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(EAPM)

TRANSFORMING HEALTH WITH EVIDENCE AND EMPATHY

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**Abstracts**

PARALLEL SESSIONS

**Thursday 16 June 2016, 13.30 – 15.00**

## **A. CLINICAL SKILLS TRACK 1: MASTERCLASS – PSYCHOPHARMACOLOGY**

*Chairs Ursula Werneke, Anders Berntsson*

Masterclass in collaboration with the Maudsley Hospital London

- Professor David Taylor
- Professor Carmine Pariante

Treating mental health problems can be challenging at the best of times. But what happens if matters become even more complicated and there are additional risks like physical illness or pregnancy? Monotherapies may not always work. But how confident do we feel to combine psychotropic drugs effectively and safely? In this Masterclass Psychiatry, world-leading experts from the Maudsley Hospital in London will share their clinical experience and discuss your cases.

By attending you will:

- Learn to use pharmacokinetic and pharmacodynamic principles to assess drug interactions
- Manage depression in pregnancy more confidently
- Get a state of the art update on the management of bipolar depression.
- Understand psychotropic medications in the presence of physical health problems.

After this masterclass you will feel more confident prescribing antidepressants and antipsychotics in complex situations.

## **B. RESEARCH SKILLS TRACK 1: CARUS MASTERCLASS – GENDER ASPECTS IN HEALTH AND DISEASE**

*Chair: Christina Orth-Gomér*

In collaboration with the Karolinska Institute in Stockholm with

- Professor Kristina Orth-Gomér
- Professor Sarah Wamala
- May Bloom, PhD
- Professor Hans-Christian Deter (Berlin)

Women and men share many similarities in health and disease, but there are also important differences. E.g. women need more often to see a doctor and they have more symptoms of ill health. Women also have more pain, they suffer more from sleep disturbances and take more medications than men do. In contrast women have been thought to be “immune” against heart diseases, and acute myocardial infarction has been thought to be a disease, typical of the male manager. This and other myths about sex and gender will be clarified in the masterclass on gender, in which we summarize the research of the last decades in epidemiology, biological mechanisms of established risk factors and psychosocial prevention methods.

In this masterclass, international experts from the Karolinska Institute will familiarize you with gender aspects of health and disease, using their recent volume “Psychosocial stress and Cardiovascular Disease. Concepts, Findings, Future development (Orth-Gomér, K Schneiderman, N, Vaccarino, V, Deter H-C, Springer Business and Science) as a basis for lectures, discussions and exercises.

By attending you will

Improve your research methodology regarding the study of gender aspects in health and disease, specifically

- Understand and identify the significance of biological sex and biological differences between men and women
- Appreciate and recognize the social and psychological gender differences between men and women; differences that are due to the surrounding society structures
- Know how to distinguish between sex and gender
- Appreciate the panorama of health and illness in men and women and about the distribution of specific chronic diagnoses among men and women
- Learn about sex and gender specific preventative principles and therapeutic models.

After this masterclass, you will be able to integrate gender aspects in your research and clinical understanding and management of patients – in illness and in health.

### **C. RESEARCH SKILLS TRACK 2: EAPM MASTERCLASS – HOW TO SUCCEED IN CLINICAL RESEARCH**

#### **In collaboration with Oxford University**

- Michael Sharpe

Getting research done is important to both the researcher and to out field. But it can be hard. Planning studies, getting them funded, completed and the results published are rewarding but sometimes daunting tasks.

In this interactive workshop you will get first hand tips from an academic with many years of experience of completing and publishing clinical research in psychosomatic medicine.

#### **By attending you will:**

- Learn the importance of formulating a research question
- Understand different study designs
- Get tips on writing grant proposals
- Learn about how to approach a mentor
- Understand the main strategies for successful study completion
- Gain tips on writing up your results for publication

You will leave the workshop with a better understanding of the research process and how to succeed in it.

## D. PSYCHO-CARDIOLOGY

*Chairs: Christoph Herrmann-Lingen, Margarita Beresnavaite*

### **Attachment styles and Depression in CAD patients: results from an observer-blinded, multicenter, randomized trial using a stepwise psychotherapy intervention for reducing risk in coronary artery disease (SPIRR-CAD)**

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**Background:** Depression is an important concern in patients with coronary artery disease (CAD). Although prevalence is relatively high, the mechanisms underlying the relationship between depression and coronary artery disease is still poorly understood. It is argued that adult attachment styles play an important role in the development of depressive symptoms in patients with CAD. The present research examined the influence of adult attachment styles on the recovery from depressive symptoms in patients diagnosed with CAD.

**Method:** In a randomized, controlled, multicenter trial, 570 CAD patients with depressive symptoms were randomly assigned to either a psychotherapy intervention or to standard cardiological care. The intervention was stepwise psychotherapy which consisted of three to five individual sessions followed by 25 group therapy sessions for patients still showing symptoms of depression (HADS-D > 7). The outcomes were change in depression scores from baseline to follow-up at 18 months, measured with the depression subscale of the Hospital Anxiety and Depression Scale (HADS-D) and the nine-item depression subscale of the Patient Health Questionnaire (PHQ-9) in an intention-to-treat analysis. Attachment was measured at baseline with the Relationship Scales Questionnaire (Griffin & Bartholomew 1994).

**Results:** Results revealed that secure attachment predicted a reduction in depression after 18 months independent of the treatment condition, while patients with a fearful-avoidant attachment style showed no significant change in depressive symptoms in the HADS-D ( $F = 7.40$ ,  $df = 3$ ,  $p < .01$ ,  $\text{part. } \eta^2 = .04$ ) and in the PHQ-9 ( $F = 9.55$ ,  $df = 3$ ,  $p < .05$ ,  $\text{part. } \eta^2 = .05$ ). Moreover, attachment styles mediated therapy outcome in a way that persons with secure attachment and with a dismissive-avoidant attachment style benefitted from psychotherapy, but only when depression was measured with the PHQ scale ( $F = 3.74$ ,  $df = 3$ ,  $p < .05$ ,  $\text{part. } \eta^2 = .02$ ). Patients with a preoccupied and with a fearful-avoidant attachment style showed no significant improvement of depression in the intervention group compared with controls.

**Conclusion:** Attachment styles played an important role both in recovery from depression and, to a lesser degree, in the effectiveness of the stepwise psychotherapy program.

### **Sociodemographic and somatic predictors of psychotherapy outcome among depressed patients with coronary artery disease - A secondary analysis of the SPIRR-CAD dataset**

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**Background:** Depressive symptoms are common in patients with coronary artery disease (CAD) and are associated with an unfavourable outcome. Establishing prognostic patient profiles prior to the beginning of mental health care may facilitate higher efficacy of targeted intervention. Aim of the current study was to identify sociodemographic and somatic predictors of the effects of psychotherapy on depression in patients with CAD.

**Method:** Based on the dataset of the multicentre SPIRR-CAD study (n=570 patients with CAD and  $\geq 8$  points on the Hospital Depression and Anxiety Scale (HADS)), 180 potential predictors of the change in the HADS depression score from baseline to 18 months of follow-up were screened using AN(C)OVA (i.e.  $p < 0.10$ ). Using backward selection only candidate variables with  $p < 0.05$  were kept in the regression equation. As outcome measures the continuous change in HADS depression-score as well as three established binary response criteria were used.

**Results:** ANOVA and subsequent backward elimination identified 6 variables, that significantly influenced depression outcome: female sex ( $B = -0.909$ ;  $p = 0.015$ ), higher age in years (per year:  $B = -0.046$ ;  $p = 0.004$ ), higher monthly income (per 500 EUR per month:  $B = -0.183$ ;  $p = 0.022$ ), thyroid medication intake ( $B = 1.456$ ;  $p = 0.002$ ), intake of uric acid lowering agents ( $B = 1.143$ ;  $p = 0.033$ ), and antibiotics intake ( $B = 4.021$ ;  $p = 0.022$ ). Response criteria support these findings for age, monthly income, and intake of uric acid drugs. An association between higher BMI levels and adverse therapy outcome could be demonstrated. In all analyses, no significant difference between the intervention group and control group could be found.

**Conclusion:** Female sex, higher age and higher monthly income were associated with favourable outcome, whereas intake of thyroid medication, uric acid drugs, antibiotics and higher BMI were associated with a significantly smaller decrease of the HADS depression-score. Our findings may help to establish somatic and socio-demographic response predictors to psychotherapy in depressed patients with CAD. The unexpected effects of specific medication require further clarification.

## The role of perseverative negative thinking in predicting depression in people with coronary heart disease: preliminary findings of a prospective cohort study

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**Background:** Depression is common in people with coronary heart disease (CHD), and is linked with poor physical outcomes. Current treatments for depression can have limited effectiveness in this group. Perseverative negative thinking (e.g. worry and rumination) could be causally related to depression, and may therefore provide a novel target for treatment. The aim of this observational prospective cohort study is to clarify the strength of the association between perseverative negative thinking and depression in people with CHD.

**Method:** 169 patients (78% male, mean age 67 years) with acute coronary syndrome were recruited. Participants completed self-report measures of worry (Penn State Worry Questionnaire), rumination (Ruminative Responses Scale), depression (PHQ-8), anxiety (Beck Anxiety Inventory), and health-related quality of life (EQ-5D, Seattle Angina Questionnaire) soon after hospitalisation, and again 2 and 6 months later.

**Results:** We present here preliminary, cross-sectional analyses examining associations among baseline measures. Multiple regression analyses showed that baseline rumination significantly predicted concurrent depression ( $\beta=.62$ ,  $t(5,154)=10.53$ ,  $p<.001$ ,  $\text{adj } R^2=.67$ ), anxiety ( $\beta=.49$ ,  $t(5, 153)=7.44$ ,  $p<.001$ ,  $\text{adj } R^2=.60$ ) and quality of life ( $\beta=-.38$ ,  $t(2, 156)=-5.90$ ,  $p<.001$ ,  $\text{adj } R^2=.29$ ), after controlling for age, psychiatric history, and severity of cardiac disease. Worry did not explain any additional variance in any of the outcome variables.

**Conclusion:** In people with CHD perseverative negative thinking is associated with concurrent depression, anxiety and health-related quality of life after controlling for important confounders. However, to clarify whether perseverative negative thinking might be causally related to depression these associations require testing prospectively. When follow-up data becomes available we will investigate whether baseline worry and rumination prospectively predict depression, anxiety and quality of life 2 and 6 months later, while controlling for baseline depression and anxiety.

## Psychological risk factors are related to sympathetic activity according to the heart rate variability parameters during mental stress, orthostatic test and rest in post-cardiac surgery patients

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**Background:** To research if alexithymia, hostility, depression, anxiety, and distress are related to sympathetic activity according to the heart rate variability (HRV) parameters at rest and as responses to active orthostatic test (AOT) and to mental/arithmetic stress test (MST) in depressed post-cardiac surgery pts.

**Method:** 74 post-cardiac surgery depressed pts (mean age  $62.4\pm 10.3$  yrs, 67.6% male, SCL-90R depression subscale score  $>60T$ ) at 1.5 month after surgery filled in TAS-20 and SCL-90R questionnaire. HRV data were measured using short-term ECG 5-minute recordings at rest, during AOT and MST. There was assessed heart rate (HR), standard deviation of RR intervals (SDNN), low frequency (LFnu) and high frequency (HFnu) components, and sympathetic activity index (LF/HF) at each period and the responses to AOT and to MST. Data were analysed with the SPSS for Windows version 13.0 statistical package (SPSS Inc., Chicago, IL).

**Results:** This study demonstrated, that TAS-20 was significantly related to LFnu during AOT ( $p=0.04$ ,  $\beta=0.280$ ,  $95\%CI=0.018-0.757$ ;  $F_2: p=0.012$ ,  $\beta=0.260$ ,  $95\%CI=0.328-2.543$ ). Depression was associated with LFnu response to mental stress ( $p=0.015$ ,  $\beta=-0.295$ ,  $95\%CI= -1.605 - [-0.175]$ ), with HR at rest

( $p=0.005$ ,  $\beta=0.339$ , 95%CI=0.205-1.114), with HR during MST ( $p=0.014$ ,  $\beta=0.298$ , 95%CI=0.130-1.133), and with LF/HF during MST ( $p=0.028$ ,  $\beta=0.268$ , 95%CI = 0.009-0.163). It was estimated significant relationship between Anxiety and HR at rest ( $p=0.002$ ,  $\beta=0.254$ , 95%CI=0.02-0.706), between Anxiety and HR during AOT ( $p=0.038$ ,  $\beta=0.254$ , 95%CI=0.02-0.706). Global Severity Index was related to HR at rest ( $p=0.006$ ,  $\beta=0.333$ , 95%CI=0.125-0.715) and during MST ( $p=0.047$ ,  $\beta=0.243$ , 95%CI=0.004-0.664). **Conclusion:** The findings of this research suggest, that almost all investigated PRF for cardiovascular diseases are related to one or more sympathetic HRV parameters – LF power, HR or LF/HF in depressed post-cardiac surgery pts. Therefore, alexithymic, depressed, anxious, or distressed post-cardiac surgery pts may be at higher risk of rhythm disorders or sudden cardiac death. The pts must be screened for such PRF and must be informed about the results - as such findings would be important for the motivation for the psychological rehabilitation. There was small number of the pts in this study, so we suggest, that PRF associations with parameters of HRV could be confirmed better by larger multicenter studies.

## E. PSYCHOONCOLOGY: COPING WITH ANXIETY AND DEPRESSION

*Chairs: Josef Jenewein, Martin Teufel*

### **“My life is a runaway train”: problems described by patients with lung cancer and depression**

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Psychological Medicine Research, University of Oxford Department of Psychiatry, Warneford Hospital,  
Oxford, UK*

**Background:** The aim of this study was to describe and characterise the problems reported by patients with lung cancer and major depression.

**Method:** 58 patients with lung cancer and comorbid major depression received problem solving therapy (PST) during the evaluation of a treatment programme (Depression Care for People with Lung Cancer (DCPLC) in a clinical trial. During the first session of PST, patients were asked to report “everything that was bothering them at the moment”, with the aim of creating an exhaustive list of problems. We analysed these listed problems using conventional content analysis.

**Results:** We created five overarching categories, which were developed from 13 sub-categories. These were based on 103 different codes, which in turn were based on 380 problems. The five overarching categories were: (1) *life with and separate from cancer: present and future challenges* (uncertainty about the future with cancer, and worries about day-to-day life separate from cancer); (2) *psychological struggles* (psychological experiences, their effects and patients’ perceived ability to cope with them); (3) *changing relationships with others* (changes to the quality of interactions with others, including feelings of dependence, isolation and concern for others); (4) *physical symptoms and their consequences* (physical symptoms and their effects on day-to-day life); and (5) *loss of a previous identity* (new perceptions of oneself, body, role and life). Examples of each will be described. Patients had a mean of 3.4 categories of problem. The most frequent categories were *physical symptoms and their consequences* (81.0% of patients), *life with and separate from cancer: present and future challenges* (79.3%) and *changing relationships with others* (74.1%).

**Conclusion:** The findings of this study highlight the variety and complexity of problems experienced by patients with comorbid lung cancer and major depression. These problems go beyond their cancer diagnosis and symptoms. The categories of problems that we have identified can be used to help clinicians seek information from patients about concerns that are important to them to inform their multidisciplinary care.

## **Effect of exercise on fatigue and depression in women undergoing adjuvant treatment for breast cancer: a meta-analysis**

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d) Institute for Quality and Efficiency in Health Care, Cologne, Germany

**Background:** Adjuvant therapy for breast cancer with chemotherapy and radiotherapy impacts on quality of life due to substantial side effects. We systematically assessed the effect of aerobic and/or resistance exercise interventions during adjuvant treatment for breast cancer on fatigue and depression. This abstract is based on a draft and pre-peer review version of an updated Cochrane Review. Upon completion and approval, the final version is expected to be published in the Cochrane Database of Systematic Reviews ([www.thecochranelibrary.com](http://www.thecochranelibrary.com)).

**Method:** We searched multiple databases and screened references in relevant reviews and in published clinical trials. We included randomized controlled trials that examined aerobic and/or resistance exercise interventions in women undergoing adjuvant treatment for breast cancer. Two review authors independently performed data extraction, assessed trials and graded the methodological quality using Cochrane's Risk of Bias tool.

**Results:** Physical exercise during adjuvant treatment for breast cancer may slightly improve fatigue (standardized mean difference -0.28, 95% CI -0.41 to -0.16; 19 studies, 1698 participants). Fatigue was measured with several tools, e.g. the Functional Assessment of Chronic Illness Therapy-Fatigue scale, the Piper Fatigue Scale, the Multidimensional Fatigue inventory and others. Exercise may lead to little or no difference in depression (SMD -0.15, 95% CI -0.30 to 0.01; 5 studies, 674 participants). Depression was either assessed with the Beck Depression Inventory or the Center for Epidemiological Studies-Depression scale. Due to the difficulty of blinding exercise trials, all included trials were at high risk for performance bias. Low adherence to the exercise intervention and high or unclear rates of contamination (exercising in the control groups) further lowered the quality of the evidence, which we judged as low for both outcomes.

**Conclusion:** Exercise during adjuvant treatment for breast cancer can be regarded as a supportive self-care intervention which may result in less fatigue and little or no difference in depression. This review is based on trials with a considerable degree of clinical heterogeneity regarding adjuvant cancer treatments and exercise interventions. Further research is required to determine the optimal type, intensity and timing of an exercise intervention. Furthermore, long-term evaluation is required.

## **Predictors of anxiety and depression in hematopoietic stem cell transplant patients during protective isolation**

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**Background:** To examine in a sample of hematopoietic stem cell transplant (HSCT) patients assessed throughout protective isolation: a) levels of anxiety and depression, b) pre-isolation factors (sociodemographics, biomedical variables and personality traits), that might predict higher levels of anxiety and depression during isolation.

**Method:** The study used a longitudinal prospective design. Anxiety and depression were assessed in 107 participants by the State-Trait Anxiety Inventory (STAI) and Self-rating Depression Scale (SDS) at

admission and weekly at fixed time-points throughout isolation. Among pre-isolation factors, patients' psychological status was evaluated by the Cognitive Behavioral Assessment (CBA 2.0). Predictors were explored by random-effects models.

**Results:** One tenth of the patients suffered from clinically significant anxiety and depressive symptoms at admission. While the percentage of depressed patients increased more than twofold after two weeks of isolation, that of anxious patients did not significantly change over time. Female gender, higher anxiety and obsessive-compulsive symptoms, intratensive personality traits and lower performance status predicted higher depression during isolation.

**Conclusions** Anxiety and depression represent a relevant problem for HSCT patients during isolation. Early detection of predictors, such as anxiety levels, obsessive-compulsive symptoms and performance status, could help prevent depression via targeted psychological intervention.

### **Determining the need for support: Screening instruments in combination with patients' subjective evaluation define pathways in psycho-oncology**

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**Background:** Cancer patients suffer from severe distress. Up to one third show mental comorbidities. Nevertheless, there is no common agreement on how to identify patients in need for psycho-oncological services using screening questionnaires.

**Method:** A sample of  $N=206$  patients with confirmed breast cancer, being inpatient for surgical treatment, filled in recommended and often used distress assessment instruments: Distress Thermometer, Hospital Anxiety and Depression Scale, Patient Health Questionnaire 2, Hornheide Screening Instrument, parts of the EORTC-QLQ-C30. Additionally, they were asked for their subjective need for psycho-oncological counselling.

**Results:** The correlation between the assessment instruments is low to medium. The number of patients above the cut-off criteria varies quite much according to the instrument (10% to 66%). Therefore, the congruence between the instruments' indications is quite low. Patients with and without subjective need do not differ in personal data but in distress scores.

**Conclusion:** Recommended instruments for distress assessment in psycho-oncology measure different areas of distress. They do not sufficiently agree in indicating a patient's need for psycho-oncological treatment. Hence, one should neither compare results of studies using different assessment instruments nor should a screening be implemented without reflecting the used instrument's characteristics compared to the others. The subjective need seems to give additional information to the assessment. At present, the combination of an assessment instrument and patients' subjective need is seen as the most recommended way to identify patients in need of psycho-oncological treatment. Clinical pathways will be presented.

## F. PSYCHOSOMATIC APPROACH IN GASTROENTEROLOGY

*Chairs: Dan L Dumitrascu, Mladenka Tkalcic*

### **The role of stress in IBS symptom severity**

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**Background:** Irritable bowel syndrome is one of the most common functional gastrointestinal disorders. Consistent with the biopsychosocial model, it is considered that stress can trigger or exacerbate IBS symptoms. The aim of this study was to test the relationship of daily stressful events and symptom severity in IBS patients.

**Method:** A total of 49 patients (age M=45,11; SD=14,01; F=38) participated in the study and completed a set of questionnaires examining neuroticism (BFI), trait anxiety (STAI-T) and depression (BDI-II). The participants also kept a diary of their mood (PA and NA), symptom severity and daily stressful events for 2 weeks.

**Results:** Cross-correlation analyses of daily stress and symptom severity were performed on the intra-individual level. Four different patterns of relationships were found in different subgroups of participants: positive cross-correlations of symptom severity and stress intensity on the same day; higher symptom severity on days following stressful days; lower symptom severity on days following stressful days; and lower stress intensity on days following severe symptoms. A model of symptom exacerbation was tested on the inter-individual level. It showed that average stress intensity predicts average symptom severity. Neuroticism and anxiety were not significant predictors of symptom severity, while depression showed a marginally significant relationship with symptom severity, mediated by stress intensity.

**Conclusion:** Daily stressful events seem to be related to symptom severity, although different relationships are found for different subgroups of patients. This finding, combined with the relationship of depression and symptom severity via daily stress, indicates that interventions focusing on the patients' mood could help in reducing their symptom severity.

### **Psychiatric comorbidities in IBS patients**

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**Background:** The goal of our study was to evaluate Axis I psychiatric comorbidities in patients with IBS, referred by tertiary gastroenterology centers, and to compare the data obtained with the results of a pan-European population study.

**Method:** Mini-International Neuropsychiatric interview (M.I.N.I.) was administered to 70 patients with IBS. For comparison with the general population, we used data from the European Study of the Epidemiology of Mental Disorders (ESEMeD).

**Results:** Analyzing the group of patients regarding the presence or absence of psychiatric disorders we found that 24 of them (34.3 %) cannot be classified in any diagnostic category belonging to the axis I. The remaining 46 (65.7 %) patients have satisfied the criteria for one or more mental disorders. 20 ( 28.6 %) patients met the criteria for an anxiety disorder. Eight (11.4 %) of these patients met the

criteria for generalized anxiety disorder, 11 (15.8 %) for panic disorder and one patient (1.4%) met the criteria for obsessive-compulsive disorder. In the analysis of the batch according to the presence of depressive disorders, it was found that 18 (25.7 %) patients met the diagnostic criteria for major depressive disorder. 52 participants (74.3 %) did not have the criteria needed for the diagnostic category of mood disorders. When compared, the frequency of mental disorders in the sample of patients with IBS and the frequency identified in the general population from ESEMeD study point out:  $\chi^2$  (df=1)=61,886, ( $p<0,001$ ), for the anxiety  $\chi^2$  (df=1)=13.353, ( $p<0,001$ ), and for depression  $\chi^2$  (df=1)=7.978, ( $p<0,005$ ).

**Conclusion:** In the IBS patients, the frequency of mental disorders is higher in comparison with the general population: in general (for any mental disorder) and for anxiety and mood disorders specifically.

### The role of daily mood in the stress-symptom relationship in IBS patients

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**Background:** Irritable bowel syndrome is a chronic disorder which results in significantly lower quality of life. It is regarded as a stress related disorder, with a possible wide variety of factors leading to symptom exacerbation. The aim of this study was to explore daily mood and daily stress in IBS patients, with regard to their symptom severity.

**Method:** A total of 49 patients (age  $M=45.11$ ;  $SD=14.01$ ;  $F=38$ ) participated in the study. The participants kept a diary of their mood (positive affect - PA and negative affect - NA), symptom severity and daily stress for 2 weeks. Participants recorded their mood and symptom severity three times per day (in the morning, afternoon and evening) while daily stress was measured once a day, in the evening.

**Results:** Average PA and NA levels showed typical daily changes. Analyses performed on the inter-individual level showed that PA measured in the afternoon ( $M=2.47$ ;  $SD=0.54$ ) was significantly higher ( $F_{(2,94)}=19.69$ ;  $p<.001$ ;  $\eta^2=.30$ ) than PA measured in the morning ( $M=2.33$ ;  $SD=0.52$ ) and in the evening ( $M=2.23$ ;  $SD=0.54$ ) (an inverted U shape). NA showed relatively stable levels regardless of time of day. On the intra-individual level, cross-correlations of time series of PA, NA and symptom severity showed a lot of variation among participants, however in a large subgroup of participants ( $n=15$ ) there were negative cross-correlations of PA and symptom severity ( $r\sim.30$ ) and a significant subgroup ( $n=19$ ) showed positive cross-correlations of NA and symptom severity ( $r\sim.30$ ). Cross-correlations of symptom severity and daily stress also show large differences among participants, with some having high positive correlations, while others show no correlation at all. Additional analyses of group data showed that PA was positively correlated ( $r=.39^{**}$ ) with the symptom-stress cross-correlation. Participants with a more variable PA had a stronger association of symptom severity and daily stress.

**Conclusion:** The main implication of these findings is that improving a patients' PA, especially with regard to its stability, may decrease the effects of stress on symptom severity, and possibly lead to symptom alleviation.

### CBT for the non-alcoholic fatty liver. A systematic review

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**Background:** Non-alcoholic fatty liver (NAFL) is a hot object for medical research. Its presentation includes non-alcoholic steatosis (NAS) and non-alcoholic steatohepatitis (NASH). As a component of metabolic syndrome, its approach includes beside pharmacological therapy, nonpharmacological interventions as well. CBT should be an important therapeutic approach. We undertook a systematic review of CBT interventions in NAFL.

**Method:** A systematic review of the main databases was carried out, looking for CBT intervention in NAS and NASH. We excluded duplicates, reviews, letters or case presentations and kept for the analysis original controlled studies.

**Results:** From 96 returns, only 12 papers could be retained for analysis. In respect to weight management and exercise, CBT is used to change nutrition patterns by combining emotion control and behavior modification. CBT has been recommended as a complementary approach to bariatric surgery. The role of CBT in the management of NAFL is: emotional control aims at the possible mood disorders associated with abnormal feeding behaviors, while the behavioral modifications attempt to restructure the feeding and physical activity patterns. CBT can prove useful for: (1) psychoeducation: educating patients about the consequences of excessive weight and obesity; (2) motivation: increasing motivation to change emotions and behaviors, (3) behavior analysis: analysing the features of the situations when too much food is ingested, thus supporting effective behavioral control, promoting trigger management for binge eating (4) cognitive restructuring: changing a person's body image, changing a person's expectations about weight and losing weight (5) emotion control: learning emotion regulation techniques useful in reducing "comfort eating"; (5) coping skills.

**Conclusion:** CBT represent a useful approach for NAFL as proven by this systematic review. We have now enough evidence to recommend this therapy in fatty liver non-alcoholic patients.

## G. CHILD AND ADOLESCENT PSYCHIATRY

*Chairs: Charlotte Rask, Petra Lindfors*

### **Psychosocial stress, health and cortisol in working women living in high and low status neighbourhoods in Sweden**

*P. Lindfors<sup>a</sup>*

*a) Stockholm University, Stockholm, Sweden*

**Background:** Contextual factors including neighbourhood status have consistently been associated with health disparities. Focusing on mechanisms, this study investigated linkages between psychosocial stress, health and cortisol in working women (N=542) living in high and low status neighbourhoods

**Method:** Women living with children in objectively defined high and low status neighbourhoods in Stockholm County suburban areas were invited to a questionnaire study and a subsample (n=88) also provided salivary samples analysed for cortisol.

**Results:** Results showed that women in high status neighbourhoods had significantly better self-rated health while women in low status neighbourhoods had significantly lower waking cortisol. However, there were no group differences in aggregate cortisol measures.

**Conclusions** The findings follow previous research with cortisol results tentatively suggesting hypocortisolism as a pathway linking neighbourhood status and health disparities, albeit a less consistent finding in this particular sample. This may relate to the Swedish welfare state and its way of fostering of equality, which is an important contextual aspect to factor in also in health psychology research.

## Health anxiety symptoms in children and adolescents diagnosed with OCD

A. Villadsen<sup>a,b</sup>, M.V. Thorgaard<sup>a</sup>, K.A. Hybel<sup>b</sup>, J. Søndergaard Jensen<sup>a</sup>, P.H. Thomsen<sup>b</sup>, C.U. Rask<sup>a,b</sup>

a) Research Clinic for Functional Disorders and Psychosomatics, Aarhus University Hospital, Denmark,

b) Centre for Child and Adolescent Psychiatry, Aarhus University Hospital, Denmark

**Background:** Health anxiety (HA) is an overlooked area in paediatric research. Little is known about the occurrence of HA symptoms in a child and adolescent psychiatric setting, and there are no age-appropriate diagnostic criteria or relevant assessment tools in the field. It is therefore likely that severe HA is diagnosed as obsessive-compulsive disorder (OCD) due to construct overlap and the diagnostic uncertainty of HA in this age group. We aimed to examine the distribution HA symptoms in a potential “high risk population” of children and adolescents diagnosed with OCD. Furthermore, we wanted to describe the distribution of high HA symptoms in relation to a range of clinical characteristics, including specific health-related OCD features.

**Method:** In a cross-sectional design, the distribution of HA symptoms and the association between OCD and HA symptoms were investigated in 94 children and adolescents with a primary ICD-10 diagnosis of OCD. Self-reported HA symptoms were assessed using the Childhood Illness Attitude Scales. OCD symptoms and severity were measured using the Children’s Yale Brown Obsessive Compulsive Scale as part of a broader psychiatric assessment, and information on socio-demographics was obtained from the child’s/adolescent’s medical record. Chi-squared tests were used to examine the proportion of children and adolescents with high HA symptoms in relation to various clinical characteristics.

**Results:** The distribution of HA symptoms resembled a normal curve shifted to the right compared with a normal population of Danish children, and 30% presented with high levels of HA symptoms. Greater OCD severity, OCD-related illness worries, and comorbid anxiety disorder were associated with high HA symptoms.

**Conclusion:** This is, to the best of our knowledge, the first study disentangling HA as a separate phenomenon in a clinical sample of children and adolescents. The results contribute to the understanding of how HA and OCD overlap conceptually in young patients. Moreover, they bring attention to the need for improved recognition of OCD patients dominated by illness worries and to the need for development of fitted diagnostic criteria for severe HA in young age groups.

## Early psychosis: the effect of traumatic experiences on diagnosis, lifetime drug misuse, inflammatory biomarkers. Data from the GET UP Trial in a 10 million inhabitant catchment area

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a) Section of Psychiatry, University of Verona, and Azienda Ospedaliera Universitaria Integrata Verona, Verona, Italy,

b) IRCCS Centro S. Giovanni di Dio Fatebenefratelli, Brescia, Italy,

c) Department of Psychology, University of Florence, Florence, Italy,

d) AUSL Bologna, Italy

**Background:** Childhood traumatic experiences (CT) can favor the development of psychosis. CT have been associated with persistent depression (with psychotic features) and with a higher risk of substance misuse. Peripheral blood alterations in immune/inflammatory system are associated with CT.

The study aim are: 1) verifying, in a representative sample of first episode psychosis patients (FEP), whether abused subjects have higher rates of affective psychosis and lifetime drug abuse compared with non-abused; 2) clarifying whether abused subjects present altered inflammatory biomarkers levels.

**Method:** This study is part of the “Genetics Endophenotypes and Treatment: Understanding early Psychosis” (GET UP) study conducted in a 10 million inhabitant catchment area. Patients were assessed using a set of standardized instruments: CECA-Q, SCAN, Cannabis use questionnaire and serum levels of 19 molecular markers (e.g. IL-1RA, IL-6, IL-10, IL-17).

**Results:** 345 patients answered the CECA-Q questionnaire (57.7% male, 29.8 years  $\pm$ 9,7). 37.1% reported at least one CT during their childhood: 20.4% was separated for more than 6 months from at least one of the parental figures and/or lost one parent; 14.3% reported a severe physical abuse, 8.5% recalled a severe sexual abuse. 23.2% of participants received a diagnosis of affective psychosis; 43.3% showed a lifetime use of cannabis, 20.0% of cocaine and 6.3% of heroine. We found a significant association between childhood sexual abuse and diagnosis of affective psychosis ( $\chi^2=4.9$ ,  $p=0.04$ ). Severely sexually abused individuals showed a higher rate of lifetime misuse of cannabis (68.2% vs 41%,  $p=0.02$ ) and heroine (20% vs 4.6%,  $p=0.02$ ) when compared with non-exposed. Physically abused participants showed a higher lifetime use of cocaine (31.7% vs 17.4%,  $p=0.05$ ). Analyses regarding the association between CT and inflammation markers are in progress.

**Conclusion:** Our findings suggest, in a large and representative FEP sample, a significant association between CT and affective psychosis and between severe sexual abuse and lifetime use of drugs. These findings might yield clues for specific therapeutic and/or prophylactic interventions in the early stages of illness, with a potential enhanced impact on outcomes and prognosis.

### **The effectiveness of psychological treatment for children and adolescents with functional somatic symptoms: A systematic review**

*K. Hansen Kallesøe<sup>a</sup>, I.J. Bonvanie<sup>b</sup>, A. Schröder<sup>a</sup>, K.A.M. Janssens<sup>b</sup>, J.G.M. Rosmalen<sup>b</sup>, C.U. Rask<sup>a,c</sup>*

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*c) Child and adolescent Psychiatric Centre, Aarhus University Hospital, Denmark*

**Background:** The primary aim of this systematic review was to investigate the effect of psychological interventions on symptom severity and disability in children and adolescents suffering from functional somatic symptoms (FSS). A secondary aim was to explore if the treatment effect differs according to the characteristics of the psychological intervention (i.e. type of therapy, setting and dose) or specific baseline patient characteristics (i.e. age, symptom clusters, duration, symptom severity, and psychiatric comorbidity).

**Method:** The databases PubMed, EMBASE, PsychINFO and CINAHL, and Cochrane were systematically searched for eligible studies in November 2015. Randomised controlled trials (RCTs) on psychological interventions, for children and adolescents (<18 years old), with FSS, published in peer-reviewed journals, including outcome measures on symptom severity and/or disability were considered eligible. Data were extracted on participants, interventions and outcome. Risk of bias and overall study quality was assessed using The Cochrane Collaboration’s tool for assessing risk of bias and Psychotherapy Outcome Study Methodology Rating Form. The protocol was published on Prospero before data-extraction, and conformed to the PRISMA guidelines.

**Results:** Twenty-six RCTs were included, resulting in a total number of 1955 patients suffering from functional abdominal pain (12 studies), fatigue (6 studies), musculo-skeletal pain (2 studies), tension type headache (3 studies) and mixed pain syndromes (3 studies). No RCTs on somatization disorder were encountered in the search. Most studies found cognitive behavioural therapies (CBT), to be more effective than a variety of control treatments/wait-list approaches. However, the CBT interventions differed greatly in treatment approach and dose. Other interventions included hypnotherapy, relaxation training, biofeedback, self-confrontation therapy, guided imagery and written self-disclosure. The majority of the studies ( $n=20$ ) were small with less than 100 participants.

Data extraction is ongoing and detailed results concerning description and effectiveness of the psychological interventions, and baseline patient characteristics will be presented.

**Conclusion:** CBT is the most often investigated psychological treatment for children and adolescents with FSS. Further data-analysis will show whether psychological treatments are effective for FSS in general and if this relates to patient characteristics and treatment approach.

## H. E-LEARNING AND TEACHING PSYCHOSOMATIC AND BEHAVIORAL MEDICINE

*Chairs: Marta Novak, Anne Bermann*

*Discussants: Marta Novak, Hans-Christian Deter*

### **Virtual patients in a behavioral medicine MOOC: Interactive training in the health sciences on a massive scale**

*A.H. Berman<sup>a</sup>, A.A. Kononowicz<sup>a,b</sup>, N. Stathakarou<sup>a</sup>, N. Zary<sup>a</sup>*

*a) Karolinska Institutet, Stockholm, Sweden,*

*b) Jagiellonian University Medical College, Kraków, Polen*

**Background:** Massive Open Online Courses (MOOCs) have been criticized for focusing on passive forms of learning. A potential way of vitalizing these educational activities in the health sciences is to introduce virtual patients.

**Objective:** This study analyzes challenges and solutions for offering virtual patients in health-related MOOCs, and describes patterns of virtual patient use in one such course. Our aims are to reduce the technical uncertainty related to these extensions, point to aspects that could be optimized for a better learner experience, and also to raise prospective research questions by describing indicators of virtual patient use at massive scale.

**Method:** The Behavioral Medicine MOOC was first offered by Karolinska Institutet, a medical university, on the EdX platform in the autumn of 2014; it was then archived and has run as a self-paced course between February 1 and June 30 2016. Course content was enhanced by two virtual patient scenarios on stress and sleep problems and their treatment. We analyzed web server and session logs, a participant satisfaction survey, and navigation pathways using a visual analytics tool developed for this study.

**Results:** The first course enrollments reached 19 236 participants. By the end of the course, 2317 students (12.1% of the total enrollment rate) declared completion of the first virtual patient assignment and 1640 (8.5%) indicated completion of the second virtual patient assignment. Peak activity involved 359 user sessions per day. The OpenLabyrinth system, deployed on four virtual servers, coped well with the workload. Participant survey respondents (n = 479) were generally satisfied with the activity (83.1%). Technical challenges reported involved poor or restricted access to videos in certain regions of the world and occasional problems with lost sessions. Visual analyses of user pathways allowed us to detect indications of both surface and deep approaches to the content material among the MOOC participants.

**Conclusions** This study reported on first inclusion of virtual patients in a MOOC. It adds to the body of knowledge by demonstrating how a virtual patient platform can be offered at a massive scale, vastly increasing the potential of clinical education in behavioral medicine, health and clinical psychology. Suggestions are offered on improvements to the design of virtual patients in MOOCs.

## Advanced Training in Liaison Psychiatry

E. Guthrie<sup>a</sup>

a) Manchester Mental Health and Social Care Trust, University of Manchester, UK

**Background:** Aims: To describe the development and delivery of an Advanced Training Course in Liaison Psychiatry over the last 25 years.

**Method:** A review of the qualitative and quantitative feedback from participants on the course over the 25 years, and the changes made to the course as a consequence of the feedback.

**Results:** Course content: The content of the course has changed considerably over the years reflecting changes in the training requirements of liaison psychiatrists. The research training element of the course has been considerably reduced and replaced by a greater focus on management skills and service development and delivery. Clinical core content has remained stable.

**Conclusion:** A week long intensive training in liaison psychiatry remains popular amongst trainees and other consultants in the UK and from overseas. The changes in the course content and style reflect changes in the needs of psychiatrists in training over the last 25 years. The advantages and disadvantages on such a course will be discussed in the context of the symposium.

### I. RELATIONSHIP CENTERED CARE ACROSS THE LIFESPAN: THE ROLE OF THE MEDICAL PSYCHIATRIST

Chairs: Steven Frankel, Marta Novak

Discussant: Gary Rodin

#### Relationship centered care across the lifespan: the role of the medical psychiatrist.

D. Greenberg<sup>a,b</sup>

a) Harvard Medical School, Boston, MA, USA,

b) Psychiatric Oncology, Massachusetts General Hospital Cancer Center, Boston, MA, USA

**Background:** Drawing on the works of Avery Weisman, the medical psychiatrist has a sense of how a patient's acknowledgement of the existential plight and illness oscillate between denial and acknowledgement over time. Simultaneously, the clinician brings the biological perspective, understanding hormonal changes, treatment side effects, biological effects of illness and psychiatric history.

**Methods** By case examples and review of common medical factors, we will discuss how the clinician facilitates practical coping by integrating these factors.

**Results:** We clarify medical facts, what the most knowledgeable physician thinks and understands, well enough so that the implications can be considered. The biological facts are juxtaposed to the wishes of the patient, psychiatric assessment and family dynamics.

#### The value of extended consultation for end of life cases

S. Frankel<sup>a</sup>

a) Department of Psychiatry, University of California, San Francisco, California, USA

**Aims:** To present the value of extended, relationship-centered consultation in end of life cases

**Background:** The consultation process is typically time limited: a request, conferences, recommendations. In contrast, end of life situations often have an agitated tempo; clear demarcation points obscured as the patient "loses traction." Usefully consulting about this situation may require unusual commitment by the consultant.

**Method:** Two representative cases were selected from twenty three analogous cases. In both the patient was distraught, believing there was no accountable person to execute their wishes following death. Both were cognitively intact and wanted life support until the end. Both were desperate to remain alive until reassured someone could skillfully "carry on" with a compromised loved one. In both cases the consultant felt compelled to accept this role. Both patient and consultant viewed this process of joining with the patient as bilaterally inspired.

**Results:** Mr. F's mission was to assure himself that his crippled and mildly demented wife could manage in his absence. However, dependence on a ventilator and severely restricted ambulation was tormenting to this former athlete. As he became increasingly miserable and uncertain about how long he could carry on he pleaded (through writing) with the consultant to join him in meetings with his family and priest. Mr. F.'s treatment team recognized the consultant's powerful commitment to the patient and asked that he remain with the case.

In Ms. G's situation the consultant found himself frequently returning to visit her, anticipating these moments with a muted sense of heroism. Ms. G couldn't communicate her wishes verbally because of a tracheostomy. Instead, at each visit she reached for and tenaciously held the consultant's hand. -  
- In both cases the consultant successfully extended his involvement until the patient died, easing that process for both the patient and treatment team

**Conclusion:** An extended relationship-centered consultation appeared clinically and personally beneficial in these end of life cases. Unique to these consultations was the emotionally based bilateral instigation of this extended consultation process.

#### **Opportunities and challenges for relationship-centered care in nephrology**

*M. Novak<sup>a</sup>*

*a) University of Toronto, Canada and Semmelweis University, Budapest, Hungary*

Chronic kidney disease (CKD) is a progressive, chronic condition, usually with various potentially serious co-morbidities and consequences. When CKD progresses to kidney failure, patients need renal replacement therapies (dialysis or transplantation). Patients often suffer from a wide range of physical and emotional symptoms and their quality of life is significantly compromised. Unique models of care are needed to support patients best in this difficult journey.

I will review the opportunities and challenges to develop environments that support compassionate care in nephrology by creating a caring environment, enhancing the "therapeutic potential" of nephrology staff, improving communication between staff-staff and staff-patients-caregivers, and fostering relationship-centered care. Historically, nephrology – in particularly dialysis care – has been considered a "technical" specialty. With the advancement of renal replacement therapies, improving patient's quality of life, as well as supporting chronic disease management, has become a focus of attention, along with the acknowledgement of the importance of compassion and relationship-centered care. Compassionate care also means that we will need to provide more support for patients and caregivers to built their resilience while managing the illness and its demanding treatment. Supporting self-management and skill building of patients and caregivers are crucial elements in integrated care of medically ill patients. The notion of patient empowerment and "patients as partners" in healthcare delivery also requires good coping skills and resilience. Furthermore, nephrology care provides an excellent example of inter-professional work. I will also focus on the role of medical psychiatrist in this model of care.

