Jacka, Felice	109	Link, Bruce	4
Jacke, Christian	66	Lo, Celia	74, 162, 173
Jacobi, Frank	15	Löbner, Margrit	22
Jaeger, Sonia	145	Loos, Sabine	129
Jarman, Lisa	40	Lora, Antonio	133
Jensen, Christina Mohr	18	Lucht, Michael	127
John, Ulrich	74	Luck, Tobias	32, 133, 155
Jordaan, Esme	104	Luppa, Melanie	33, 156, 178
K			
Kaduskiewicz, Hanna	31	M	
Kaestner, Denise	61	Mack, Simon	15
Karlsson, Björn	108	Madruga, Clarice	61
Katsuki, Takeshi	191	Mahedy, Liam	45
Kawohl, Wolfram	65, 139	Mann, Anthony	113
Keyes, Katherine	99, 100	Manrique-Garcia, Edison	62
Khil, Laura	138	Manzolli, Patricia	138, 153, 168
Killaspy, Helen	134	Martus, Peter	38
Kinoshita, Hirohisa	191	Marx, Carolin	170
		Maske, Ulrike	17
		Mateos, Raimundo	10
		Matschinger, Herbert	48
		Meadows, Graham	72
		Mellqvist Fässberg, Madeleine	107

Plenary Session 1

Memon, Anjum	59	Riedel-Heller, Steffi	29
Meng, Xiangfei	195	Rodgers, Stephanie	189
Merikangas, Alison	51, 119	Rose, Uwe	37
Merikangas, Kathleen	94	Ruggeri, Mirella	53
Metzger, Florian G.	31	Rühlmann, Anne	148
Meyer, Christian	125, 189	Rüsch, Nicolas	83
Michon, Harry	65	S	
Miech, Richard	101	Salize, Hans Joachim	64
Mohler-Kuo, Meichun	121, 199	Samele, Chiara	128
Moreno-Küstner, Berta	9	Sampson, Stephanie	126, 183
Müller, Bent	52	Sander, Christian	85
Muschalla, Beate	118, 185, 195	Sanderson, Kristy	171
Mykletun, Arnstein	142	Schaeufele, Martina	157
N		Schmitz, Norbert	142
Naicker, Kiyuri	205	Schomerus, Georg	5, 84
Nakane, Hideyuki	201	Schonder, Margareta	150
Narrow, William	49	Schoenknecht, Peter	86
Niclasen, Janni	110, 163	Schultze-Lutter, Frauke	201
Nienhuis, Foko	43	Schulze, Beate	77, 170
Nilsson, Johann	88	Schützwohl, Matthias	202
M		Schwarzbach, Michaela	25, 175
O'Brien, Lean	116	Seidler, Andreas	78
Oram, Sian	63, 174	Seyde, Thomas	178
Ormel, Johan	89	Shahini, Mimoza	41
Östling, Svante	108	Shanahan, Lilly	28
Otte, Christian	96	Shanahan, Michael	93
Ozgur Ilhan, Inci	166, 166	Sheikhattari, Payam	190
P		Sibitz, Ingrid	85
Paholpak, Suchat	188	Sigström, Robert	24
Pantenburg, Birte	67	Sikorski, Claudia	107, 122, 173
Pasco, Julie	140, 196	Singer, Susanne	141
Patalay, Praveetha	41	Siriwardhana, Chesmal	36, 98
Patten, Scott	72	Skoog, Ingmar	29
Patton, Georg	27	Slade, Tim	101, 206
Pattyn, Elise	84	Smith, Kimberley	149
Penninx, Brenda	94	Sonntag, Astrid	169
Pesce, Luisa	158	Spangenberg, Lena	154, 176
Pfennig, Andrea	196	Stansfeld, Stephen	39, 76
Phelan, Jo	5	Stein, Janine	88
Pietrzak, Robert	34	Steinhausen, Hans Christoph	18, 19, 44
Piotrowski, Patryk	116	Stengler, Katarina	132, 147, 174
Plener, Paul	79	Stewart, Rob	89
Poli, Sara	54	Stilo, Simona A.	104
Preisig, Martin	95	Subramaniam, Mythily	202
Puschner, Bernd	131	Sullivan, Sarah	46
R		Sultana, Janet	60
Reyes, Ryan	159	Sunderland, Matthew	160
Richter, Dirk	13	Süßenbacher, Stefanie	169
Rieckmann, Nina	124	Swift, Wendy	91, 92

Plenary Session 1

Swildens, Wilma	63
Szatmari, Peter	118
T	
Tang, Tze-Chun	193
Then, Francisca S.	109, 157
Thomas, Kyla	59, 154
Thompson, Angus	124
Thyrian, Jochen René	87
Tiemeier, Henning	71
Tiikkaja, Sanna	69
Till, Benedikt	180
Tosato, Sarah	55
Turner, Nicholas	122
Tylee, Andre	113
Tyrer, Freya	120
U	
Uddin, Monica	52, 190
Unrath, Michael	57, 164
V	
Vaingankar, Janhavi Ajit	149
van Busschbach, Jooske	165
van den Berg, Neeltje	126
Vandeleur, Caroline	44
Vernal, Ditte Lammers	19
Volkert, Jana	23
von dem Knesebeck, Olaf	69
W	
Wadolowski, Monika	75
Wagner, Birgitt	58
Wagner, Michael	16
Walters, Paul	113
Wang, Jen-Pang	13
Wang, Jian Li	117
Weeks, Murray	146
Werner, Perla	82
Weyerer, Siegfried	29
Whiteford, Harvey	6, 6
Wiese, Birgitt	48, 167
Wilcke, Arndt	123
Y	
Yang, Tsu-Hui	193
Ye, Qianhong	204
Young, Robert	80
Z	
Zagdanska, Marta	151
Zandi, Tekleh	98
Zentner, Nadja	130
Zhjeqi, Valbona	152
Zielasek, Jürgen	16
Zoppei, Silvia	55