PARALLEL SESSIONS

**Thursday 16 June 2016, 15.30 – 17.00**

## A. CLINICAL SKILLS TRACK 1: MASTERCLASS – PSYCHOPHARMACOLOGY CTD.

## B. RESEARCH SKILLS TRACK 1: CARUS MASTERCLASS – GENDER ASPECTS IN HEALTH AND DISEASE CTD.

## C. FUNCTIONAL SYMPTOMS AND BODILY DISTRESS

*Chairs: Carsten Leue, Michael Sharpe*

### **Psychiatric comorbidity in patients with chronic pelvic pain syndrome (CPPS)**

*C.A. Brünahl<sup>a</sup>, C. Dybowski<sup>a</sup>, R. Albrecht<sup>a</sup>, S. Gregorzik<sup>a</sup>, B. Löwe<sup>a</sup>*

*a) Department of Psychosomatic Medicine and Psychotherapy, University Medical Center Hamburg-Eppendorf and Schön Clinics Hamburg Eilbek, Germany*

**Background:** Chronic pelvic pain syndrome (CPPS) is a chronic pain disease with high prevalence rates and causing substantial costs for health systems. Recent studies indicate that psychosocial factors play a role in the aetiology and maintenance of CPPS. While there is evidence for an association with depressive and anxious symptoms, dysfunctional cognitions and stress, little is known about the comorbidity of mental disorders fulfilling all criteria of acknowledged diagnostic classification systems. Therefore, our aim was to investigate the prevalence rates of psychiatric diagnoses being present in patients with CPPS.

**Method:** Data were collected from patients visiting a specialized outpatient clinic for CPPS at the University Medical Center Hamburg. Well-validated questionnaires were used to assess somatic (PHQ-15), depressive (PHQ-9) and anxious symptom severity (GAD-7) as well as mental and physical quality of life (SF-12). DSM-IV diagnoses were based on the Structured Clinical Interview for DSM-IV (SCID).

**Results:** Data from 160 patients were analysed. In comparison to the general population, our data revealed an elevated somatic, depressive and anxious symptom severity in outpatients with CPPS and a significantly lower physical and mental quality of life. 95.8% of the patients fulfilled the criteria for at least one DSM-IV diagnosis, with pain disorder constituting the most frequent diagnosis. However, when excluding the diagnosis of pain disorder, still 74.9% of the patients fulfilled the criteria for at least one other DSM-IV diagnosis. 45.5 % of the patients fulfilled the criteria for at least one depressive disorder and 30.5 % for at least one anxiety disorder.

**Conclusion:** The elevated symptom severity and high prevalence rates of DSM-IV diagnoses we found suggest a strong and clinically relevant psychiatric comorbidity in CPPS patients. Therefore, patients with CPPS might profit from interdisciplinary treatment approaches that include psychotherapeutic elements. These should be targeted especially at somatoform, depressive and anxious symptoms.

### **Encompassing overview of perpetuating factors of functional somatic symptoms**

*K A.M. Janssens<sup>a</sup>, J.H. Houtveen<sup>a</sup>, L.M. Tak<sup>a,b</sup>, I.J. Bonvanie<sup>a</sup>, A. Scholtalbers<sup>a</sup>, A. van Gils<sup>a</sup>, R. Geenen<sup>c</sup>, J. G.M. Rosmalen<sup>a</sup>*

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*c) Utrecht University, Department of Clinical and Health Psychology, Utrecht, the Netherlands*

**Background:** In order to personalize treatment for functional somatic symptoms (FSS), an extensive overview of perpetuating factors of FSS is needed. The aim of this combined qualitative and

quantitative study was to identify the structure and alleged importance of perpetuating factors of FSS.

**Method:** Twelve clinicians, with extensive experience in treating FSS patients, were interviewed to obtain an in-depth overview of perpetuating factors in FSS. Ninety-nine perpetuating factors were derived from the interviews. These were sorted with respect to content using a card-sorting task by 61 experienced clinicians (62.3 % psychologists, 75.4 % female, mean age: 45.7 [SD: 10.6] years, mean duration of experience in treating FSS patients: 10.5 [SD: 7.6] years). Thirty-eight clinicians rated the importance of the 99 factors on a scale ranging from 1 ('not important at all') to 10 ('extremely important').

**Results:** Hierarchical cluster analysis revealed three overarching themes of perpetuating factors: 'Hypochondria', 'Social and relational problems' and 'Symptom-related emotions and habits'. These clusters were subdivided in 16 domains, which were rated on importance between 6.1, 'Adverse physical factors and counterproductive lifestyle', and 7.8, 'Frustration and despair regarding the symptoms'.

**Conclusion:** This study revealed an encompassing hierarchical structure of somatic, emotional, cognitive, behavioral, and social factors of importance in the perpetuation of FSS based on expert opinions. This structure will guide the development of personalized treatment of FSS.

### **Patient-tailored modular treatment for patients with multi-organ bodily distress syndrome: preliminary results from a pilot study**

*H.F. Pedersen<sup>a</sup>, L. Frostholt<sup>a</sup>, L. Fjordback<sup>a</sup>, E. Rehfeldt<sup>a</sup>, P. Fink<sup>a</sup>, A. Schröder<sup>a</sup>*

*a) The Research Clinic for Functional Disorders and Psychosomatics, Aarhus University Hospital, Denmark*

**Background:** Various psychological interventions have been found effective in the treatment of functional somatic syndromes (FSS) and somatoform disorders (SFD). However, doctors experience difficulties to motivate patients for psychological treatment, and treatment offers may not be well-suited as patients differ largely in terms of illness severity, illness behaviours and their own understanding of their illness. We therefore developed a patient-tailored modular treatment program for patients with a range of severe FSS and SFD. Specific aims were to provide patients with a clear illness model, to involve patients in the decision process regarding their own treatment, and to monitor patient improvement. An uncontrolled pilot study was initiated to explore the program's feasibility and acceptability, and its potential to improve outcomes.

**Method:** From Spring 2015 to Summer 2016, up till 100 patients with severe FSS and SFD (captured under the research diagnosis of multi-organ bodily distress syndrome, BDS) are recruited from primary and secondary care. Patients are enrolled in a treatment program consisting of time-limited and focused treatment modules such as bio-psycho-social assessment, psycho-education in groups, and two different manualised bespoke group therapies, based on principles from either Acceptance and Commitment Therapy or Mindfulness Based Stress Reduction. Patient progress is monitored in regular consultations with a physician. Patients receive web-based questionnaires before and after each treatment module and a follow-up questionnaire at 12 months. Main outcome measures are physical health (SF-36), somatic symptoms (BDS checklist), and illness worry (Whiteley-8). Moreover, process measures focusing on illness perceptions (IPQ-R) and behavioural illness responses (BRIQ), perceived stress (PSS), acceptance and defusion (AFQ-Y), and mindfulness (FFMQ) will be obtained at all time points. Acceptability is measured through an adapted version of experience of service questionnaire. (ESQ).

**Results:** Preliminary data analysis show that the majority of patients engage in psychotherapy, and patient satisfaction is high. We will present preliminary results on main outcomes and process measures.

**Conclusion:** If this pilot study shows promising results, next steps would be a randomized pilot study and finally a large randomized controlled trial to compare the modular-based treatment program with a standard psychological treatment.

**Effectiveness of a health care network for somatoform disorders versus care as usual:  
Nonrandomised controlled trial**

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d) Department of Health Economics and Health Services Research, University Medical Centre Hamburg-Eppendorf Hamburg, Germany

**Background:** Clinical guidelines recommend management of somatoform disorders within stepped, collaborative, and coordinated health care networks, but to date evidence is lacking. This study aimed to assess the effectiveness of a guideline-based health care network for somatoform disorders.

**Method:** A controlled, prospective, nonrandomised, observer-blinded clinical trial was conducted to investigate the effectiveness of a stepped, collaborative, and coordinated health care network for patients at high risk for somatoform disorders (*Sofu-Net*). Patients were treated in 18 primary care practices from the *Sofu-Net* network versus 15 primary care practices providing care as usual (*CAU*). The primary outcome was the rate of high-risk patients receiving mental health treatment since the start of *Sofu-Net*. Secondary outcomes included somatic health care utilization, changes in clinical symptom severity, and a network evaluation among all network partners.

**Results:** One hundred and nineteen patients at high risk for somatoform disorders of the *Sofu-Net* intervention group and 100 of the *CAU* control group were followed-up for 6 months (follow up rates, 65% vs. 68%). A significantly greater proportion of *Sofu-Net* patients compared to *CAU* patients received mental health treatment (47.9% vs. 31.0%; IRR = 1.96; 95% CI 1.07 to 3.58). However, the *Sofu-Net* group did not show greater reductions regarding somatic health care utilization and clinical symptom burden compared to the *CAU* group. The *Sofu-Net* network was positively evaluated by the network partners.

**Conclusion:** The treatment of somatoform disorders within a guideline-oriented health care network resulted in improved patient care and communication among disciplines but not in better patient outcomes. To ensure benefit for patients, future health care networks must rigorously combine network structures with the guaranteed provision of intensive and specialized psychotherapies for somatoform disorders.

## D. NEUROENDOCRINOLOGY

*Chairs: Gerhard Schüssler, U Ehlert*

### **Does mood and perceived stress influence the age-related sex steroid decline in healthy men 40+?**

*U. Ehlert<sup>a</sup>, A. Walther<sup>a</sup>*

*a) Clinical Psychology and Psychotherapy, University of Zurich, Switzerland*

**Background:** In male sex steroid levels such as testosterone (T), dehydroepiandrosterone (DHEA), estradiol (E2), and progesterone (P) decline continuously with age. Higher endogenous sex steroid levels in older men are associated with better mental and physical health. As a consequence, a slower decline of sex steroids with age is regarded as health protective. Up to now it is unknown whether psychological factors are related to the deceleration of the age-related sex steroid decline.

**Method:** The aim of the present study was the assessment of psychological factors associated with enhanced or reduced age-related sex steroid decline in men 40+. Saliva samples were obtained from healthy community dwelling men (N=271; M age = 57.06; SD age = 10.68). Hormonal steroids (T, DHEA, E2, P, cortisol), melatonin, markers of inflammation (C-reactive Protein, Immunoglobulin A, Interleukin-6), and alpha-amylase (a surrogate for noradrenergic secretion) were analyzed by ELISA in our lab. Additionally, self-reported perceived general health, depressive mood, and chronic stress were measured.

**Results:** First, a principal components analysis for ten salivary parameters (T, DHEA, E2, P, cortisol, alpha-amylase, melatonin, C-reactive protein, immunoglobulin A, Interleukin-6) was performed. T, DHEA, E2 and P loaded on the same principal component (PC1). Second, correlation analysis revealed a negative association between salivary sex steroids (PC1) and age ( $r = -.414$ ;  $p = .000$ ). Moderation analysis showed a significant association between age-related sex steroid decline and depressive symptoms, perceived general health, and perceived chronic stress load.

**Conclusion:** Age-related differences in sex steroids are well expressed in saliva samples. While more depressive symptoms and higher stress seem to enhance age-related sex steroid decline, higher perceived general health is associated with slower age-related sex steroid decline. These risk and protective factors should be considered to maintain high endocrine health in older men. Besides hormonal supplementation, the modification of lifestyle factors and enhancement strategies for psychological well-being seem to be promising starting points to beneficially influence endocrine health and as a consequence to support successful aging in men 40+.

### **Low N-terminal pro-B-type aatriuretic peptide (NT-proBNP) longitudinally predicts elevated anxiety in depressed patients with coronary artery disease**

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**Background:** Natriuretic peptides are used as severity markers of cardiac dysfunction. They are secreted under increased hemodynamic load and biologically involved in adaptive counterregulation. A few cross-sectional studies also showed that they might have anxiolytic properties. Using data from

the multicenter SPIRR-CAD trial of stepwise psychotherapy for depressed patients with coronary artery disease (CAD) we investigated whether baseline levels of NT-proBNP predict anxiety not only in cross-sectional analysis but also longitudinally over up to two years of follow-up.

**Method:** SPIRR-CAD randomized 570 at least mildly depressed CAD patients to either enhanced usual care or a stepwise psychotherapy intervention. Baseline NT-proBNP values and valid anxiety scores on the Hospital Anxiety and Depression Scale at all 6 assessment points were available for 309 patients (81% men, mean age 60±9 y.).

**Results:** Patients in the lowest quartile of baseline NT-proBNP (<82 ng/l) scored significantly higher on baseline anxiety than patients in the upper three quartiles (11.0±3.2 vs. 9.9±3.9; p=0.020) and their anxiety levels remained elevated over the entire course of the trial. Repeated measures ANCOVA adjusting for age, sex, and treatment allocation revealed a significant main effect (p=0.018) for low NT-proBNP on overall anxiety, a significant time\*low NT-proBNP effect (p=0.048) and a significant (p=0.01) three-way interaction of time\*low NT-proBNP\*sex. Anxiety decreased more in patients with higher vs. low baseline NT-proBNP (-2.9 vs. -1.8). Especially women with higher NT-proBNP reduced their anxiety from 11.4±4.1 to 7.5±4.3 (p<0.001), while women with low NT-proBNP showed almost stable high anxiety scores from baseline to 24 months (12.1±2.9 to 11.4±4.5; p=n.s.). In men, anxiety improved regardless of baseline NT-proBNP.

**Conclusion:** We confirmed that low NT-proBNP secretion in the context of coronary artery disease is related to elevated anxiety, both cross-sectionally and over a two-year follow-up. Low NT-proBNP may be an indicator for persistently high anxiety especially in depressed women with CAD.

### **Chronic stress exposure in the elderly compromises the non-inflammatory properties of glucocorticoids**

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**Background:** The hypothalamic-pituitary-adrenal (HPA) axis and the immune system have a well-described bidirectional relationship. Whether chronic stress exposure disrupts the interaction between these two systems is not known.

**Method:** Information on stressful life events and risk factors was obtained in standardized interviews of the population-based KORA Age study population (394 male and 374 female, mean age = 75.1±6.3 years). Salivary cortisol was measured in the morning after awakening (M1), 30 minutes after awakening (M2) and late evening (E). Concentrations of serum cortisol and IL-6 levels were measured at the study center. Multivariate regression analyses (adjusted for age, sex, adiposity, multi-morbidity, depressed mood and anxiety) were employed to examine the association between cortisol measurements and IL-6 in subjects, stratified for stressful life events.

**Results:** In the total sample population, 30.7% (N=236) participants experienced a stressful life event during the year before examination whereas 69.3% (N=532) did not. A lower cortisol awakening response (CAR) was observed in subject with stressful events compared to individuals without an event, however, was only significantly lower in women (P=0.0002) and not men (P=0.2). A lower M1 to E ratio and M2 to E ratio was associated with higher IL-6 levels but this was only statistically significant in subjects without a stressful event. Subjects who had experienced a recent stressful life event and who were in the top tertile of serum cortisol level had significantly increased IL-6 levels.

**Conclusion:** The cross talk between cortisol and inflammatory markers is dysregulated under conditions of chronic stress.

## Psychosocial stress, health and cortisol in working women living in high and low status neighbourhoods in Sweden

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**Background:** Contextual factors including neighbourhood status have consistently been associated with health disparities. Focusing on mechanisms, this study investigated linkages between psychosocial stress, health and cortisol in working women (N=542) living in high and low status neighbourhoods

**Method:** Women living with children in objectively defined high and low status neighbourhoods in Stockholm County suburban areas were invited to a questionnaire study and a subsample (n=88) also provided salivary samples analysed for cortisol.

**Results:** Results showed that women in high status neighbourhoods had significantly better self-rated health while women in low status neighbourhoods had significantly lower waking cortisol. However, there were no group differences in aggregate cortisol measures.

**Conclusions** The findings follow previous research with cortisol results tentatively suggesting hypocortisolism as a pathway linking neighbourhood status and health disparities, albeit a less consistent finding in this particular sample. This may relate to the Swedish welfare state and its way of fostering of equality, which is an important contextual aspect to factor in also in health psychology research.

## E. CHRONIC FATIGUE SYNDROME: AN UPDATE ON MECHANISMS AND IMPLICATIONS FOR TREATMENT

Chair: Simon Wessely

### Is postural orthostatic tachycardia a useful diagnostic marker in chronic fatigue syndrome patients?

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**Background:** Recently it has been suggested that the postural orthostatic tachycardia syndrome (POTS) is an objective diagnostic marker in patients with chronic fatigue syndrome (CFS). In a large Dutch CFS cohort, the prevalence of POTS was compared to the prevalence of POTS in persistent fatigued patients who did not meet CDC consensus criteria for CFS. Second, it was assessed whether CFS patients with POTS are less physically active, more impaired or respond differently to treatment with cognitive behavior therapy (CBT) as compared to CFS patients without POTS.

**Method:** Between June 2013 and December 2014, all consecutively referred patients complaining of persistent fatigue underwent a standardized active standing test, with measurement of blood pressure and heart rate, as part of their initial evaluation. All patients filled out web-based questionnaires and wore an activity sensing device for twelve consecutive days. POTS was defined as an increase in heart rate by  $\geq 30$  beats per minute within the first ten minutes after attaining the upright position, or as the standing heart rate exceeded 120 beats per minute.

**Results:** 419 patients were diagnosed with CFS and 341 patients complained about severe fatigue without CFS. POTS prevalence in the adult CFS population was 5.7%, which was not different from prevalence in non-CFS adults (6.9%,  $p=0.54$ ). In adolescents, prevalence was 18.2% and 17.4%

respectively ( $p=0.93$ ). Adult POTS-CFS patients were younger ( $30\pm 12$  vs.  $40\pm 13$  years old,  $p=0.001$ ), and had a higher heart rate in supine position ( $71\pm 11$  vs.  $65\pm 9$  beats per minute,  $p=0.009$ ) compared to non-POTS CFS patients. Between POTS and non-POTS CFS patients, there were no differences with respect to blood pressure, CFS-related symptoms, use of medication or physical activity patterns. POTS-CFS adolescents, but not adults, had decreased recovery rates after CBT (58.3% vs. 88.4%,  $p=0.017$ ).

**Conclusion:** In adults with CFS, POTS prevalence was low, not different from the non-CFS fatigued population, and was not related to disease severity or treatment outcome. In adolescents, POTS-CFS patients recovered less frequently after CBT, but this difference was not large enough to withhold the intervention from these patients. The evaluation of POTS seems of no significant additional value for the diagnosis of CFS.

### Psychoendocrine alterations in individuals with chronic fatigue syndrome

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**Background:** Chronic fatigue syndrome (CFS) is characterized by fatigue and symptoms such as post-exertional malaise and myalgia. Due to the as-of-yet unexplained nature of its symptoms, it is often considered a functional somatic syndrome. There is evidence of increased psychosocial stress in CFS. At the same time, dysregulations of stress-responsive systems such as the autonomic nervous system (ANS) and the hypothalamic–pituitary–adrenal (HPA) axis have been associated with symptoms such as fatigue and pain. The present study was therefore conducted to investigate for the first time whether patients with functional somatic syndromes in general, and CFS specifically, show dysregulations in ANS and HPA axis reactivity when exposed to a psychosocial stressor.

**Method:** This analysis is part of an ongoing study that will be completed by June 2016. Data are so far available for 56 women: 40 suffering from a functional somatic syndrome (including  $n = 27$  CFS patients), and 16 healthy controls, as confirmed by a thorough medical and psychiatric screening. All participants were exposed to the Trier Social Stress Test (TSST). Salivary alpha-amylase and cortisol were repeatedly assessed (-30, -1, +10, +20, +30, +45, +60, +75, +90, and +120 min in relation to the TSST) to monitor ANS and HPA axis reactivity. Patients and controls were compared regarding their mean levels and response to the TSST, respectively.

**Results:** The overall sample of patients with functional somatic syndromes differed from healthy controls in that they showed a slightly flattened alpha-amylase pattern in response to the TSST ( $p = .062$ ). These effects were not found when only looking at cases with CFS ( $p = .307$ ). The overall patient sample was further characterized by relatively diminished mean cortisol levels ( $p = .054$ ), but again, this was not confirmed in the sub-sample of CFS patients ( $p = .142$ ). No other differences were found between patients and controls (all  $p > .600$ ).

**Conclusion:** The present study shows attenuated ANS reactivity combined with attenuated HPA axis activity in patients with a functional somatic syndrome, including cases with CFS. These findings have implications for the pathophysiological understanding of these illnesses. For instance, both ANS and HPA axis dysregulations are likely to contribute to the frequently observed low-grade inflammation in patients, and as such may be directly involved in commonly experienced symptoms such as fatigue and pain.

### Is chronic fatigue syndrome an inflammatory disorder?

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**Background:** Chronically elevated inflammation provides a putative target in the search of a meaningful biomarker for chronic fatigue syndrome (CFS). While research has investigated levels of inflammatory biomarkers in people with CFS compared with healthy controls, these groups have not yet been examined at a meta-analytic level. To evaluate the degree and direction of these associations, we identified the existing evidence and combined these.

**Method:** A systematic review sought studies that compared levels of inflammatory proteins in people with a diagnosis of CFS. Using data from the included studies, meta-analyses compared levels of biomarkers measured in at least four studies.

**Results:** 48 studies were included following the systematic search, and thirteen biomarkers were examined in analyses. Tumor necrosis factor-alpha (TNF $\alpha$ ), transforming growth factor-beta (TGF $\beta$ ), c-reactive protein (CRP), interleukins 2 (IL-2), 4 (IL-4), 1-beta (IL-1 $\beta$ ) and 12 (IL-12) were elevated in people with CFS compared to controls; the remaining biomarkers (IFN $\gamma$ , IL-1 $\alpha$ , IFN $\alpha$ , IL-8, IL-10 and IL-6) were not different between the two populations.

**Conclusion:** It is not possible at this stage to elucidate whether high inflammation in CFS is of primary pathophysiological importance or secondary to other factors (e.g. stressful experiences, sleep disturbances, physical deconditioning, endocrinological changes), and the role of inflammatory alterations in treatment is not addressed by these analyses. However, these results have potentially important implications for the understanding, classification and treatment for CFS, pending further investigations of inflammatory mechanisms.

### **Personality and chronic fatigue syndrome: a biopsychosocial perspective**

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**Background:** There is compelling evidence that Chronic Fatigue Syndrome (CFS) is associated with a dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis, reflecting a fundamental loss of resilience of the main biological stress response system after a prolonged period of chronic stress/overexertion. It has been postulated that increased vulnerability for chronic stress and subsequent neuroendocrine alterations in CFS may result, at least in part, from elevated levels of (self-critical) perfectionism. This presentation aims to provide an overview of theory and research on perfectionism in CFS.

**Method:** A review of recent findings. This overview discusses the biopsychosocial (stress) model of CFS, the role of perfectionism (and related traits) in the development and perpetuation of CFS, and the mechanisms and origins of perfectionism in CFS. It also discusses the impact of perfectionism on treatment outcome in CFS.

**Results:** Both cross-sectional and prospective studies have shown an association between perfectionism and chronic fatigue. Moreover, there is increasing evidence that perfectionism in CFS may lead to impairments in stress regulation and loss of resilience of the stress response system in the long run. Perfectionism in CFS has been linked to early negative experiences, and may reflect a compensatory strategy to defend against negative self-feelings. Finally, research suggests that perfectionism may negatively affect treatment response in chronic fatigue and pain disorders.

**Conclusion:** The review suggests that perfectionism is one of the key factors contributing to stress-induced dysfunctions in CFS. Hence, treatment of CFS should include a focus on perfectionism in at least a subgroup of patients.

## **F. THE INCREASING SCOPE OF GROUP PSYCHOTHERAPY FOR COMPLEX PATIENTS**

*Chair: Ken Schwartz*

### **Psychotherapeutic groups for elderly patients with multiple co-morbidities**

*K. Schwartz*

*Baycrest, Toronto, Canada*

**Background:** Older adults with psychological and emotional struggles often have medical co-morbidities. This presentation aims to show how an evidence-based and cost-effective integrated group therapy model is particularly suited to help this population to optimally adapt to the many losses associated with aging and/or medical or depressive illness. This presentation also aims to show how group therapists working with patients living with acute, chronic or terminal illness, help group members, be it in community, hospital or long-term care settings, achieve a better quality of life through maintaining interpersonal relationships while coping with many losses such as independence and role status.

**Method:** Technical and countertransference challenges, along with clinical material will illustrate themes, therapeutic factors and modifications necessary to work with this clinical population. The applicability of this integrated therapeutic approach in helping patients learn to manage expectations by better accepting both what they can and cannot change will be shown. A series of questions encouraging therapist's self-reflection of the experience of working with this population will also be presented.

**Results:** The importance of a cohesive group therapy setting will demonstrate how this treatment model can help these patients better cope and experience psychological growth with more open expression of feelings both in and out of the group setting, leading some members on occasion to even flourish in their last stage of life. Therapists upon reflecting on how personal feelings and attitudes with respect to issues of aging and medical illness in both themselves and their patients, benefit from understanding how these feelings can impact their clinical practice.

**Conclusion:** Therapists able to understand and tolerate their own emotions, coupled with their learning of new practices/techniques that facilitate the psychological coping and healing process in older adults with complex health problems, will be more comfortable and able to work in both group and individual settings with this often forgotten and undertreated population.

### **Psychotherapy with patients with chronic kidney disease and diabetes: focus on group psychotherapy**

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Patients with severe medical illness, such as chronic kidney disease and diabetes suffer from significantly impaired quality of life, where their physical, mental and social well-being is severely compromised. Both dialysis and transplantation pose significant challenges for the patients, families and caregivers to cope with everyday life as well as facing existential issues. Depression, anxiety, trauma, feelings of hopelessness and demoralization is often experienced by the patients and their family members. As an example, home dialysis in particular is a very unique model of care, with a complex treatment employed by patients and caregivers at home, posing extreme challenges of coping with this difficult illness. Integrated psychotherapies can provide unique support for patients and caregivers to built their resilience while managing the illness and its demanding treatment. Individual, couple, family and in particular, group therapy can be a very valuable source of support in the unique and complex challenges our patients and their families face. Opportunities to discuss the stress of disease normalizes the human experience of suffering and fosters compassion.

After briefly reviewing the literature, I will discuss how we should adapt our psychotherapy methods

in general, and group work in particular to treat complex medically ill patients using flexible, integrative approaches including psycho-education (about the disease, its particular treatments and mental health issues), interpersonal and supportive elements as well as existential approaches. We will discuss both how common therapeutic factors work in groups of patients with kidney disease and diabetes as well as the specific considerations in these patient groups.

### **Being ‘the New Kid on the Block’ – Reflections of a new co-therapist joining a well established Geriatric Coping Group**

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The Baycrest Geriatric Coping Group uses an integrated group psychotherapy model for patients with complex medical and psychiatric illness. The intervention facilitates adjustment to declining health, interpersonal losses and associated feelings of decreasing autonomy. I will discuss my experience of integrating as a new co-therapist bringing an interpersonal emphasis into this longitudinal, well-established group.

We are providing an increased interpersonal focus into an integrated therapy group during weekly, 1-hour-45 minute sessions. The integrated group model features increased therapist activity and utilizes a hybrid of psychodynamic, interpersonal, developmental and cognitive behavioural approaches. The interpersonal focus redirects members’ tendency to dwell on events of the remote past, with an increased emphasis on the relationships alive within the group context.

Group membership remained consistent despite the addition of a new co-therapist bringing an interpersonal focus into a group with membership of over a decade. An increased emphasis on interpersonal themes is allowing for increased exploration of age-related themes in the present, with increasing capacity to manage interpersonal conflicts to further strengthen group cohesion and facilitate individual growth and expression in the final states of life.

This presentation will encourage therapist reflection and enhance discussion on providing group therapy to elderly patients grappling with end of life themes. The audience member will have a greater appreciation of the impact of re-directing the group’s natural tendency to focus on themes of the remote past to their manifestation in the “here-and-now” to facilitate growth and personal expression in the final states of life.

### **Creation of a psychosocial Interventions Clinic for elderly patients with schizophrenia**

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**Background:** Cognitive deficits are among the strongest predictors of function in individuals with schizophrenia. No pharmacological interventions reliably improve these impairments. As patients grow older, additional age-related declines are observed. Cognitive Remediation (CR) improves cognition in individuals with schizophrenia. Cognitive Behavioural Social Skills Training (CBSST) improves social and instrumental function by incorporating cognitive techniques and social skills training. This talk will discuss the implementation of CR together with CBSST into the clinical setting as part of a Psychosocial Interventions Clinic.

**Method:** We adapted a CR protocol involving restorative and strategy-based methods for older outpatients with schizophrenia. CR is provided in twelve, biweekly, two-hour didactic sessions with online clinic-based practice exercises. Computerized drill and practice exercises are used with bridging to activities of daily life. We modified computer lab ergonomics to accommodate mobility

needs. CBSST is provided in 18-weekly, two-hour sessions covering cognitive, social skills and problem solving modules. Participants for both programs are assessed at baseline and end-of-study using clinical and cognitive assessments.

**Results:** CBSST has been provided to two groups of participants; one group has received CR. All participants are over the age of 60 and have a diagnosis of schizophrenia. Qualitative feedback from participants and infrastructure accommodation suggest that the clinics are tolerable and feasible.

**Conclusion:** These modalities are well tolerated by most older outpatients with schizophrenia and is a feasible addition to an integrated care plan. Further analysis is underway to assess for empirical improvements in cognition and social functioning with the current frequency and number of sessions.

## **G. COMMUNICATION SKILLS-TRAINING FOR HEALTHCARE PROFESSIONALS**

*Chairs: Frank Vitinius, Hedda Lausberg*

### **Psychosomatic medicine and patient-centred communication - a necessary combination**

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The essence of Psychosomatic Medicine is the acceptance of subjective complaints and objective findings as equally relevant aspects of individual suffering. From a philosophical standpoint, objective facts can be stated by everyone as long as s/he is a competent speaker, whereas subjective facts are those that only one individual could tell about him- or herself. Traditional medicine favours objective facts; hence e.g. the requirement to perform double blinded randomised trials to exclude subjective aspects as rigorously as possible. If we assume that doctor patient communication in psychosomatic medicine should extend beyond the realm of objective findings, communication strategies should be used that serve this purpose. A refined definition of patient-centred communication(p-c-c) might be helpful in this regard.

P-c-c is a rather vague concept combining a certain professional attitude ('doctor-as-person'), a certain goal ('elicit the patient's perspective'), and a certain ethical orientation ('partnership' instead of interaction of expert and lay person). As subjective facts are intimately linked to an individual person with his history and his very personality they are largely unpredictable. This means: they cannot be targeted at with well-chosen elaborate questions, they must be told.

Fundamentally, p-c-c is characterised by an attempt to hand over the initiative to the patient, it is meant to help patients into a free narrative. The most successful professional attitude is friendly curiosity, being based on the conviction that the patient's inner world cannot be identified from observable findings (e.g. age, gender, profession, etc.).

We will present our training strategy that uses rather uncommon situations to teach p-c-c: setting the agenda and giving information. In these instances, the use of intentional pauses, e.g. after having announced the professional's topics to be dealt with, is the most significant element of p-c-c that most medical students and participants of post-graduate trainings find the least familiar and the most difficult to practice.

### **Evaluating the efficacy of patient-centered communication - plenty of unresolved issues and the need for future perspectives**

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Protocols for teaching patient-centered communication have been successfully used and taught in

educational interventions and evidence from observational studies of patient-centered care is mounting that intensive communication skills training (CST) is effective in changing physicians' behavior, confidence and skills. However, none of these studies could demonstrate that physicians' gained skills and improved behavior are effective in relieving patients' distress, anxiety or negative affect during the course of critical physician-patient interactions, nor in enhancing patients' trust in their physician. These findings raise questions about skills transfer from simulation training to actual patient care, about lack of congruence from experts' and patients' perspective on what constitutes helpful, patient-centered communication, and about the adequacy of communication skills assessment.

From another perspective, findings from neuroscience add to the accumulating research suggesting a salient role for physician empathy on health and patient well-being. This points to the need to re-integrate old concepts of 'healing' physician-patient relationships, and of human connectedness on which all communication is based.

Departing from an overview on the current research from varying perspectives, achievements, inconsistencies and unresolved challenges are discussed, alongside with open questions: for future concepts, teaching and research on patient-centered communication that could help to overcome some of the pitfalls and barriers we are currently facing.

### **Development of a Train the Trainer workshop – Conceptual issues regarding context and evaluation**

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**Background:** Literature on the development of train the trainer (TtT) workshops is scarce, here we present basic principles in the set-up of a course and present innovative tools during the workshop. We report results of a pilot TtT course for health care providers (trainees; nurses, physicians, psychologists) who were trained to be able to run a 4 hours seminar on improving medication adherence and using patient-centred communication. The TtT workshop lasted for 22 hours. Based upon reports from other trainers and our own experience, we hypothesised that the main problem in TtT courses relates to repetitive role shifts and switching tasks: participants sometimes act as workshop participants and sometimes as future trainers. Furthermore, they sometimes *do* something (*acting function* as participant or workshop facilitator) and sometimes they *reflect* on something (*reflexive function*).

**Method:** We recorded participants' experiences with two innovative didactic interventions: use of a log-book, in which trainees recorded 'teachable moments' resulting from participant behaviour or trainer interventions and working with problem participants which each participant developed initially and brought into play during training.

Pre- and post-training participants rated perceived competence in dealing with typical problem situations as trainers. After the workshop a focus-group was held, transcribed, and analysed for content.

**Results:** Trainees identified role shifts and the switch between acting and reflecting as major problem and welcomed the possibility to postpone discussions by writing notes into their log-book. They highly welcomed the provision of ample time to discuss their comments and questions during the training. They loved the idea of playing a problem participant and appreciated role plays to practice modes of interaction with them. Perceived competence as trainer increased by ~one point on a 5-point-likert-scale.

**Conclusion:** A 22 hours TtT seminar to run a four hours workshop seemed feasible, the use of a log book helped reduce role confusion, role-playing difficult participants stimulated the exchange of trainer strategies.

## H. SOCIAL ENVIRONMENT, EXISTENTIAL HEALTH AND RESILIENCE

*Chair: Göran Waller, Umeå, Sweden*

### **Self-rated health and standard risk factors for myocardial infarction: a cohort study**

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**Background:** To investigate the relationship between self-rated health, adjusted for standard risk factors, and myocardial infarction and to discuss self-rated health as a proxy for resilience and existential meaning making.

**Method:** Population-based prospective cohort study from Västerbotten County, Sweden. Enrolment took place between 1990 and 2004 and persons in the total population aged 40, 50 or 60 were each year invited. Participation rate was 60%. After exclusion for prior stroke or myocardial infarction, or within 12 months after enrolment or death within 12 months after enrolment, 72530 persons remained for analysis. Cox regression analysis was used to estimate Hazard Ratios (HR) for the end point of first non-fatal or fatal myocardial infarction. HR were adjusted for age, sex, systolic blood pressure, total cholesterol, smoking, diabetes, body mass index, education, physical activity and self-rated health in the categories very good; pretty good; somewhat good; pretty poor or poor.

**Results:** Mean follow-up time was 13.2 years. 2062 persons were diagnosed with fatal or non-fatal myocardial infarction. Poor self-rated health adjusted for sex and age was associated with the outcome with HR 2.03 (95% CI 1.45 to 2.84). In a multivariable analysis with standard risk factors HR was attenuated to 1.61 (95% CI 1.13 to 2.31) for poor self-rated health. All categories of self-rated health remained statistically significant.

**Conclusion:** This study supports the use of self-rated health as a standard risk factor among others for myocardial infarction. Based on prior research, it can be hypothesized that possible causal pathways for the connection between self-rated health and myocardial infarction could be physiological changes in the body measured as allostatic load or cytokine levels. Self-rated health is an inclusive measure. Existential health and existential meaning making and resilience could be essential parts in explaining the connection between self-rated health and myocardial infarction.

### **Time trends in comparative self-rated health in Northern Sweden 1990 - 2014**

*M. Waller Lidström<sup>a</sup>, U. Janlert<sup>b</sup>, R. Lundqvist<sup>c</sup>, A. Forssén<sup>a</sup>, G. Waller<sup>a</sup>*

*a) Division of Family Medicine, Umeå University, Umeå, Sweden,*

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*c) Research Unit, County Council of Norrbotten, Luleå, Sweden*

**Background:** Young adults, report increasingly bad health. This study describes time trends in comparative self-rated health in men and women aged 25 to 34 in a population in Northern Sweden between 1990 and 2014 and time trends for some possible determinants.

**Method:** Population-based cross-sectional independent samples performed in 1990, 1994, 1999, 2004, 2009 and 2014 from the Northern Sweden Monica Study. In total 1811 persons (944 women and 867 men) participated. Comparative self-rated health was measured by answers to the question "How do you assess your general health compared to persons of your own age?" on an ordinal scale with the answers better; worse; about the same. Descriptive statistics was done to show time trends

in comparative SRH and determinants. Ordinal logistic regression was used to determine associations between determinants and self-rated health. All analyses were done for men and women separately.

**Results:** The proportion of women rating their health as worse than those the same age increased from 8.5% in 1990 to 20.0% in 2014 ( $\chi^2 < 0.001$ ). The proportion of men rating worse health had only marginally increased. Unfavorable trends were observed for most of the determinants, comparable between men and women. Associations between SRH and determinants were similar between men and women except for personal economy.

**Conclusions** There has been a growing health divide between men and women in young adults. This could be understood by societal expectations and gendered norms that act differently upon men and women but also on changes in social environment, existential meaning making and modes of resilience.

### **Experiences and explanations of mental illness in an ethnic Swedish group of devout Christians in a secular healthcare context**

A. Lilja<sup>a</sup>, V. DeMarinis<sup>a,b</sup>, A. Lehti<sup>c</sup>, A. Forssén<sup>a</sup>

a) Division of Family Medicine, Department of Public Health and Clinical Medicine, Umeå University, Sweden,

b) Religion and Cultural Psychology, Uppsala University, Sweden,

c) Department of Clinical Sciences, Umeå University Sweden

**Background:** Aims: To create a deeper understanding, in a secular healthcare context, of meaning-making in an ethnic Swedish group of Christian patients with mental ill-health, not earlier investigated; and to create knowledge regarding the importance of access to existential meaning-making in person-centered health care.

**Method:** A qualitative study based on audio-recorded, in-depth interviews with strategically selected women (12) and men (5), aged 30 to 73 years, devote Christians belonging to different denominations, from different parts of Sweden, and having sought medical care because of mental illness. Analysis was performed using Systematic Text Condensation.

**Results:** A living, although asymmetric, relationship with God was often seen as the most important of relationships, giving hope and support when ill, but creating feelings of abandonment and fear if perceived as threatened. Usual symptoms often were colored with existential meaning influenced by a view of God as being judging or merciful. As a consequence of a perceived judging God, feelings of guilt, sinfulness and shame often increased, and suicidal thoughts became even more fearful. A perceived merciful God soothed symptoms and promoted recovery. Existential consequences, such as being unable to read the Bible, to pray or to participate in congregational ceremonies or rituals, often followed, creating a feeling of distance in relation to God. Bio-psycho-social explanations of mental illness, prevalent in Western medicine and the Swedish society, generally were embraced. Examples of coordinated medical and religious explanation models of illness were given, as well as examples of conflicting models, such as experiencing illness as a part of God's plan, or being attacked or invaded by demons. Such explanations could make it more difficult to seek healthcare and accept treatment.

**Conclusion:** Research on cultural aspects, including religion, in mental health in Western societies, and particularly secular Scandinavia, has often focused on ethnic minorities. Our findings show that important information about both risk and protective factors for recovery is thereby lost, if patient-centered care does not pay attention to patients' ways of meaning-making, including religious faith. The three different patterns of interaction between medical and religious explanations of illness causation present a typology for clinical testing, in primary health- as well as psychiatric care contexts.

## **A psychosocial-, somatic- and existential health study among Assyrian-Syrian refugees in Istanbul- understanding resilience in the midst of hardship**

V. DeMarinis<sup>a,b</sup>, Ö. Cetrez<sup>b,c</sup>

a) Dept. of Public Health and Clinical Medicine, Umeå University, Sweden,

b) IMPACT Research programme, Uppsala University, Sweden,

c) Swedish Research Institute, Istanbul, Turkey

**Background:** Public mental health study primary aim: assessing self-rated psychosocial-, somatic- and existential health status of Assyrian-Syrian Christian refugee's in-transit in Istanbul hoping for asylum in Sweden. Second aim: exploring interactions among health dimensions at two periods, pre- and post- participation, ca. two months, in activity centre where refugee participants led most activities. Theoretical orientation from research with refugee populations and need for multidimensional health model, including existential and cultural information, for improved accuracy of health assessment and planning health-promoting interventions.

**Method:** Exploratory study, limited research on Syrian refugees in Turkey, first study with this sub-population. Mixed-methods design with health survey (this study), and preceding semi-structured interview study. Assyrian-Syrian Christian refugees (n = 171, 70% males, mean age 31). Vulnerable population with active, multi-generational, cultural memory of religious persecution in Turkey, having health consequences and influencing daily routines. Measures: Patient Health Questionnaire (PHQ), Brief R-COPE (religious coping), General Self-Efficacy Scale (GSE), Connor-Davidson Resilience Scale (CD-RISC), Primary Care Post Traumatic Disorder Scale (PC-PTSD), other health items.

**Results:** Trauma experienced by 52%, 23% met PTSD criteria. Own physical health (< .001), own psychological health (< .05), and PHQ ratings correlated with PTSD. Females rated own physical health (< .01) and psychological health (< .01) worse than males. Paired-samples t-test showed significant changes pre- and post for increased Positive R-COPE (< .08), decreased Negative R-COPE (< .05), and increased GSE (< .05). Paired-samples t-test showed significant gender difference for PHQ (< .01) and GSE (< .01). A mediation model, using Sobel test, showed for males that positive religious coping strategies reduced symptoms by improving evaluation of own psychological health (< .001). Centre activities: language learning, computer classes, culture events, sports, support groups, teaching refugee children.

**Conclusion:** Results support findings on importance of cultural- and existential information for increasing accuracy of health-status mapping and for program planning with refugee populations. Results emphasize activity and involvement of refugee populations for their mental health and daily function while in transit and after arrival in the host country.

### **I. CLINICAL COMPLEXITY: PROVIDING CONSULTATION ABOUT COMPLEX CASES IN A VARIETY OF PRACTICE SETTINGS**

Chairs: Steven Frankel, Joost Mertens

#### **Small is beautiful AND stressful**

O.M. Christiansen<sup>a</sup>

a) Helse Førde, The Psychiatric Outpatient Dept, Førde, Norway

**Background:** Working as a C/L psychiatrist as a part time member of a palliative team at the cancer ward in a small Norwegian hospital requires dealing with complex cases under less than ideal circumstances.

**Aims:** To discuss challenges encountered in this role when consulting about complex cases and especially to providers who are challenged to deliver continuous care.

**Method:** A selection of cases will be presented in a “consulting session” with the presenting panel as well as the audience. My goal will be to demonstrate challenges encountered in my C/L role and ways I have found to deal with them, especially as requests for consultation become confounded with expectations that I will contribute to treatment of these difficult patients and support the staff as they work with them.

**Results:** Since I am present only one day a week, prioritizing time and resources is important in my C/L role. Thus, a considerable part of the work is performed indirectly, through teaching, supervising, and counselling nurses and oncologists. This is a small community where residents may find themselves with the triple identity of treating staff, patients, and neighbors.

Issues unique to this hospital and the delivery of care in Norway include managing to muster a full range of key professionals at a small hospital, even though most of them work part time. The enlarged palliative team consists of multiple part time providers that when available include a family physician specialized in palliative care; oncologist; oncological nurses; physiotherapist; social worker; occupational therapist, chaplain and psychiatrist. However, only a few of these providers are available at any point in time. The technical and sociological considerations of this circumstance and how it affects patient care will be discussed-

**Conclusion:** We expect to exit the symposium with more understanding of challenges encountered when consulting to complex clinical situations in a local situation in Norway, as well as in the European and American contexts of Psychosomatic Medicine.

### **To stroke or not to stroke: misunderstandings in complex neuropsychiatric patients within a multidisciplinary meeting**

*J. Mertens<sup>a</sup>*

*a) Department of Psychiatry, Antonius Hospital, Sneek, Netherlands*

**Background:** Since 2014, in the Dutch Hospital of Sneek, a monthly meeting between the departments of rehabilitation physicians, psychology, psychiatry and neurology was set up to discuss patients with complex complaints following stroke. Most often, the neurologists and rehabilitation physicians argue that the complaints or symptoms ‘do not fit the findings in physical examinations or imaging.’ The psychiatrists often argue that not all symptoms fit the diagnosis of somatization disorder.

**Aims:** To discuss the misunderstandings within a multidisciplinary team in a multidisciplinary meeting involved in treating patients with neuropsychiatric problems such as sequelae of stroke or ‘semi-stroke’ in a Dutch hospital.

**Method:** Two cases of these complex patients with a history of stroke will be presented illustrating mutual misunderstandings frequently encountered in the framework of this clinical meeting. The process of diagnosis and differences in paradigms hampering a mutual understanding of the difficult interaction between the soma and the psyche will be discussed.

**Results:** The cases will be discussed in a “consulting session” format with the presenting panel as well as the audience contributing. Are the barriers encountered in this case specific or universal? How do we approach them?

**Conclusion:** We expect to exit the symposium with more understanding of challenges encountered when consulting to complex clinical situations in the European and American contexts of Psychosomatic Medicine

## **Counselling patients and relatives in psychooncology in Germany: chances and barriers within the German health system**

*F. Geiser<sup>a</sup>*

*a) Klinik und Poliklinik fuer Psychosomatische Medizin und Psychotherapie, University of Bonn, Germany*

**Background:** Aims: To discuss challenges encountered within a German Psychooncology C/L-service illustrated by an exemplary clinical case

**Method:** A case of C/L-work with a relative of an oncological patient will be presented, illustrating barriers frequently encountered in the framework of this clinical setting within the German health system. Keywords for this case are working with relatives in an ambulatory setting without proper funding in the health system, ethical and practical questions in counselling relatives when the patient himself refuses support, support for children of cancer patients, and approaching colleagues from "somatic" specialties about problems in patient care, unique features of the German health system facilitating and obstructing C/L-work and care.

**Results:** The case will be discussed in a "consulting session" format with the presenting panel as well as the audience contributing. Are the barriers encountered in this case specific or universal? How do we approach them?

**Conclusion:** We expect to exit the symposium with more understanding of challenges encountered when consulting to complex clinical situations in the European and American context of Psychosomatic Medicine.

## **When limited time allocated to the consultation process in complex end of life cases obstructs discovery and effective intervention**

*S. Frankel<sup>a</sup>*

*Department of Psychiatry, University of California, San Francisco, California, USA*

**Background:** Aims: To discuss challenges in an American consultation service when insufficient time was devoted to consultation for end of life cases.

**Method:** The consultation process in San Francisco, California is typically time limited and predominately factual. The consultant may interview the patient and provide feedback based on referral questions. Ironically the patient may be experiencing personal difficulties, expressed somatically but not appreciated as reflective of deeper personal issues. Primarily addressing the patient's somatic symptoms may miss their root causes. Two cases have been selected for exposition from 15 analogous complex, end of life cases.

**Results:** Time limitations restricted the consultant from discovering the root cause of the patient's distress. In both cases, the consultation process was extended and led to renewed discovery. These patients had tracheostomies, were receiving cardio-respiratory assistance and could communicate mainly through writing. There was little chance their lives could be extended beyond six months. Both were cognitively intact and understood they could refuse life support measures. Both were desperate to remain alive in spite of knowing their bleak prognosis. For Mr. L. the determining issue was abandoning his handicapped wife. For Ms. X it was protecting her retarded son. In both the consultant initially missed the fundamental source of the patient's distress. Time limitations blocked the consultant from returning to discover the root cause of the patient's distress. In all fifteen cases, the consultation process was eventually extended at the request of the consultant and led to a revitalized and productive process of discovery and recommendation.

**Conclusion:** Time allocated to consultation in complex, end of life cases may need to be extended. If too restricted the consultant may not only fail to understand the source of the patient's distress but be unable to recommend effective interventions. The situation will be discussed in a "consulting

session” format with the presenting panel and the audience contributing. This symposium should contribute to understanding challenges encountered when consulting about complex cases in the European and American psychosomatic medicine.

PARALLEL SESSIONS

**Friday 17 June 9.00 - 10.30**

**A. CLINICAL SKILLS TRACK 2B: WORKSHOP – ASSESSING COGNITIVE DYSFUNCTION IN YOUNG AND OLD. WHEN MINI MENTAL STATE IS NOT ENOUGH...**

*Chairs Anna Beck, Mikael Sandlund (incl. lunch session)*

In collaboration with Maastricht University, Netherlands and Aarhus University, Denmark

- Marjolein de Vugt
- Mille Moeller Thastum

In everyday practice, assessing cognitive function is a clinically challenging and difficult task. Assessing cognitive function, we often resort to the mini mental state, but this test can miss important aspects of cognitive impairment. In young people, cognitive defects are often discrete, especially if it lies in the realm of executive dysfunction.

As cognitive dysfunction is easily missed, cognitive symptoms may often be misinterpreted as “psychological” and “maladaptive”. Such patients may then inappropriately be referred to psychotherapy. This, in such circumstances, may be ineffective or even do more harm than good.

Brought to you by neuropsychologists from Maastricht and Aarhus University, this practical workshop, based on case examples, will teach a systematic approach to screening cognitive function and dysfunction in elderly patients, and to make you more capable of recognizing cognitive dysfunction in young patients.

**By attending you will:**

- Learn to detect and understand cognitive dysfunction in the context of presenting problems and behaviours.
- Understand the difference between cortical and subcortical dementias and ways to diagnose these.
- Improve your skills in recognizing cognitive and executive dysfunction in young people
- Gain insight into forms of psychological support suitable for patients with cognitive dysfunction.

You will leave the workshop with improved confidence in your skills diagnosing cognitive dysfunction and initiating appropriate therapeutic interventions.

**B. CLINICAL SKILLS TRACK 2A: WORKSHOP – SKATING ON THIN ICE – MANAGING ETHICAL DILEMMAS DURING ACUTE PSYCHIATRIC CRISIS (SWEDISH)**

*Chair Anders Berntsson*

**In collaboration with Psykiatri i Norr**

- Hans Ericson
- Per-Axel Karlsson
- Anders Berntsson, Ursula Werneke (Facilitators)

Psychiatrists and A&E doctors on call must regularly carry out risk assessments and consider tough ethical dilemmas. Often there is only little time to think, since in acute settings, doctors have to make decisions on the spot. To take decisions quickly and comfortably, on-call doctors do not only need good clinical judgement, they also need to be firmly grounded in law.

In this workshop, two senior clinicians with outstanding expertise in psychiatric emergency work will share their experience with you and discuss difficult cases. As the course draws on Swedish law, the course will be given in Swedish. However, clinicians from other Nordic countries may find this course relevant to their practice.

**By attending you will:**

- Get better understanding of risk assessment in the A&E (akutmottagningen) environment.
- Improve your technique for assessing and managing non suicidal self injury.
- Update your knowledge on the legal principles guiding the provision of physical health care for people with severe mental disorders.
- Understand under which circumstances physical health care can be given against a person's will.

After this workshop you will feel more assured about taking tough decisions in emergency situations and carry out clinical risk assessments.

**C. RESEARCH SKILLS TRACK 3: CARUS MASTERCLASS: RESEARCH ON PSYCHOLOGICAL AND PALLIATIVE INTERVENTIONS WITH LIFE-THREATENING AND ADVANCED DISEASE: FROM EMPATHY TO EVIDENCE**

**In collaboration with the University of Toronto, Canada**

- Professor Gary Rodin

Clinical trials with vulnerable populations raise unique and complex challenges related to informed consent, recruitment and retention, the validity outcome measures, the integrity and consistency of interventions and to the demonstration of benefit in the context of a deteriorating medical condition.

Psychological and palliative interventions must be feasible to deliver in such populations and tailored to the nature and stage of disease, to the life stage and social circumstances of the patients, and to the specific treatment setting.

The methodological challenges and solutions in such research will be reviewed in this workshop and illustrated by experience with mixed methods randomized controlled trials of psychosocial and palliative interventions conducted with acute life-threatening disease and with metastatic cancer. The evidence generated from such research has the potential to bridge the gap between empathy and evidence when scientific rigor ensured.

In this masterclass, Professor Gary Rodin, a world-leading expert from the University of Toronto will take us through the process to develop and study the impact of psychosocial and palliative interventions to relieve distress and to improve the quality of life of individuals facing life threatening or advanced illnesses.

**By attending you will:**

- Understand challenges and solutions in the conduct of clinical trials in patients with life-threatening and advanced disease.
- Gain greater insight into qualitative and quantitative methods to assess psychosocial and palliative interventions.
- Obtain practical tips how to get started in research to assess clinical interventions.

You will leave this masterclass with improved skills to research psychological and palliative interventions with vulnerable populations.

#### **D. BODILY DISTRESS DISORDER (BDS) OR SOMATIC SYMPTOM DISORDER (SSD): THE IMPACT OF THE NEW DIAGNOSTIC CONSTRUCTS.**

*Chairs: Per Fink, Peter Henningsen*

##### **Living with DSM-5 somatic symptom disorder**

*P. Henningsen<sup>a</sup>*

*a) Dept of Psychosomatic Medicine and Psychotherapy, Technical University of Munich, Germany*

**Background and Method:** To review first empirical data on the validity and utility of the diagnostic construct “Somatic Symptom Disorder” (SSD).

**Results:** First results are as mixed as expected. There is no structured diagnostic interview and hence no diagnostic gold standard yet. First, self-report questionnaires for assessing the psychobehavioral criteria of SSD seem to be promising in terms of reliability and validity. Among patients with so-called medically unexplained symptoms, the construct SSD appears to identify sub-groups of patients which under DSM-IV were diagnosed as having undifferentiated somatoform, somatization and pain disorder. In a group of patients with a functional somatic syndrome like fibromyalgi, the SSD construct was considered as being of limited validity and utility. So far, no studies could be identified testing the SSD construct in a group of patients with well-defined organic disease.

**Conclusion:** The current empirical basis of the diagnostic construct SSD is limited; in particular the much criticized over-inclusiveness has not been put to test yet.

##### **The bodily distress syndrome (BDS) concept in primary care and specialised settings**

*A. Schröder<sup>a</sup>, A. Budtz-Lilly<sup>b</sup>, M. Trøllund Rask<sup>b</sup>, P. Fink<sup>a</sup>, M. Vestergaard<sup>b</sup>,  
M. Rosendal<sup>b,c</sup>*

*a) Research Clinic for Functional Disorders and Psychosomatics, Aarhus University Hospital, Aarhus, Denmark,*

*b) Research Unit for General Practice, Aarhus University, Denmark,*

*c) Research Unit for General Practice, University of Southern Denmark, Denmark*

**Aims and Method:** To discuss the conceptual underpinnings of the BDS concept with special focus on the validity and utility criteria recommended for diagnostic categorisation.

**Results:** A growing body of evidence suggests that the numerous diagnoses for functional disorders listed in the current classifications belong to one family of closely related disorders. We name the underlying phenomenon ‘bodily distress’; it manifests as patterns of multiple and disturbing bodily sensations. Bodily distress syndrome (BDS) is a diagnostic category with specific criteria and various subtypes covering this illness phenomenon. The category has been explored through empirical studies, which in combination provide a first basis for determining a symptom profile, the diagnostic stability and the boundaries of the condition. However, as BDS embraces only the most common symptom patterns, patients with few or rare but impairing functional symptoms are not captured.

Moreover, the diagnosis has not yet been validated in the general population. Finally, the current lack of treatment options may influence the acceptance of the proposed diagnosis.

**Conclusion:** Bodily distress syndrome is a diagnostic category with notable validity according to empirical studies. Nevertheless, knowledge is scarce regarding its utility in primary care and specialised settings. Future intervention studies should investigate the translation of bodily distress syndrome into clinical practice, with a particular focus towards the acceptability among health care professionals and patients.

### **Incident cases of bodily distress syndrome – a cross-sectional study in primary care**

M. Rosendal<sup>a,b</sup>, A. Helles Carlsen<sup>a</sup>, P. Fink<sup>c</sup>, A. Schröder<sup>c</sup>, A. Budtz-Lilly<sup>a</sup>

a) Research Unit for General Practice, Aarhus University, Denmark,

b) Research Unit for General Practice, University of Southern Denmark, Denmark,

c) Research Clinic for Functional Disorders, Aarhus University Hospital, Denmark

**Background:** To present the characteristics of patients who later fulfill research criteria for bodily distress syndrome (BDS) and explore possible predictors for this outcome.

**Method:** A cross-sectional study of 1882 patients from Danish primary care visiting their GPs in 2009 and answering questionnaires at baseline and after 2 years of follow-up. Cases were defined as patients with a minimum of 4 symptoms on the BDS checklist plus a score on SF-12 global health signifying disability. Outcome measures were self-rated health and social network according to questionnaires supplemented by data from national registries on health care use and labour market status.

**Results:** About 8% of patients who did not have BDS at baseline fulfilled criteria at follow-up. Physical and mental health deteriorated in this group of patients during 2 years of follow-up and they had higher health care use compared to the reference group of patients not fulfilling criteria for BDS at both points. Preliminary analyses show that short education, being out of work, having multiple symptoms and a poor subjective health (physical or mental) at baseline were associated with future BDS.

**Conclusion:** This study points towards specific patient characteristics which may indicate risk of future increase in symptom load and disability. These characteristics are comparable to predictors for poor prognosis in studies of patients already having functional disorders. The results add to the body of evidence about indicators which could be used in primary care in order to increase clinician awareness and possibly improve early treatment of functional symptoms.

### **Long-term outcome of bodily distress syndrome (BDS) on sick leave, healthcare costs and work disability in primary care patients. A ten-year follow-up study.**

P. Fink<sup>a</sup>, M. T Rask<sup>b</sup>, M. Rosendal<sup>b,c</sup>, E. Ørnbøl<sup>a</sup>

a) Research Clinic for Functional Disorders and Psychosomatics, Aarhus University Hospital, Denmark,

b) Research Unit for General Practice, Aarhus University, Denmark,

c) Research Unit for General Practice, University of Southern Denmark, Denmark

**Background:** To assess the ten-year outcome as to sick leave and work disability in primary care patients with BDS compared with patients with a well-defined physical disease and to study the persistence of BDS over time.

**Method:** 1785 consecutive patients consulting their family physician (FP) were screened by questionnaires for symptoms and mental illness. FPs rated patients' main reason for consultation. A stratified subsample was examined with a standardized diagnostic interview. Patients with BDS single-organ type (n=124) and BDS multi-organ type (n=35) and a reference group having a medical condition according to their FP (n=880) were included. Patients completed questionnaires at three,

12- and 24-month follow-up. Register data on health care costs and work were obtained for 2- and 10-year follow-up.

**Results:** Patient with BDS displayed poorer self-rated health and higher illness worry at index and throughout follow-up compared to the medical condition group ( $p \leq 0.001$ ). Annual total health care costs were higher in the BDS groups compared with the medical condition group (2,270 USD and 4,066 USD vs 1,392 USD,  $ASL \leq 0.001$ ). Both BDS groups had higher risk of sick leave during the first two years of follow-up ( $RR_{BDS \text{ single-organ}} = 3.0$ , 95%CI: 1.8;5.0,  $RR_{BDS \text{ multi-organ}} = 3.4$ , 95%CI:1.5;7.5), and they had substantially higher ten-year risk of new disability pension awards compared with the reference group ( $HR_{BDS \text{ single-organ}} = 4.9$ , 95%CI: 2.8;8.4,  $HR_{BDS \text{ multi-organ}} = 8.7$ , 95%CI:3.7;20.7).

**Conclusions** This long-term follow-up study of primary care patients with BDS showed that the disorder has severe long-term consequences for the patients including poor physical and mental health, high health care costs and high risk of permanent work disability. This stresses the need for adequate recognition and management of BDS.

## E. TRANSPLANT PSYCHIATRY/PSYCHOSOMATICS: PATIENT ASSESSMENT AND TREATMENT

*Chairs: Terry Schneekloth, Frank Vitinius*

### **SIPAT update: assessment of the performance of the Stanford Integrated Psychosocial Assessment for Transplantation during the post-transplant period.**

*J. Maldonado*

*Stanford University, School of Medicine, USA*

**Background:** We developed a new assessment tool: the Stanford Integrated Psychosocial Assessment for Transplantation (SIPAT); which demonstrated excellent inter-rater reliability (Pearson's correlation coefficient = 0.853), and high predictability of post-transplant psychosocial outcomes ( $P < 0.001$ ) in the original study.

**Method:** We conducted a systematized review of our transplant-patient dedicated database to identify every patient who received solid-organ transplants during the period of 6/1/2008 through 7/31/2011. All patients had been assessed with the SIPAT pre-transplantation and were closely followed by our transplant multidisciplinary team post-transplantation. We then reviewed and compared prospectively accumulated psychosocial and medical outcomes at the one and two year of follow-up.

**Results:** Two hundred and seventeen ( $n=217$ ) subjects were identified and included in the analysis. The average SIPAT score was 12.9 (SD 8.65) with range of 0 – 42. The average age at the time of transplantation was 51.9 (SD 13.4) years with the range of 20 – 80 years of age. Although there was no significant difference in the primary outcome (i.e., organ failure, mortality), due to low occurrence, the data clearly demonstrated that a higher SIPAT score was significantly correlated with the probability of poor medical and psychosocial outcomes. The SIPAT scores predicted various post-transplant medical complications, such as organ rejection episodes ( $p=.02$ ), medical hospitalizations (e.g., transplant related complications) ( $p<.0001$ ), and infection rates ( $p=.02$ ). Similarly, SIPAT scores also predicted the occurrence of various post-transplant psychosocial complications, such as psychiatric decompensation ( $p<.005$ ), presence of non-adherence ( $p=.09$ ), and failure of support system ( $p=0.02$ ). When all psychosocial and medical outcomes were combined and logistic regression analysis was performed on these two pooled outcomes, it was also found that higher SIPAT scores increase the probability of an occurrence of undesirable medical outcomes ( $p=0.04$ ) and negative psychosocial outcomes ( $p=0.03$ ).

**Conclusion:** SIPAT is a comprehensive screening tool designed to assist in the psychosocial assessment of organ transplant candidates, while standardizing the evaluation process and helping

identify subjects who are at risk for negative psychosocial and medical outcomes after transplantation.

### **Altruistic kidney donation – international perspectives on motives and attitudes: a systematic review**

*M. Ehlers<sup>a</sup>, F. Vitinius<sup>a</sup>, C. Kurschat<sup>b</sup>, M. Langenbach<sup>c</sup>*

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*c) Department of Psychosomatic Medicine and Psychotherapy, GFO Clinics Bonn, Germany*

**Background:** The lack of donor kidneys, rising demand of organs due to the increasing incidence of chronic kidney disease, and the better outcome after living versus deceased donation have led to higher frequency and popularity of non-directed kidney donation.

**Method:** This systematic review highlights motives, attitudes and outcomes of actual and potential altruistic donors and the stance of the international public on donating a kidney to a stranger. By using the medical database MEDLINE we performed a systematic literature review pairing and recombining different synonyms of the term “altruistic” (“anonymous”, “non-directed”, “nondirected”, “samaritan”) with relevant termini (e.g. “kidney donation AND psychosocial”).

**Results:** The research revealed that 24% - 35% of a randomised subset of the US population are willing to donate a kidney to a stranger. An Australian study indicated a readiness to donate in 37% of health care professionals. Among altruistic donors, more than average are employed in the medical area and/or show a history of honorary posts (55% - 85%). In another study, 50% of the altruistic donors had relatives on dialysis. Analysis of the literature showed that donation motives are mostly connected to feelings of a general readiness to help and of being prepared to live with one kidney and to change the life of somebody else at acceptable personal costs. Outcomes of altruistic kidney donors are generally favorable. Donors frequently report feelings of satisfaction, increased self-esteem and a positive meaning of life. While post hoc regret is low, altruistic kidney donors sometimes feel the need to justify their action to friends and relatives.

**Conclusion:** Altruistic kidney donation may gain more relevance in the future. Increased knowledge about motives, attitudes and outcome of non-directed kidney donors provides benefits for the understanding of their potential needs. Additionally, this knowledge may enrich discussions about potential decisions in health policies in countries without current legislation allowing altruistic kidney donation.

### **Is there any need for cognitive assessment in transplant psychiatry?**

*B.S. Bürker<sup>a,b</sup>*

*a) Department of Psychosomatic Medicine, Oslo University Hospital – Rikshospitalet, Oslo, Norway*

*b) Institute of Clinical Medicine, University of Oslo, Oslo, Norway*

**Background:** Cognitive dysfunction is common in candidates for solid organ transplantation and may have negative impact on outcome. However, consensus is lacking about the indication for and the means of cognitive assessment of solid organ transplant candidates and recipients. The specific aim is to shed more light on the rationale for and the methodological issues of cognitive assessment in this clinical setting. To this end, the focus is on possible consequences of cognitive dysfunction before and after transplantation and the pros and cons of different assessment methods, especially the appropriateness of cognitive screening instruments versus more comprehensive neuropsychological assessment batteries.

**Method:** Data concerning heart transplantation will be used for illustration. This work will combine a focused review of the literature (search in PubMed; publication date 1980 or later) and presentation of own data from an ancillary study of the SCHEDULE trial.

**Results:** Existing data concerning heart transplantation has several important limitations, such as small sample sizes, short follow-up intervals, diversity regarding assessment methods used and lack of focus on consequences of cognitive dysfunction on clinical outcome.

**Conclusion:** Despite the limitations regarding existing data, this compilation of data might contribute to the ongoing discussion of standardizing assessment methods in the field of transplant psychiatry.

#### **Liver transplantation for acute alcoholic hepatitis and patients with brief abstinence**

*T. Schneekloth<sup>a</sup>*

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**Background:** Relapse after liver transplant for alcohol-induced liver disease (ALD) has been associated with poorer long-term survival. Length of pre-transplant abstinence has been positively associated with post-transplant sobriety, with <3 months abstinence as a strong predictor of relapse. Minimum 6 months pre-transplant abstinence is a widely used norm, though patients with less abstinence have been found to benefit from transplant and maintain sobriety. This presentation will include a review of the international practice of liver transplant for ALD with brief abstinence and the experience of the Mayo Clinic Transplant Center with those transplanted with ≤6 months abstinence.

**Method:** This presentation includes a MEDLINE review of the English language medical literature on liver transplant outcomes for those with ALD and ≤6 months abstinence. We present results of an IRB approved retrospective study of liver transplant recipients at Mayo Clinic, Rochester between 1/1/2000 and 12/31/2011. Data was abstracted from the medical record for those with ≤6 months abstinence at time of transplant. Variables included age, sex, race, post-transplant alcohol relapse, and mortality. Data analysis consisted of descriptive statistics.

**Results:** International research has demonstrated that length of pre-transplant abstinence is associated with post-transplant sobriety, though 6 months is an arbitrary requirement and excludes patients with acute alcoholic hepatitis (AAH). Select patients transplanted with AAH have done well in European and US studies. While many centers do not consider transplant for AAH, Italy has published a position statement asking for consideration of transplant as an option. Several international centers also consider this option in select cases. Careful post-transplant surveillance may be the most critical factor in long-term survival. At Mayo Clinic, of 260 (21%) liver recipients with ALD, 20 (8%) had ≤6 months abstinence at the time of transplantation, with mean of 3.7 months abstinence in this group. The majority were male (85%) and Caucasian (95%) with a mean age of 51.3 years. Follow-up time ranged from 1 month to 109 months. Seven of 20 (35%) are known to have relapsed to some degree of alcohol use and 4 of the 20 (20%) died.

**Conclusion:** There is a growing body of evidence suggesting that carefully selected patients with AAH or ALD and brief abstinence may do well post-transplant without relapse and alcohol-related morbidity.

## F. PSYCHO-ONCOLOGY: STATE OF THE ART

*Chairs: Josef Jenewein, Monika Keller*

### **Undergraduate communication skills training in breaking bad news: individual supervision is beneficial**

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**Background:** While undergraduate training in breaking bad news (BBN) is progressively integrated into the curricula of medical schools, there are very few studies evaluating the impact of such programs. The aim of this study was to evaluate whether an undergraduate program with one-to-one simulated patient (SP) videotaped interview and individual supervision [*intervention group condition*]: 1) improved students' skills in BBN and 2) enhanced skills in BBN compared to standard small group teaching with SP [*comparison group condition*].

**Method:** The sample is composed of 236 students randomly assigned to one of the two conditions. A post-training videotaped session served as outcome measure. The 20-min interviews were based on a vignette describing the palliative situation of a patient with a stomach cancer. The videotaped interviews were analyzed with regard to: communication performance of students rated using the Calgary-Cambridge checklist of teaching objectives for BBN; verbal interaction coded with the Roter Interaction Analysis System (RIAS); and seven nonverbal behaviors.

**Results:** One-to-one SP training and supervision significantly increased communication performance for students in the intervention group: students in the intervention group scored significantly higher on giving an overall positive impression of the interview after the training ( $M=3.67$ ,  $SD=0.96$ ) than before the training ( $M=3.03$ ,  $SD=0.93$ ),  $t(95)=5.83$ ,  $p<.001$ ; students in the intervention group had significantly higher scores on process skills (e.g., encouraging patient to contribute reactions) after the training ( $M=23.56$ ,  $SD=4.97$ ) than before the training ( $M=14.88$ ,  $SD=4.95$ ),  $t(95)=16.73$ ,  $p<.001$ . Regression analyses showed that better performance of the students was related to an increase from pre- to post-training in the following behaviors: positive talk, partnership building, and psychosocial information. Moreover, students in the intervention group scored significantly higher on process skills ( $M=23.56$ ,  $SD=4.97$ ) compared to students in the comparison group ( $M=19.99$ ,  $SD=5.06$ ),  $t(234) = 5.36$ ,  $p < .001$ . Non-verbal scores also favored the intervention group.

**Conclusion:** Finding the best way to train future physicians' communication skills in sensitive areas such as BBN is a major educational challenge. Individual supervision, allowing teaching tailored to the needs of the student appears effective even when limited to one or two sessions.

### **Adequate recognition and management of psychiatric side-effects of cancer treatment - a challenge to CL-Psychiatry**

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Psychiatric side effects associated to cancer treatment, e.g. radiotherapy, chemotherapy as well as recently developed treatment strategies occur rarely. Since the majority of cancer patients is treated on an outpatient basis, and oncologists are usually not familiar with clinical signs and symptoms, psychiatric disturbances due to cancer treatment often goes unrecognized and undertreated. However, patients may experience longstanding, substantial impairment and suffering before effective psychiatric treatment is started.

Based on clinical case examples from psychiatry/psychooncology CL services at two large academic cancer centers, this presentation aims to demonstrate particular challenges and pitfalls regarding adequate recognition and diagnosis of psychiatric side-effects of cancer treatment, to discuss effective treatment and monitoring, along with recommendations to inform clinical practice. This will be complemented by suggestions for educating/training of health professionals in cancer care to enhance timely detection of patients at risk or presenting with manifest psychiatric side-effects of cancer treatment.

### **How common is depression in general hospital inpatients? Findings from a worldwide systematic review**

Jane Walker, Katy Burke, Marta Wanat, Rebecca Fisher, Josephine Fielding, Stephen Puntis, Michelle Degli Esposti, Joseph Sharpe, Eli Harriss, Michael Sharpe

*Psychological Medicine Research, University of Oxford Department of Psychiatry, Oxford, UK*

**Background:** To answer the question 'How common is depression in general hospital inpatients?' by conducting a systematic review of relevant published studies in any language.

**Method:** We searched Medline, PsycINFO and EMBASE to December 2015 using standardised subject terms and free text terms. We included primary studies that: (1) aimed to estimate the prevalence of major depression or similar (2) recruited adults who were general hospital inpatients; (3) assessed depression using diagnostic interviews and standard diagnostic criteria; (4) met basic study quality criteria. Two researchers assessed each article independently against our inclusion criteria and extracted data from the relevant papers.

**Results:** 38 studies from 24 countries met our inclusion criteria. Sample size ranged from 100 to 993 (median 218). The median prevalence of depression reported was 10% with wide variation between studies (3 to 52%). Potential reasons for heterogeneity included: the specific diagnostic criteria used in the studies; the age and gender of study participants; the specific medical specialties from which they were recruited and the national incomes of the countries where the studies were conducted.

**Conclusion:** The amount of high quality data is surprisingly small. However it is clear that depression is common in general hospitals and affects approximately 1 in 10 inpatients. Clinicians working in general hospitals therefore need to be able to diagnose depression, initiate treatment and when appropriate refer to psychological medicine services.

### **Pharmacologic Approaches in Psychooncology**

*J. Jenewein<sup>a</sup>*

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**Background:** Emotional distress and psychiatric disorders are common among patients with cancer. About 50% of patients with advanced cancer meet criteria for a psychiatric disorder, the most common being adjustment disorders (35%) and major depression (26%). Additionally, about 50% of patients at the end-of-life stage suffer from delirium.

**Method:** The literature was reviewed, focusing on the treatment of psychiatric disorders (adjustment disorders, major depression, anxiety, post-traumatic stress, and delirium) in patients with advanced cancer.

**Results:** Both psychosocial and pharmacological treatments are effective for anxiety and depression. Because antidepressants generally have equal efficacy, they should be selected based on cost, side-effect profile, potential for P450 enzyme interactions, past history of response, and the patient's life expectancy (e.g., stimulants are used when life expectancy is less than 2–3 weeks). Psycho-stimulants like methylphenidate and related stimulants improve mood, appetite, energy, and cognition.

Stimulants act rapidly (24–48 hours), counter opioid-related sedation, and have adjuvant analgesic activity. They are the treatment of choice when time is short, and they can be combined with a selective serotonin reuptake inhibitor (SSRI) in severe depression and fatigue. Short-term use of benzodiazepines is indicated in highly anxious patients. For the treatment of delirium the evidence is most clearly supportive of short-term use of antipsychotics for controlling the symptoms of delirium. **Conclusion:** Treating psychiatric conditions improves quality of life in patients with advanced cancer. However, oncologists play a key role in screening for psychiatric disorders, initiating psychiatric consultations and starting first-line treatments for psychiatric disorders.

## **G. S10: IBD AND IBS FOR PSYCHIATRISTS: BRIDGING THE GAP BETWEEN FIRST AND SECOND BRAIN**

*Chairs: Ilaria Tarricone, Nasim Chaudhry*

### **Hypnosis: mending the gap between mind and gut?**

*J. Mertens<sup>a</sup>*

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**Background:** Irritable bowel syndrome (IBS) is a functional gastrointestinal disorder for which no cause can be found. Despite its prevalence, there remains a significant lack of efficacious medical treatments for IBS to date. Inflammatory bowel disease (IBD) is a broad term that refers to chronic swelling (inflammation) of the intestines. To date, there are several studies and systematic reviews showing that gut-directed hypnotherapy (HT) consistently produces significant results and improves the cardinal symptoms of IBS in the majority of patients, as well as positively affecting non-colonic symptoms. For IBD, only few studies have been published and some case reports, showing that HT might have beneficial effects in this disorder too.

**Method:** Review of the literature of hypnotherapy in IBS and IBD.

**Results:** There is consistent body of evidence that HT is a safe procedure providing long-term symptom relief in patients with IBS. It is possible that HT can also ameliorate symptoms in patients with ulcerative colitis, but instead of IBS, it seems more an adjunctive therapy where HT increases the health-related quality of life.

**Conclusion:** For IBS, HT is a primary treatment with durable efficacy. HT seems to have an immune-modulating effect and is able to augment clinical remission in patients with quiescent ulcerative colitis.

### **Expressed Emotions, depression and IBD: form a case study to the Bologna IBD psychosomatic project**

*I Tarricone<sup>a</sup>, F Rizello<sup>a</sup>, Poggioli G<sup>a</sup>, Gionchetti P, Boncampagni G<sup>b</sup>, Campieri P<sup>a</sup>*

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**Background:** “Psychological, family, and social factors influence disease susceptibility, adaptation to disease and recovery with effects on utilization of health care services, disability status, and quality of life” (Wearden et al., 2000). Evidences highlighting the link between depression, family Expressed Emotion (EE), such as criticism, hostility, warmth, positive comments, and emotional over-involvement, and inflammatory bowel disease (IBD) are growing. The aims of this paper is to present a case study of IBD, depression and high family EE which make clear the need of a multi-disciplinary approach for the management of these patients and their families.

**Method:** The emblematic case study of Irene, an 18 years old girl suffering from long time by sever IBD (ulcerative colitis) and depression, and the management of her highly EE parents are described and discussed.

**Results:** Irene received the IBD diagnosis when she was 11 years old. She received a total colectomy and an ileo-anal pouch anastomosis. She was also affected by depression with incongruent behaviors which compromised her recovery. Her family was characterized by high EE behaviors, such as emotional over-involvement and criticism. The psycho-pharmacological (olanzapine 10 mg per day) and psycho-social (motivation therapy and case-management) treatments of the patient, together with the family work on EE (communication skills, psychoeducation, psychological support) have significantly contributed to a good clinical and psycho-social recovery of the patient.

**Conclusion:** Considering the high association of IBD with psychiatric disorders and family EE, multidisciplinary approaches are needed. Starting from this shared intervention between psychiatry, general surgery and internal medicine we further developed the Bologna IBD psychosomatic project.

### **Exploratory randomised controlled trial of a culturally adapted psychological intervention for the Management of Irritable Bowel Syndrome (IBS) in a low-income country**

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**Background:** Results from a population based study conducted in Pakistan reported that the prevalence of Irritable bowel syndrome (IBS) was 13.4% in women and 13.1% in men, with symptoms of IBS being strongly related with disability. In order to develop culturally adapted interventions to treat IBS, it is important to understand the explanatory models for the problem. The aim of this study is to understand the explanatory models and patients' perspectives regarding illness and to develop and test the role of culturally adapted intervention to deal with symptoms of IBS.

**Method:** The study will be conducted over three phases as follows; Phase 1, will investigate the explanatory models and the experiences of individuals who suffer from IBS through the use of qualitative interviews. In Phase 2 we will conduct a feasibility study with 36 participants of the culturally adapted StreSS group intervention which is based on the principles of Cognitive Behavioral Therapy (CBT). Finally, in Phase 3 we will gather feedback from the participants on the further refinement of the culturally adapted StreSS intervention, in preparation for a larger trial.

**Results:** Preliminary analysis of Phase 1 qualitative interviews with 8 participants found different themes around illness. Most of the participants attributed illness to the stress and expressed the role of law and order situation, interpersonal conflicts and family being unable to accept the illness as contributory factors. Participants reported negative impact of symptoms on mental health in the form of shame, anxiety, depression, anger, and hopelessness as well as on physical health like fatigue, joint pain, and headache. Disturbed social life in the form of avoidance and withdrawal was also reported by the participants. Traditional modes of treatment like homeopathic medicines and approaching faith healers were commonly used.

**Conclusion:** Considering the high prevalence of IBS and its association with disability and adverse effect on health related quality of life, it is important to design and test of culturally adapted interventions. With culturally adapted intervention potentially reducing the huge treatment gap in Low and Middle Income Countries (LAMIC) and globally.

## **Comparative study of somatization in irritable bowel syndrome in Bari, Italy and Cluj-Napoca, Romania**

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**Background:** Somatization may influence the presentation of irritable bowel syndrome (IBS). We undertook a comparative study between a region in South Italy (Apulia) and a region of North-West Romania (Transylvania), given the fact that in Antiquity Transylvania has been colonized by Romans and both regions had a different historical, social and economic development.

**Method:** 50 consecutive Italian (IT) and 40 Romanian (RO) pts. have been recruited in the main two tertiary medical centers of these areas. Half of them presented chronic organic conditions, half presented IBS. IBS was diagnosed by Rome III criteria. All pts. were questioned with DCPR, DSM IV, MSD, SOM, HADS-A, HADS-D, SF-36

**Results:** Nosophobia was more represented in RO (74%) than in IT (24%) ( $p < 0.001$ ). Somatization was similar (RO: 55%, IT: 58% NS) but higher in organic than in IBS pts. (65% vs 30%,  $p = 0.04$ ). However somatization and anxiety were higher in RO than in IT. Bodily pain and general health SF-36 scores were lower in RO than in IT. Social functioning had lower scores in IT vs, RO:  $52.6 \pm 33.4$  vs.  $67.3 \pm 28.6$ ,  $p = 0.029$ .

**Conclusion:** Somatization is present in both organic and functional (IBS) pts. Different environmental settings greatly influence the development and expression of SD. QoL is impaired in IBS but regional differences exist.

## **H. PAIN, STRESS AND MINDFULNESS**

*Chairs: Lucia Tomas Aragones, Maria Nordin*

### **THE DECO-TRE Project: an integrated model of an intervention for treating depression in comorbidity with physical illness in the general hospital.**

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**Background:** several studies highlighted the relationship between depression and physical illness: having a medical illness is recognized as a stressful and depressing event, with a prevalence of depression two-three times higher than in the general population; at the same time depression itself represents one of the independent causal factor of many physical diseases.

Despite of that, depression in these patients is often underdiagnosed and not treated, thus leading to lower therapeutic adherence and worsened prognosis and quality of life.

International Guidelines recommend the application in the everyday clinical practice of integrated therapeutic approaches, including both psychopharmacological and psychotherapeutic ones, for the management of these clinical situations.

**Method:** Aims: the DECO-TRE Project (DEpression in COMorbidity with physical illness-TREatment and integrated management) is a specific program supported by the Italian Ministry of Health aiming at improving diagnosis and treatment of depression in comorbidity with physical illness. In this framework a model of brief psychotherapeutic group intervention (CBT oriented) was implemented and tested, with the aim to assess the efficacy and feasibility of these integrated model in clinical practice in improving clinical symptoms of depression compared to standard treatment.

**Method:** in the context of the General Hospital patients affected by chronic physical illnesses and presenting depressive symptoms, according to the inclusion criteria of the study, were referred by their doctors in order to evaluate the eligibility for the study and the CBT intervention (9 weekly group sessions, 1,5 hours each). Patients not included in the CBT group intervention were treated with routine individual supportive psychological treatment.

A standardized set of clinical instruments was used to assess psychopathology (HAM-D, GAF), quality of life (MANSA) and coping strategies (COPE), measured at baseline and at 8 weeks' follow-up, in both groups.

**Results:** 75 patients have been evaluated at baseline: 43 of them have been included in the CBT group intervention, whereas 32 patients received the standard supportive psychological treatment. Patients of both group were on antidepressant therapy, prescribed at baseline.

At baseline there were no differences in socio-demographic and clinical variables between the two groups (t test). Comparing baseline and follow up, within group analyses showed significant improvements in terms of depressive symptoms, quality of life, global functioning and coping strategies in both groups (ANOVA repeated measures  $p < 0,05$ ). At FU we found no significant differences comparing the two groups of intervention, as regarding the improving of depressive symptoms.

**Conclusion:** the CBT group intervention of the DECO-TRE project proved to be at least as effective as the standard individual psychological treatment in improving patients' depressive symptoms, global functioning and quality of life. Therefore this model of intervention could represent an innovative and applicable therapeutic strategy in the liaison psychiatric contexts.

### **Outcomes of Body Awareness Therapies used in pain rehabilitation - A literature review**

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**Background:** Aim: The aim of this literature review was to describe the outcome of Body Awareness Therapies used in pain rehabilitation.

**Method:** A literature review was performed 20151210 in the database Pub Med with the key words body awareness therapy and pain rehabilitation and outcome. In total 22 articles were found, 15 of them were relevant in relation to the aim of the study and were included in the literature review.

**Results:** Positive outcomes were noted in different body awareness therapies; Basic Body Awareness Therapy, Pilates, Psychomotor therapy, Body movement and perception therapy, Rességuier treatment, Tai Chi and Yoga. Increased physical functioning, stress and pain reduction, reduced disability and depression and improved health-related quality of life were shown after Basic Body Awareness therapy. Improved body awareness, grounding, centration and flow and reduced vegetative disturbances were shown after multimodal rehabilitation. Pilates treatment improved functional ability, movement confidence, body awareness, posture, and movement control. Improved body awareness was also found after psychomotor therapy. Participants obtained reduced pain levels, increased coping ability, better pain acceptance and increased body control after yoga treatment. Patients with fibromyalgia syndrome improved significantly in pain, fatigue, irritability, well-being, quality of movement, postural self-control, ability to relax, movement perception, assumption of analgesic/NSAIDs after "Body movement and perception" therapy. Patients with fibromyalgia syndrome reduced their disability, perceived pain and the consumption of analgesics and improved their health-related quality of life after Rességuier treatment. Tai Chi also had beneficial effects on health. Body awareness exercises performed as Tai Chi exercises in a group setting reduced disease activity and improved physical function and health status in patients with rheumatoid arthritis. Body awareness was perceived to be a key mechanism to the positive treatment outcomes in all treatments.

**Conclusion:** Different positive treatment outcomes were noted after Body Awareness therapies within pain rehabilitation. Also psychological outcomes such as increased pain control and improved coping with stress and pain were included. Body awareness exercises can be used not only for pain management in different contexts, but also for health promotion within health psychology.

### **Effects of yogic exercises on physical capacity and health in patients with obstructive pulmonary disease**

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**Background:** Yogic exercises have been shown to increase functional capacity and decrease symptoms in patients with obstructive pulmonary diseases. However, the knowledge regarding physiological and mental effects of hatha yogic exercises and breathing exercises over longer time periods in patients with obstructive pulmonary diseases remains limited. The aim of this study was to investigate the effects of hatha yoga (HY) compared to an individual program of strength and endurance training (IT) on functional capacity, pulmonary function, perceived exertion, disease specific symptoms and oxygen saturation in patients with obstructive pulmonary diseases.

**Method:** 36 patients (23 women, median age = 64, age range: 40–84 yrs) were randomized into HY (n = 19) or IT (n = 17). Both HY and IT involved a 12-week program. Functional capacity (estimated from a 6 minute walk test (6MWT), spirometry, oxygen saturation, perceived exertion and a disease specific chronic respiratory questionnaire (CRQ) were measured at baseline, at 12 weeks and at 6 months.

**Results:** Significant improvements emerged within each group on 6MWT (HY, baseline: 593.5±116.4, after 12 weeks: 626.2±111.6, p = 0.014; IT, baseline 502.3±136.3, after 12 weeks: 544.8±138.5, p= 0.002). For IT but not HY, these improvements sustained at 6 months. CRQ showed significant improvement in the domain mastery for the HY group and in all domains in the IT group.

**Conclusion:** Twelve weeks of HY and IT improved functional capacity in both groups with no significance between group effects. However, at the 6-month follow-up effects sustained in the IT but not in the HY group. The IT group, showed self-reported disease-specific improvements across all domains while HY group showed improvements in the mastery domain only. This suggests that both IT and HY have positive short-term effects while IT has long-term effects on functional capacity.

### **Sleep deprivation influences pain perception**

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**Background:** There is strong evidence indicating an interaction between sleep and pain. However, the size of this effect, as well as the clinical relevance, is unclear. Therefore, this meta-analysis was conducted to quantify the effect of sleep deprivation on pain perception.

**Method:** A systematic literature search was conducted using the electronic databases PubMed,

Cochrane, Psycinfo, and Scopus. By conducting a random-effect model, the pooled standardized mean differences (SMDs) of sleep deprivation on pain perception was calculated. Studies that investigated any kind of sleep deprivation in conjunction with a pain measurement were included. In cases of several pain measurements within a study, the average effect size of all measures was calculated.

**Results:** Five eligible studies (N = 190) for the between-group analysis and ten studies (N = 266) for the within-group analysis were identified. Sleep deprivation showed a medium effect in the between-group analysis (SMD = 0.62; CI95: 0.12, 1.12; z = 2.43; p = 0.015) and a large effect in the within-group analysis (SMD = 1.49; CI95: 0.82, 2.17; z = 4.35; p <0.0001). The test for heterogeneity was not significant in the between-group analysis (Q = 5.29; df = 4; p = 0.2584), but it was significant in the within-group analysis (Q = 53.49; df = 9; p <0.0001).

**Conclusion:** This meta-analysis confirms a medium effect (SMD = 0.62) of sleep deprivation on pain perception. As this meta-analysis is based on experimental studies in healthy subjects, the clinical relevance should be clarified.

### I. S31: MAKING MATTERS WORSE. RISK FACTORS FOR MENTAL ILL HEALTH

*Chair/s: James Rundell, Wolfgang Söllner*

#### **Noise annoyance is associated with depression and anxiety in the general population- the contribution of aircraft noise**

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**Background:** While noise annoyance has become recognized as an important environmental stressor, its association to mental health has hardly been studied. We therefore determined the association its to anxiety and depression and the contribution of a diverse environmental sources of noise.

**Method:** We investigated cross-sectional data of n=15.010 participants of the Gutenberg Health Study (GHS), a population-based, prospective, single-center cohort study in Mid-Germany (age 35 to 74 years). Noise annoyance was assessed for street, aircraft, railways, industrial, neighborhood indoor and outdoor noise (“during the day”; “in your sleep”) on 5-point scales (“not at all” to “extremely”); depression and anxiety were assessed by the PHQ-9, resp. GAD-2.

**Results:** Depression and anxiety increased with the degree of overall noise annoyance. Compared to no annoyance, prevalence ratios for depression, respectively anxiety increased from moderate (PR depression 1.20; 95%CI 1.00 to 1.45; PR anxiety 1.42; 95% CI 1.15 to 1.74) to extreme annoyance (PR depression 1.97; 95%CI 1.62 to 2.39; PR anxiety 2.14; 95% CI 1.71 to 2.67). Compared to other sources, aircraft noise was prominent affecting almost 60% of the population.

**Conclusion:** Strong noise annoyance was associated with a two-fold higher prevalence of depression and anxiety in the general population. While we could not relate annoyance due to aircraft noise directly to depression and anxiety, we established that it was the major source of annoyance in the sample, exceeding the other sources in those strongly annoyed. Prospective follow-up data will address the issue of causal relationships between annoyance and mental health.

### **Factors associated with no-shows in a homeless USA veteran integrated care clinic**

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**Background:** There are no studies that compare characteristics and predictors of no-shows in U.S. Veterans Administration (VA) homeless treatment settings. This study attempted to characterize factors associated with no-shows at a VA mental health homeless program (MHHP) to inform future service and outcome improvements.

**Method:** Charts of 113 VA MHHP patients were reviewed, and demographic and clinical data recorded.

**Results:** Mean age 55.5 (range 25-74)

Gender: 94.4% men, 5.6% women

Ethnicity: 81.9% white, 6.9% black, 4.2% Native American, 6.9% unknown

Percentage with dependent family members: 46%

Medical diagnoses: 42.5% hypertension, 13.3% diabetes, 31.0% hyperlipidemia, 5.3% coronary artery disease, 1.8% congestive heart failure, 7.1% chronic kidney disease, 7.1% COPD, 3.5% asthma, 1.5% obstructive sleep apnea, 3.5% liver disease, 16.8% hepatitis C, 0.9% HIV infection

Psychiatric diagnoses: 59.3% depressive disorders, 27.4% anxiety disorders, 1.8% obsessive-compulsive disorder, 22.1% posttraumatic stress disorder, 0.9% somatic symptom disorder, 15.9% personality disorder, 3.5% neurodevelopmental disorder, 20.4% sleep disorder, 5.3% neurocognitive disorder, 19.4% active alcohol use disorder, 19.4% active drug use disorder, 13.3% schizophrenia, 5.3% bipolar disorder, 0.9% attention deficit hyperactivity disorder

Alcohol use severity: 17.5% never used, 45.4% remission, 15.9% problem drinking, 7.1% abuse, 5.3% dependence, 1.0% severe dependence

Drug use severity: 30.9% never used, 42.3% remission, 8.2% problem use, 8.2% abuse, 9.3% dependence, 1.0% severe dependence

Average number of contact notes over a 3 months period: 8.4 (range 0-48)

Psychotropic medications: 29.2% antidepressants, 6.2% anxiolytics, 0.9% psychostimulants, 11.5% antipsychotics, 3.5% mood stabilizers, 2.7% sedative-hypnotics, 1.8% opiates

Percentage with chronic pain: 44.2%

Percentage with a suicide risk "flag" in the chart: 0.9%

Percentage with a behavioral (e.g., violence) risk "flag" in the chart: 2.7%

Several variables were independently predictive of no-show likelihood: presence of dependent family members, number of contact notes, female gender, use of benzodiazepines, presence of an anxiety disorder. Not independently predictive of no-show likelihood were: age, alcohol severity, drug severity, other medications, other psychiatric diagnoses, presence of chronic pain.

**Conclusion:** This is a highly co-morbid population anxiety and its treatment, but not depression and its treatment, were associated with no-shows. The higher no-show rate in women may be explained by the higher likelihood of having dependents (i.e., children) and therefore having logistical problems preventing appointment attendance. An initiative to help homeless veterans with dependents and anxiety disorders may make a positive impact on no-show rates and clinical outcomes. The MHHP is considering expanded use of home tele-health based on the results of this analysis.

## **Mental health and suicidal ideation among 1<sup>st</sup> and 2<sup>nd</sup> generation migrants- Results from the Gutenberg Health Study**

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g) Institute for Medical Biostatistics, Epidemiology and Informatics (IMBEI), University Medical Center Mainz, Germany,

h) Department of English and Linguistics, Center for Comparative Native and Indigenous Studies, Johannes Gutenberg University Mainz, Mainz, Germany

**Background:** Even though migrants constitute an increasing proportion of the German population, representative studies on their mental health are lacking. The present study explored mental health characteristics and suicidal ideation comparing 1<sup>st</sup> and 2<sup>nd</sup> generation migrants to non-migrants and Turkish vs. Polish migrants as the largest subgroups within 1<sup>st</sup> generation migrants.

**Method:** We investigated cross-sectional data of n=3.525 out of 15.010 participants of the Gutenberg Health Study (GHS), a population-based, prospective, single-center cohort study in Mid-Germany (age 35 to 74 years). Migration status was assessed according to the Federal microcensus criteria. Depression and anxiety were measured by the PHQ (PHQ-9, GAD-2, Panic module), depersonalization by the CDS-2, social anxiety by the Mini SPIN and type D by the DS-14; suicidal ideation by the single PHQ 9 item.

**Results:** The proportion of 1<sup>st</sup> generation (immigrated after 1949) migrants was 10.6% and of 2<sup>nd</sup> generation 13%. Among the 1<sup>st</sup> generation migrants the largest groups from single countries came from Poland (N=295) and Turkey (N=141). Controlling for sex, age and socioeconomic status, 1<sup>st</sup> generation migrants reported significantly more generalized anxiety (OR 1.38; 95% CI 1.13-1.68), panic attacks in the past 4 weeks (OR 1.43; CI 1.16-1.77); depersonalization (OR 2.10; CI 1.31-3.36), Type D (OR 1.28; CI 1.13 to 1.45); suicidal ideation (OR 1.44; CI 1.19 to 1.74) and a trend to higher depression (OR 1.20; CI .99-1.45) compared to non-migrants. The mental health of 2<sup>nd</sup> generation migrants did not differ from native Germans; they had the highest socioeconomic status of the three groups. Compared to 1<sup>st</sup> generation migrants from Poland, Turkish migrants of both sexes reported more depression and panic, particularly a strongly increased suicidal ideation (OR 3.10; CI 1.86-5.17) after taking into account sex, age, socioeconomic status and years lived in Germany.

**Conclusion:** The representative community study shows that depression, anxiety and suicidal ideation are strongly increased among 1<sup>st</sup> generation migrants, particularly of Turkish (vs. Polish) origin. Overall, 2<sup>nd</sup> generation migrants appear to have adjusted successfully. Limitations refer to a lack of data for persons without German language skills and missing mental health data in the Turkish sample. Further analyses need to address causes of mental strains, needs and provision of culturally sensitive health care.

## Behavioral hostility and alcohol consumption

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c) Inserm, U894, Centre Psychiatrie et Neurosciences, Paris, France,

d) Inserm, UMS 011, Population-based Epidemiological Cohorts, Villejuif, France,

e) Inserm UMR 1168, VIMA, Villejuif, France

**Background:** Previous studies have suggested that personality traits such as hostility may be associated with alcohol consumption. The present study took advantage of the large-scale prospective GAZEL cohort to examine whether hostility (total, cognitive or behavioral) could be associated with daily alcohol consumption and whether this association could persist 20 years later.

**Method:** A total of 10,091 participants (7489 men and 2602 women) completed the Buss and Durkee Hostility Inventory in 1993 and also reported their current daily alcohol consumption in number of drinks per week (DpW) in 1993 and in 2013. We used general linear models with DpWs either in 1993 or in 2013 as dependent variable. Hostility was used as continuous variable and divided in quartiles. All the analyses were stratified by gender and adjusted for age and occupational status at baseline and for marital status in 1993 or 2013.

**Results:** In 1993, mean ages were 48.5(SD:2.9) and 45.7(SD:4.1) and DpWs were 12.6(SD:11.7) and 4.6(SD:6.5) for men and women, respectively. In 2013, mean ages were 68.7(SD:2.9) and 65.8(SD:4.2) and DpWs were 10.8(SD:10.8) and 4.3(SD:6.3) for men and women, respectively. In both gender, total hostility and behavioral hostility were associated with DpWs in 1993 and in 2013 (all  $p < 0.001$ ). Cognitive hostility was only associated with DpW in 1993 in men ( $p = 0.002$ ). For the first and last quartiles of behavioral hostility respectively, estimated means of DpWs were ranged from 5.21(SD:2.23) to 7.50(SD:2.23) in men and from 3.49(SD:0.47) to 5.21(SD:0.46) in women. Further adjustment for depression, self-rated health and tobacco consumption, all measured at the time of DpW assessment, yielded similar results.

**Conclusion:** The behavioral component of hostility (i.e. assault, verbal aggression, indirect hostility) is strongly associated with daily alcohol consumption in both men and women. Behavioral hostility is not only associated with current daily alcohol consumption but also predict higher alcohol consumption decades later. This persistent impact of behavioral hostility on drinking patterns makes profitable early interventions aiming at reducing these hostile behaviors (e.g. brief family competency-training, stress management techniques) or at least targeting the most hostile individuals.

## J. PHYSICAL HEALTH PROBLEMS ASSOCIATED WITH SEVERE MENTAL ILLNESS

*Chairs: Ulrik Malt, Sitaram Velaga*

### **Somatic comorbidity increases the risk for renal failure during prophylactic lithium treatment**

*H. Aiff<sup>a</sup>, P.-O. Attman<sup>b</sup>, B. Ramsauer<sup>c</sup>, S. Schön<sup>d</sup>, J. Svedlund<sup>e</sup>*

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*e)Department of Psychiatry and Neurochemistry, Institute of Neuroscience and Physiology, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden*

**Background:** Lithium enjoys the strongest evidence among today's mood stabilisers for long-term relaps prevention of bipolar disorders and has been shown to reduce the risk of suicide. However, the benefits of lithium are restricted by its adverse side effects, the most serious being the progression of renal insufficiency to end-stage renal disease. Our previous studies indicate that the development of renal insufficiency cannot be explained by lithium exposure alone but that additional factors are operative and among those are co-morbid somatic diseases. The study aims to clarify further the role of comorbidity for the development of severe kidney damage during lithium treatment.

**Method:** We retrieved serum lithium and creatinine levels from 4879 patients examined between 1981 and 2010. Only patients who started their lithium treatment during the study period and had at least one year of cumulative treatment were included. The study group comprised 1741 adult patients with normal creatinine levels at the start of lithium treatment. The serum creatinine measurement closest to the last lithium measurement was regarded as the final creatinine level. The glomerular filtration rate was estimated (eGFR) and used to categorise the level of renal function in 5 stages of chronic kidney disease (CKD) according to KDOQI guidelines. Patients in CKD stages 4-5 (n=96), indicating severely reduced kidney function, were matched by sex, time on lithium and age at start of lithium, with 96 patients in CKD stages 1-2 (n=1241), indicating normal or mildly reduced kidney function. The risk for severely reduced kidney function was used as the dependent variable and all medical diagnoses recorded through systematic chart reviews as independent variables.

**Results:** Patients in CKD 4-5 did not differ significantly from those in CKD 1-2 in sex (females/males were 68/28 in both groups), time on lithium (mean 9.6 years, SD 6.4 versus 9.6, 6.5) or age at start of lithium (mean 61.7 years, SD 11.7 versus 58.0, 11.7), respectively. However, comparisons between groups showed a significantly higher prevalence of somatic comorbidity ( $p < 0.01$ ) among patients in CKD 4-5.

**Conclusion:** Findings clarify the role of comorbidity for renal damage and increase our understanding of the mechanisms of nephropathy during lithium treatment, which may have a significant impact on treatment recommendations and safety routines.

### **Diet and metabolic problems in patients in the early stages of psychosis: the need to improve targeted interventions.**

*A. Lasalvia<sup>a</sup>, E. Saugo<sup>a</sup>, C. Bonetto<sup>a</sup>, D. Cristofalo<sup>a</sup>, M. Ruggeri<sup>a</sup>*

*a) University of Verona, Section of Psychiatry (Department of Neuroscience, Biomedicine and Movement) and AOUI Local Authority (Department of Mental Health), Verona, Italy*

**Background:** People with psychosis often have alterations in dietary patterns, mainly characterized by an increased intake of saturated fat and low in fiber and vegetable consumption. This type of diet

appears to contribute to the development of metabolic and cardiovascular diseases, and to worsen the alterations produced by other factors (treatment with antipsychotics, low physical activity, smoking, alcohol). The diet and the lifestyle related aspects may be an important therapeutic target to control metabolic disorders in these patients.

**Objective:** The present work had the objective to evaluate the prevalence of risk factors such as obesity and alterations in lipid and glucose metabolism in a cohort of patients with a first psychotic episode, with particular reference to the influence of lifestyle (habits food, physical activity) in the eventual development of metabolic alterations and placing specific attention to aspects linked to diet and its description.

**Method:** The study in question is cross-naturalistic. The sample of patients ( $n = 54$ ) was recruited within the Western Veneto catchment area of the Strategic Program GET UP (see Ruggeri et al., 2015) and consists of a population of patients with a first psychotic episode assessed at 9 months after onset of disease. For each patient were obtained socio-demographic information, anthropometric (weight, BMI), blood chemistry (blood glucose, cholesterol, triglycerides), cardiovascular (blood pressure, heart rate), clinical symptom (PANSS, GAF), relating to customs food (questionnaire EPIC) and physical activity (IPAQ). The same information, when available, were also obtained for the baseline because retrospective.

**Results:** At 9 months from onset a significant increase in BMI ( $p = 0.005$ ); has been shown, together with a rise in cholesterol levels ( $p = 0.011$ ). The increase of BMI ( $p = 0.010$ ) and cholesterol levels ( $p = 0.040$ ) was particularly evident in those who had a low IM index ( $IM \text{ index} \leq 3$ ), indicative of dietary patterns not in keeping with the dictates of "Mediterranean diet". No significant difference, however, was detected with respect to the blood glucose and triglyceride levels. As for the comparison with the Italian population, the study sample has a significantly higher consumption of foods rich in cholesterol (females  $p = 0.013$ ;  $p = 0.008$  males), simple sugars (respectively,  $p = 0.003$ ;  $p = 0.000$ ), sodium ( $p = 0.000$  for both) and vitamin D (respectively,  $p = 0.000$  and  $p = 0.0013$ ); instead presented a reduced consumption of vitamin E. In addition, the males showed a higher consumption ( $p = 0.036$ ) in saturated fat and retinol ( $p = 0.018$ ) and less of folic acid ( $p = 0.000$ ) than the general population; females, however, were proved to be taking more riboflavin-rich foods than the general population ( $p = 0.042$ ).

**Conclusion:** We believe it is necessary to set specific intervention programs for those at the first psychotic episode targeted at monitoring and implementation of healthy eating habits such as to offset the effects of metabolic disorders related to treatment with antipsychotics. Together with these actions, careful and constant monitoring of the levels of physical health of psychotic episode patients is needed.

## The psychosocial correlates of infertility in Saudi Arabia

*F.D. Alosaimi<sup>a</sup>, M.E. Bukhari<sup>b</sup>, M.H. Altuwirqi<sup>a</sup>, Z.M. Abotalib<sup>b</sup>, S.A. Binsaleh<sup>c</sup>*

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**Background:** As infertile couples go through the painful experience of failing to have their own biological children, many of them suffer from emotional, social and mental stress. Understanding and addressing such issues from the male and female perspective is a crucial part of infertility treatment as it has been shown to improve the pregnancy rate and quality of life. The goal of this study is to identify the frequency of major psychiatric disorders and the psychosocial characteristics of infertile couples in Saudi Arabia.

**Method:** This was a cross-sectional study of infertile patients (206 women and 200 men) attending infertility clinics in three referral hospitals in Riyadh, Saudi Arabia. A semi-structured questionnaire was developed to assemble socio-demographic, clinical, and psychosocial variables. The approved

Arabic version of The Mini-International Neuropsychiatric Interview (M.I.N.I.) tool was used to assess 18 common psychiatric illnesses.

**Results:** 39.5% male and 47.1% female reported they suffered psychosocial pressures because of delayed childbearing. The most prevalent stressor came from intrusive questions and advices from significant others. Males suffered more from intrusive questions and pressure to conceive, remarry, or get divorced; while females were stressed more from psychological and emotional exhaustion, marital discord, attitudes by mother in laws or society, and persistent desire by husband to have children. To cope with infertility, females engaged more in religious activities and spoke more to someone regarding their problems. To solve their infertility problems, 50% tried to find ways via the internet, and 38.0% males and 53% females reported use of alternative medicines. 61% believed that delayed childbearing has a psychological reason, and 39% blamed supernatural reasons and visited faith healers clinics to treat infertility. Of the 200 men surveyed, only 4.5% self-reported they had been diagnosed to have a psychiatric disorder.

Of the 206 women surveyed, only 10.2% reported they have a psychiatric disorder. However, using the MINI scale, psychiatric illness was documented in 30% males and 36.9% females. The most common diagnoses among both genders were depression, which was documented in 21.7% patients, and anxiety, which was documented in 21.2% patients. There were significantly more females who had suicidality and depression compared to males. On the other hand, there were significantly more males who had bipolar disorders and substance-related disorders compared to females. Low monthly income among male and females study participants and polygamy only among female participants were significantly associated with a psychiatric disorder. Finally, compared to males, females wished more to have psychosocial support within the infertility centers.

**Conclusion:** Patients with infertility in SA face multiple psychosocial stressors related to their infertility, and cope differently based on gender and culture-specific knowledge of infertility. There is a higher prevalence of psychiatric disorders, particularly depression and anxiety, among infertile men and women in Saudi Arabia associated with lower income and polygamy. This study sheds light on the importance of integrated care to help elevate the psychological burden for this unfortunate population and perhaps improve their outcome or quality of life. It also encourages follow-up studies to further understand the complex relationship of fertility and psychological wellbeing.

### Identifying ways to improve early treatment in anorexia nervosa

*Angelika Weigel<sup>a</sup>, Denise Kästner<sup>a</sup>, Bernd Löwe<sup>a</sup>, Antje Gumz<sup>a</sup>*

*a) Department of Psychosomatic Medicine and Psychotherapy, University Medical Center Hamburg-Eppendorf, Germany*

**Background:** Anorexia nervosa is a severe mental illness and chronic illness courses are common. Public health interventions turned out to be promising with regard to somatic and mental illnesses. However, their potential in the eating disorder field has not yet been examined. We aim to integrate findings from a public health intervention on early treatment in anorexia nervosa and derive new approaches to improve access to mental health care of this population.

**Method:** During 2012-2015 the process of treatment initiation and the impact of a systemic public health intervention on the duration of untreated anorexia nervosa were evaluated in a non-randomized observational study in two female patient samples (N= 77) using a semi-structured interview and self-report measures (EDE-Q, PHQ-15, PHQ-9, GAD-7, EQ-5D).

**Results:** The strongest predictors of a long duration of untreated anorexia nervosa were statutory health insurance, healthcare-system-related factors (e.g. waiting periods) as well as a lack of insight into the disorder and treatment motivation. Impairments in health related quality of life were significantly correlated with current BMI, somatic complaints and depressive symptoms but not with current eating disorder psychopathology. Accordingly, participants of both samples most frequently consulted their general practitioner/paediatrician at the beginning of the individual treatment

initiation process. The mean duration of untreated anorexia exceeds three years in both patient samples and remained unaffected by the implemented systemic public health intervention.

**Conclusion:** The long duration of untreated anorexia nervosa puts affected individuals at high risk for chronic courses. Patient related and health care system related aspects contribute to this delay between symptom onset and the beginning of a recommended treatment. With the aim to improve early treatment, it seems more promising to directly target affected individuals and their primary care givers rather than to implement interventions at a community level.

## LUNCHTIME WORKSHOPS

**Friday 17 June from 12.30 – 13.30**

**SKILLS TRACK 2B: WORKSHOP – ASSESSING COGNITIVE DYSFUNCTION IN YOUNG AND OLD. WHEN MINI MENTAL STATE IS NOT ENOUGH... (CTD)**

**B) SUICIDE PREVENTION IN PRIMARY AND COMMUNITY CARE (SWEDISH).**

**In collaboration with the Norrbotten County Council**

- Erica Sigvalius
- Ursula Werneke (Facilitator)

Suicide prevention lies at the heart of mental health. But mental health services only see the tip of the iceberg. That is why clinicians working in primary care and community workers need to be equally well equipped to identify people who might be at risk of suicide.

In this workshop the lead of patient safety at the mental health services of Sunderby Hospital will take you through a systematic approach towards assessing suicide risk in accordance with the Swedish guidelines for suicide prevention and discuss cases.

As the course draws on guidance from the Swedish Board of Health and Welfare (Socialstyrelsen), the course will be given in Swedish. However, clinicians from other Nordic countries may find this course relevant to their practice.

**By attending you will:**

- Review the principles of suicide risk assessment according to current National Guidelines
- Improve on your ability to rate suicide stages
- Learn lessons from failures and near misses
- Understand the legal requirements guiding risk assessment and documentation

After the workshop, you will feel more confident assessing and documenting suicide risk.

PARALLEL SESSIONS

**Friday 17 June 13.30 – 15.00**

## **A. CLINICAL SKILLS TRACK 4A: MASTERCLASS – FUNCTIONAL DISORDERS**

### **In collaboration with Aarhus University, Denmark**

- Professor Per Fink
- Lene Hardt Sanchez Toscano

The topic is Functional disorders – Assessing medically unexplained symptoms in primary care with Professor Per Fink and Dr Lene Hardt Sanchez Toscano

In primary care, many patients present with symptoms for which no physical association or cause can be found. The absence of a tangible physical cause often leads to an impression that symptoms are not real or do not be taken to be seriously. Yet, for the patient affected, they constitute a great source of suffering and disability.

Even after several rounds of physical investigations, an organic base may not be found. At that point, communication between patients and clinicians can easily become contentious. Patients may feel not taken seriously and rejected and clinicians may become frustrated and angry.

In this masterclass, international experts from Aarhus University will familiarize you with a systematic approach towards the diagnosis and management of functional disorders.

### **By attending you will:**

- Gain a deeper understanding of the concepts and classifications of functional disorders and medically unexplained symptoms.
- Acquire skills to help patients better to cope with their symptoms.
- Learn how to leave the opiates in the cupboard.

Course book: Functional Disorders and Medically Unexplained Symptoms. Assessment and Treatment. Per Fink & Marianne Rosendal eds.

After this masterclass, you will feel more confident meeting and treating patients with functional disorders in your daily practice.

## **B. CLINICAL SKILLS TRACK 4B: WORKSHOP – FINGER ON THE PULSE – ECG MONITORING IN MENTAL HEALTH PROBLEMS**

### **In collaboration with Umeå university**

- Michael Ott (Facilitator)
- Ellinor Bergdahl

Cardiac problems can commonly occur in mental health settings. Dealing with cardiac effects of psychotropic medicines is one such example, but there are many other. Yet, many clinicians only have limited experience assessing cardiac function.

In this workshop, we will look at the role of ECG as a main diagnostic tool and interpret ECGs. Two experienced physicians from Umeå University Hospital, one a consultant cardiologist, the other a consultant nephrologist, will take you through classical ECG cases as applied to mental health.

**By attending you will:**

- Improve your understanding of screening of cardiac function for central stimulants.
- Learn to diagnose and manage drug associated QT prolongation.
- Get a better grasp of clozapine associated ECG changes.
- Gain insight into what to look for in ECG before ECT.
- Improve your management of anorexia nervosa induced hypokalemia.

You will leave the workshop with improved clinical skills regarding the use and interpretation of ECG.

**C. PHYSICAL SYMPTOM DISORDERS / MUS: A ROADMAP FOR FUTURE RESEARCH INTO PRIMARY CARE INTERVENTIONS**

*Chairs: Chris Burton, Tim Olde Hartman*

**The classification of MUS from a primary care perspective**

*M. Rosendal<sup>a</sup>*

*a) Research Unit for General Practice, Institute of Public Health, University of Southern Denmark, Odense, Denmark*

**Background:** To present how medically unexplained symptoms (MUS) may be conceptualized and operationalized in primary care in order to provide a useful basis for future clinical interventions and research.

**Method:** The concept of MUS is reflected upon in the light of current scientific evidence on classification but in the context of primary care rather than specialized care.

**Results:** As general practitioners (GPs) meet patients with symptoms from all parts of a severity spectrum going from normal body signals to severe and chronic functional disorders, classification and associated interventions must match different parts of the spectrum. Furthermore, GPs are at the frontline of the health care system and often see patients at the beginning of an illness course, where definite diagnoses cannot yet be made. Consultations with about a third of patients presenting health problems are concluded without any diagnosis and the GP must simply act on the 'symptom picture'. Consequently, classification in primary care must embrace a high degree of uncertainty and is challenged by a dualistic health care system.

In this presentation we will discuss how a classification of symptoms based on prognosis rather than on (negative) biomedical findings could be described. We propose a three level categorization of symptoms for use in primary care: Self-Limiting Symptoms, Recurrent or Persistent Symptoms and Symptom Disorders. We suggest this classification is based on the following prognostic characteristics: number of symptoms, number of body systems involved and number of times the symptoms are present.

**Conclusion:** We argue that this three level prognostic categorisation provides a rational and appropriate approach to the problem of classification of MUS in primary care. Future observational and interventional studies should consider targeting each of these groups specifically.

## Outcome measures for intervention trials in somatic symptom disorders

C. Burton<sup>a</sup>, S. Chowdhury<sup>b</sup>

a) Institute of Applied Health Sciences, University of Aberdeen, UK,

b) Medical School, University of Aberdeen, UK

**Background:** In order to inform future trials, we aimed to describe the distribution of between-group differences in outcomes, across a range of outcome domains, in trials of interventions for patients with physical symptom disorders / MUS included in recent systematic reviews.

**Method:** We extracted standardised mean difference for each outcome / study pair in three recent Cochrane reviews of interventions for MUS. Outcomes were grouped into 6 domains: physical symptoms, quality of life, depression, non-specific anxiety, health anxiety and healthcare use. We examined the distribution of effect sizes for each outcome domain and the responsiveness to change of individual measures within domains.

**Results:** We included outcomes from 55 studies. 49 reported outcomes for physical symptoms, 48 depression, 37 non-specific anxiety, 18 health anxiety, 22 quality of life and 20 healthcare use or costs. With the exception of health anxiety and quality of life, each outcome domain featured at least 5 different measures, with no single outcome measure used in more than 30% of trials. There was no strong evidence that any particular measure in a domain was more responsive to change than another. The distribution of short term effects suggested modest beneficial effects of interventions on physical symptoms and quality of life. There was no overall effect on depression or anxiety. Relatively few studies reported long term outcomes.

**Conclusion:** Interventions for physical symptom disorders are most likely to lead to improvements in physical symptoms and quality of life: these should be the primary outcome measures. The heterogeneity of measures makes between study comparisons challenging and reduces the likelihood of research groups developing, and powering studies on, meaningful indicators of clinically important difference.

## Lessons from a randomised pilot trial of a new intervention for MUS in primary care

M. Wortman<sup>a</sup>, T.C. Olde Hartman<sup>a</sup>, P.L. Lucassen<sup>a</sup>, W.J.J. Assendelft<sup>a</sup>

a) Department of Primary and Community care, Radboud University Nijmegen Medical Center, Nijmegen, The Netherlands.

**Background:** To test (1) the systematic identification of patients with MUS in primary care eligible for inclusion in a randomised clinical trial, and (2) the acceptability of a new intervention (Brief Multimodal Psychosomatic Therapy, BMPT) for MUS in primary care.

**Method:** In a randomised pilot trial the patients consulting their GP more than once with MUS, were randomised to intervention (usual care (UC) and additional BMPT) or control condition (UC alone). We monitored the number of patients identified and recruited, trial recruitment and retention and patient satisfaction with the received therapy.

**Results:** 42 patients were included in the trial. We found large differences in the number of patients recruited per GP. Four patients withdrew after randomization. Two patients in the UC group dropped out as they strongly preferred BMPT, resulting in 36 patients (86%) for analysis. They all completed the questionnaires. Thirteen (81%) patients were (very) satisfied and reported that the BMPT helped them to deal with their problems more effectively. Two patients were dissatisfied and disappointed with the treatment as they were still seeking an explanation for their symptoms. Patients in the intervention group reported a significant greater improvement in perceived symptom severity (adjusted mean difference -2.0, 95%CI -3.6 to -0.3).

**Conclusion:** Recruiting patients with MUS by GPs during the consultation hours (i.e. incident sampling) was difficult and took much more time than expected on beforehand. Selecting patients

from computerized patient files (i.e. prevalent sampling) may be preferable. Furthermore, patients' preferences should be taken into account in the design.

### **General practitioners' successful strategies in managing patients with medically unexplained symptoms (MUS). A focus-group study**

A. Aamland<sup>a</sup>, A. Fosse<sup>a</sup>, E. Ree<sup>b</sup>, E. Abildsnes<sup>c</sup>, K. Malterud<sup>a,c,d</sup>

a) Research Unit for General Practice, Uni Research Health, Bergen, Norway,

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c) Department of Global Public Health and Primary Care, University of Bergen, Norway,

d) Research Unit for General Practice in Copenhagen, Copenhagen, Denmark

**Background:** To explore general practitioners (GPs) accounts of strategies, which they have found successful in managing patients with medically unexplained symptoms (MUS). Our rationale for this is to enable future interventions to build on approaches clinicians already use and value.

**Method:** Three focus-group discussions have been organized with a purposive sample of experienced Norwegian GPs. The GPs are invited to share and reflect on concrete, successful experiences from their management of patients with MUS. We are inspired by the Critical Incident Technique and Schön's theory of reflective practice. Systematic text condensation will be applied for analysis, which is a descriptive and explorative method for thematic cross-case analysis.

**Results:** We will present results of the initial analysis of focus group data. In this analysis we will aim to describe and understand the strategies, which GPs perceive as successful.

**Conclusion:** Researchers developing future interventions for patients with MUS in primary care, should have in mind what experienced GPs have found to be successful strategies in practice.

### **D. TRANSPLANT PSYCHIATRY UPDATES**

*Chair/s: Frank Vitinius, Paula Zimbrea Friday*

#### **Impact of psychosocial comorbidities on outcomes in elderly liver transplant recipients**

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**Background:** Liver transplantation (LT) in  $\geq 65$  years old has increased 10 fold (1.7% in 1988 to 15% in 2013)

**Aims:** Evaluate the associations of psychiatric comorbidities with death, a composite outcome of graft loss or death, and length of hospital stay (LOS) after LT in patients  $\geq 65$  years old.

**Methods** At Mayo Clinic Florida 122 LT recipients  $\geq 65$  years old received LT between 2010-2013. We collected baseline patient characteristics as well as information related to psychiatric comorbidities and the three primary outcomes. The Kaplan-Meier method was used to estimate the cumulative incidences of death and graft loss or death. Single and multi-variable Cox proportional hazards regression models were applied to evaluate the impact on separate outcomes of death and graft loss or death. Impact on LOS was examined using single variable and adjusted multivariable negative binomial regression models.

**Results:** Median age at LT was 68 years (65 – 75 years), 62% were males, 84% were white and median MELD at LT was 18 (6 – 43). 62% had history of any psychiatric diagnosis [chemical dependency (33%), depression (22%), anxiety (14%)]. 35% had previously received psychiatric medications. With a median length of follow up of 3.1 years, 23 patients (18.9%) died and 28 (23.0%) experienced the composite outcome of graft loss or death. Cumulative incidences of death at 1, 2, 3, and 4 years after LT were 8.8%, 12.7%, 16.9%, and 22.1%, respectively and graft loss or death were 14.7%, 17.6%, 21.8%, and 24.7%, respectively. Median LOS was 8 days (4 – 128). Risk of death was significantly higher for patients with a history of anxiety disorder (HR: 2.80, P=0.032), depression (HR: 2.47, P=0.038), or for patients who had received any past psychiatric medications (HR: 2.83, P=0.019), and those who had previously received SSRIs (HR: 3.04, P=0.012). Mean LOS was 1.76 times greater for patients who had received SSRIs (P=0.003) and 1.57 times greater for patients who were experiencing pain prior to transplant (P=0.008). After adjustment of the multivariable regression model, there was still an increased risk of death for history of anxiety disorder (HR: 2.70, P=0.040), those who had received any past psychiatric medications (HR: 2.75, P=0.026), and those who had received SSRIs (HR: 2.82, P=0.024). Mean LOS was 1.60 times longer for patients who previously received SSRIs (P=0.006).

**Conclusions** Psychiatric comorbidities are associated with poorer outcomes in ≥65 years old LT recipients.

### **Psychological aspects of vascular composite allografts**

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**Background:** Aim: Review the unique psychiatric challenges of VCA.

**Method:** Key papers were reviewed on psychological aspects of VCA for Facial, Hand, uterine, and penile transplantation.

**Results:** Facial transplant candidates have high rates of alcoholism, opiate dependence and depression. Etiologies include: animal attack, burns, congenital, explosives, homicide or suicide attempt via gunshot, or neurofibromatosis. Rating scales showing changes in psychological adjustment included the Psychosocial Adjustment to Illness Scale, Facial Anxiety Scale- State, and the Rosenberg Self-Esteem rating scale. Psychological defense mechanisms and health outcomes in Reconstructive Hand transplantation (RHT) were studied using the Innsbruck Psychological Screening Program for RHT for standardized assessment pre-and post-transplant. No single defense concept was common to all 7 patients. Losses resulted from: animal attacks, attempted suicide, burns, cancer, congenital difference, explosions, medical injury, motor vehicle accidents, wood working accidents, or vascular disease. Patients using reality distorting defenses had less adaptive functioning and psychological well-being. Adaptive defense styles were seen more often after RHT. Uterine transplant candidates have low rates of alcohol or substance abuse and depression. Psychological outcomes with UTx showed all 9 trial participants were psychologically stable at baseline and over the first year. Rating scales included the SF-36, Fertility Quality of Life, Hospital Anxiety and Depression Scale and the Dyadic Adjustment Scale. The HADS showed lower anxiety and depression in UTx participants than in first-time IVF couples. The UTx group had a lower burden of infertility than the normative group on Ferti-QOL. There were two documented penile transplants in the world. The first was removed within 1 month due to a severe psychological reaction of the patient and his wife. The second penile recipient had full sexual functioning and impregnated his girlfriend within one year. Penile loss resulted from: combat, felonious assault, industrial accidents or self-mutilation.

**Conclusion:** Data regarding psychological outcomes in VCA recipients is sparse. Initial reports suggest quality of life is enhanced with VCAs, but long term outcomes at 10 years have not been published to determine whether risks of immunosuppression are justified for life-enhancing rather than life-saving transplants.

## **Transplant psychiatry curriculum- A model for integrating outpatient consultation into psychosomatic medicine teaching**

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**Background:** The number of organ transplants performed in the US is increasing (UNOS Transplant candidates have a high prevalence of psychiatric disorders.). Psychiatric illness has an impact on the post-transplant mortality, rate of graft loss and quality of life. In addition, there is an increased concern about psychiatric problems in living organ donors. There is a perceived need for training in Transplant Psychiatry (TP) among Psychiatry Residency Programs and Psychosomatic Medicine Fellowships.

**Objectives:** To standardize the knowledge acquired during a TP rotation

To enhance the learning of specific communication skills required for the multidisciplinary care of the transplant patient

**Method:** We analyzed the feedback from 15 trainees who completed the TP elective at YNH between 2010 and 2014. We reviewed the results of a survey regarding TP teaching received from 61 US Psychiatry Residency Programs and 24 US Psychosomatic Medicine Fellowships. In order to evaluate the training program we created or adapted several instruments: 1. a pre and post- test to assess the efficacy of the lectures on TP; 2. relevant items from the ACGME Psychosomatic Milestone rubric; 3. a communication rubric to facilitate feedback regarding the communication skills; 4. a structured portfolio aimed to standardize the clinical exposure and liaison experience.

**Results:** Our TP curriculum aims at providing the trainees with both knowledge and communication skills necessary to address the psychiatric issues in the transplantation setting. The knowledge module will consist of four lectures and clinical exposure in both inpatient and outpatient setting. The communication skills module will include three role-plays followed by actual liaison work with the transplantation team and with community mental health providers. The lectures and the role plays will be delivered in the beginning of the academic year, while the clinical experience and participation in multidisciplinary meeting will follow over the course of a 3 month rotation. The role-plays will use specific scenarios considered challenging such as recommending against transplant listing to a multidisciplinary review committee. The structured portfolio will ensure that trainees acquire a broad experience with clinical scenarios specific for TP.

**Conclusion:** Inpatient and outpatient clinical exposure complement lectures in providing adequate knowledge in TP Liaison training may be enhanced if preceded by role play. Structured portfolio can support both knowledge and communication skills training during TP rotation.

## **Adapting the “Explore Transplant” (ET) education program for use in Ontario and training healthcare professionals to increase patient knowledge and facilitate informed decision making about kidney transplantation**

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**Background:** Kidney transplantation (KT), especially living donor KT (LDKT) is the optimal treatment for suitable patients with end stage kidney disease (ESKD) since it provides better quality of life (QOL), reduced morbidity and mortality and less healthcare costs. The proportion of wait-listed patients among patients on dialysis is low and variable in most jurisdictions and LDKT is also underutilized. Furthermore, patients with various ethnic backgrounds have reduced access to KT

compared to Caucasian patients. Studies have demonstrated that insufficient KT related knowledge is an important barrier to access to KT. Studies in the US have shown that patients receiving tailored transplant education were more likely to complete the transplant evaluation and to receive LDKT. Current guidelines recommend that all potential kidney recipients be educated about transplant options, so that they can make informed treatment decisions.

The **ET** education program, designed by Dr. Amy Waterman, is based on strong theoretical foundations (The Transtheoretical Model [TTM] of Behavior Change) and empirical research. The **ET** program has also been tested in real life clinical environments and it is currently used in many dialysis units in the US.

**Method:** In a province-wide collaborative project we have been adapting the program for use in Ontario. Participants included transplant nephrologists from the Ontario transplant centers, educators, transplant coordinators, dialysis nurses and patient representatives). We reviewed both the written components (fact sheets and brochures) and the education videos of the **ET** program. The review process focused both on language, culturally, ethnically and socio-economically important aspects as well as references to the Canadian healthcare system and health insurance. Once the sections that required revision were identified, our team invited kidney transplant recipients and living donors who represented the ethnic diversity in Ontario. To add Canadian content, Ontario health care professionals were also invited to participate in the filming. The next step will be to pilot the “**Explore Transplant Ontario**” program during a full day pilot training. The participants of this pilot training will be transplant coordinators from the Ontario transplant centers, nurses and nurse-educators from selected pre-dialysis clinics and dialysis units from Ontario.

**Expected results:** Adapting this innovative program for use in Ontario will provide excellent opportunities for knowledge transfer between transplant centers and dialysis units. Components of the TTM can be measured using validated questionnaires that will provide us with innovative monitoring tools to assess the progression of patients along the trajectory of their decision about treatment modality for ESKD.

## **E. CHRONIC FATIGUE SYNDROME**

*Chair/s: Bernd Löwe, Peter White*

### **Vitamin and mineral status in chronic fatigue syndrome and fibromyalgia syndrome: a systematic review and meta-analysis**

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**Background:** Chronic fatigue syndrome (CFS) and fibromyalgia syndrome (FMS) are common, disabling health conditions. Many patients use nutritional supplements, while it is unclear whether deficiencies in vitamins and minerals contribute to symptoms in these patients. Therefore, our objectives were (1) to determine vitamin and mineral status in CFS and FMS patients as compared to healthy controls; (2) to investigate the association between vitamin and mineral status and clinical parameters; and (3) to determine the effect of vitamin and mineral supplementation on clinical parameters.

**Method:** The databases PubMed, EMBASE, Web of Knowledge, and PsycINFO were searched for eligible studies. Articles before 1994 for CFS and before 1990 for FMS were excluded. Articles were included if participants were adults with a diagnosis of CFS or FMS, the status of one or more

vitamins or minerals was reported, or an intervention was performed concerning micronutrients. Cross-sectional studies, cohort studies and RCTs were included. Two reviewers independently extracted data and assessed the risk of bias. For micronutrients with more than five studies available, quantitative syntheses using meta-analyses were performed. Micronutrient status was investigated separately for CFS and FMS when more than three studies were available.

**Results:** A total of 5 RCTs and 35 observational studies were included for the qualitative synthesis, and 21 observational studies for the meta-analyses. Risk of bias analyses revealed that most studies were of poor quality. Circulating concentrations of vitamin E were lower in patients compared to controls (pooled SMD: -1.57, 95%CI: -3.09, -0.05;  $p=.042$ ). There were no differences in circulating concentrations of vitamin C (pooled SMD: -0.55, 95%CI: -1.38, 0.28;  $p=.194$ ), vitamin D (pooled SMD: -0.16, 95%CI: -0.39, 0.07;  $p=.163$ ), calcium (pooled SMD: -0.07, 95%CI: -0.34, 0.20;  $p=.627$ ), and magnesium (pooled SMD: -0.28, 95%CI: -0.87, 0.32) in CFS and FMS patients compared to controls. There was a tendency toward a lower prevalence of vitamin D deficiency in CFS and FMS patients compared to controls (pooled OR: 0.50, 95%CI: -0.21, 1.22;  $p=.054$ ),

**Conclusion:** The majority of micronutrients do not differ between CFS/FMS patients and healthy controls. In addition, we found little to no evidence to support the hypothesis that vitamin and mineral deficiencies may play a role in the pathophysiology in CFS and FMS, and that the use of supplements is effective in these patients. However, the current literature around vitamin and minerals in CFS and FMS is poor of quality and stresses the need for well-performed interventions and observational research.

### **Is chronic fatigue syndrome heterogeneous? A review of the literature and new study of the lumping versus splitting debate for functional somatic syndromes**

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**Background:** There is evidence for and against functional somatic syndromes being either lumped together or separated apart. The aim of this presentation is to review the evidence regarding the heterogeneity of chronic fatigue syndrome (CFS) and to provide new data addressing this issue.

**Method:** First, we reviewed the literature regarding heterogeneity of CFS. Next, we used baseline data from the PACE trial, which included 961 variables from 640 participants with CFS. Variable reduction, using a combination of clinical knowledge and principal component analyses, produced a final dataset of 26 variables for 541 patients. Latent class analyses were then used to empirically define subgroups, which were then tested for differences in measures of fatigue and disability not used in the previous analysis.

**Results:** The literature review found 14 relevant papers, which showed consistent evidence for heterogeneity, but significant variation in the sub-groups identified, depending on method of statistical testing used and variables measured. Analysis of PACE participants' data found that a five class model was the most statistically significant and clinically recognisable. The largest, "core" subgroup, had low scores across all domains and good self-efficacy. A further three subgroups were then defined by mood disorders, features of other functional somatic syndromes, and a polysymptomatic group which combined features of both. The smallest group were characterised by fear avoidance and inactivity. Measures of fatigue and disability varied significantly across the subgroups.

**Conclusion:** Chronic fatigue syndrome is clinically heterogeneous, and subgroups defined by comorbid mood disorders and high numbers of physical symptoms have been consistently found. Progress in understanding the pathophysiology of CFS and the development of more personalised treatment approaches may benefit from splitting them into clinically defined subgroups.

### **Graded Exercise therapy guided self-help treatment (GETSET) for patients with chronic fatigue syndrome: a randomised controlled trial in secondary care**

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**Background:** Previous trial findings show that graded exercise therapy (GET) can be an effective treatment for chronic fatigue syndrome, but therapy is expensive and requires attendance at hospital. This trial aimed to assess the efficacy and safety of Guided Exercise Self-help (GES).

**Method:** In our randomised and controlled trial, patients meeting NICE criteria for chronic fatigue syndrome were recruited from two secondary care clinics in the UK and randomly allocated by computer-generated sequence to receive specialist medical care (SMC) alone or SMC supplemented with guided exercise self-help (GES). Primary outcomes were fatigue (Chalder fatigue questionnaire; CFQ) and physical function (short form-36 subscale score; SF-36) 12 weeks after randomisation, and safety was also assessed. Primary outcomes were rated by participants, who were necessarily unmasked to assignment; the statistician was masked to treatment arm assignment for the analysis. We analysed unadjusted outcomes and also used linear regression to adjust for baseline values. The analysis was based on intention to treat.

**Results:** We recruited 211 eligible patients (97% of target), of whom 107 were allocated to GES and 104 to SMC alone. At 12-weeks the GES group scored 4.1 (95% CI: 2.2 to 6.0) points lower on the CFQ and 6.3 (95% CI: 1.7 to 10.8) higher on the SF-36 compared to the SMC group ( $p < 0.001$ ;  $p = 0.007$ ) (adjusted model). Effect sizes were 0.5 and 0.2 respectively. Subgroup analysis of 141 participants meeting CDC criteria for CFS and 159 meeting Oxford criteria for CFS yielded equivalent results. Serious adverse events were recorded in 1 (1%) of the 107 GES group and 2 (2%) of the 104 SMC alone group.

**Conclusion:** Guided exercise self-help is a moderately effective and safe intervention for symptomatic relief of fatigue. Its effectiveness in increasing physical functioning is also significant but smaller.

### **Why patients with Chronic Fatigue Syndrome/Myalgic Encephalomyelitis improve or deteriorate with graded exercise therapy.**

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**Background:** Graded exercise therapy, GET, (along with cognitive behaviour therapy, CBT) is one of only two treatments recommended by the 2007 National Institute of Health Care Excellence (NICE) CFS/ME guidelines as having an evidence-base. NICE describes GET as an “approach to CFS/ME that involves physical assessment, mutually negotiated goal-setting and education”. However, lay surveys show that GET is considered unacceptable or harmful by many patients. Further investigation is needed to understand why some people seem to benefit from GET, and not others.

**Aims:** The study aimed to answer the question, “What are the differences and similarities in

treatment perceptions and experiences of GET, among participants who improved and got worse in a pragmatic randomised controlled trial of Guided graded Exercise Self-help (GETSET).”?

**Method:** This qualitative, one-to-one interview study was situated within the GETSET Trial. A sub-sample of patients were stratified into improved and deteriorated and recruited: 9 were better, 10 were worse (according to Clinical Global Impression (CGI) scale). Interviews were semi-structured to ensure all participants discussed all relevant topics to the study. Interviews were transcribed in full and a thematic, “constant comparison” approach was used in the analysis, using NVivo software to ensure all relevant data were analysed.

**Results:** Participants generally found GET challenging, especially during initiation, as participants had to wait considerable time for any benefit. The deteriorated group reported experiencing more barriers to GET, including a worse exacerbation of symptoms in response to GET, which interfered with their life commitments (e.g. work, caring duties). They also reported greater interference with GET from comorbid conditions and other things happening in their lives. Additionally, they had had CFS for considerably longer than the improved group. The improved group on the other hand reported more facilitators to doing GET (e.g. using other therapies), and were more likely to report exceptionally high levels of motivation. Paradoxically, GET engagement could be supported by having worse levels of CFS/ME, as participants felt too ill to do activities that could distract them from GET.

**Conclusion:** Our findings flesh out the deeper meanings behind polarized experiences of GET, pointing to the specific conditions under which GET is most likely to work, and how health professionals could assist patients to benefit from GET.

## F. CULTURAL AND GENDER ASPECTS IN PSYCHOSOMATIC MEDICINE

*Chair/s: James Levenson, Ursula Werneke*

### The Psychosocial Correlates of Infertility in Saudi Arabia

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**Background:** As infertile couples go through the painful experience of failing to have their own biological children, many of them suffer from emotional, social and mental stress. Understanding and addressing such issues from the male and female perspective is a crucial part of infertility treatment as it has been shown to improve the pregnancy rate and quality of life. The goal of this study is to identify the frequency of major psychiatric disorders and the psychosocial characteristics of infertile couples in Saudi Arabia.

**Method:** This was a cross-sectional study of infertile patients (206 women and 200 men) attending infertility clinics in three referral hospitals in Riyadh, Saudi Arabia. A semi-structured questionnaire was developed to assemble socio-demographic, clinical, and psychosocial variables. The approved Arabic version of The Mini-International Neuropsychiatric Interview (M.I.N.I.) tool was used to assess 18 common psychiatric illnesses.

**Results:** 39.5% male and 47.1% female reported they suffered psychosocial pressures because of delayed childbearing. The most prevalent stressor came from intrusive questions and advices from significant others. Males suffered more from intrusive questions and pressure to conceive, remarry, or get divorced; while females were stressed more from psychological and emotional exhaustion, marital discord, attitudes by mother in laws or society, and persistent desire by husband to have children. To cope with infertility, females engaged more in religious activities and spoke more to someone regarding their problems. To solve their infertility problems, 50% tried to find ways via the internet, and 38.0% males and 53% females reported use of alternative medicines. 61% believed that delayed childbearing has a psychological reason, and 39% blamed supernatural reasons and visited faith

healers clinics to treat infertility. Of the 200 men surveyed, only 4.5% self-reported they had been diagnosed to have a psychiatric disorder.

Of the 206 women surveyed, only 10.2% reported they have a psychiatric disorder. However, using the MINI scale, psychiatric illness was documented in 30% males and 36.9% females. The most common diagnoses among both genders were depression, which was documented in 21.7% patients, and anxiety, which was documented in 21.2% patients. There were significantly more females who had suicidality and depression compared to males. On the other hand, there were significantly more males who had bipolar disorders and substance-related disorders compared to females. Low monthly income among male and females study participants and polygamy only among female participants were significantly associated with a psychiatric disorder. Finally, compared to males, females wished more to have psychosocial support within the infertility centers.

**Conclusion:** Patients with infertility in SA face multiple psychosocial stressors related to their infertility, and cope differently based on gender and culture-specific knowledge of infertility. There is a higher prevalence of psychiatric disorders, particularly depression and anxiety, among infertile men and women in Saudi Arabia associated with lower income and polygamy. This study sheds light on the importance of integrated care to help elevate the psychological burden for this unfortunate population and perhaps improve their outcome or quality of life. It also encourages follow-up studies to further understand the complex relationship of fertility and psychological wellbeing.

### **Lifelong psychological consequences of disempowering treatment in prenatal and maternity care: interviews with elderly Swedish women**

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**Background:** To explore negative experiences of prenatal and maternity care and their significance for women's mental well-being over a lifetime, as part of a larger study into women's paid and unpaid work and health.

**Method:** Two general practitioners performed qualitative in-depth interviews with 20 women, 65 to 83 years old. The interviews allowed the women great influence on the topics discussed, and were analyzed according to a phenomenological approach.

**Results:** Childbearing, particularly birthing, emerged as unexpectedly important topics. Our biomedical way of understanding risks and complications during pregnancy and birth-giving was confronted with many interviewees' feelings of distress, guilt and grief linked to their childbearing experience 30-60 years earlier (in the 1930' to 1950's in Sweden). The women connected these lifelong emotions, as well as some risks and disasters that had occurred, to the harsh and humiliating treatment they had encountered from both doctors and midwives during pregnancy and birth. I interpret this treatment as "violations of dignity" and as abuse. These experiences did not depend on whether the deliveries were classified as "normal" or not. The treatment was carried out in conformity with a view of expectant mothers as irresponsible and ignorant and with the prevalent idea of "natural birth". Thus, medical care, designed to reduce risks to mother and child, was also experienced as disempowering and creating health risks, both psychological and physical. The consequences of the violations described in this material were similar to those after traumatic birth experiences described in the literature regarding young women of today.

**Conclusion:** Pregnancy and labor were work of great importance in the lives of the women interviewed. Disempowering experiences in prenatal and maternal care can pose lifelong threats to women's well-being, particularly their mental well-being, and deserve attention for both younger and older women. There were and are strong norms in Western medicine and western societies regarding how pregnant and birthing women should behave in order to be seen as "good mothers". This might lead to that inappropriate responsibility for children's life and health are placed on the individual women, while men's attitudes or actions and societal structures are ignored.

## Gender-specific implicit emotional processing in alexithymic individuals

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**Background:** Alexithymia is a personality trait characterized by a decrease of emotional functions, paucity of fantasy, and the inability to express feelings verbally. The Alexithymic individuals' ability to express emotions nonverbally is subject to controversial discussions. Some authors report a deficit in nonverbal expression, while others describe a high amount of "action tendencies" including gestures and facial expression.

**Method:** To address this controversy, hand movement behaviour of healthy individuals with Alexithymia (TAS, BVAQ) (16 f, 17 m) and of a matched Control Group (16 f, 17 m) was investigated during two standardized interviews: (i) on emotional scenarios (LEAS), and (ii) as a control condition, intelligence questions (HAWIE). The participants' videotaped hand movement behaviour was coded without sound by two independent certified raters with the NEUROGES-ELAN system Module I, which assesses the amount of hand movement activity, the degree of conceptualization and the focus of attention in hand movement.

**Results:** A significant effect of the interaction of Group x Gender x Interview showed no significant Group differences in hand movement behaviour during the HAWIE, but only during the LEAS. The Alexithymic males increased the number of *movement* units / minute as compared to the Control males, specifically they displayed more position *shifts*. The Alexithymic females showed the reversed trend for *movement* units. In particular, they displayed significantly less *phasic* and *repetitive* units (conceptual hand movements) than the Control females. Furthermore, they displayed less *on attached object* (e.g., playing with the bracelet) and less *in space* (gesture) units than the Control females.

**Conclusion:** The present results clearly attribute the two propositions about the Alexithymic individuals' nonverbal behavior, i.e., reduction versus increase, to the two genders. When confronted with emotional scenarios Alexithymic males become more active, specifically, more restless, while Alexithymic females decrease in hand movement activity. They show a reduction of conceptual hand movements and of preening and gestural expression, reflecting a decrease in cognitive complexity and external orientation. Since these alterations are not prevalent during the HAWIE, but only during the LEAS, the findings evidence in Alexithymic individuals gender-specific reactions to the demand to think about emotional processes.

## Providing mental health services to Middle Eastern Immigrants and refugees: challenges and opportunities

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Changing demographics and pattern of immigration, voluntarily or imposed by geopolitical conflicts, ethnic feuds and wars had resulted in sudden shift of massive numbers of individuals across different continents. One of the burdens that this kind of change will entail is an increase demand on mental health services in the host countries whether they are ready or not. Thus it becomes imperative to provide services that we were not accustomed to, requiring techniques and knowledge that we were not necessarily acquainted with and showing competency that we were not trained for.

We are witnessing nowadays a wave of influx of immigrants, refugees and asylum seekers mainly from the Middle East and particularly from certain Arab countries and when arriving in Europe they are overwhelming the mental health services with their peculiarities, complexities, cultural and religious background that are totally an uncharted waters for the local providers. Developing cultural competency in mental health provision became an imperative skill in the age of globalization. This involves the enhanced knowledge and attitudes of care givers. (NKI) [\[1\]](#) In this presentation, we will review the geodemographic, religious, linguistic, and family structure in the Middle East so we can understand some of the special approaches needed to achieve our goal.<sup>2</sup> We evaluate the common pitfalls and caveats of our own practices starting with our formal western curriculum, the types of therapeutic approaches that we have gathered and learned, our biases and prejudices and all our educational, cultural, and life experience baggage. Also, we will go over the difficulty of applying diagnostic criteria applicable in the west to Middle Eastern pathologies<sup>3</sup>, where albeit they carry the same name, the presentations are very different. A literature<sup>4</sup> review of many documented experiences and research into the same issue was conducted, and we are including the most relevant findings and solutions to approach these practices. Many earnest efforts have been invested in building educational edifices and branches of international colleges in the Middle East that produce highly-educated and skillful professionals, yet the problem is the same for the curriculum that was given, as it was still a western plan tailored to a different society and culture. Currently, many educational programs in the west, as well as post graduate curriculum, has included acculturation subjects and/or multi-ethnic plans to reach out to and engage minorities living within the society( Intra-National) in any given western country.<sup>5</sup>

But, it does not address at large the usage of approaches (diagnosis criteria, testing scales, therapeutic principles) in order to have a successful outcome in the host countries.

**Conclusion:** Although it is a slow process, we have been able to identify some of the differences and as we go, we are applying the appropriate changes (Ex. Validated diagnostic scales, modified interviewing questions and better understanding the cultural idioms of complains)

**Relevance:** To identify some of the challenges in communicating and providing metal health services in multicultural settings especially in Emergency services. To review some of the practical solutions and approaches that addresses those challenges.

## **G. COMMUNICATION SKILLS TRAINING FOR HEALTH PROFESSIONALS**

*Chair/s: Robert Maunder, Wolf Langewitz*

### **Improving multidisciplinary collaboration between medical professionals: Complex Situation Training (CST)**

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**Background:** There is growing evidence that suboptimal multidisciplinary collaboration is both common in practice and harmful for patients. Furthermore, research has shown that training cooperation skills of medical professionals can improve care outcomes. However, effective collaboration training interventions are scarce. Complex Situation Training (CST) is a new inter-professional training model that teaches medical professionals skills and knowledge to collaborate more effectively in complex cases.

**Method:** The training model was developed on the basis of: 1) an inventory of factors interfering with multi-disciplinary collaboration in complex cases reported in the literature, 2) representative topics for complex situations identified through medical staff interviews, 3) use of a personality questionnaire for behaviour styles, and 4) complex case discussions and simulation. Post-hoc evaluations of the training were done through questionnaires.

**Results:** In 2014-2015 18 trainings were conducted for 83 medical specialists, 42 residents and 9

other disciplines. Questionnaires gave following results, "I gained more insights in my personal interaction style" : average score 4,3 on a 5-point scale. "I will use what I learned in practice": average score 4,9 on a 5-point scale. Overall average rating was 8,1 on a 10-point scale. Interviews with individual participants one months after training suggested benefits for teambuilding, interpersonal communication and efficient care for complex patients.

Conclusion: CST is appreciated by the trainees and seems to be a useful training for improving multidisciplinary collaboration in complex cases.

### **Good communicators and their failure in interprofessional communication**

*F. Baessler<sup>a</sup>, C. Weiss<sup>a</sup>, J. Juenger<sup>a</sup>, A Moeltner<sup>b</sup>*

*a) Research working group: communication, University clinic Heidelberg, Germany,*

*b) Research working group: assessment, University clinic Heidelberg, Germany*

**Background:** Skills in interprofessional communication are important for team members' satisfaction and patient outcomes. Typically, interprofessional communication skills are covered by training in general communication and not necessarily identified as a unique type of communication skill. However, it is questionable whether and to which extent good general communication skills are in line with good communication skills in interprofessional communication. This study addressed this question in training and assessment of medical students.

**Method:** Data of 305 medical students at the medical faculty of Heidelberg were collected. The students were assessed via objective structured clinical examinations (OSCEs) regarding their general communication skills, their interprofessional communication skills and their overall practical skills. Notably, data was obtained from 10 different OSCEs with 10 stations conducted in general medicine over a period of 2,5 years from 2013 to 2015.

**Results:** The average reliability for the 10 OSCEs was around 0.8. The correlation between interprofessional communication skills and practical skills ranged from 0.16 to 0.67 with a mean of 0.34. The correlation between interprofessional communication skills and non-interprofessional (i.e. general) communication skills ranged from -0.11 to 0.59 with a mean of 0.21. In 8 out of the 10 different OSCEs, the correlation between interprofessional communication skills and practical skills was higher than the correlation between interprofessional communication skills and non-interprofessional communication skills.

**Conclusion:** Overall, the OSCEs showed a good reliability regarding the assessment of general and interprofessional communication and practical skills. However, good communication skills on general level showed a rather weak relation with interprofessional communication skills. Thus, being able to adequately talk to patients does not necessarily generalize to one's communication with team members from other health professions. This suggests that interprofessional communication skills should be specifically emphasized and addressed with the teaching and assessment of communication skills.

### **The role of the psychosocial subjects in the overall assessment of medical students at the University of Heidelberg**

*E. Gaitzsch<sup>a</sup>, F. Bäßler<sup>a</sup>, M. Gornostayeva<sup>b</sup>, A. Möltner<sup>b</sup>, J. Jünger<sup>a</sup>*

*a) Department of Psychosomatic and General Internal Medicine, University Hospital Heidelberg, Heidelberg, Germany,*

*b) Center of Excellence for Assessment in Medicine - Baden-Wuerttemberg, University of Heidelberg, Heidelberg, Germany*

**Background:** Competency-based education and assessment has become increasingly important in the medical field. In Germany, a national competence based catalogue of learning goals (NKLM) was released by the Medical Faculty Association in June 2015. It describes the profile of a student at

graduation and thus, can be seen as a desired state against which the content of a medical curriculum can be compared. The aim of the present project was to analyze the content of assessment at the medical faculty in Heidelberg using these learning goals and to show how the psychosocial subjects are represented within the overall assessments. Furthermore, we were interested what formats of assessment (i.e., written, oral, practical formats) are used.

**Method:** A quantitative survey was conducted among the lecturers at the medical faculty, analyzing which assessment formats are used, the time spent on the different exam types and the learning goals being covered. Then, in a first step, each assessment was mapped according to the learning goals of the NKLM on a general level. In a second step, a more in-depth analysis is currently performed, where each question of the exams of the winter semester 2014/15 is mapped separately.

**Results:** First results show that approximately 4.5% of all multiple choice questions (50 out of approximately 1100) and 8% of all OSCE (Objective structured clinical examination) stations (5 out of 60) cover psychosocial topics. Schizophrenia, dementia, posttraumatic stress disorder, borderline personality disorder, anorexia nervosa, somatic symptoms and related disorders and suicidal tendencies are most commonly assessed. Definitions, characteristics of the illnesses, diagnostic approaches and therapeutic principles are primarily tested by multiple choice questions, whereas communication skills are assessed by OSCE stations. Detailed coverage of learning goals within the psychosocial subjects according to the NKLM will be presented.

**Conclusion:** There is strong evidence that psychosocial subjects are represented in practical assessments rather than in written exams. In written exams, the focus is on basic knowledge, whereas in practical exams the application of knowledge in a doctor-patient setting is tested. With the overall aim of a comprehensive and efficient assessment program in mind the results help to detect deficits and redundancies regarding the coverage of learning goals and thus, facilitate a better alignment with other specialty subjects.

### **Medical communication: function and outcome – a meta-analysis**

*G. Schuessler<sup>a</sup>, R. Riedl<sup>a</sup>*

*a) Department Medical Psychology, Medical University Innsbruck, Austria*

**Background:** The last meta-analysis up to the year 2000 (DiBlasi et al 2001) showed a general medium effect of doctor-patient communication. Communication research distinguishes six functions: relationship building, gathering information, information provision (patient education), decision making (shared decision making), enabling treatment related behaviour and emotions.

**Method:** We conducted searches of 5 databases between 2000 and 2015 to identify for a systematic review and synthesis of the literature. 1501 eligible studies tested verbal communication and interventions with adults. Intervention were characterized by type and intensity; RCTs and controlled studies were assessed, uncontrolled studies were separately checked. The effects of communication were described heterogeneously – pathophysiological measures, illness behaviour of the patient (e.g. adherence), patients' life quality et al.

**Results:** 14 RCT-Studies were reviewed and aggregated. Furthermore information of non-RCT (n=12) was added.

**Conclusion:** In general doctor-patient communication fostered improvements in all areas. Special inventions (e.g. patient education) had higher special improvements. The challenge is to integrate this finding into "real life" practice.

## H. APM-EAPM SYMPOSIUM: WHEN THE GOING GETS TOUGH – MANAGING ETHICAL DILEMMAS IN HEALTH CARE

Chair: *Rebecca Brendel*

Discussants: *Monika Keller, Gerhard Schüssler*

### Ethical challenges in suicide assessments: When is suicide suicide and when is it something else?

*J.M. Bostwick*

*Department of Psychiatry, Mayo Clinic, Rochester, USA*

The promiscuous and indiscriminate use of the term "suicide" to describe all manner of entities has rendered the term essentially meaningless. Many divergent phenomena are lumped under the rubric of suicide, including death by one's own hand, noncompliance with medical treatment leading to one's early mortality, physician-assisted suicide both within the law and outside of it, and certain practices in hospice/palliative care. Evolving cultural mores also come into play. How European countries such as the Netherlands, Belgium, and Switzerland approach suicide, for example, dramatically differs from how it is understood in Great Britain, Italy, and much of the United States. This presentation will make a case for a model that distinguishes among various entities called "suicide" by discerning whether or not the dead person collaborated with others in making the decision to die and whether or not their intent was to hasten their demise. The purpose of this model is not to "solve" the problem of suicide nor to take a philosophical or moral stance. Rather, as a result of using this approach to characterize the specifics of a "suicide", differentiated ethical principles can come into play and be brought to bear in better understanding a death labeled "suicide" both before and after it happens.

### The ethics of abode: autonomy and beneficence in housing decisions for aging and ill patients

*J.R. Rundell<sup>a</sup>*

*a) University of Minnesota, Minneapolis, Minnesota, USA*

**Background:** Psychiatric consultants are asked to perform capacity for place of abode evaluations in inpatient settings, residential settings, and sometimes outpatient settings. These consultations can be challenging and complex for consultees, consultants, patients, families, healthcare facility staff, and systems of care. The aim of this review is to summarize international principles of conducting capacity for place of abode consultations that ensure ethical clarity.

**Method:** Medical literature was reviewed related to capacity for abode consultations in European and USA literature, using PubMed and Google Scholar methodologies. These findings are considered in the context of the author's experience conducting capacity for place of abode evaluations in inpatient and homeless program settings for the United States Veterans Administration.

**Results:** Ethical issues often arise in hospitalized or residential patients when place of abode or discharge is being considered, particularly when there is disagreement with the patient's desired disposition. Among the most complex of ethical dilemmas emerges in the context of perceived self-neglect, especially when there is no designated guardian or next-of-kin who can act as a substitute decision-maker in the event of lack of capacity (Day et al 2016). U.S. states have different laws and regulations related to capacity, competency, and legal standards. However, in general there is a presumption a person is competent until non-capacity is demonstrated (Maurer 2013). Legal systems are involved when there is a) lack of decisional capacity for place of abode (and other issues) and b) non-clarity of decisional authority when there is no written directive or involvement of legally designated substitute decision-makers. Consulting psychiatrists provide important opinions on capacity based on skills and training in Psychosomatic Medicine. Objective data is frequently used to help teams in decision-making—including occupational therapy assessment of ability to perform activities of daily living, physical therapy assessment, and cognitive testing.

In the U.K., the principles of the 2005 Mental Capacity Act provide a degree of clarity to help health systems address ethical dilemmas inherent in capacity for place of abode situations where the patient/client may be exhibiting self-neglect or non-insightful representations about their confidence in their own self-care abilities. The principles (Dunlop and Sorinmade 2014) include the following concepts:

A person must be assumed to have capacity unless it is established that he or she lacks capacity

A person is not to be treated as unable to make a decision unless all practicable steps to help him or her to do so have been taken without success

A person is not to be treated as unable to make a decision merely because he or she makes an unwise decision

An act done or decision made for or on behalf of a person who lacks capacity must be done, or made, in his or her best interests

Before the act is done, or the decision is made, consider whether the purpose for which it is needed can be as effectively achieved in a way that is less restrictive of the person's rights and freedom of action.

**Conclusion:** Ethical considerations in the setting of self-neglect focus on the concepts of beneficence, non-maleficence, autonomy and capacity. Effective decision-making by an interdisciplinary team of professionals needs to be person-centered and give due consideration to the best interests of patients/clients, balancing autonomy and safety.

### **Assessing the capacity to appoint a surrogate decision-maker: ethics, law, and clinical practice**

*R. Weintraub Brendel*

*Center for Bioethics, Harvard Medical School, Boston, USA*

Over the past 25 years in the United States, advanced directives such as Health Care Proxies and Durable Powers of Attorney for Health Care have increasingly become part of both individual estate planning and medical/ end-of-life planning. These instruments are characterized by springing clauses such that they only take effect at a point in time when the patient becomes incapacitated.

Individuals appointed by these documents, or agents, have broad power to act on behalf of the patient and may generally make any decision that the patient him or herself would have been permitted to make, if competent. From an ethical perspective, the function of the agent is to promote respect for the patient and his or her personhood (autonomy). Other relevant values include beneficence and non-maleficence.

For patients who are unable to make medical decisions on their own behalf, the ability to appoint a surrogate decision-maker is an important expression of self-determination. While, in clinical practice, most clinicians in the US would view the capacity to appoint a surrogate decision-maker lower than that to actually make the medical decision itself, little guidance is available in the literature regarding the ethical and legal framework of allowing a patient who is decisionally incapacitated to make health care decisions to nonetheless appoint a surrogate decision-maker/ complete a Health Care Proxy.

This talk will review the ethical and legal considerations related to appointment of a surrogate decision-maker in the US and then review what approach might be taken to both promote autonomy and prevent harm to patients who are decisionally incapacitated for medical decisions but nonetheless may be able to appoint a surrogate decision-maker. The session will conclude with a participatory discussion of similarities and differences in US and European approaches to decisional incapacity and the ethical dimensions of these similarities and variances.

## I. QUALITY OF LIFE, MENTAL HEALTH AND AGE

Chair/s: Colin Shapiro, Frank Doyle

### High morale and survival

J. Niklasson<sup>a</sup>, C. Hörnsten<sup>a</sup>, M. Conradsson<sup>a</sup>, F. Nyqvist<sup>b</sup>, B. Olofsson<sup>c</sup>, H. Lövheim<sup>a</sup>, Y. Gustavsson<sup>a</sup>

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b) Faculty of Education and Welfare Studies, Social Sciences Study Programme, Social Policy Unit, Åbo Akademi, University Vaasa, Finland,

c) Department of Nursing, Umeå University, Umeå, Sweden

**Background:** high morale is defined as future-oriented optimism. Previous research suggests that a high morale independently predicts increased survival among old people, though very old people have not been specifically studied.

**Objective:** to investigate whether high morale is associated with increased survival among very old people.

**Method:** the Umeå 85+/GERontological Regional DAtabase-study (GERDA) recruited participants aged 85 years and older in northern Sweden and western Finland during 2000–02 and 2005–07, of whom 646 were included in this study. Demographic, functional- and health-related data were collected in this population-based study through structured interviews and assessments carried out during home visits and from reviews of medical records. The 17-item Philadelphia Geriatric Center Morale Scale (PGCMS) was used to assess morale.

**Results:** the 5-year survival rate was 31.9% for participants with low morale, 39.4% for moderate and 55.6% for those with high morale. In an unadjusted Cox model, the relative risk (RR) of mortality was higher among participants with low morale (RR = 1.86, P < 0.001) and moderate morale (RR = 1.59, P < 0.001) compared with participants with high morale. Similar results were found after adjustment for age and gender. In a Cox model adjusted for several demographic, health- and function-related confounders, including age and gender, mortality was higher among participants with low morale (RR = 1.36, P = 0.032) than those with high morale. There was a similar but non-significant pattern towards increased mortality in participants with moderate morale (RR = 1.21, P value = 0.136).

**Conclusion:** High morale is independently associated with increased survival among very old people.

### Psychological symptoms and quality of life post-stroke. A profile of Irish stroke survivors from the ASPIRE-S cohort

L. Mellon<sup>a</sup>, D. <sup>b</sup>, L. Brewer<sup>b</sup>, P. Hall<sup>a</sup>, F. Horgan<sup>c</sup>, E. Dolan<sup>d</sup>, H. McGee<sup>a</sup>, E. Shelley<sup>e</sup>, P. Kelly<sup>ef</sup>, A. Hickey<sup>a</sup>

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b) Department of Stroke and Geriatric Medicine, Royal College of Surgeons in Ireland, Dublin 2, Ireland,

c) Department of Physiotherapy, Royal College of Surgeons in Ireland, Dublin 2, Ireland,

d) Medicine for the Elderly, Connolly Hospital, Dublin 15, Ireland,

e) Department of Epidemiology, Royal College of Surgeons in Ireland, Dublin 2, Ireland,

f) Department of Neurology, Mater Misericordiae University Hospital, Dublin 7, Ireland

**Background:** Mood disorders may occur at any stage following a stroke, with period of greatest risk being the first few months after stroke. Depression has an estimated prevalence of 25% post-stroke, and is associated with impaired function, distress, increased mortality and quality of life. This study aimed to explore the psychological sequelae, particularly mood and quality of life, of stroke.

**Method:** Consecutive patients admitted with ischaemic stroke over a period of one-year were recruited to the ASPIRE-S study (Action on Secondary Prevention Interventions and REhabilitation in

Stroke). At six months post-stroke researchers completed a home assessment for those discharged to home or nursing home settings. Measures administered included the Hospital Anxiety and Depression Scale (HADS), Brief Illness Perceptions Questionnaire (B-IPQ) and quality of life (Stroke Specific Quality of Life Scale).

**Results:** 302 patients were recruited across 3 sites and 256 (85%) agreed to participate at 6 months. Results indicate a moderate prevalence of depression (22%), with approximately a third of patients (32%) reporting at least moderate anxiety. Forty-five percent reported moderate-severe emotional impact of stroke on B-IPQ, with 63.5% reporting that they didn't receive enough support from psychological services. Those reporting emotional distress had significantly poorer quality of life scores on SSQOL ( $p < 0.001$ ).

**Conclusion:** A profile of significant psychological and emotional difficulty post-stroke is prevalent in the ASPIRE-S cohort. Implications for psychological service provision at each stage of the stroke trajectory will be explored in the context of appropriate intervention as part of multidisciplinary stroke rehabilitation.

### **Patients' experiences of receiving anti-VEGF treatments for wet age-related macular degeneration and its psychological impact – a mixed-methods study**

*H. Senra<sup>a</sup>, K. Balaskas<sup>b</sup>, N. Mahmoodi<sup>a</sup>, T. Aslam<sup>a,b</sup>*

*a) Institute of Human Development, University of Manchester, Manchester, UK,*

*b) Manchester Royal Eye Hospital, Manchester, UK*

**Background:** Our study aimed to explore patients' experience of receiving regular intravitreal injections of vascular endothelial growth factor inhibitors (anti-VEGF) for wet Age-related Macular Degeneration (wAMD). We also aimed to investigate the psychological impact of this treatment in terms of levels of anxiety, depression, post-traumatic stress, and burden experienced by patients' carers.

**Method:** We carried out a mixed-methods study using a structured survey to explore patients' experience and perceptions of treatment and standardized instruments to assess depression, anxiety, post-traumatic stress and carers' levels of burden.

**Results:** 150 wAMD patients and 50 carers were interviewed. 12% of patients presented clinical symptoms of anxiety and 10% of patients showed symptoms of depression. Most of patients' carers (70%) didn't report burden. The great majority of patients (75%) reported an anxious experience of receiving intravitreal injections. No statistical differences were found in the number of patients reporting anxiety related to the treatment, between patients receiving treatment for up to 1 year and patients receiving treatment for more than 1 year ( $p = .899$ ). The patients' main sources of anxiety were the injection itself and the idea of a needle in the eye; fear of further complications caused by injections such as going blind; concerns about the treatment effectiveness; fear of getting worse and going blind; and experiences of being very anxious in a medical appointment. Additionally, 45% of patients experienced pain when receiving injections in the eye.

**Conclusion:** Although anti-VEGF treatments have great potential for halting disease progression and preventing further blindness, patients still perceiving this treatment with anxiety. Additionally, the frequency of depression and anxiety symptoms is similar to AMD patients with worse prognosis (e.g. dry AMD). Our study suggests the need to screen wAMD patients for anxiety and depression throughout the treatment, in order to identify patients needing specialized counselling and/or additional psychological/ psychiatric follow-up.

## Exploring smoking, mental health and smoking-related disease in older adults

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c) TobaccoFree Research Institute, Dublin, Ireland

**Background:** Smoking is common among people with mental disorders, and tobacco has been established as the leading preventable cause of death among individuals with mental illness. We investigated the associations among chronic disease, mental health and smoking in the older Irish population.

**Method:** A secondary analysis of cross-sectional phase of *The Irish Longitudinal Study on Ageing* (TILDA), which surveyed people of 50 years and older (n=8175), was conducted. Primary outcomes were: diagnosed respiratory, cardiovascular diseases and smoking-related cancers. Multivariate logistic regression investigated associations among self-reported diagnosed mental health difficulties, smoking and outcomes, adjusting for numerous demographic and behavioural factors.

**Results:** Self-reported mental health difficulties were significantly associated with increased likelihood of having ever been a smoker (adjusted odds-ratio [AOR]=1.58, 95%CI 1.34–1.87), and increased likelihood of having any of cardiovascular disease, respiratory disease or smoking-related cancer (AOR for diseases combined=1.31, 95% CI 1.08 – 1.59). Smoking partially mediated the association between self-reported mental health difficulties and disease outcomes.

**Conclusion:** Mental health difficulties, smoking and smoking-related illnesses are interrelated in older adults, even after adjusting for other factors. A renewed focus on mental health issues and smoking is required in the older Irish population.

PARALLEL SESSIONS

**Friday 17 June 15.30 – 17.00**

#### **A. CLINICAL SKILLS TRACK 4A: MASTERCLASS – FUNCTIONAL DISORDERS CTD**

#### **B. CLINICAL TRACK 5: APM-EAPM WORKSHOP PSYCHODYNAMIC BEDSIDE TEACHING.**

In collaboration with the Mayo Clinic, Rochester, USA, University of Mainz, Germany, and the Paracelsus University of Nuremberg, Germany

- Kemuel Philbrick, MD
- Manfred Beutel, MD, Professor
- Barbara Stein, PhD
- Wolfgang Söllner, MD, Professor

The EAPM and the APM (Academy of Psychosomatic Medicine) both support training of consultation-liaison psychiatrists and practitioners of psychosomatic medicine in the conduct of psychodynamically-informed assessments. A psychodynamic approach explores how patients conceptualize their illness, understand its meaning and develop coping strategies.

In this workshop, which builds on the discussion of two real-life cases, experienced psychotherapists from both sides of the Atlantic will equip you with the necessary skills to listen and think through the whole meaning of the patient's illness and suffering and formulating therapeutic approaches that will better meet the needs of your patients.

#### **By attending you will:**

- Appreciate how a psychodynamic understanding of powerful emotional responses in both the patient and his or her relatives and the ward's medical team and consultant.
- Become able to examine transference and countertransference phenomena and underlying unconscious conflicts.
- Learn how to support other members of your team by encouraging them to integrate dynamic formulation into their consultation work.

After this workshop you will be more confident to handle emotional responses emerging during encounters with patients, irrespective of whether these emotional responses originate in your patients, your team members or yourself.

#### **C. RESEARCH SKILL TRACK 4: HOW TO GET YOUR PAPER PUBLISHED – THE EDITOR'S POINT OF VIEW**

#### **In collaboration with Maastricht University, Netherlands, and the Journal of Psychosomatic Research**

- Albert Leentjens

Getting your research published is essential in any scientific career. But often it is easier said than done. To get your first academic paper into print may seem like an insurmountable task.

In this highly interactive workshop you will get first hand tips from the editor of the Journal of Psychosomatic Research, the official journal of the EAPM, on how to increase your chances to get your paper published.

#### **By attending you will:**

- Learn how to choose an appropriate journal for your research
- Understand what it takes to submit a high quality paper
- Appreciate the importance of writing an excellent abstract
- Learn how the editor handles your paper
- Learn how to deal with rejection constructively

You will leave the workshop with improved skills and strategies for writing up and submitting your research for publication.

#### **D. INTEGRATED CARE MODELS FOR SOMATIC SYMPTOM DISORDER (SSD) AND CLINICAL CHARACTERISTICS FOR PATIENTS WITH SSD IN A CENTRE OF EXCELLENCE IN SPECIALTY MENTAL HEALTH CARE.**

*Chair: Christina van der Feltz-Cornelis*

##### **Neurocognitive functioning of patients with somatic symptom and related disorders and the role of co-morbid depression**

*L. de Vroege<sup>a,b</sup>, A. Timmermans<sup>a,b</sup>, E. van der Thiel<sup>a,b</sup>, A. van Manen<sup>a,b</sup>, W.J. Kop<sup>c</sup>, and C.M. van der Feltz-Cornelis<sup>a,b</sup>*

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*c) Department of Medical Psychology and Neuropsychology, Center of Research on Psychology in Somatic diseases (CoRPS), Tilburg University, Tilburg, The Netherlands*

**Background:** At the clinical centre of excellence for Body, Mind and Health (CLGG), integrated care models are used to provide treatment to patients with Somatic Symptom and Related Disorders (SSD). No research has been devoted to neurocognitive functioning in patients with SSD. Previous studies on neurocognitive functioning in somatoform disorders and chronic diseases provided ambiguous results. Exploration of the neurocognitive profile of patients with SSD is therefore warranted. Besides, neurocognitive impairment may also hamper cognitive behavioral therapy (CBT), the treatment of choice. SSD often coincides with co-morbid depression, which may exacerbate neurocognitive impairments. Therefore, this study explored the neurocognitive profile of patients with SSD and examined the impact of co-morbid depression in SSD.

**Method:** This observational study is part of a larger study performed at CLGG with a cross-sectional design. The study sample ( $N=172$ ) received an extensive assessment covering the domains attention, (working)memory, information processing speed, language, executive functioning, and visuoconstruction. Level of neurocognitive functioning was assessed using norm scores and divided into three categories; disorder, deficit or no impairment. Depression was assessed using the Patient Health Questionnaire-9 (PHQ9) and MINI interview.

**Results:** 39% of the study sample was male, mean age was 42.8 (SD=12.9), averagely educated. Within the study sample, deficits/disorders were found within the neurocognitive domains of sustained attention (43%), memory (43%), visual memory (31%), verbal fluency (36%), information processing speed (46%), working memory (44%), and executive functioning (6%). 74% of the study sample showed comorbid depression. MANOVA found impairment in the same domains in between the two groups. Hierarchical multiple regression showed that depression independently predicts lower information processing speed, decreased memory and verbal fluency.

**Conclusion:** Our results indicate (severe) impairment of neurocognitive functioning in SSD patients in the same domains as in patients with SSD and comorbid depression. The presence of depression does suggest more impairment within neurocognitive functioning within information processing speed, memory and verbal fluency. Neurocognitive impairment might be a reason why CBT often

does not work. In case of neurocognitive impairment, cognitive rehabilitation treatment might be a better choice of treatment at first.

### **Case complexity in outpatients in a centre of excellence for somatic symptom disorder -a cross-sectional study-**

*J. van Eck van der Sluijs<sup>a,b</sup>, L. de Vroege<sup>a,b</sup>, A. van Manen<sup>a,b</sup>, E. van der Thiel<sup>a,b</sup>, A. Timmermans<sup>a,b</sup>, F. Pouwer<sup>c</sup>, C. van der Feltz-Cornelis<sup>a,b</sup>*

*a) Tilburg School of Behavioral and Social Sciences, Tranzo Department, Tilburg University, Tilburg, the Netherlands,*

*b) Clinical Centre of Excellence for Body, Mind and Health, GGz Breburg, Tilburg, the Netherlands,*

*c) Centre of Research on Psychology in Somatic Diseases (CoRPS), Tilburg University, Tilburg, the Netherlands*

**Background:** At the Clinical Centre of Excellence for Body, Mind and Health, integrated care models are used to provide treatment to patients with Somatic Symptom and Related Disorders (SSD). The aim of this study is to describe complexity of SSD patients using the INTERMED. This instrument has been developed for patients with chronic medical conditions. So far, it has not been used in a population with medically (un-)explained symptoms.

**Method:** *The INTERMED indicates case complexity according to the biopsychosocial model of health. It was used to measure case complexity in outpatients with SSD. In this cross-sectional study, data was collected retrospectively from patient files. A quantitative description of complexity will be provided with descriptive statistics and Pearson correlations of complexity scores and demographic variables.*

**Results:** Of the total sample ( $N=262$ ), 37.7% was male, mean (SD) age was 41.7 (13.2), with an average educational level. The mean INTERMED score was 24.1, indicating high overall complexity in this SSD population. More specifically, 72.6% of the scores indicated complexity to high complexity. The total score correlated significantly with high age ( $r=.20$ ).

**Conclusion:** The current study demonstrated that SSD patients are complex on multiple levels, indicating the need of individual case management and multi-disciplinary involvement. Compared to other studies, SSD patients were more complex compared to patients with rheumatoid arthritis (Mean<20), complex regional pain syndrome (Mean=19) and liver pre-transplant patients (Mean=20). Patients with a combination of substance abuse, a medical condition and psychiatric illness were more complex than our SSD sample (Mean=37). The results indicate that patients with SSD in a centre of excellence are highly complex. The INTERMED provides a comprehensive overview of patient functioning and can be used in clinical practice to investigate patient complexity. Further research should focus on its clinical use in psychiatric settings, its implementation, and its use in long-term monitoring of patient outcomes. Early examination of case complexity will contribute to improved case management, treatment selection, and multidisciplinary involvement. The current study emphasizes the need for integrated patient care for SSD patients, exceeding normal medical and psychiatric procedures.

### **Effectiveness of Collaborative care for patients with a combination of physical and psychiatric problems: a review and meta-analyses**

*J. van Eck van der Sluijs<sup>a,b</sup>, H. Castelijns<sup>a</sup>, V. Eijsbroek<sup>a</sup>, C. van der Feltz-Cornelis<sup>a,b</sup>*

*a) Clinical centre of excellence for Body, Mind and Health, GGz Breburg, Tilburg, the Netherlands,*

*b) Tranzo Department, Tilburg University, Tilburg, the Netherlands*

**Background:** To assess the effectiveness of collaborative care (CC) for comorbid chronic medical conditions and depression and/or anxiety disorder in terms of depressive and physical outcomes.

**Method:** Design: systematic review (SR) and meta-analysis of randomized controlled trials (RCTs) in Pubmed (1949-2015) and reference lists of earlier SRs on CC. Participants should be  $\geq 18$  years, with comorbid medical conditions and depression and/or anxiety disorder. Setting: primary or general hospital care. CC had to be provided by at least two of the following professionals: a case manager (CM) with training in depression and/or anxiety, a medical doctor (a general practitioner (GP) or a medical specialist) and/or a psychiatrist. Titles and abstracts of the studies were screened in duplicate and any disagreement resolved by discussion with a third author. Three authors assessed the full texts and made a definitive selection. Risk of bias of the included studies was assessed and meta analysis performed to pool outcomes on chronic medical condition as well as depression/anxiety.

**Results:** The initial search delivered 1010 hits, based on title 129 were selected, based on abstract 45, based on full text 21. Of these, 12 articles were rated as good enough (low risk of bias) to include in the meta-analyses. Of these, 11 focused on depression and 1 on the combination of depression and anxiety. 4 studies were performed in primary care setting, 8 in hospital setting.

The effect size for depression outcome in chronic medical conditions was  $d = 0,352$  (0.274-0.430).

The mean effect size in primary care was  $d = 0.315$ , in the general hospital setting  $d = 0.418$ .

The effect size for the physical outcomes was  $d = 0.209$  (95%CI 0.135-0.283) (epilepsy:  $d = 0.007$ ; HIV:  $d = 0.422$ ; multimorbidity  $d = 0.309$ ). Outcome is better if the CM monitors and coordinates care, than if the CM provides psychotherapeutic treatment. As only one RCT did report anxiety outcomes, those results could not be pooled.

**Conclusion:** In comorbid chronic medical conditions and depression, CC is an effective treatment for both outcomes. However, the size of the effect varies depending on the specific chronic medical condition. In CC in this comorbidity, we recommend to put emphasis on the monitoring role of the CM over the psychotherapeutic role. Close collaboration with the GP / medical specialist is important. The psychiatrist can supervise the CM and give advice about diagnostics and treatment to the GP and medical specialist.

#### **Efficacy of collaborative care versus antidepressant treatment in chronic pain and major depression: a multi center proof of concept study.**

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**Background:** Chronic pain and major depression are often co-morbid and are associated with a higher burden of disease and worse treatment response than either condition alone. Multi-faceted collaborative care including a pain medication algorithm differentiating between nociceptive and neuropathic pain might offer the best care. Duloxetine could be an effective treatment for this comorbidity, with or without such collaborative care.

**Method:** Design: A placebo-controlled double-blind, randomized multicentre feasibility trial. 60 eligible patients were appointed to one of three treatments:

- a. Collaborative care including a pain medication algorithm, combined with Duloxetine
- b. Collaborative care including a pain medication algorithm, combined with placebo
- c. Duloxetine only

Collaborative care was provided as a treatment model in which a psychologist, psychiatrist and psychosomatic physiotherapist collaborated. Pain was classified as nociceptive, neuropathic, or mixed, and pain medication was prescribed accordingly. Duration of treatment and follow up was 12 weeks. Multilevel intention to treat and per protocol analysis was used to evaluate the effect of the three conditions in terms of depressive (PHQ9) and pain symptoms (BPI). Sensitivity analyses were used to evaluate the effect in case of non-compliance and in case of nociceptive, mixed or neuropathic pain.

**Results:** In all conditions depressive ( $\beta=-.03$ ;  $p=.012$ ) as well as pain symptoms ( $\beta=-.01$ ;  $p=.013$ ) decreased significantly, but they decreased more rapidly in the collaborative care with placebo condition versus Duloxetine alone. No significant effect occurred in case of non-compliance. Patients with mixed pain showed a significant decrease of depressive symptoms compared to nociceptive or neuropathic pain alone.

**Conclusion:** Collaborative care with pain medication was effective for depressive and pain symptoms, whereas Duloxetine had no added value. Mixed pain, more than nociceptive or neuropathic pain alone, may be a pain category particularly susceptible for improvement of depressive symptoms by collaborative care and pain medication. These results are promising, and warrant a full trial.

## E. PSYCHOLOGICAL CHALLENGES IN TRANSPLANTATION MEDICINE

*Chairs: Michael Ott, Paula Zimbrea*

*Discussant: Ulrik Malt*

### Does mild cognitive impairment exist among heart transplant recipients?

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**Background:** We demonstrated a substantial amount of cognitive dysfunction in an ancillary study of the SCHEDULE trial recently. In a secondary analysis, we aimed at investigating if some of these heart transplant recipients would qualify for a diagnosis of Mild Cognitive Impairment (MCI). We aimed further at characterizing the subjects with MCI clinically (i.e. demographics, relevant somatic parameters, depressive symptomatology).

**Method:** Our cohort consisted of 37 heart transplant recipients, assessed  $3,2 \pm 0,6$  years after transplantation. Mean age was  $55,1 \pm 13,1$  years and 24,3% were women. The study protocol included among others a neuropsychological assessment and a psychiatric diagnostic interview. For the purpose of this secondary analysis, we adapted published consensus criteria for MCI. In order to qualify for a diagnosis of MCI, both subjective cognitive difficulties and objective cognitive impairment had to be present, without dementia being diagnosed. The application of these criteria resulted in two groups of subjects: one diagnosed with Mild Cognitive Impairment (MCI), the other without diagnosis of MCI (non MCI).

**Results:** Due to incomplete datasets in 4 subjects, we could classify only 33 out of 37 subjects. None of the subjects was diagnosed with dementia. While 11 subjects reported on subjective cognitive

difficulties, 17 subjects fulfilled the criterion of objective cognitive impairment. Resulting in 11 of 33 subjects (33,3%) being classified as MCI. Single domain MCI was present in 5 subjects, while multiple domain MCI was present in 6.

Preliminary, univariate explorative analyses revealed higher cyclosporine blood levels in the MCI than in the non MCI group.

**Conclusion:** Our findings indicate a high prevalence rate of MCI among heart transplant recipients and subanalyses suggest higher cyclosporine blood levels in the MCI than in the non MCI group. These results have to be interpreted with caution due to retrospective application of adapted diagnostic criteria for MCI, small sample size and the possibility of confounding factors such as presence of cerebral pathology. Further studies are required to replicate these findings, improve clinical description of heart transplant recipients with MCI and to elucidate the impact of MCI on both somatic and cognitive outcome.

### **High-risk alcohol relapse scale is a good instrument for predict alcohol relapse after an episode of alcoholic hepatitis.**

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**Background:** Alcoholic hepatitis (AH) is the most severe form of alcoholic liver disease (ALD) and its associated with a high short-term mortality. It is commonly accepted that abstinence influences long-term survival after an episode of AH. Given the high-risk of harmful alcohol relapse and subsequent risk of graft loss, in many liver transplant centers a 6-month period of abstinence is required for LT candidacy. The High-Risk Alcoholism Relapse (HRAR) scale has previously showed to be a reliable instrument to predict harmful alcohol relapse in patients undergoing LT for alcoholic cirrhosis. However, no studies have specifically investigated the usefulness of the HRAR scale for predict abstinence after an episode of AH. Here, we aimed to investigate which are the clinical and psychiatric and psychological parameters (including HRAR scale) associated with long-term abstinence after an episode of AH.

**Method:** A series of patients with biopsy-proven AH seen at the Hospital Clinic of Barcelona from 2000 to 2015 were included in the study. Patients were hospitalized and received standard medical care. We evaluated the impact of baseline HRAR scale for predicting long-term abstinence after index admission and the effect of long-term abstinence on survival. Univariate and multivariate analyses were used for identify variables associated with long-term abstinence and survival.

**Results:** A total of 142 patients with long-term follow-up were analyzed (69% male, median age 49 years). Mean follow-up was 4.3 years, 40% of the study cohort were abstinent, while 60% admitted alcohol use at some degree during follow-up. Relapsing patients were younger (47 vs. 51 years;  $p=0.003$ ) and showed a higher HRAR scale at admission than abstinent patients (2.8 vs. 2.2 points;  $p=0.01$ ). On multivariate analysis and after adjusting for baseline liver function (MELD score), age (OR 0.92 [95% CI 0.89-0.97];  $p=0.001$ ) and HRAR scale (OR 1.46 [95% CI 1.11-1.93];  $p=0.006$ ) were associated with alcohol relapse during follow-up. Relapse to alcohol use (HR 2.4 [95% CI: 1,34-4.58];  $p=0.004$ ) was independently associated with poor long-term survival when adjusted for age, gender and baseline liver function.

**Conclusion:** Alcohol consumption after an episode of AH negatively impacts survival. The HRAR scale is a good instrument to predict alcohol relapse after an episode of HA and might be used to stratify those patients requiring additional therapies for maintain abstinence.

## **Psychiatric disorders and psychological distress in patients undergoing evaluation for lung transplantation**

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**Background:** Study the prevalence of mental disorders and psychological distress in patients evaluated for lung transplantation (LTX).

**Method:** A national cohort of 118 patients with end stage lung disease (74% chronic obstructive lung disease- COPD) were evaluated with MINI Neuropsychiatric Interview. Ninety-four patients also completed the General Health Questionnaire (GHQ) and Hospital Anxiety Depression scale (HADS). Measures of lung function included severity of airway obstruction (FEV1) and maximum distance patients were able to walk during 6 minutes (6MWT).

**Results:** Current and lifetime prevalence of mental disorders were 42 % and 59% respectively. Anxiety (28 %) and mood disorders (11.9%) were most frequent at time of assessment. Ten patients reported increased level of psychological distress (GHQ-30) without fulfilling all diagnostic criteria for a mental disorder. Fifty % reported they very often indeed got sudden feelings of panic while 9 % reported life was entirely hopeless and 3 % reported life was not worth living. Lung function was significantly correlated with chronic psychological distress (GHQ-30 chronic score;  $p=0.009$ ) in 87 pts. with COPD.

**Conclusion:** Comprehensive psychiatric evaluation of all patients assessed for potential lung transplantation with particular emphasis on hopelessness and anxiety including panic attacks is needed. The clinical implications for short- and long-term outcome (e.g. treatment compliance after LTX, medical and psychiatric complications, survival rate) require further studies.

## **F. S22: PSYCHO-ONCOLOGY**

*Chairs: Josef Jenewein, Ulrike Ehlert*

### **Terror management and post-traumatic growth in advanced cancer**

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**Background:** Death anxiety is common in individuals with advanced cancer. Terror management theory proposes that it is alleviated by the tripartite pillars of self-esteem, the sense of meaning, and attachment security. It has been postulated that post-traumatic growth (PTG) occurs in this circumstance when individuals have adequate terror management resources.

**Purpose:** To examine the relationship between terror management resources, post-traumatic growth (PTG), and death anxiety in patients with advanced cancer.

**Methods** Baseline data was obtained from participants with advanced cancer (n=232) in an RCT of Managing Cancer Living Meaningfully (CALM). Measures included the Death and Dying Distress Scale (DADDS), the Post-Traumatic Growth Inventory (PTGI), the Functional Assessment of Chronic Illness Therapy – Spiritual Well-being Scale (FACIT-Sp12), and Modified Experiences in Close Relationships Scale (ECR-M16). Structural equation modeling was used to assess the fit of cross-sectional data to a heuristic model of the relationship between death anxiety and PTG, moderated by terror management.

**Results:** Terror management and PTG were extracted as latent constructs, the former predicted by self-esteem, attachment style, and spiritual well-being, and the latter by the five subscales of PTG: new possibilities, relating to others, personal strength, appreciation of life, and spiritual change. The final model approached significance, demonstrating that terror management resources moderate the relationship between death anxiety and PTG.

**Conclusion:** This study supports the view that self-esteem, attachment security and the sense of meaning may be viewed as a unitary construct that moderates the relationship between death anxiety and PTG in individuals with advanced cancer. Understanding the role of self-esteem, attachment style, and spiritual well-being in promoting positive psychological outcomes in cancer patients is the first step towards incorporating meaningful psychosocial interventions into standard palliative care.

### **Low grade inflammation-induced changes in neurotransmitter precursor amino acids correlate with mental health in patients with breast cancer**

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**Background:** Breast cancer is the most common cancer among females. Approximately 30% of cancer patients develop depression or depressive adaptation disorder within 5 years post diagnosis. A possible connection could be low grade chronic inflammation. Elevated biomarkers of inflammation, including pro-inflammatory cytokines and neopterin, have been found in depressed patients, and administration of inflammatory stimuli has been associated with the development of depressive symptoms. Furthermore, data have demonstrated that inflammatory cytokines can interact with the monoamine metabolism and subsequently lead to changes in neurotransmitter levels.

**Method:** In the current study we investigated the association of neurotransmitter precursor amino acids with a diagnosis of depression or state anxiety in 154 subjects suffering from breast cancer (BCA+), depression (DPR+), both or neither. Sociodemographic parameters, severity of depressive symptoms, and state anxiety (ANX) were recorded. Neopterin, kynurenine/tryptophan and phenylalanine/tyrosine were analysed by HPLC or ELISA.

**Results:** Significantly higher serum neopterin values were found in DPR+ patients (p=0.026) and in ANX+ subjects (p=0.021), as a marker of Th1-related inflammation. The phenylalanine/tyrosine ratio (index of the catecholamine pathway) was associated with the factors “breast cancer” and “depression” and their interaction (all p < 0.001); it was highest in the DPR+BCA+ group. The kynurenine/tryptophan ratio (index of the serotonin pathway) was significantly associated with the factors “breast cancer” and “state anxiety” and their interaction (p < 0.001, p = 0.026, p = 0.02, respectively); it was highest in the ANX+BCA+ group. In BCA+ patients, kynurenine/tryptophan ratios correlated with severity of state anxiety (r = 0.226, p = 0.048, uncorrected) and phenylalanine/tyrosine ratios with severity of depressive symptoms (r = 0.376 p < 0.05, corrected).

**Conclusion:** Alterations in levels of neurotransmitter precursor amino acids were observed in patients with breast cancer and they seem to influence mental health. This effect was much more pronounced in BCA+ patients than in BCA- subjects. Aside from identifying underlying pathophysiological mechanisms, these results could be the basis for future treatment studies.

### **An analysis of potential demographic and psychosocial moderators of the relationship between knowing the cancer diagnosis and depression**

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Significant levels of distress usually accompany the entire cancer-experience. Objective: The major objective of the present study was to investigate potential demographic and intrapersonal moderators of the relationship between knowing the cancer-diagnosis and the level of depression experienced. Method: The present research has a transversal comparative repeated cross-sectional design (2006-2014), sampling following the proportional quota method. Research was conducted in the four major oncological institutes in Romania, obtaining a national sample of cancer patients, maintaining gender and ethnic rates, and permitting the investigation of the stability of the results from one assessment to the other. Results: Results indicate that in the Romanian context, knowing the diagnosis is associated with a lower level of depression than not knowing the diagnosis, the results being similar in both assessments (2006-2014). Furthermore, from the explored demographic factors (gender, residence, age, and education), only age has a main effect upon depression (depression increasing with age), while education is the only factor from those analyzed, which has a moderator effect. Regarding the analyzed intra-individual variables, only dysfunctional attitudes, emotion-focused coping and lack of emotional support from the family (loneliness) have main effects upon the level of depression (i.e., higher levels of dysfunctional attitudes, emotion focused coping and loneliness are associated with higher levels of depression), while neither of them has a moderator effect on the relationship between knowing the diagnosis and depression. Conclusion: These results are important in the improvement of the doctor-patient relationship, the management of cancer-related distress, and implicitly for the course of illness.

### **Psychosomatic consultation service in a general hospital: Interdisciplinary management of the complex situation of a patient with metastatic gastric cancer and schizoaffective disorder What can we learn from a case report? – Empathy and respect for the patient's autonomy is not enough.**

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**Background:** Patients with severe medical illness and severe psychiatric co-morbidity are often a challenge for both, the medical treatment and the psychiatric treatment. Moreover, such complex situations sometimes cause ethical problems.

**Case report:** Our team was confronted with the complex situation of a 49 year old female patient suffering from metastatic gastric cancer and schizoaffective disorder. Concerning the tumor, the patient went successfully through a first line palliative chemotherapy, but all further therapies failed to control the illness. Equally the psychotic disorder decompensated. Members of the interdisciplinary team were included in the psychotic world. Desires like fighting cancer, and escaping from reality, dominated by illusions of going on vacation to the Canary Islands influenced the patient's decisions. The loss of reality made the patient leave the oncological ward and stop chemotherapy. At the same time the patient could not establish therapeutic lithium levels. Benzodiazepines were refused. The last weeks were characterized by loss of attachment to the interdisciplinary team. The patient cut all bonds to her family, but the ten year old son was confronted with her mails. She rented a flat far away from her family before Christmas. In an acute psychotic state she was admitted to intensive care psychiatric ward by police. Finally, she found a place to rest and die in a hospice when weakness made escaping reality impossible. Our team was aiming to provide best symptom control concerning the oncological as well as the psychiatric illness. The conflict we faced, was the one between the basic medical ethical principles of beneficence and autonomy, complicated by a constantly changing mental situation. In summary we failed to palliate the patient.

**Result and conclusion:** Successful interdisciplinary management of complex situations in mentally ill patients needs organized strategies, similar like a tumor board. A model in communication published by A. Heller seems to be very helpful especially when the team works with empathy and limited resources. Steps from Ethics of Care to integrative Medical Ethics are described. The aim is to answer the question for the good. Excellent organized communication systems are necessary.

## G. Depression in the context of physical ill-health

*Chairs: Franziska Geiser, Lars Wahlström*

### The network structure of depressive, anxiety and somatic symptoms

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**Background:** Depressive and anxiety symptoms often co-occur with somatic symptoms. Although individual symptoms in this association have varying characteristics and are likely to be differentially related to one another, little is known about their roles. This study explores associations between individual depressive/anxiety and somatic symptoms by using the network approach.

**Method:** Depressive/anxiety symptoms were assessed in 2610 participants (mean age 41.6 years, 65.9% female) from the Netherlands Study of Depression and Anxiety (NESDA) using the Inventory of Depressive Symptomatology (IDS) and the subjective subscale of the Beck Anxiety Inventory (BAI). Somatic symptoms were assessed with the somatization scale of the Four-Dimensional Symptom Questionnaire (4DSQ). The network structure of 33 depressive/ anxiety and 16 somatic symptoms was estimated with eLasso.

**Results:** The network structure showed numerous and strong associations between depressive/anxiety and somatic symptoms, but also substantial variations among individual symptoms. Depressive/anxiety symptoms with strong associations to somatic symptoms were leaden paralysis, fear of losing control, and low energy level, whereas symptoms like feeling sad and feeling

scared showed no connections to the somatic domain. Among somatic symptoms, pressure/tight feeling in chest, palpitations, and dizziness/feeling lightheaded were strongly associated with the depressive/anxiety domain, while back pain and abdominal pain showed only weak associations.

**Conclusion:** Individual symptoms show differential associations in the interplay between the depressive/anxiety and somatic symptom domain. Symptoms showing strong connections are important in furthering our understanding of the co-occurrence and may be valuable targets for future research and treatment.

### **How common is depression in general hospital inpatients? Findings from a worldwide systematic review**

Jane Walker, Katy Burke, Marta Wanat, Rebecca Fisher, Josephine Fielding, Stephen Puntis, Michelle Degli Esposti, Joseph Sharpe, Eli Harriss, Michael Sharpe

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**Background:** To answer the question ‘How common is depression in general hospital inpatients?’ by conducting a systematic review of relevant published studies in any language.

**Method:** We searched Medline, PsycINFO and EMBASE to December 2015 using standardised subject terms and free text terms. We included primary studies that: (1) aimed to estimate the prevalence of major depression or similar (2) recruited adults who were general hospital inpatients; (3) assessed depression using diagnostic interviews and standard diagnostic criteria; (4) met basic study quality criteria. Two researchers assessed each article independently against our inclusion criteria and extracted data from the relevant papers.

**Results:** 38 studies from 24 countries met our inclusion criteria. Sample size ranged from 100 to 993 (median 218). The median prevalence of depression reported was 10% with wide variation between studies (3 to 52%). Potential reasons for heterogeneity included: the specific diagnostic criteria used in the studies; the age and gender of study participants; the specific medical specialties from which they were recruited and the national incomes of the countries where the studies were conducted.

**Conclusion:** The amount of high quality data is surprisingly small. However it is clear that depression is common in general hospitals and affects approximately 1 in 10 inpatients. Clinicians working in general hospitals therefore need to be able to diagnose depression, initiate treatment and when appropriate refer to psychological medicine services.

### **Depression in chronic hepatitis C socio demographic predictors**

*L Varvari, D Podea*

*„Vasile Goldiş” Western University of Arad, Faculty of Medicine*

#### **Abstract**

The aim of the study was to assess the predictive factors for depression in chronic hepatitis C through a binary logistic regression model based on socio demographic factors: sex, age, educational and professional status and living area .

Study design: There were included 2161 patients diagnosed with chronic hepatitis C and B in hospitalized different departments of Emergency Clinical county Hospital of Arad for a period of six years (2008-2013).

Materials and Methods: In this study were evaluated 1224 patients with HCV and 937 patients with HBV according to socio demographic characteristics: sex, age, educational level, professional status and living area. 709 patients with HCV was diagnosed with depressive episode. The results were processed using SPSS v 17.

Results: HCV Group (1224 subjects) include: 709 (57.9%) patients with depressive episode, 873 (71.3%) female, 610 (49.8%) with elementary educational level 335 (27.4%) professional active. HVB Group (937) includes: 328 (35%) female, 434 (46.3%) with elementary educational level, and 306 (32.7%) professional active. In this group wasn't diagnosed depressive episode. Between the two groups, the gender difference was statistically significant (Chi-square test,  $p < 0.001$ ). It was developed binary logistic regression model for depression in HCV patients, according to socio-demographic factors: sex (exp (B) = 124.55,  $p < 0.001$ ), education (exp (B) = 2.72,  $p < 0.001$ ), professional status (exp (B) = 0.011,  $p < 0.001$ ).

Conclusions: Binary logistic regression model for depression at HCV patients confirm the increased risk for female and those with elementary education level and a significant decrease at professionally active patients.

### **Are non-psychiatric hospitalisations before self-harm associated with increased risk of unnatural deaths among young people?**

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**Background:** To study if the rate of suicide or other unnatural causes of death is related to non-psychiatric inpatient care, comparing young people who have been admitted for self-harm with those who have not.

**Method:** For this nested case-control study we selected 16,235 cases with a first admission for self-harm during the period 1999-2009, at which time they were 16-24 years old. Next, 32,465 controls – matched for sex, age, and place of residence – were randomly selected from the total population register. From the Swedish national inpatient register, we registered all admissions and diagnoses from the year preceding cases first admission for self-harm. Subjects were followed until death or end of study (end of 2013) and diagnoses from the Cause of death register for all deceased was noted. Group differences were analysed using survival analysis.

**Results:** A bigger proportion of cases than controls deceased during the study period, 4.5% (women 2.6%, men 8.8%) compared to 0.3% (women 0.2%, men 0.6%). This included all causes of death (natural and unnatural).

During the year before cases' first admission for self-harm 6.0% of the cases and 2.3% of the controls had somatic admissions. In both groups a bigger proportion of those with such somatic admissions died during the study period. This difference was found also when the cause of death was suicide or an event with undetermined intent. For cases with a somatic admission the hazard ratio was 1.43 (95% confidence interval 1.04 to 1.98) compared to those who had no somatic admissions (controlled for age, sex, and psychiatric admission). The pattern was similar for 1-, 2-, and 10-year survival.

**Conclusion:** This study shows that admission for physical illness before self-harm is associated with a higher risk for suicide and death of an event with undetermined intent among young people. At the same time their contact with healthcare due to their physical problems should provide an excellent opportunity to screen for psychiatric problems and suicidal thoughts or behaviours.

### **H. ISBM-EAPM Symposium: Stress and somatic symptoms from the behavioral medicine and the psychosomatic perspectives**

*Chairs: Adrienne Stauder, Bernd Leprow*

#### **Work related stress and subjective somatic symptoms in a population survey**

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**Background:** We studied the relationship between work related stress and subjective somatic symptoms (SSS) in the working population.

**Method:** Data was collected via online questionnaire in Hungary. The sample included 13,106 persons from 18 occupational sectors. SSS was measured by the Patient Health Questionnaire subscale (PHQ15), and work stress by the Copenhagen Psychosocial Questionnaire II (COPSOQ II). Statistical analysis included prevalence, correlation analysis and risk calculation.

**Results:** The 18 COPSOQ scales on work environment showed weak correlation with PHQ15 (partial correlation controlled for gender, age and education,  $r$  range 0.137-0.330). The composite psychosocial risk score (CPSR), reflecting the number of stressors with high scores, correlated moderately with PHQ15 ( $r=0.405$ ). The prevalence of high SSS (PHQ15>14) was 3.1% in men and 10.6% in women in the low psychosocial risk group; and respectively 9.1% and 23.5% in the moderate (CPSR), and 18.9% and 41.3% in the high CPSR subgroups. This corresponds to a 7-fold increase in risk of elevated SSS score in men and to a 6-fold increase in risk in women when the psychosocial risk is high. The item-level analysis of the PHQ15 revealed that the most prevalent SSS were 1) tiredness, low energy; 2) back-pain; 3) trouble sleeping.

**Conclusion:** Our results suggest that in patients with multiple subjective somatic symptoms the identification of work related stressors may indicate that coping with work-related stress should be a focus of the therapy.

### Is there a bidirectional relationship between sleep and asthma and allergy in a general population?

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**Background:** The presented study aims at examining the relationship between sleep, on the one hand, and allergic asthma, non-allergic asthma, allergic rhinitis, and atopic dermatitis, on the other hand. These afflictions are highly comorbid, and a common denominator is nasal congestion and itching peaking at night, which may disturb sleep. However, previous research has suggested an alternative relationship in which insomnia precedes asthma and allergy. The objective is thus to explore whether there is a bidirectional relationship between sleep and asthma/allergy.

**Method:** The prospective population based Västerbotten Environmental Health Study (VEHS) was used. Among 8520 invited individuals aged 18-79 years, 3406 (40%) responded in 2010 (T1) to a questionnaire focusing on environmental hypersensitivity, asthma, and allergy. Among 3181 of these participants who still were still alive and living in Västerbotten, 2336 (73%) completed the questionnaire again in 2013 (T2).

Self-reported physician-based diagnoses on allergic and non-allergic asthma, allergic rhinitis, and atopic dermatitis were used for identifying the four afflictions. Sleep was operationalized as insomnia by using the sleep quality and non-restorative sleep scales of the Karolinska Sleep Questionnaire (KSQ).

Logistic regression analysis was used to calculate odds ratio (OR) and 95 % confidence intervals (CI). Age, sex, stress, burnout, depression, and anxiety, assessed with validated questionnaire instruments, were tested for confounding. Referents were free of any asthma or allergy.

**Results:** At T2, 30 participants had developed allergic asthma, 42 non-allergic asthma, 64 allergic rhinitis, and 19 atopic rhinitis since T1.

No bidirectional relationships were found between sleep and asthma, allergic rhinitis, or atopic dermatitis. However, allergic asthma was found to precede insomnia (OR 1.64, 95 % CI 1.06-2.55). The association turned insignificant though when adjusting for either stress or burnout, possibly

indicating a mediating association. Age, sex, depression and anxiety did not alter the crude relationship notably.

**Conclusion:** No bidirectional relationships were found between sleep and asthma/allergy. People with allergic asthma were at higher risk for insomnia though. However, this elevated risk may be due to stress. Given the fact that stress and poor sleep can lead to ill-health and lower life quality, these factors are important for health care personnel and patients with allergic asthma to observe.

### **Are neurological symptoms learned?**

Bernd Leplow<sup>a</sup>

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Since in 1904 Henry Meige discovered the “learned non-use principle” by which paresis following stroke can also be seen as a learned deficit our knowledge about somatic-behavioural interactions has tremendously increased. In the case of stroke-dependent paresis patients avoid insufficient movements and instead activate the extremity which is not injured. Since this behavioural strategy “projects back” to cerebral networks the neuronal representation of the unimpaired extremity increases while the neuronal representation of the impaired extremity simultaneously decreases. As a consequence the long-term outcome of stroke depends on the extent of avoidance behaviour. Meanwhile it has been shown that this principle can also be applied to aphasia, chronic pain and other syndromes. Another example for a learned modulation of neurological symptoms comes from basal ganglia disorders like Parkinson’s disease and Dystonia. In these disorders it is well known that emotional states are directly transformed in tremor amplitudes and outbursts of dystonic symptoms. The consequences are states of embarrassment and avoidance behaviour which lead to long-term exacerbations of neurological syndromes. Own research has shown that symptom exacerbation and avoidance behavior are typical for Parkinson’s disease and are often followed by adaptation disorders, subthreshold depression and motivational deficits. In Dystonia the clinical syndrome is frequently characterized by non-compliance, somatic symptom disorders and dysfunctional health behaviour. The third example is about dopamine replacement therapy. Up to 17% of Parkinson’s disease patients treated with dopaminergic drugs develop clinical manifestations of Impulse Control Disorders which can be disastrous both for the patients and their families. Own research has shown that all patients treated with dopamine agonists exhibit impaired learning of inhibitory control. Moreover most of those who display impulse control disorder show a history of gradual worsening of behavioural symptoms. This worsening could be related to a psychological framework including stimulus and response generalisation, chaining and other learning mechanisms which are characteristic for addiction disorders. In sum the examples account for the relevance of behaviour mechanisms in various states of “pure” physical malfunctions. As a consequence at least in these conditions behavioural interventions should be regularly combined with medical treatment strategies.

### **The impact of self-efficacy and optimism on the perception of symptoms and health-related quality of life in chronic obstructive pulmonary disease**

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**Background:** Chronic Obstructive Pulmonary Disease (COPD) is a chronic disease that has not only a high prevalence and social costs, but is tightly connected to a significant decrease of health-related quality of life (HRQoL). The aim of this study was to evaluate the comparative impact on HRQoL of two psychological variables (self-efficacy, optimism) vs. the impact of medical determinants (forced expiratory volume in 1 second (FEV<sub>1</sub>), peak expiratory flow (PEF), functional impairment).

**Method:** 56 women and 78 men, aged 45-64 years old (mean = 56.3; standard deviation = 6.8), diagnosed with COPD and with self-reported dyspnea requiring medication were administered COPD Self-Efficacy Scale, LOT-R (Life Orientation Test - Revised) to evaluate optimism, Quality of Well-Being (QWB) Scale, as an accepted measure of HRQoL and Functional Impairment Scale (FIS), used to assess the deterioration of functionality in respiratory diseases. Their respiratory parameters (FEV<sub>1</sub>, PEF) were also measured, via spirometry.

**Results:** HRQoL correlated positively with both self-efficacy ( $r = .36, p < .05$ ) and optimism ( $r = .37, p < .05$ ). A reduced correlational model that eliminated the direct influence of respiratory parameters on HRQoL proved to be equally satisfactory in terms of predictive value, compared to the full model (that contained both medical and psychological variables) ( $\chi^2 = 0.127, ns$ ). The functional impairment (FI) scores were inversely correlated with HRQoL ( $r = -.49, p < .01$ ).

**Conclusion:** These results have implications in considering self-efficacy and optimism as targets for psychological interventions, in order to achieve the improvement of HRQoL in COPD patients.

### Anxiety correlates with psychosocial and biological factors in a psycho social intervention with CAD patients

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b) Fliedner Klinik, Berlin, Germany,

c) Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden

**Background:** Anxiety has been suggested as an independent psychological risk factor for incident CHD and cardiac mortality (Roest et al 2010). Until now mechanisms and associations with other psychopathological and biological measures in CHD were not examined in detail. Aims: In the present study we wanted to analyze subtypes of anxiety and their associations with psychosocial and clinical measures in a secondary evaluation of the Berlin Anxiety trial (Merswolken et al 2008, 2011; Deter et al 2015).

**Method:** In this trial, 85 men (70.8%) and 35 women (29.2%) with CAD (age  $\leq 75$  y) participated. 62 patients (41m, 21f) were invited for a 16 x 2 hours psychosocial group intervention to minimize stress reactions and to reduce anxiety. These were compared with a control group (n=58; 44m, 14f), which got medical therapy as usual. Clinical and psychological measures (HADS, STAI, FKV) were collected at baseline and at 12 months follow up.

**Results:** Baseline anxiety correlated with STAI state ( $r=.23, p=0.71$ ), STAI trait ( $r=.42, p=0.001$ ), HADS depression ( $r=.52; p<0.001$ ) depressive coping (FKV;  $r=.25; p=0.54$ ) and any of the six examined psychiatric diagnoses (DIPS;  $r=.38; p=0.002$ ). There seemed to be an overlap between these different psychological constructs. Age, gender and severity of heart disease (NYHA) did not correlate with HADS anxiety at baseline, but the risk factor BMI ( $r=.29, p=0.02$ ) and the social situation (living alone;  $r=.73; p=0.021$ ). Interestingly, experiences with the disease (duration of disease ( $r=.35, p=0.006$ ), frequency of PCI;  $r=.31; p=0.02$ ) and the intake of antidepressants ( $r=.54, p=0.004$ ) correlated with HADS anxiety. *Intervention:* An anxiety reduction during the study was found in both, the treatment and control group. Gender differences were also significant (ANOVA with four groups:  $F=6.324, p=0.001$ ) comparing 35 women with and without intervention (IG -4.2; CG -1.9 anxiety score;  $p=0.049$ ), but not when comparing 85 men between treatment and control group (IG -1.6; CG -0.8; n.s.). In the intervention group differences between genders were significant ( $p=0.001$ ).

In a *regression analysis:* depression (HADS), total diagnoses (DIPS), systolic blood pressure at baseline and no. of PCI predicted baseline anxiety significantly ( $\text{corr.}r^2=0.48, p=0.02$ ). At one year follow up anxiety reduction (HADS) was predicted by history of MI ( $p=0.007$ ) and baseline anxiety ( $p=0.001$ ), as well as by hypertension and ejection fraction if we measured anxiety reduction with STAI (trait) ( $\text{corr.}r^2 = .19, p=0.02$ ).

**Conclusion:** Different questionnaires measure different aspects of negative affect and often correlate with one another. In diseases like CHD these psychological constructs are influenced also by gender, cardiovascular risk factors, severity of disease, prior cardiologic interventions and prescribed drugs. It seems necessary to control all these influencing factors and to understand their interaction, e.g. also the direction of their influence. To evaluate a psycho social intervention trial with one widely used standardized scale (HADS anxiety) seems like looking for a needle in a hay stack and should be controlled by other psychological, behavioural, social and cardiologic measurements.

## I. APM-EAPM SYMPOSIUM: WHEN THE GOING GETS TOUGH – MANAGING ETHICAL DILEMMAS IN HEALTH CARE CTD.

### J. S29: Topics in liaison psychiatry

Chair/s: *Jordi Blanch, Robert Maunder*

#### **Psychosocial factors and the development of irritable bowel syndrome: a prospective cohort study**

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**Background:** It remains controversial whether psychosocial burden is an independent predictor of irritable bowel syndrome (IBS) or occurs concurrently as an epiphenomenon. Here we prospectively examine the individual contribution of psychosocial risk factors, demographic factors, somatic symptoms, and gastrointestinal infection within a non-clinical, IBS-free population before infection occurred.

**Method:** A prospective community-based cohort study including a consecutive sample of healthy participants with elevated risk of developing gastrointestinal infection during long distance travel was conducted. Potential predictive factors were investigated using validated self-report scales pre-travel, one week after return, and seven months post-travel. IBS was assessed using the ROME-III Diagnostic Questionnaire.

**Results:** Of the 1964 eligible long-distance travelers, 1464 responded at follow-up directly after their journey, and 1190 participants completed the study seven months post-journey. Fifty-three percent of study completers were female, mean age was 39.9 (SD=15.7) years. Mean travel duration was 40.8 (SD=52.7) days, and 43.3%, (95% CI=40.4 to 46.1%) experienced at least moderate infectious traveler's diarrhea. Incidence of newly developed IBS seven months post-travel was 7.2% (95%CI= 5.8 to 8.6%). In multivariate analyses, female gender, vulnerability to diarrhea under stress, baseline somatic symptom burden, baseline illness anxiety, diarrhea within the four months pre-travel, and traveler's diarrhea during the journey significantly predicted IBS post-travel.

**Conclusion:** The study indicates that gastrointestinal infection as well as predisposing factors such as female gender, vulnerability to diarrhea under stress, illness anxiety, and somatic symptom burden

predict the development of IBS. Results indicate the necessity to simultaneously address both somatic and psychological needs in patients with IBS as early as possible.

### **Perceived injustice among chronic pain and somatic symptom-patients in Denmark**

*P. la Cour<sup>a</sup>, A. Agerskov Smith<sup>b</sup>, R. Schultz<sup>c</sup>*

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*b) Multidisciplinary Pain Center, Rigshospitalet, Copenhagen, Denmark,*

*c) Liaison Clinic, Psychiatric Center Copenhagen, Copenhagen, Denmark*

**Background:** The original English Injustice Experience Questionnaire has shown promising ability to predict problematic rehabilitation in pain conditions, especially concerning work status. The questionnaire offers promising new perspectives for better understanding of psychological processes during pain conditions. The aim of this study was to develop a Danish version of the Injustice Experience Questionnaire and investigate psychometric properties and interactions with related measures.

**Method:** The Danish Injustice Experience Questionnaire was tested for interpretability and face validity among the target population. 358 patients with long-lasting pain or somatic symptom-disorders completed the final questionnaire. Patients also completed measures of sociodemographics, depression and anxiety (HADS), subjective well-being (WHO-5) and overall functioning measures (SF36).

**Results:** Results showed satisfactory interpretability and face validity, and high internal consistency (Cronbach's alpha = .90). The original one-factor structure was confirmed, but subscales should be interpreted cautiously. The questionnaire correlated highly with both anxiety and depression and negatively with well-being. For the functioning measures especially health perception, vitality, social functioning, and mental health scale correlated negatively.

**Conclusion:** The Danish version of the Injustice Experience Questionnaire was found to be valid and reliable. Newly developed comparisons between the pain patients and a health anxiety subgroup will be presented, and the role of perceived injustice will be discussed: Is perceived injustice best understood a natural psychological reaction towards persisting illness conditions or does it play a role as an active, independent ingredient during rehabilitation?

### **Consult Liaison psychiatry in the emergency department**

*A.S. Zараа<sup>a,b</sup>*

*a) OUCOM, Ohio, USA,*

*b) Department of Emergency Medicine, HMC, USA*

**Background:** Patients experiencing psychiatric emergencies often require resources not available at the hospital to which they present and frequently require transfer to an appropriate psychiatric facility as it is the case at the Emergency department of HGH. This typically involves being held in the Emergency Department (ED) until a psychiatric bed is available. While the number of visits to the emergency room had been steadily increasing, in the same time, the number of available mental health beds had seen a substantial shrinkage for many reasons but mainly because of budget cuts.

Another factor has been decisive in the increase number of visits and that was the community based psycho-social facilities (group homes, shelters, soup kitchen, outreach programs and legal system based mental health services); those also were the forefront victims of several budget cuttings. It has been formulated that the number of emergency room visits by the mentally ill is inversely proportional to the number of services available in the community.

Boarding of psychiatric patients, (defined as a length of stay greater than four hours after medical clearance), is ubiquitous throughout emergency departments nationwide (USA).<sup>1</sup> The limited number of inpatient psychiatric beds combined with the increase in mental health related ED visits have amplified the number of patients boarding in the ED.<sup>1</sup>

Sixty percent of emergency room physicians believe the increase in ER visits by individuals with mental illnesses is having a negative impact upon access to emergency medical care for all patients— causing longer wait times, increasing patient frustration and diminishing the capacity of hospital staff.<sup>2</sup>

**Objective:** Thus, the primary goal in most emergency departments is to keep the patients safe until they can be moved into a mental health unit or further stabilized and discharged home with an appropriate outpatient care plan.<sup>3</sup>

**Method:** The Emergency department at HMC established in May 2014 an innovative and pioneering psychiatric liaison service based in ED, it is the first in the Gulf Area. In this study we are set to look at the difference in response time, boarding time, and disposition during the last six month compared to a similar period of a previous year.

**Results:** When initiated treatment in the emergency room and start a crisis intervention while mobilizing social services and other community based services, the preliminary results indicate a substantial decrease of total admissions, a similar decrease in overnight boarding and a shorter turnaround time to disposition. A 62% decrease of total admissions, and a 300% decrease in overnight boarding.

**Conclusion:** Having a dedicated psychiatric team embedded in a busy emergency department is conducive to providing a higher quality of mental health care, decrease the adverse occurrences associated with boarding the severely mentally ill. We have streamlined the in and out process and provided Primary Psychiatric care. We provided Crisis Intervention on the spot and thus decreased the total number of admissions and avoided the usual bed crisis. We strive to eliminate all adverse events. We set a system in place to sustain the high quality of care by establishing a training program (C&L Fellowship with one year ER psychiatry, modules for ED Staff).

### **Evaluation of a common tool to compare the structure and outcomes of diverse consultation liaison services**

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**Background:** In order to justify the allocation of scarce health resources, consultation-liaison psychiatry (CLP) must measure its activity and outcomes. The speciality has lacked international consensus on accepted tools for evaluating CLP performance and routine data collection is uncommon. Therefore, the objective was to develop and test a common tool to capture process and outcome measures in different CLP services.

#### **Method:**

**Design-** This was a mixed methods study. A data collection tool for CLP was developed via consultation with CLP clinicians and review of the literature. The tool was then prospectively tested in three CLP services, servicing inner city, district and regional areas in New South Wales, Australia, over a seven month period.

**Participants-** The tool was completed for 754 general hospital inpatients (173 inner city, 143 district and 438 regional) referred to the CLP services.

**Measures-** The tool included individual, referral and health utilisation data (such as discharge referral pathways), CLP response times (measured against international benchmarks) and interventions, and functional patient outcomes (Global Assessment of Function). Data were analysed with SPSS version

18; using descriptive statistics, and Chi square analysis or one-way analysis of variance for comparisons between the three CLP services. Results were considered statistically significant if the p value was <0.05.

**Results:** There was variation in staffing, structure and scope of practice between the CLP services. The highest referral rate and largest inpatient population was attended by the regional CLP service, which covered seven sites. The average rates of inpatient referrals to CLP were 25, 20 and 62/month for the inner city, district and regional services, respectively. There was commonality in the reason for referral and diagnoses made. Management was multimodal, with CLP often facilitating discharge psychiatric follow-up. Only the district CLP service met recommended target times for seeing emergency referrals. Need for an interpreter and age did not impact upon CLP response times.

**Conclusion:** Although there was variation in geographical location, community and hospital mental health services, and CLP functions, the data collection tool was applicable across CLP services. Referral demand and staff resourcing influenced CLP response time. The common tool objectively captured key data which could be used to plan CLP service development and advocate for adequate resourcing.

POSTER SESSION I

**Thursday 16 June 17.15 – 1800**

## 1. Relative hypo- and hypercortisolism are both associated with depression and lower quality of life in bipolar disorder

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**Background:** Depression in unipolar and bipolar disorders is associated with hypothalamic-pituitary-adrenal-axis (HPA-axis) hyperactivity. Unipolar disorder has also been shown to exhibit HPA-axis hypoactivity. We aimed to study if both HPA-axis hypoactivity and hyperactivity were associated with depression and disease burden in bipolar disorder.

**Method:** We used a cross-sectional study design including 145 bipolar patients type 1 and 2 and 145 matched controls. HPA-axis activity was addressed with a weight-adjusted very-low-dose dexamethasone suppression test (DST), which is sensitive in identifying both hypocortisolism and hypercortisolism. The 25th and 75th percentiles of control post-DST values were used as cut-offs identifying patients exhibiting relative hypo- and hypercortisolism. Current depression and disease burden were evaluated with self-report questionnaires: Montgomery-Åsberg-Depression-Rating-Scale (MADRS-S), Beck-Depression-Inventory (BDI), Global-Assessment-of-Functioning and World-Health-Organization-Quality-of-Life-Assessment-100.

**Results:** Patients exhibiting relative hypocortisolism showed 1.9–2.0 (BDI,  $p = 0.017$ , MADRS-S,  $p = 0.37$ ) times increased frequencies of depression and 6.0 ( $p < 0.001$ ) times increased frequency of low overall quality of life compared with patients exhibiting mid post-DST values (eucortisolism). Adjusted Odds Ratios (OR:s) for depression ranged from 3.8–4.1 (BDI,  $p = 0.006$ , MADRS-S,  $p = 0.011$ ) and was 23.4 ( $p < 0.001$ ) for quality of life. Patients exhibiting relative hypercortisolism showed 1.9–2.4 (BDI,  $p = 0.017$ , MADRS-S,  $p = 0.003$ ) times higher frequencies of depression and 4.7 ( $p < 0.001$ ) times higher frequency of low overall quality of life compared with patients exhibiting eucortisolism. Adjusted OR:s for depression ranged from 2.2–2.7 (BDI,  $p = 0.068$ , MADRS-S,  $p = 0.045$ ) and was 6.3 ( $p = 0.008$ ) for quality of life.

**Conclusion:** Both relative hypocortisolism and relative hypercortisolism were associated with depression and lower quality of life, providing novel insights into the role of HPA-axis dysfunction in bipolar disorder.

## 2. The acute effects of inflammation on cognitive functioning in humans: a systematic review

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**Background:** Previous research indicates that inflammation may cause depression, though the mechanisms of this effect of inflammation remain unclear. The cognitive neuropsychological model of depression proposes that negative biases in cognitive processing of emotional salient information have a central role in development and maintenance of depression. We have conducted a systematic review that aims to determine whether inflammation has negative effects on such emotional processing.

**Method:** We conducted thorough searches of electronic databases, supplemented with backwards and forwards citation searches. We identified controlled, experimental studies in which healthy individuals were administered an inflammatory challenge (bacterial endotoxin / vaccination) and standardised tests of cognitive tests were performed over subsequent hours / days. Two independent reviewers extracted data on study characteristics, effects of inflammation on cognition and methodological quality, then comparing findings to maximise reliability.

**Results:** Twelve study reports were identified from 11 independent studies on 327 individual healthy participants. Inflammation was triggered using injections of a variety of biological agents (E. Coli, S.Typhi, S. Abortus endotoxin or Hepatitis B vaccination). Cognitive tests of attention / executive functioning, memory and social / emotional processing were conducted over hours to days. Studies reported conflicting findings for effects of inflammation on cognitive functions assessed. More than half the studies were methodologically weak and at high risk of bias however, which may have contributed to the heterogeneity of findings. Studies with at least moderate methodological quality (n=5) found no evidence that inflammation caused any acute changes to attention / executive functioning (i.e. 0 of 3 studies), mixed evidence that inflammation caused changes in memory (2 of 4 studies) but with consistent evidence that inflammation impaired social / emotional processing; 2 of 2 studies identified, showed inflammation reduced ability to perceive emotions from photographs, impaired memory of emotional faces and caused greater feelings of social disconnectedness.

**Conclusion:** Though preliminary, our findings are consistent with the hypothesis that inflammation may contribute to the development and maintenance of depression via negative effects on social / emotional neurocognitive processing.

### 3. The overlap of somatic symptoms, anxiety and depression: a population-based analysis

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**Background:** Comorbidity of somatic symptoms, anxiety and depression occur in half of primary care cases. As research on this syndrome-overlap in the general population is scarce, the present study investigated the prevalence of the overlapping syndromes, their impact on health care use (HCU) and their latent dimensionality.

**Method:** A national general population survey was conducted between June and July 2012. Trained interviewers contacted participants face-to-face and patients reported their health care use in the previous 12 months. Somatic, anxious and depressive symptoms were assessed using the Somatic Symptom Scale-8 (SSS-8), Generalized Anxiety Disorder-2 (GAD-2) and Patient Health Questionnaire-2 (PHQ-2) respectively.

**Results:** Of 2510 participants, 236 (9.4%) reported high levels of somatic or anxious or depressive syndromes which were comorbid in 86 (36.4%) cases. Syndrome burden and HCU showed a dose-response-relationship. The syndrome-overlap rather than each syndrome alone showed the strongest association with HCU. A three factor model fit the data better than a common-factor model.

**Conclusions** Compared to primary care, the overlap of somatic symptoms, anxiety and depression is less common in the general population. Although each screener represents a unique latent dimension, they should be assessed simultaneously as their overlap is associated with greater HCU in the general population.

#### 4. A prospective study of structural connectivity in adolescents with major depressive disorder: a preliminary study

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**Background:** Diffusion tensor imaging (DTI) studies have detected microstructural changes of white matter in depressive disorder. However, white matter alterations in adolescents with major depressive disorder remain to be further explored as DTI studies report contrasting results. In order to explore this subject, we report findings from longitudinal voxelwise analyses of DTI data collected at baseline and at 12-week follow-up on 12 adolescents.

**Method:** We recruited drug-naïve, adolescents with major depressive disorder. They were at first onset. The patients were initially evaluated and followed-up prospectively for 12 weeks after starting the antidepressant medication. They were evaluated again at 12-week. We conducted a whole-brain tract-based spatial statistical (TBSS) analysis of DTI derived parameters including fractional anisotropy (FA) and mean diffusivity (MD).

**Results:** A total of 12 adolescents between age 13 and 18 with major depressive disorder participated in the study. FSL's TBSS established voxel-level differences in the comparison between Pre-treatment and Post-treatment parameter – fractional anisotropy. Whole brain TBSS ( $p < 0.05$ ) showed FA value differences in the caudate, insula, putamen, and thalamus in the comparison between Pre-treatment and Post-treatment. Those regions are known to be central in emotional and cognitive processing. The structural connectivity in these regions was shown to change according to the 12-week antidepressant treatment. However, correlational analyses did not reveal significant association of FA and Hamilton depression rating scale score.

**Conclusion.** These findings confirm the presence of microstructural white matter alterations in adolescents with major depressive disorder according to the disease condition. DTI could be a useful tool in detecting longitudinal changes after pharmacological treatment with antidepressants in adolescents with major depressive disorder. Further studies involving larger case numbers are needed to detect the long-term effect of antidepressant treatment on the brains of adolescents with mood disorders.

#### 5. Attachment style in young persons with concussion: measurement, stability, and impact on prognosis

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**Background:** Annually 25000 persons in Denmark are diagnosed with concussion. 5-15 % of these experience post-concussion symptoms (PCS) over 3 months after concussion. Symptoms include headache, concentration problems, and fatigue. The etiology of PCS is complex, with interacting biological, psychological and environmental factors. Attachment style is derived from a child's relations with caregivers. It's activated when stressed to regain security. It may be a new approach to understanding how interpersonal developmental processes affect the development and maintenance of PCS.

**Aims:** In a cohort with patients aged 15-30 years with a recent concussion we will examine:

- 1) The distribution of attachment styles according to gender and age, and their stability over time.
- 2) The correlations between attachment style, symptom reporting, illness perception and illness behavior.

In a sub-sample being treated for long-lasting PCS we will examine:

- 3) The relationship between attachment style, treatment alliance and treatment outcome.

**Method:** The project is embedded in an epidemiological study on approx. 1000 young persons with a concussion, of which 120 with long lasting PCS are recruited for an early intervention study.

Attachment style will be measured with questionnaires; 'Experiences in Close Relationships-Relationship Structure' (ECR-RS) and 'Reciprocal Questionnaire' (RQ). Treatment response will be measured with the questionnaire 'Rivermead Post-Concussion Symptoms Questionnaire' (RPQ). Also, therapeutic alliance, illness perception and illness behaviour will be assessed with questionnaires.

**Results and conclusion:** The detailed study design will be presented. Assessing attachment style may show potential for early identification of persons who are at risk of poor prognosis and provide insight into how attachment style may be related to dysfunctional illness and treatment responses. This could subsequently contribute to improved treatment strategies.

## 6. The chicken or the egg problem between the carers and their food allergic children

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**Background:** To explore the relationship between child's allergy symptoms and the carer's psychological state. This raises the question about the influences of the carer's psychological being on children's food allergic symptoms. It has been established that child allergy has a direct impact on carers, increasing their likelihood of psychological and personality disorders. Moreover, the mother's psychological state can affect children's symptoms, for example, the severity of asthma and rhinitis; however, there is little information on the relationship between child food allergy (CFA) and the mother's psychological being.

**Method:** A cross-sectional study involving 103 dyads of mothers and their children (up to 5 years old) were recruited at the Allergy Centre of the Universidad de Chile between 2011 and 2013. CFA diagnoses included current clinical history, prick test and specific IgE test.

Measures included: the Scale of Psychological Factors in Food Allergy (SPS-FA) and a clinical evaluation of children's symptoms. Linear regressions analyses were used to determine if psychosocial factors in the mother can predict the number of allergy symptoms in children.

**Results:** Significant interactions were found between the number of gastric symptoms and the CFA-related psychosocial impact on the mothers, accounting for 29.9% of gastric symptoms variance in the child. (Statistical power 0.99). This means that for every point in the SPS-FA scale the number of gastric symptoms in the child increases in 0.7, representing almost half of the standard deviation;  $F(1, 55) = 24,861$ ;  $p = 0.000$ .

**Conclusions** The psychological impact of caring for a food allergic child seems to predict the number of allergic symptoms in children. This observed cycle of stress can be understood by the exposure of the mother to the child symptoms, which reinforces mother's stress and its negative effects on children immune system and allergy symptomatology. Therefore, a comprehensive and integrative care strategy focused on the psychoneuroimmunology influences over "families living with CFA" is suggested.

## 7. The role of spirituality in female and male medical patients

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**Background:** Spirituality modulates the perception of disease, interacting with physical and psychological health and quality of life. It has been shown that spirituality plays a more important role for women than for men. We aimed to assess the role of spirituality in female and male medical patients, using SpREUK-SF10 questionnaire, developed by Bussing.

**Method:** The questionnaire was applied to 25 women and 25 men consecutively admitted to an Internal Medicine Dept., after informed consent. Patients with severe conditions and altered mental status were not included. The questionnaire consists into 10 items, 3 showing the search for a spiritual source, 4 showing the trust in the support offered by a spiritual source, and 3 showing the reflection on the impact of the disease in patient's life. The internal consistency ranges from .74 to .90. Each item is scored on a 5-point scale (0-does not apply at all to 4- applies very much). Student's t test was used with a  $p < 0.05$  considered significant.

**Results:** The mean age was 52.96 in female and 54.5 in male patients. The mean global score of spirituality was 2.62 in women and 2.38 in men;  $t = 2.987$ ,  $p = 0.003$ . The mean score of the „search” was 2.55 in women *versus* 2.26 in men;  $t = 3.14$ ,  $p = 0.009$ . The mean score regarding „trust” was 2.53 in women and 2.36 in men;  $t = 1.3$ ,  $p = 0.131$ . The mean score of „reflection” was 2.8 in women *versus* 2.56 in men;  $t = 2.121$ ,  $p = 0.05$ .

**Conclusion:** the global score of spirituality was significantly higher in women; significant differences were found for the items regarding search for spiritual source and reflection.

## 8. Presentation of the comprehensive and brief international classification of functioning, disability and health core sets (ICF-CS) for schizophrenia

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**Background:** In the framework of the development of the International Classification of Functioning, Disability and Health Core Set for schizophrenia, we conducted a cross-sectional, internet-based survey using open-ended questions.

**Objectives:** The aim this presentation is present the results of the preparatory studies were presented at an international consensus conference, a multi-stage, iterative, decision-making and consensus process that took place 12-14 May 2015 in Barcelona, Spain. At this consensus conference, schizophrenia experts from different countries worldwide and working in a broad range of professions decided which ICF categories should be included in the first version of the ICF Core Sets for schizophrenia.

**Method:** Four preliminary studies intend to capture the researcher's perspective, the patient's perspective, the expert's perspective and the clinician's perspective, respectively, on the most relevant aspects of functioning of persons living with schizophrenia. The final definition of ICF Core Sets for schizophrenia have been determined by integrating the results of preliminary studies in a consensus conference with international experts.

**Results:** The experts included 97 categories in the Comprehensive ICF Core Set and 25 categories in the Brief ICF-CS. The specific categories of each ICF-CS are shown in this presentation. The Comprehensive ICF-CS can guide multidisciplinary assessments of functioning in persons with schizophrenia, and the brief version is ideal for use in both clinical and epidemiological research, since it includes a small and practical number of categories, but sufficiently wide for finding utility in clinical assessments.

**Conclusion:** ICF-CS are being designed with the goal of providing useful standards for research, clinical practice and teaching, and it will stimulate research and will improve understanding of functioning, health and environmental factors in schizophrenia

## 9. Psychological factors influence the symptoms of gastroesophageal reflux disease(GERD) and their effect on quality of life in Korean fire fighters

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**Background:** The aim of the study was to investigate the psychological factors influence the symptoms of gastroesophageal reflux disease(GERD) and their effect on quality of life.

**Method:** This study examined data collected from 1217 fire fighters. Depression and Anxiety were identified using the Patient health questionnaire-9(PHQ-9) and the 7-item Generalized Anxiety Disorder Scale. Occupational stress and Stress coping were identified using the KOSS-26 and the Ways of Coping Checklist-Revised. Self-esteem and quality of life were identified using the Rosenberg's Self-Esteem Scale and World Health Organization quality of life scale abbreviated version (WHOQOL-BREF). The scores for anxiety, depression and QoL of the two groups were analyzed. The correlation between psychological factors and QoL was also analyzed.

**Results:** Current psychological variables were associated with increased odds of concurrent GERD-related symptoms. Current depression, anxiety and stress were associated with increased odds of GERD-related symptoms. According to the WHOQOL-BREF, depression, anxiety, stress, stress coping and self-esteem were significantly correlated with quality of life in patients with GERD. Quality of life was obviously affected by psychological variables in patients with GERD.

**Conclusion:** These results indicate that psychological symptomatology, depression, anxiety, occupational stress and self-esteem are associated with GERD-related symptoms. Acknowledging this common comorbidity may facilitate recognition and treatment, and opens new questions as to the pathways and mechanisms of the association.

## 10. Mental health professionals' perspective of mental health in Pakistan

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**Background:** Pakistan is a low-income country with a population of 188.1 million. Approximately 60% of people in Pakistan live below the poverty line with a literacy rate of 55%. There is lack of evidence on prevalence of mental health problems and public mental health services are scarce. The aim of this study was to explore the perspectives of mental health professionals about the status of mental health services in Pakistan.

**Method:** A number of health professionals including psychiatrists, psychologists and nurses were interviewed in 3 large cities of Pakistan (Lahore, Karachi and Islamabad). A Topic guide was developed to facilitate qualitative interviews to explore the current state of mental health services in Pakistan, progression of mental health services, financial resources to maintain/ improve mental health services, political influences effecting progression, and what could be done to improve work force and services.

**Results:** A total of 20 mental health professionals were interviewed. Majority of the interviewees did not think that there was any improvement, 1/3<sup>rd</sup> anticipated some progression in future, all believed

that Pakistan does not have financial resources, and nearly all believed that there were political influences impacting on progression however services could be improved.

**Conclusion:** There were concerns expressed by health professionals regarding current mental health service provisions and lack of government interest in this area. Political influences and government policies need addressing to make improvements.

## 11. The impact of somatic symptoms on the course of major depressive disorder

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**Background:** Somatic symptoms have been suggested to negatively affect the course of major depressive disorder (MDD). Mechanisms behind this association, however, remain elusive. This study examines the impact of somatic symptoms on MDD prognosis and aims to mine whether this effect can be explained by psychiatric characteristics, somatic diseases, lifestyle factors, and overall disability.

**Method:** In 463 MDD patients (mean age=44.9 years, 69.8% female) from the Netherlands Study of Depression and Anxiety (NESDA), we examined whether the type and number of somatic symptom clusters predicted the two-year persistence of MDD. Diagnoses of MDD were established with the Composite International Diagnostic Interview (CIDI) and somatic symptom clusters were assessed with the Four-Dimensional Symptom Questionnaire (4DSQ) somatization scale. Psychiatric characteristics, somatic diseases, lifestyle factors, and overall disability were taken into account as factors potentially underlying the association.

**Results:** The cardiopulmonary, gastrointestinal, and general cluster significantly predicted the two-year persistence of MDD. The presence of multiple somatic symptom clusters was also associated with an increased risk of persistence of the disorder (OR=2.32, 95% CI=1.51-3.57,  $p<.001$ ). Although this association was partly explained by MDD severity, the presence of multiple somatic symptom clusters remained a significant predictor of persistence after considering all potentially underlying factors (OR=1.69, 95%CI=1.07-2.68,  $p=.03$ ).

**Conclusion:** Somatic symptoms are predictors of a worse prognosis of MDD independent of psychiatric characteristics, somatic diseases, lifestyle factors, and overall functioning. These results stress the importance of adequately considering somatic symptoms in the diagnostic and treatment trajectory of patients with MDD. Future research should focus on identifying treatment modalities targeting depressive as well as somatic symptoms.

## 12. Factors increasing addiction risk in non-cancer pain patients receiving prescription opioids. A descriptive study

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**Background:** Recently, there has been a dramatic increase of prescription opioids (POs) use in the treatment of non-cancer pain. However, its use in this context is controversial, and poses a dilemma on clinicians: how to appropriately alleviate suffering without increasing the chance of becoming addicted. In this situation, the addiction field should contribute with a deep reflection and the provision of appropriate therapeutic strategies, further encouraging more research on the topic.

**Method:** We conducted a prospective, descriptive study of all the patients referred to the Addictions Unit from the Pain Clinic of the same tertiary hospital during a 6-month period. The main clinical and

treatment-related variables were collected. The Hospital Anxiety and Depression Scale (HADS) was also recorded.

**Results:** 20 patients were included, all suffering from dependence to prescription opioids according to DMS-IV criteria. Most (95%) were women (mean age 53 years, SD 16,4). Up to 85% of them received more than 3 POs. The mean morphine equivalent daily dose was 226 mg/day with a range of 15-880. Seventeen patients did also receive benzodiazepine treatment (mean diazepam equivalent daily dose 23 mg/day, range 3-90 mg). HADS scores were positive for anxiety in 90% of patients and positive for depression in 65% of patients.

**Conclusion:** Our data should raise the alarm about the risks of using higher doses and more than one PO, the comorbid use of benzodiazepines and the presence of anxiety and depressive symptoms in non-cancer pain patients, given the increased risk of addiction.

### 13. Patient perspectives of an interdisciplinary pain rehabilitation program

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**Background:** Chronic pain is a major public health concern, and associated with high rates of disability and healthcare costs. In the United States, rates of opioid prescriptions for chronic pain have been exceedingly high despite lack of evidence for their long-term use. Alternately, research supports the efficacy of biopsychosocial approaches to pain management, including comprehensive pain rehabilitation programs. Despite this, these treatments remain underutilized and significant barriers exist, including physician and patient perceived helpfulness and acceptability of these interventions. In response, the current study examined patient perspectives following participation in an interdisciplinary rehabilitation program with well-documented successful treatment outcomes in several published studies. The primary goal of this research was to understand what aspects of treatment patients found helpful, which can inform conversations about these interventions with patients.

**Method:** Patients included 470 adults with treatment refractory chronic pain who enrolled in a 3-week comprehensive pain rehabilitation program and completed a patient feedback survey at discharge. This sample represents 94% of patients who completed the program during the study time period. Patients were asked to respond to the following question: "What are three of the most important pain management tools/skills you have learned?" (open-ended). Responses were coded by two independent raters.

**Results:** Overwhelmingly, patients endorsed breathing and relaxation strategies as the most helpful skill learned to manage chronic pain (85%), which was followed by moderation and/or modification (47%), physical therapy, exercise, and/or stretching (39%), and cognitive therapy (24%). No patients remarked that medication use was one of the most important treatment components, and the majority of patients tapered off of opioid pain medications during the course of the treatment program.

**Conclusion:** There is a need to integrate behavioral pain management strategies in chronic pain treatment, rather than as an adjunctive recommendation. This is consistent with patient-centered and evidence-based approaches, and is supported by patients' own perspectives and experiences in the current study.

#### **14. In people with chronic illnesses, the perceived impact of current crisis is associated with suicide risk only in those with greater depressive symptom burden**

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*On behalf of the ASSERT-DEP Study Group members*

**Background:** Aim: To assess the relationship between perceived impact of the current social and financial crisis and suicide risk in people with long-term medical conditions (LTCs), and whether this relationship is moderated by depressive symptom severity after adjusting for confounders.

**Method:** In a cross-sectional design, 140 patients with diabetes, COPD, and rheumatic diseases attending follow-up clinics during a 4-month period were interviewed with the MINI. We assessed the independent associations of perceived impact of current crisis with suicide risk (Risk Assessment of Suicidality Scale) and whether depressive symptom severity (PHQ-9) moderated this relationship in hierarchical multiple regression models after adjusting for demographics and comorbidities.

**Results:** Twenty-seven patients (19.3%) were considered suicidal and 37 (26.4%) were diagnosed with Major Depressive Disorder according to the MINI. The perceived impact of current crisis was significantly associated with suicide risk independent of demographics and comorbidities ( $b=0.194$ ,  $p=0.027$ ). However, moderation analysis showed that the current crisis influences suicide risk only in those patients with greater depressive symptom burden as assessed by the PHQ-9 ( $p<0.01$ ).

**Conclusion:** Psychopathology is high in people with long-term medical conditions in the era of the current Greek social and financial crisis. Even though the association between recession and suicidality has been previously evidenced, present findings indicate that the perceived impact of crisis is associated with suicide risk only in those with greater depressive symptom burden. A key policy priority should therefore be planned for the care of people with LTCs presenting with severe depressive symptoms, if we are to alleviate the consequences of the current Greek social and financial crisis.

#### **15. Suicidal ideation and thoughts about self-harm in cardiac patients: risk factors identified in the DEPSCREEN-INFO randomized controlled trial**

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**Background:** A high proportion of cardiac patients suffers from depression. Since symptoms of suicidal ideation and thoughts about self-harm are characteristic of severe depression the present study aims at identification of risk factors in patients with hypertension and coronary heart disease (CHD). Hypotheses relating to risk factors were derived from a theoretical model, which relates suicidal ideation to dispositional vulnerability factors and cognitive processes associated with psychiatric disturbance.

**Method:** This study employed the base line measurements of the DEPSCREEN-INFO RCT. A consecutive sample of patients with either coronary heart disease or hypertension was recruited in large inpatient and outpatient cardiology centers in Hamburg (Germany). Patients completed a questionnaire relating to demographic characteristics, clinical symptoms associated with heart disease and standardized scales of depression, anxiety, somatic symptoms, illness perception and health-related quality of life. Suicidal ideation was measured as part of the

PatientHealthQuestionnaire-9 for depression severity. No patient indicated acute suicidality. Statistical analyses report (1) bivariate associations between risk factors and suicidal ideation and (2) a proportional odds ordinal regression model of the frequency of suicidal ideation in relation to risk factors.

**Results:** Of the 4151 eligible patients, 1976 patients (48 %) completed the questionnaire. Bivariate analyses showed that more frequent suicidal ideation was associated with an enhanced probability of living alone ( $\chi^2 = 19.104$ ,  $df = 3$ ,  $p < .001$ ). Moreover, almost monotonous associations were found between suicidal ideation and with higher levels on depression severity, anxiety, somatic symptoms, chest pain, shortness of breath, negative illness perceptions, and reduced health-related quality of life. Multivariable ordinal regression showed that depression severity and anxiety were the best predictors of suicidal ideation in the sample ( $OR_{Depression} = 1.22$ ,  $p < .001$ ;  $OR_{Anxiety} = 1.09$ ,  $p < .001$ ). Moreover, defibrillator implant was another significant predictor of suicidal ideation ( $OR = .27$ ,  $p < .05$ ).

**Conclusion:** Suicidal ideation in patients with CHD or hypertension is related to the patients' living situation and to standardized clinical scales. In clinical routine, these scales could facilitate the identification of patients at-risk and the clinical clarification of acute suicidal ideation.

## 16. Psychological adaptation of medical patients following an emergency department admission: The role of individual resources, demographic characteristics and illness-related variables

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**Background:** Little is known about how individual resources and other variables are related with patients' psychological adaptation after an emergency department (ED) admission. Thus, we investigate individual resources, demographic characteristics and illness-related variables predicting psychological adaptation from ED admission in medical patients.

**Method:** Data from 229 medical ED patients from a Swiss tertiary care hospital are presented. Psychological adaptation measured at three time points (ED admission, 7 days and 30 days later) included negative and positive affect. Predictor variables contained of demographic characteristics (e.g. age, gender), inter- and intraindividual resources (e.g. personality, social support) and illness-related variables (e.g. diagnosis, disease severity). Variables assessed with standardized questionnaires were positive and negative affect (*PANAS-SF*), personality (*BFI-10*), resilience (*RS-11*), self-efficacy (*ASKU*) and social support (*SOKU-K-7*).

**Expected results:** Medical patients with better individual resources (e.g. higher levels of resilience or positive emotions) are related with a faster emotional recovery from ED admission.

**Current stage of work:** Statistical analyses are in progress using latent growth modeling.

**Conclusion:** Results are discussed referring to a resource-oriented model of distress-management, and in view of designing prevention and intervention strategies.

## 17. Depressed British Pakistani mother's "voices within the four walls": a qualitative study

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**Background:** British Pakistani's are one of the largest ethnic minority groups living in the UK. High rates of depression have been reported in these women. Current guidelines suggest a need for tailored maternity services to improve access to care for women from ethnic minorities.

**Aim:** This study looks at British Pakistani women's experiences and explanatory models to understand persistent depression in the postnatal period.

**Method:** A qualitative study was completed in Inner City Manchester (UK), in depth interviews were conducted with 15 British Pakistani women experiencing mild to moderate persistent postnatal depression.

**Results:** The women's understanding of 'depression' as a general consensus was in physical terms but with an onset triggered by psychosocial and spiritual causes. The most commonly reported factors contributing to the persistence of depression were marital disharmony, lack of support, and financial difficulties. Past help offered was primarily antidepressants which were not welcomed and a lack of availability of culturally sensitive interventions and limited cultural sensitivity of National Health Service (NHS) staff when dealing with Pakistani women's depression were also reported.

**Conclusion:** Persistence of postnatal depression was partly attributed to a lack of availability of culturally sensitive interventions. Currently, there is a clear gap in research in developing culturally appropriate interventions for postnatal depression in Pakistani women living in the UK. Suggestions are made for culturally tailored group psychosocial treatments targeting specific areas such as low self-esteem and confidence.

## **20. Somatoform and conversion disorders in a somatic rehabilitation clinic 2009-2014 – the right patient in the right place?**

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**Background:** To describe the degree of physical disability in patients with somatoform and conversion disorders (F44-F45, G81.9, Z03.3) admitted to a somatic rehabilitation ward.

**Method:** Retrospective data from 13 patients during 2009-2014 was collected from medical records and the national quality registry Webrehab Sweden, using Functional Independence Measure (FIM), a 7-grade ordinal scale instrument to assess the degree of physical and cognitive disability.

**Results:** Main symptoms were multisymptomatology (n=4), Paraparesis (n=3), Hemiparesis (n=2), Seizures (n=1), Tetraparesis (n=1), Pain (n=1) and Vertigo (n=1). All patients but 1 were women. Mean age was 41 (28-53). Ten patients (77%) had a duration >24 months. Mean hospital stay was 21 days (4-75). Eight patients (62%) used a wheelchair on admission, 7 (54%) on discharge. The mean subgroup indices of FIM on admission were (n=10): Self care 5, (modified dependence with helper supervision or setup) (1-7), Transfers and locomotion 4 (Minimal assist)(1-6,8), i.e. in both areas ranging from maximal assistance to complete independence. In the Self care functions, 5 patients (50%) improved (0,16-1,33 points), and 5 patients (50%) were unchanged. In the Transfers and locomotion functions 6 patients (60%) improved (0,2-3,2 points), 3 (30%) were unchanged and 1 (10%) worsened (-0,2 points). Of data available (n=7) all patients were either satisfied or very satisfied with the rehabilitation period as a whole.

**Conclusion:** Rehabilitation of patients with conversion and somatoform disorders is a challenge to the health care system in Sweden, and very few clinics provide specialized care for the group. Diagnostic delay is previously known to make rehabilitation more difficult. Rehabilitation in a somatic rehabilitation clinic is concluded to be a good alternative for some chronic somatoform and conversion disorder patients. Further, larger studies are needed to clarify which kind of rehabilitation suits for which patient, and at which time. FIM can be useful as a tool to assess disability in somatic rehabilitation settings.

## **21. Teaching residents and medical students an integrated approach to diagnose and treat Psychogenic Nonepileptic Seizures (PNES) in a psychosomatic service**

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**Background:** Aims: Engage medical students and psychiatry residents in the process of properly diagnosing and treating PNES, and decrease the frequency and duration of episodes and increase patient's level of functioning through therapeutic interventions by consultation-liaison psychiatrists.

**Method:** We present our experience of treating patients with PNES and teaching an integrative model to psychiatry residents and medical students.

In our model the initial psychiatric consultation is performed by the attending psychiatrist in the presence of residents and medical students.

There will also be clinical case conferences and multidisciplinary team meetings with the opportunity to discuss cases and exchange ideas by all members of the team.

Through several case vignettes we will describe the therapeutic interventions that we recommend in the treatment of cases of patients with PNES in a psychosomatic service.

1. Identify the necessary components for the initial psychiatric evaluation.
2. Obtain pertinent collateral information from families and other sources.
3. Establish a therapeutic alliance with the patient, understanding the patient's attachment style.
4. Provide psycho-education to patients, families, medical and psychiatric team.

**Results:** Through the above interventions the following were achieved:

1. Diminish stigma and discomfort in patients and families regarding the diagnosis of PNES.
2. Decrease frequency and duration of PNES episodes.
3. Increase patient's level of functioning.
4. Increase patients, families and team satisfaction.
5. Decrease length of stay.
6. Decrease total cost of care.

**Conclusion:** Our study shows that an integrated, multidisciplinary approach can reduce symptoms and shorten the length of stay in patients with PNES.

This approach can be taught to residents and medical students in a psychosomatic service.

## **22. Diagnostic sensitivity and specificity of the SSD - 12 in patients with somatic symptom disorder and illness anxiety disorder**

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**Aims:** In DSM-5, the diagnosis of hypochondriasis was replaced by two new diagnostic entities: Somatic Symptom Disorder (SSD) and Illness Anxiety Disorder (IAD). Both diagnoses share high health anxiety as a common criterion, whereas additional somatic symptoms are only required for SSD. The latter now also emphasizes psychological features like abnormal and excessive thoughts, feelings, and behaviors associated with the bothersome somatic symptoms rather than their medical explicability. The aim of our study is to support an establishment of well-founded diagnostic strategies for these new diagnoses.

**Method:** A new self-report questionnaire for the assessment of the psychological features associated with SSD has been developed (Somatic Symptom Disorder - B Criteria Scale (SSD-12)). We are currently examining the criterion validity of the SSD - 12 within a sample of n = 450 outpatients from a psychosomatic setting. Two different structured clinical interviews are being conducted with all patients to assess SSD and IAD. Patients additionally complete measures on their somatic symptom burden (PHQ-15), depression (PHQ-9), anxiety (GAD-7) and hypochondriasis relevant information (WI-7).

**Results:** Initial testing of the factorial structure, reliability and convergent and discriminant validity of SSD-12 provided promising results. Data collection for our current study will be completed until May 2016. Data are concurrently analyzed to determine to what level of accuracy the individual SSD-12

scores can predict a SSD or IAD diagnosis and to examine whether both diagnostic groups differ in their individual scores on the used questionnaires. We hope to improve the accuracy of the particular case identification through a reasonable combination of these questionnaires.

**Conclusion:** DSM-5 creates a great opportunity to address the numerous problems of the former diagnostic criteria regarding somatoform disorders and hypochondriasis. The development of the SSD-12 was based on the idea to help improve the under-diagnosis of these disorders in the past, so that earlier detection as well as more effective and quality of life-related interventions can be offered to patients suffering from SSD or IAD in the future.

### **23. What should we consider when we introduce the educational program for the general practitioners specific to patients with medically unexplained symptoms to the clinical practice in Japan – comparing the health care system in Denmark with that in Japan**

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**Background:** The treatment for medically unexplained symptoms (MUS) remains problematic especially in the primary care field in Japan. We neither know on their etiology nor the effective therapeutic approaches, in spite of many patients with MUS in Japan. When it comes to terminology, there is a trend to get these patients together into one diagnostic criterion, such as bodily distress syndrome not to divide them into every subspecialty. We can also see the shift of focus from what drugs we should prescribe to how we should communicate with these patients. Our therapeutic approaches at present depend on the doctor-in-charge himself in Japan, and we struggle to treat these patients in the clinical practice. So the author discussed here on what is needed for the better treatment to the patients with MUS in Japan.

**Method:** The author fortunately had a chance to stay in Denmark and studied about some therapeutic or educational approaches developed there. The author could join the educational program for GPs specific to MUS (TERM) together with GPs in Denmark, and could also see a GP's clinical practice there. Based on these experiences and the literature review, the health care system for the MUS patients in Denmark and that in Japan was compared here and discussed.

**Results:** Both Denmark and Japan adopt similar universal health care system, where we can get necessary health care services with free or low charge. Their health care spending per GDP are almost the same, which are 10.4 % in Denmark, 10.2% in Japan. The difference is the access to the health care services, which is restricted to the registered doctor in Denmark, and is freely accessible in Japan. The patients' satisfaction to the health care service seemed rather high in Denmark than that in Japan. The author has recently started to join the general practice in my hospital and try to show how to communicate with MUS patients in the case review based on TERM.

**Conclusion:** We have many similarities in health care system in Denmark and that in Japan, although we don't have the registered doctor system in Japan and enough economical support for the GPs' education. We should shift from pharmacotherapy to meaningful interaction with patients, when we talk about the therapeutic approach to patients with MUS in Japan. TERM is thought to be also meaningful in Japan and should be introduced in the future with some arrangements for the GPs in Japan.

### **24. Understanding discrepancy between subjective and objective respiratory health complains: a population based study**

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**Background:** Psychological factors such as sense of coherence (SOC) and alexithymia have been shown to be relevant in formation and perception of respiratory symptoms in patients with respiratory diseases and also in their health-related quality of life (HRQoL). The aim of this study was to estimate association of alexithymia, SOC and HRQoL with self-perceived respiratory symptoms among individuals from general population without objective indicators for a respiratory disorder.

**Method:** We used data from the Health 2000 –study, a nationally representative sample of Finnish persons aged 30 years or over. HRQoL was measured by the 15D-scale and alexithymia and SOC were assessed by the Finnish versions of the TAS-20 and SOC-scale measurements. The pulmonary status was measured with spirometry using ratio of a forced expiratory volume in one second (FEV<sub>1</sub>)/forced vital capacity (FVC) (N=6060). An FEV<sub>1</sub>/FVC ratio <70% predicts severe airflow obstruction and < 80% modest obstruction. Information on somatic conditions, such as asthma, that have an effect on pulmonary status and psychiatric disorders was obtained by structured interviews. The sample of the present study was composed of 4442 participants who had complete information about spirometry and self-reported respiratory symptom questionnaire and did not have respiratory diseases or severe psychiatric disorders. Participants were classified into two study groups according to spirometry ratio and incidence of self-reported respiratory symptoms (SRS): a) no SRS and FEV<sub>1</sub>/FVC ratio ≥70% (N=2803) and b) SRS and FEV<sub>1</sub>/FVC ratio ≥70% (N=1639). The analysis were repeated with modest obstruction group classification.

**Results:** Individuals from the group with SRS had lower perceived HRQoL and SOC than those without SRS (P<.01). Alexithymia was more frequent among the individuals with SRS as compared to those without SRS (P<.01).

**Conclusion:** These preliminary findings emphasize the role of psychological factors for respiratory symptom formation in population. Eventually, understanding the mechanisms behind the discrepancy of subjective and objective respiratory health complains will help us to find optimal treatment approaches for individuals with subjective respiratory symptoms but without any objective indicators for a respiratory disorder.

## 25. DSM-5 Somatic symptom disorder in patients with vertigo and dizziness symptoms

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**Background:** Vertigo and dizziness (VD) are common symptoms presented in medical practice; patients with VD are severely impaired in their daily lives. In about 20 to 50 per cent of patients, VD symptoms cannot be fully explained by an organic condition but occur comorbid with a psychiatric diagnosis. Patients with different types of VD (organic or otherwise) are usually impaired on the affective, cognitive, and behavioural level. Thus, DSM-5 somatic symptom disorder (SSD) is a highly relevant diagnosis for this patient group. Despite this, the criteria of SSD have not yet been investigated in patients with VD. The present study aims to evaluate amongst patients with medically explained and medically unexplained (or not sufficiently explained) types of VD (1) the prevalence of the new diagnosis and its overlap with former DSM-IV somatoform disorders, (2) the prevalence of diagnostic criteria of DSM-5, particularly the range of the B-criterion with its three components (cognitive, affective, behavioural), and (3) the differences in psychological variables depending on (3a) which pattern of criterion B is fulfilled and (3b) the diagnosis (after DSM-IV vs. DSM-5).

**Method:** We evaluated a large sample (n=399) of outpatients presenting in a specialised neurological setting. Physical examinations and a psychometric assessment (SKID-I) were conducted; patients

completed self-report questionnaires. The diagnosis of SSD was assigned retrospectively based on these questionnaires.

**Results:** SSD was almost twice as common as *DSM-IV* somatoform disorders. Patients who fulfilled all three components of the B-criterion reported the highest levels of impairment. Patients who fulfilled the criteria of both *DSM-IV* somatoform disorders and *DSM-5* SSD were more impaired, reported a lower health-related quality of life, more somatic symptoms, and more severe psychological factors compared to groups with either one of the diagnoses.

**Conclusion:** Our findings support the need for a better definition of current diagnostic criteria of *DSM-5* SSD in order to filter out those patients who are impaired by their VD symptoms and would benefit from psychotherapeutic treatment. We suggest the inclusion of the full range of psychological symptoms when assigning the diagnosis of SSD. Longitudinal investigations are needed to investigate the predictive validity of SSD; therefore we plan to additionally present findings on longitudinal data in our patient group at the upcoming congress.

## **26. Combined psycho- and physiotherapy for the treatment of chronic pelvic pain syndrome (CPPS) – protocol for a pilot study**

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**Background:** Chronic Pelvic Pain Syndrome (CPP) is a chronic pain disease with high prevalence rates, frequently encountered in urological and gynecological practices and causing substantial health care costs. However, triggering and sustentative conditions that explain patients' subjective suffering sufficiently have not been identified yet. Recent studies indicate the influence of psychosocial factors on patients' pain perceptions and quality of life. Based on these findings, psychotherapeutic interventions have been developed in parallel to physical therapies. First evaluations deliver promising results for both strategies. Nevertheless, no concept has been developed for a combined therapy yet. For this reason, our aim was to develop a therapy combining psychological and physiotherapeutic elements, to evaluate the feasibility and to estimate the effect sizes of this new approach for a following randomized controlled trial.

**Method:** Our combined therapy (COMBI-CPPS) consists of two treatment modules: a psychotherapeutic module that comprises a short-time cognitive-behavioral group therapy and that is based on the preliminary works by the Canadian research group of Prof. Dean Tripp, and a physiotherapeutic module that is based on the works of an American working group and that will take place in both group and individual settings. Employing the design of a crossover cohort multiple randomized controlled trial in the pilot study, the treatment group will receive both modules successively with each module comprising nine weeks. A total of n=36 patients in four gender homogenous groups will be treated. Data will be analyzed for 7 points of measurement before, during and after treatment in comparison to the control group (n=18).

**Expected results:** The primary outcome will be health-related quality of life; secondary outcomes will include subjective pain perception and other relevant psychosocial and somatic variables.

**Conclusion:** This study is embedded within an already implemented interdisciplinary research platform for CPPS, involving an interdisciplinary specialized consultation at the University Medical Center Hamburg. The goal of this project is a better understanding of patients with CPPS and the development of specialized health care services. The pilot study constitutes an important component for the preparation of a randomized controlled therapy study and will significantly contribute to its quality.

## **27. A Cohort presentation of The Danish study of Functional Disorders (DanFunD)**

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Functional somatic syndromes (FSS) are prevalent in all medical settings, and may pose a major burden on sufferers, health services, and society. Research has been hampered by poor definitions of the various FSS's and there has been a long standing debated on whether FSS are in fact a manifestation of one or of different phenomena's. Bodily distress syndrome (BDS) is a newly proposed empirical based diagnostic construct unifying the various FSS into one diagnosis but with several subtypes. The construct have however not been tested in a general population samples.

The DanFunD study (**D**anish study on **F**unctional **D**isorders) was initiated as the first larger, coordinated epidemiological study program of FSS aiming to create the basis for a longitudinal population based study on FSS in the years to come. The study focus on 5 FSS's i.e. fibromyalgia, whiplash associated disorder, multiple chemical sensitivity, irritable bowel syndrome and chronic fatigue syndrome, as well as BDS. Specific aims were to test delimitations of FSS's and assess whether FSS constitute one or several disorders, like the BDS. Also to estimate prevalence and incidence of FSS, to identify risk factors with special focus on pain perception and psychological factors, to delimitate the pathogenic pathways and to analyze the consequences of FSS, both for individuals and society.

Data collection is now completed, including a representative sample of 9.801 Danish citizen's age 18-69 years. Data includes validated screening questionnaires' of FSS's and on social factors, mental vulnerability, life style factors, general health, social network, use of health care, chronic diseases, personality traits, coping resources, somatization, anxiety, stress and depression, health anxiety and illness perception. This will be combined with central registry data on morbidity, mortality, reimbursement of medicine, heath care use and social factors. The physical examination include measures of cardiopulmonal, morphological, muscle, and metabolic fitness, neck mobility, heart rate variability and pain modulation test combined with a diagnostic assessment for FSS and common mental disorders via an diagnostic interview. A biobank including serum, plasma, urine, DNA and microbiome has been established.

The insight into FSS achieved by the DanFunD study is first of its kind and will form the basis for implementation of more rational strategies for prevention and treatment of FSS. Preliminary data will be presented.

## **28. Prevalence and stability of somatic complains in the population: a 10-years follow-up investigation of the MONICA KORA Study**

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**Background:** Empirical evidence about the natural history and maintenance of a high symptom reporting style of subjects is sparse. Patients' recognition of their past symptoms and recall of their

symptom burden is often unreliable. It is, however, undecided to what proportion individuals from the general population – irrespective of a faulty recall of a given symptom – maintain an amplified symptom reporting style over a long term follow-up period. Therefore, we aimed to identify subjects with low, medium and high symptom reporting style (irrespective of the particular nature of their symptoms) in a sample from the general population and to track these subgroups over a 10-years observation period.

**Method:** Baseline data stem from the population based MONICA S3 survey with a total of 4,856 subjects. Ten-years follow-up data are from 3,006 participants in the KORA (*Cooperative Health Research in the Augsburg Region, Germany*) F3 follow-up survey (response rate: 76% of S3 participants). Somatic symptom burden of 2,474 subjects with valid data was assessed by an adapted version of the Somatic Symptom Scale-8 (SSS-8a). Linear regression was conducted to identify determinants of mean SSS-8a score values and general estimating equation (GEE) regression to assess stability.

**Results:** The frequency of somatic complaints steadily increased over the life span under observation. Women in all age groups report higher mean values. Among symptoms, shortness of breath had the lowest rating; low back pain receives highest ratings. Mean somatic complaints ratings mirror self-rated health values with lowest SSSa-8 means for highest values and vice versa. Subjects with shortest time window since last medical health care use displayed highest complaint scores. The overall stability over the ten-years follow up was 58.7% with minor differences for tertile subgroups in the baseline investigation: in T1= 63.7%; in T2= 46.6%; in T3 = 65.2%. The concordance was similar in all symptom domains and was independent of major disease conditions and adverse life style factors (smoking, alcohol consumption, physical inactivity) – however, associated with depression and sleep impairments.

**Conclusion:** The high degree of stability of symptom reporting style over a long term follow-up period and its robust independence of somatic disease factors point to a stable trait component of symptom reporting.

## 29. Foreign Accent Syndrome in context of Conversion Disorder

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Foreign accent syndrome (FAS) is a rare speech disorder that consists of the development of a new accent, which is different from the speaker's native language accent and perceived to be foreign. Also described as pseudoforeign accent in some of the literature, the speech does not typically correlate with a specific foreign accent, but rather consists of a constellation of altered speech features that result in the perception of foreignness. In most of the reported cases, FAS has followed a lesion, such as brain injury, cerebral hemorrhage, or multiple sclerosis plaque, in cortical and subcortical regions critical to speech and language production; limited research points to the possibility of FAS occurring secondary to psychogenic illness. Recent literature supports the co-existence of psychogenic speech and voice disorders (PSVDs) and psychogenic movement disorders (PMDs), with speech therapy and insight-oriented therapy reported as being helpful in some cases. We present the case of a 41 year old female who developed tremors and weakness, diagnosed as a psychogenic movement disorder (PMD), following a motor vehicle accident. She also developed a language disorder characterized by a foreign accent, sounding of Caribbean origin, with associated agrammatism. No precipitant was found on imaging or laboratory testing. We discuss these findings and their implications for evaluation and treatment of psychogenic speech and language disorders, and the challenges of treating cases with co-existing psychogenic movement disorders.

### 30. General practitioners' views of the new DSM-5 somatic symptom disorder - a focus group study

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**Background:** The shifts of diagnostic criteria in the new DSM-5 somatic symptom disorder (SSD) will soon be adopted in ICD-11 and will eventually affect the practical work of general practitioners (GP). Somatoform disorders are a common condition whilst remarkably different prevalences in primary care may reflect divergent diagnostic approaches. Our recently published systematic review identified patient-related, doctor-related, interactional, situational, and operational barriers in diagnosing somatoform disorders (Murray et al, J Psychosom Res, 2016.80:1-10). This qualitative study builds on this previous evidence and aims to investigate in depth the GPs personal views on the new diagnostic criteria.

**Methods** We performed five qualitative focus groups with GPs. A semi-structured interview-guideline covered topics such as the diagnostic approach itself, the presentation and the discussion of the new DSM-5 criteria as well as the use of evidence-based guidelines. All sessions were recorded and transcribed verbatim for qualitative content analysis.

**Results:** DSM-5 criteria were considered useful in terms of labeling and naming the condition more precisely. The development from a negative diagnostic criterion such as somatic inexplicability to a more positive diagnosing frame was valued advantageous for the diagnostic process. Skepticism mainly arose regarding the consequences for practical work, since GPs felt certain to reliably recognize somatization when patients presented it. The new criteria were attributed little influence on further management of patients in every day practice. The criterion of excessive health concerns as well as thoughts, emotions, and behaviors devoted to somatic symptoms caused ambiguity, being judged as an indistinct concept on the one hand and an essential characterization on the other.

**Conclusion:** According to the general practitioners' views, both the DSM-IV and DSM-5 diagnostic criteria have low impact on the diagnostic processes in primary care. Several aspects might account for this observation. These include implementation issues as well as conflicting diagnostic action patterns, focusing either on the clinical picture or criteria lists. Thus, instruments other than formal diagnoses might have to serve the purpose of identifying and stratifying somatizing patients in a primary care setting. Furthermore, non-coding may contribute to the rare assignment of the formal diagnosis of somatoform disorders in primary care.

### 31. Zolpidem withdrawal, a case, literature review and safer alternatives

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Often times, in order to reduce potential for patient harm, clinicians will choose Zolpidem, instead of a benzodiazepine. We report on a patient with tongue fasciculations, panic attacks and seizures during zolpidem withdrawal. Further, we report on another case from our medical center, which is the lowest dose of zolpidem in the literature to cause seizures during the withdrawal period. Next, we review the literature on zolpidem abuse, dependence and withdrawal with an eye towards educating physicians on the real and understated risks this medication poses for patients. We also suggest several evidence-based psychotherapeutic treatments for primary insomnia.

### 32. Comorbidity in allergic asthma and allergic rhinitis: functional somatic syndromes and psychiatric conditions

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**Background:** The objective of the present study was to approach a better understanding of possible mechanisms underlying allergic reactions. In this respect, central sensitization may be of interest, which has been suggested as a mechanism underlying functional somatic syndromes (FSSs), and appears to be due to dysfunctional inhibition in the rostral anterior cingulate cortex resulting in increased activity in insula when exposed to the stimulus to which the afflicted individual is sensitized. Based on the concept of central sensitization, the present study tested the hypothesis of comorbidity in allergic asthma and allergic rhinitis with diagnoses of FSSs (fibromyalgia, irritable bowel syndrome and migraine) and psychiatric disorders (depression and panic disorder).

**Method:** Data were used from the prospective population-based Västerbotten Environmental Health Study (n=3406). The participants consisted of 164 persons with a diagnosis of allergic asthma and 298 with diagnosis of allergic rhinitis as well as 2876 constituting a reference group without a diagnosis of allergic or non-allergic asthma, allergic rhinitis or atopic dermatitis. All diagnoses were based on self-reports of having been diagnosed by a physician. Odds ratios (ORs) were calculated from binary logistic regression analysis, both crude and adjusted for age and education.

**Results:** Adjusted ORs for all FSSs and psychiatric disorders differed significantly from unity for both allergic asthma (1.87–4.00) and allergic rhinitis (1.76–3.54), with the exception of panic disorder in allergic rhinitis (p=0.076).

**Conclusion:** Overall, the results provide support for the hypothesis of comorbidity in allergic asthma and allergic rhinitis with FSSs and psychiatric disorders. Since central sensitization is likely to underlie FSSs, the present findings evoke the question as to whether central sensitization, enhanced by distress (e.g., depression and panic disorder), is involved also in allergic asthma and allergic rhinitis.

### 33. Medical clearance of patients presenting to the Emergency Department; chasing the elusive neurological and mental state examinations

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**Background:** "Medical clearance" is a term commonly used for the initial medical assessment of a patient presenting with altered mental status, prior to a psychiatric assessment. Good quality history and physical examination have been consistently shown to be the most sensitive tools in the physician's armamentarium, but are they routinely used and of a good standard? We sought to evaluate practice in our own ED in a large general teaching hospital in the centre of London.

**Method:** A cross sectional study design was used. The study population (n=122) consisted of all patients presenting to the ED with mental health problems (defined as self-harm, psychiatric emergencies and people asking to see the liaison mental health team) where a request for medical clearance had been issued. Data were collected in three, one week phases (pre intervention, 1 week and 1 month post intervention). A proforma was devised to extract demographic data, mode of presentation and information about history taking, physiological observations and physical examination. The intervention consisted of consultant led teaching sessions with ED staff focusing on improving the quality of medical clearance procedures for this patient group.

**Results:** The study sample had a male:female ratio of 1.5:1. Common reasons for presentation included deliberate self harm, suicidal thoughts, anxiety, psychosis and confusion. Medical history

was taken in 71% of cases pre intervention, and 74% post intervention. There was no documented physical exam in 25 % percent of cases pre intervention; this fell to 10% post intervention. Frequency of neurological examination remained extremely poor (33% pre intervention and 36% post intervention). No patients had a documented mental state examination pre intervention and this rose to just 13% post intervention.

**Conclusion:** There is much room for improvement with respect to patients receiving a full physical examination as part of their medical clearance. Lecture based interventions were not helpful. The next step is design of a guidance pathway with explicit instructions on what is required during medical clearance.

#### **34. Major self mutilation during an episode of delirium tremens; a cautionary tale**

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**Aims:** Delirium Tremens (DT) forms part of the alcohol withdrawal syndrome and represents a medical emergency. Principal features include dysautonomia, encephalopathy and psychosis. The agitated, hallucinating patient with DT can therefore on occasions be misdiagnosed with substance induced psychosis or schizophrenia. This may result in critical delay in receiving appropriate treatment in a general hospital setting. Hallucinations can be particularly distressing, conferring risk of harm to self or others. Case reports of serious self harm in patients experiencing delirium tremens are uncommon, and reports of major self mutilation are rare. Here we report a case of DT which evolved on a psychiatric inpatient unit, with associated command hallucinations resulting in self inflicted abdominal stab wounds and partial dismemberment.

**Method:** Patient consent was given for this study. Data was obtained from case notes and also directly from interviews with the patient. The patient is a 38 year old male who was admitted to a major trauma centre after stabbing himself in the abdomen with a piece of broken mirror and cutting out approximately one foot of his jejunum whilst an informal inpatient on a psychiatric ward. He did not have any previous history of an affective or psychotic disorder but did consume up to 17 bottles of wine a week. The patient experienced visual and auditory hallucinations, including command hallucinations 3-4 days after cessation of alcohol consumption. He was admitted to a mental health inpatient facility with a working diagnosis of schizophrenia. Following self mutilation, he was transferred to a general hospital setting and a diagnosis of delirium tremens was made. He responded rapidly to chlordiazepoxide.

**Results:** Literature review highlights the uncommon occurrence of reports of major self mutilation during an episode of delirium tremens yet a recent editorial highlighted grave risks associated with it, including suicide and self mutilation (Chick 2015). We sourced 5 similar case reports and a case series but details of mental state were not always reported.

**Conclusion:** The C-L psychiatrist has a key clinical and educational role in highlighting DT as a diagnostic possibility across acute hospital settings where patients present with self harm and symptoms of psychosis.

#### **35. An exploratory randomised controlled trial of Culturally Adapted Manual Assisted Problem solving training (C-MAP) - A post intervention qualitative study**

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**Background:** Suicide is a serious global public health issue ranked amongst the leading causes of death in many countries. In the developing world, suicide rates have increased despite many challenges with reported rates. There has been a gradual increase in the number of reported suicide attempts in Pakistan. The main aim of this qualitative study was to conduct qualitative interviews to understand the phenomenon of self-harm, its antecedents and consequences, and the perception of participants about effectiveness of psychosocial intervention.

**Method:** In-depth qualitative interviews were conducted with 19 women with history of self harm. A total of 9 interviews were conducted with women who did not receive any intervention after self harm while 10 interviews were conducted with women who participated in Culturally Adapted Problem Solving training (C-MAP).

**Results:** The analysis of 19 participants reporting self-harm and suicidal behaviors resulted in the identification of 7 major themes: lack of social support, experiencing poverty, , role gender role, psychological pain, poor coping, self perceived impact of psychosocial problems, impact of self harming and impact of psychosocial intervention and one minor theme i.e., sexual harassment.

**Conclusion:** Intervention based on principles of cognitive behavioural therapy was acceptable and participants reported a positive impact such as a reduction in symptoms of depression and an improvement in problem solving skills.

### **36. Psychosocial Correlates of Self Harm: Perspectives from Pakistan**

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**Background:** Self-harm is one of the significant risk factor for completed suicide therefore it should be addressed for suicide prevention. The worldwide rates of suicide have increased by 60% in the last 45 years, and the 1.8% total global burden of disease attributed to suicide in 1998 is expected to increase to 2.4% by 2020. In Pakistan, self harm and suicide is an under-researched area and epidemiological data are limited because of various social, legal and religious reasons. Therefore the aim of this study was to explore psychosocial correlates of self-harm.

**Method:** Total 221 patients in age range of 16 to 65 years coming to medical inpatients of public hospitals in Karachi were assessed using Suicide Attempt Self Injury Interview (SASII), Beck Scale for Suicide Ideation (BSI), Beck Depression Inventory (BDI) and Beck Hopelessness Scale (BHS).

**Results:** Results indicated that both males and females who attempted self harm were more likely to be young, living in joint family system, had less than 10 years of education. Self harm was more common in single males than single females. Pesticides were more common method of self- harm. Both males and females had high scores BSI, BDI, BHS.

**Conclusion:** These findings have clear implications for self-harm prevention, suggesting that interventions that have shown to be promising in developed countries will need to consider the local context to address the common methods used and the other associated risk factors of self-harm in order to develop culturally appropriate interventions.

### 37. A culturally adapted intervention for prevention of self-harm in British South Asian women: a qualitative study

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**Background:** The qualitative study was part of a larger exploratory trial to test a Culturally Adapted Problem Solving Therapy (C-MAP) in British South Asian women who have a history of self-harm (Husain et al., 2011). The main aim of this qualitative study was to conduct focus groups to; a) Understand the common perceptions about mental distress and self-harm in British South Asians and b) The acceptability of the C-MAP intervention.

**Method:** The study used a qualitative design. A total of three focus groups were conducted in the North West of the UK. The sample represented women with a history of self-harm, members of the British South Asian community and health professionals. The data was analysed using a manual content analysis and indexing technique. The study was part of a larger study for which ethical approval was granted (REC reference number: 08/H1013/6)

**Results:** One of the key findings of the study was the need for culturally sensitive psychological interventions, particularly the acceptability of the C-MAP intervention for British South Asian women who self-harm. In addition, there was a need for training in health professionals to develop key skills to identify and manage self-harm in this culturally diverse group of women.

**Conclusion:** The study has provided key perspectives from health professionals, community members and service users on understanding the complex nature of self-harm. Further research is needed to improve the access to culturally sensitive interventions for British South Asians in the UK.

### 38. Psychiatric outcome in refractory epileptic patients: a comparative 6 month follow-up study in patients who underwent surgery and patients with treatment “as usual” (antiepileptic drugs)

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**Background:** Psychiatric morbidity in refractory epilepsy is frequent and has a negative influence on quality of life. Surgery is proven to be the best therapeutic alternative for treating seizures. However, it is inconclusive with the current evidence, whether surgery, per se, is a risk factor or promotes amelioration of psychopathology. Until now, most studies have been cross sectional with small or heterogeneous groups. Besides, the few prospective studies did not have an identical control group. The present study aims to clarify the role of surgery on psychopathology.

**Method:** We analyzed through a prospective case control study the psychopathologic outcomes of patients with refractory epilepsy comparing those who underwent surgery (n=85) and those who continued with pharmacological treatment (n=68) due to not being suitable for surgery. The assessments were performed during pre-surgical evaluation and at 6 months after surgery. We studied psychiatric change for each group (HADS, SCL-90, SCID), compared differences between groups and also analyzed de novo and remission cases.

**Results:** Surgical group experienced a significant decrease of psychopathology in comparison with the control group. Distress perception of surgical patients also improved while it did not occur in the control group. Patients submitted to operation presented a decrease of depressive and anxiety

symptoms while non-surgical group worsened its anxiety levels. The novo disturbances that appeared after surgery were less frequent than in non-surgical patients. Considering de novo remission cases, we observed significant improvement for anxiety, depression and total symptoms in the surgical group.

**Conclusions** Surgery improves psychopathology in refractory epilepsy through a prospective controlled 6 months follow-up study.

### 39. Self-reported ADHD symptoms in the academic environment

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**Background:** Attention Deficit Hyperactivity Disorder (ADHD) in adults is a recent preoccupation of mental health specialists. This study investigates the self perception of ADHD symptoms in the particular context of adults in the academic environment and the correlations of ADHD symptoms to their expression in childhood.

**Method:** The design of the study was cross-sectional. 267 respondents, aged 17-29 (mean = 19.14, SD = 1.03) (♀ / ♂ = 7.03 / 2.97) completed DIVA 2.0, a validated instrument for the diagnosis of ADHD, comprising 18 items centered on the criteria for ADHD and socio-professional functionality. Current objective academic results were also collected, to evaluate the association between them and ADHD symptoms. Gender differences in reporting ADHD were assessed through *t* tests for independent samples. The associations between ADHD scores in childhood and adulthood and between ADHD scores and academic performance were described through Pearson correlations.

**Results:** 60.7% of participants report current ADHD symptoms ("A" criteria), but only 9.36% fulfill the complete ADHD criteria. 52.43% report having displayed ADHD symptoms in childhood. From those with ADHD symptoms as adults, only 70.37 % had symptoms in childhood. Significant gender differences regarding ADHD symptoms were reported in childhood (48.4% ♀ vs. 61.7% ♂, *t* = 2.03, *p* = .044), which are not met anymore in adults (59.7% ♀ vs. 63.0% ♂, *t* = .504, *ns*). Self-reported childhood hyperactivity scores correlated to current ADHD symptoms in adults (Pearson = .127, *p* = .04). There was a significant correlation between the self-report of ADHD symptoms and the perception of poor functioning in males (Pearson = .305, *p* = .006), but not in women (Pearson = .115, *ns*). No statistical correlation was found between ADHD symptoms and objective academic results (Pearson = -.077, *ns*).

**Conclusion:** The self-reported ADHD symptoms in studied adults were significantly higher than expected. No significant association was found between ADHD and functioning. However, especially in male participants, perception of functioning seems altered, bringing into discussion the possibility of a higher impact of stress in these participants. The lack of correlation between symptoms and objective academic results argues for considering clinical screening for ADHD preferable to self-report in evaluating the impact of ADHD. Further studies are needed to evaluate the true continuity of ADHD symptoms in adults and their impact on daily life.

### 40. Brief behavioural intervention for persisting post-concussional symptoms in young people: Treatment rationale and pilot results

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**Background:** Five – 15 % of patients with concussion experience impairing post-concussional symptoms (PCS) more than 3 months post-injury. Currently, treatment studies are scarce and no evidence-based treatment is available. Existing literature suggest that negative illness perceptions and maladaptive illness behaviours may be involved in the development of persisting PCS.

**Aim:** To develop an early behavioural intervention for young patients (15 – 30 years) with continuing PCS 3-6 months post-concussion, to explore hypothesised mediators, i.e. illness perceptions and illness behaviour, and the overall effect of the intervention in a pilot study.

**Method:** An interdisciplinary intervention programme was developed based on principles from cognitive-behavioural therapy and graded exercise therapy. The primary treatment objective was to reduce PCS and prevent chronification of symptoms by improving negative illness perceptions and decreasing maladaptive illness behaviour. Thirty-two patients attended the pilot study and completed self-report measures before the intervention, post-intervention and 3 months post-intervention. Change after intervention was assessed by Rivermead Post-concussional Symptoms Questionnaire (RPQ) (primary outcome) and measures of emotional distress and quality of life. Hypothesised mediators were measured by the Brief Illness Perception Questionnaire (B-IPQ) and the Behavioural Response to Illness Questionnaire (BRIQ).

**Results:** Primary out-come data were available for 29 patients. Mean age was 23.3 years, and 78 % were women. Based on paired t-test using last-observation carried forward to replace missing values, patients showed a reduction in PCS from 36.1 points before the intervention to 28.5 points 3 months post-intervention ( $p=0.0040$ ). There was no significant change from post-intervention to 3 months post-intervention (0.5 points,  $p=0.76$ ).

Further details on the treatment rationale and on changes of the hypothesised mediators will be presented.

**Conclusion:** Based on uncontrolled pilot data this new intervention programme was associated with a significant reduction in PCS. It may have the potential to prevent chronification of symptoms by improving negative illness perceptions and maladaptive illness behaviours. An RCT is currently performed to compare the effect of the intervention programme with the effect of enhanced usual care.

#### **41. Interpersonal trust in health care: a meta-analysis on observational studies**

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**Background:** Over the past decades, interpersonal trust (trust in the health care professional) has become a prominent subject in the context of medical research and primary care practise. In this context, we examined whether trust in the health care professional is associated with the health outcome of the patient.

**Method:** We conducted a meta-analysis on observational studies. We searched of CINAHL, Embase, MEDLINE and PsychInfo. The included studies had to be empirical, quantitative studies written in English or German, describing a statistical relationship (correlation, odds ratio or event) between trust in the health care professional (measured by a valid and reliable and established trust questionnaire) and a health-related outcome addressing physiological measures (as CD4 cell count, HbA1c), symptoms (e.g. depression, worries, mood), the treatment (e.g. adherence, health promoting lifestyle, satisfaction with treatment) or consequences (e.g. patient satisfaction, health

related quality of life) of a health complaint. Studies that did not indicate whether the outcome was of positive or negative value for the patient were excluded.

**Results:** Of the 5665 identified citations 47 studies met inclusion criteria, comprising 214 014 patients. Overall, we found a small to moderate correlation between trust and health outcome ( $r = 0.24$ ,  $P < 0.01$ ). Analyses revealed a non-significant correlation between trust and objective health outcomes ( $r = -0.02$ ,  $P = 0.52$ ) and observer rated outcomes ( $r = 0.10$ ,  $P = 0.45$ ). With regard to subjective health outcomes a moderate correlation was found ( $r = 0.30$ ,  $P < 0.01$ ). In an explorative analysis, trust in the health care professional was associated with patient satisfaction ( $r = 0.57$ ,  $P < 0.01$ ), health related quality of life ( $r = 0.18$ ,  $P < 0.01$ ) and symptom related outcomes ( $r = 0.13$ ,  $P = 0.02$ ). A small to moderate amount of heterogeneity remained unexplained in most explorative analyses ( $0.09 < \tau^2 < 0.04$ ).

**Conclusion:** Trust in the health care professional is associated with the health outcome of the patient. This is especially the case for more general and subjective (e.g. patient satisfaction and health related quality of life) and less for observer rated and objective health outcomes.

## 42. Describing consultation-liaison psychiatry

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**Background:** Consultation-liaison (CL) psychiatry is a branch of psychiatry that study and treat mental health of patients with other medical or surgical conditions. The assistance between hospitals and health services is heterogeneous and often is not registered. It is important to describe the patient's features in order to know future needs.

**Method:** We made a descriptive analysis of social and demographic variables of the patients who received assistance during 2 months by the CL service of the Hospital del Mar, Barcelona. We used SPSS 1.6 version.

**Results:** 42 patients were analyzed, the average age was 55.1 years. The 61.9% were women. The 47,6% of the sample had not family history of psychiatric illnesses. The 78,6% were not in an outpatient psychiatric follow-up. The 57,1% were in an outpatient mental health follow-up. The 31% of consultations were from Internal Medicine department. The most frequent diagnosis in the CL process was Adjustment Disorder (47.6%) The most frequent priority was preferent (57,1%).

**Conclusion:** It is noticeable the high number of patients were not in an outpatient psychiatric follow-up despite of that approximately the half of the sample were in an outpatient mental health follow-up. The consultations had a wide variability between departments, Internal Medicine department was the most active on this regard. These results have to be interpreted with caution due the current sample size.

## 43. Case report of ECT during pregnancy

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**Background:** Bipolar affective disorder in women is a challenging disorder to treat. It is unique in its presentation in women and characterized by later age of onset, seasonality, atypical presentation, and a higher degree of mixed episodes. Medical and psychiatric co-morbidity adversely affects recovery from the bipolar disorder (BD) more often in women. Co-morbidity, particularly thyroid disease, migraine, obesity, and anxiety disorders occur more frequently in women while substance use disorders are more common in men. Treatment of women during pregnancy and lactation is challenging. Pregnancy neither protects nor exacerbates BD, and many women require continuation of medication during the pregnancy.

**Method:** The aim of our clinical case report is to publish a case of pregnancy which illustrates the use of ECT and the management of bipolar disorder.

**Results:** Case report: A 34 year-old woman who has been diagnosed of bipolar disorder at the age of 19. She has had several depressed phases that included thoughts of suicide, and one maniac episode four years before. Then, she was stabilized with valproat. The patient and her psychiatrist had decided to discontinue the treatment in order to getting pregnant.

She came to our Hospital in the third trimester of pregnancy (30 weeks), she presents a classical maniac episode with psychotic symptoms. The treatment in the emergency department was with haloperidol (until 30 mg per day) and lorazepam. Due to the negative response we recommended ECT.

She received 8 sessions of ECT with the remission of the maniac episode and programmed de cesarean intervention without risks.

**Conclusion:** Despite evidence that electroconvulsive therapy (ECT) is a safe and effective treatment for many psychiatric illnesses during pregnancy, many clinicians and patients are still reluctant to pursue this option, concerned that it will harm the fetus or incur extra risk for the patient. Ultimately, the clinician must weigh the risks to both mother and fetus involved in not treating a woman who suffers from severe psychiatric symptoms against the risks involved in ECT treatment, and facilitate the most appropriate clinical intervention for the individual patient.

#### 44. Consultation-liaison psychiatry: more knowledge, better assistance

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**Background:** Consultation-liaison (CL) psychiatry is a branch of psychiatry that study and treat mental health of patients with other medical or surgical conditions. The assistance between hospitals and health services is heterogeneous. For this reason, the objective of our research is to define the clinical characteristics from our CL service and check out the quality relationship with the applicant service, for improving future assistance.

**Method:** We made a descriptive analysis of clinical variables from the patients who received assistance during 2 months by the CL service from the Hospital del Mar, Barcelona. We got the frequencies and we used the Chi square test for the comparison between variables: diagnosis, appearance in the report and treatment in the report.

**Results:** The sample analyzed was 42 patients. The mean age was 55.1 years. The 61.9% were women. Psychiatric diagnosis was present before the assistance on 57.1% of the patients. The most frequent diagnosis in the CL process was Adjustment Disorder (47.6%) and more than one diagnosis was made in the 14.3%. Near the half of the patients required only primary care assistance after the discharge from the hospital. In the 68.3% of the reports appeared information about CL assistance and the indicated treatment didn't appear in all the reports. Statistically significant differences weren't found in the comparisons.

**Conclusion:** Adjustment Disorder is supposed to be the most common psychiatric diagnosis in our CL psychiatry service, as we found in the reviewed literature. The results reveal that relationships between services can be improved. More studies must be done for completing information in this issue.

#### 45. Nursing students' perceptions of learning through reflection after complex meetings with professional actors who act as psychiatric patients.

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**Background:** To explore the value for nursing students of reflections after meeting professional actors who act as psychiatric patient.

**Method:** For the reflections four of Gibb's original six questions were used, with modifications. The written reflections were analysed with a qualitative content analysis.

**Results:** One theme; Learning through reflexions after complex meetings with four sub-themes; Being touched and feeling empathy, Becoming aware of what knowledge and skills that are needed, Wanting to do good and to have the right answer. Daring to get close and being present, That knowledge comes alive.

**Conclusion:** What as became obvious is that there is no substitute for a human meeting. The gaze and body language of the "patients" made the situations authentic. The nursing students were

touched and realised how difficult this could be, they also realised what they needed to practice and what knowledge they missed.

POSTER SESSION II

**Friday 17 June 17.15 – 1800**

#### 46. Psychosocial assessment of candidates for transplantation (PACT) score as predictor of new episode depression among heart transplant recipients

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**Background:** A psychosocial assessment of transplant candidates is an essential component of transplant evaluation. At Mayo Clinic, we began using the Psychosocial Assessment of Candidates for Transplantation (PACT) (Olbrisch et al. 1989) scale in 2000 as a tool for transplant psychosocial risk assessment. Our primary aim was to evaluate the impact of low PACT score on survival and psychiatric/medical outcome following heart transplant.

**Method:** We conducted a historical cohort study of patients with PACT scores who underwent heart transplant at Mayo Clinic Transplant Center, Rochester, 1/1/2000 to 12/31/2012. The data were abstracted from the EMR. Patients were screened for psychosocial risk at initial transplant evaluation by a psychiatrist; final PACT score is the evaluator's global assessment of candidacy: 0=poor, 1=borderline, 2=acceptable, 3=good and 4=excellent. Patients were followed for survival posttransplant until 12/31/2014; the relationship between PACT (<2 vs. ≥2) and survival was assessed using Cox proportional hazards modeling. The relationship between PACT and new episode depression or anxiety in the first year following transplant, conditional on surviving 1 year, was examined using logistic regression. Associations between PACT and in-hospital length of stay (LOS) and treated episodes of rejection in the first year after transplant were analyzed using linear and logistic regression, respectively.

**Results:** Of 233 heart recipients, 164 had a pretransplant PACT score: 46 (28.0%) were females; 154 (93.9%) were Caucasians; mean ± SD age was 52.7 ± 11.3. There were 99 (60.4%) former smokers and 35 (21.3%) had an Alcohol Use Disorder (AUD) history. Eleven (7%) patients received an initial PACT score <2. Of 164, 153 survived >1 year and of these, 112 had no depression and 127 no anxiety in the year before transplant. Eleven of 112 and 6 of 127 had new depression and/or anxiety, respectively. PACT <2 increased the odds of new depression by 11 fold (OR 11.0, 95% CI: 2.3-51.8, p=0.002) and new anxiety nearly 4-fold (OR 3.8, 95% CI 0.2-29.5, p=0.25). PACT <2 was not associated with differences in survival (p=0.56), LOS posttransplant (p=0.69) or treated episodes of rejection (p=0.37) compared to those with PACT ≥2.

**Conclusion:** In univariate analysis, pretransplant psychosocial variables assessed by the PACT were associated with posttransplant new episode depression at 1-year follow-up among heart recipients and may be associated with new episode anxiety.

#### 47. Case report of psychiatric impact in traumatic amputation and replantation of upper extremity and literature review

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This is a report of young adult female with traumatic amputation of upper extremity following a motor vehicle accident. Patient underwent replantation surgery, where upper extremity was salvaged. Hospital course was significant for multiple subsequent surgeries for revision and washout, coupled with extended stay in the ICU. Psychosomatic medicine was consulted for evaluation of

patient's anxiety in light of this abrupt change in bodily integrity and grueling surgical course with uncertain outcome. Upper extremity transplantation is a relatively recent medical development. We review the limited literature available on this topic.

#### 48. Quality of life in liver transplant recipients: the role of the attachment styles

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**Background:** To explore correlations between attachment styles and quality of life liver transplant recipients

**Method:** 182 patients who received liver transplantation at our center between 1/1/2007 and 6/20/2015 were surveyed. The questionnaire included demographic information, Relationship Style Questionnaire (RSQ), Hospital Anxiety and Depression Scale (HADS) and Short Form Health Survey (SF 36). Model 4 was used for interpretation of the RSQ.

**Results:** 61 questionnaires were returned (response rate of 33.3%). 8 (13.1%) received combined liver-kidney transplantation. 10 (16.4%) had a living donor. 22 (36%) were within one year post transplantation. 45 (73.8%) were male, 48 (78.7%) were Caucasian, 20 (32.8%) had anxiety and 14 (23%) had depression on HADS. 34 (55.7%) of respondents reported a predominant dismissive attachment style (DAS), followed by 24 (39.3%) with secure attachment style (SAS). 4 (9.8%) had a preoccupied attachment style (PAS). Only 4 (6.6%) had a predominantly fearful attachment style (FAS). There were no statistically significant correlations between the attachment style and type of transplant (liver only versus combined liver-kidney), time since transplant, primary liver disease, depression or anxiety. Patients with DAS were more likely to have a history of addiction ( $p=0.03$ ), more likely to score poorly on the physical health ( $p=0.02$ ), fatigue ( $p=0.04$ ) and pain ( $p=0.03$ ). PAS correlated with lower social function ( $p=0.01$ ) and higher level of pain ( $p=0.007$ ). SAS correlated with better social function post transplantation ( $p=0.01$ ).

**Conclusion:** Secure and dismissive were the predominant attachment styles in this group of liver transplant recipients. Patients with dismissive and preoccupied attachment styles tend to have lower quality of life scores. Psychotherapeutic interventions centered on attachment styles may increase the quality of life after liver transplantation.

#### 49. The Impact of anxiety and depression on the suicide ideation and its correlation with clinical characteristics in Korean patients with coronary artery disease after percutaneous coronary interventions: An observational cross-sectional study

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**Background:** This observational cross-sectional study assessed depression, anxiety, suicide ideation and its correlations with clinical characteristics in 135 Korean patients with coronary artery disease (CAD) after percutaneous coronary interventions (PCIs).

**Method:** Anxiety, depression and suicidality of 135 patients with CAD were assessed with subscales of anxiety, depression and suicide ideation of the Personality Assessment Inventory (PAI) after 2 months of PCIs in cardiology intensive unit of Wonkwang University Hospital. Clinical characteristics of subjects were evaluated with chart review.

**Results:** The prevalence of anxiety and depression were 85.2% and 71.9%. Among symptoms of anxiety, emotional anxiety was more prevalent than cognitive and physiological anxiety. Among

symptoms of depression, cognitive depression and emotional depression were more prevalent than physiological depression. Suicide ideation of patients was positive correlated with level of anxiety and depression. The presence of depression were related with age, sex, level of cholesterol, non-use of calcium channel blocker. The presence of anxiety were related with sex, pathological drinking, serum creatinine and non-use of angiotensin converting enzyme inhibitor.

**Conclusion:** The prevalence of anxiety and depression in Korean patients with coronary artery disease after percutaneous coronary interventions were high and frequently associated. Screening for anxiety and depression in patients with coronary artery disease after percutaneous coronary interventions, and psychopharmacological and psychosocial interventions will be needed.

## **50. Patient-targeted feedback to increase the risk perception of physical inactivity in patients with coronary heart disease: The study protocol of a randomized controlled trial**

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**Background:** Physical inactivity is a major risk factor for coronary heart disease and is associated with increased mortality. Still, monitoring and management of physical activity in clinical routine is challenging. Interventions focusing physical activity are mainly based on cardiac rehabilitation and interdisciplinary care structures. International guidelines, however, advocate to target physical inactivity in clinical routine. This clinical trial investigates whether a minimal feedback intervention can increase the risk perception of physical inactivity in cardiac patients.

**Method:** Of 782 patients with coronary heart disease or at least two cardiac risk factors for CHD, we expect 180 patients to participate. Patients will be randomized either into a) the control group and will receive a pedometer only or b) into the intervention group and will also receive a pedometer plus a patient-targeted risk feedback and an individual activity goal based on their personal activity level. Two weeks prior to cardiac consultation, each patient will be send a pedometer. Within the following 14 days, an ecological momentary assessment will be conducted, measuring the time course of physical activity and the interplay with depression, anxiety and somatic symptom load. Patients in the intervention group will be given a written patient-targeted feedback at the cardiac consultation. The primary outcome is the risk perception of physical inactivity at one month follow-up. Secondary outcomes include physical activity as well as depression, anxiety and somatic symptom load at one and three months follow-up.

**Results:** This study protocol presents a patient-targeted feedback intervention that aims to increase the risk perception of physical activity in cardiac patients. In addition, we will analyze the interplay of physical activity with depression, anxiety and somatic symptom load using an ecological momentary assessment.

**Conclusion:** This randomized-controlled trial tests an innovative feedback intervention that could facilitate the monitoring and management of the cardiac risk factor physical inactivity. If the intervention proves to be effective, its dissemination into cardiac routine care appears to be feasible as patient-targeted feedback neither requires interdisciplinary care structures nor extensive health care resources.

## 51. The association between Levetiracetam prescription and psychiatric referral in high-grade glioma patients - a pilot study

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**Background:** Anti-epileptic drugs (AEDs) are routinely prescribed for perioperative seizure prophylaxis in glioma patients. Levetiracetam (LEV) is an effective AED with minimal chemotherapy drug interactions. Behavioural disturbance results in discontinuation in 7% of all patients. Little data exists regarding psychiatric side-effects in the population with Glioma. This study aims to identify any association between LEV prescription & psychiatric referral & change in AED prescription rates over time.

**Method:** A retrospective review was conducted of 92 adult patients with frontal grade III/IV glioma registered with the Australian Genomics & Clinical Outcomes of Glioma (AGOG) database who were treated at Sir Charles Gairdner Hospital (SCGH). This cohort was cross-referenced with SCGH pharmacy & referral databases, state-wide psychiatric information database & medical records hand-searched to identify AEDs dispensed & psychiatric referrals. Pharmacy data was used to compare prescription rates of AEDs over time. Change in prescription rates of AEDs analysed using 2-tailed Fisher's exact test. Association between LEV prescription & psychiatric referral analysed using 1-tailed Fisher's exact test & RR with 95% CI.

**Results:** Of this cohort, 62% were prescribed LEV. 17.1% of those never prescribed LEV were referred for psychiatric assessment compared to 16.1% of those prescribed LEV <6/12 (RR 0.99, 95%CI 0.80-1.23) & 26.9% of those prescribed LEV >6/12 (RR 1.13, 95%CI 0.86-1.50). LEV prescription increased from 42% of AEDs dispensed from Aug 2010–Jul 2011 to 63% from Aug 2013–Jul 2014 (p<0.001).

**Conclusion:** LEV is increasing as a proportion of AED use. In patients with high-grade frontal glioma, LEV is associated with a non-significant trend towards increased psychiatric referral rate. While perioperative seizure prophylaxis is important; clinicians should be aware of potential risks when selecting appropriate AEDs for individual patients. Our study is limited by a small sample size which is being addressed by expansion to a larger scale case-control study.

## 52. May depressed and anxious patients with carcinoid syndrome be treated with selective serotonin reuptake inhibitors (SSRIs)? findings from a case report

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**Background:** SSRIs are considered as the first line treatment for depression and anxiety disorders. However, the use of SSRIs is contraindicated in carcinoid tumor patients.

We present a 56-year old female patient with metastatic carcinoid tumor treated with telotrisat etiprate suffering from depression with comorbid panic and general anxiety disorder which remitted after treatment with escitalopram without important gastro-intestinal side-effects.

**Case Report:** In 2012 Ms. A. was diagnosed with a neuro-endocrine tumor with liver metastases and carcinoid syndrome. She was initially treated with Octreotide Acetate (OA) LAR. In May 2013 she was referred for Peptide Receptor Radionuclide Therapy. In June 2013 the patient developed the first signs of carcinoid heart disease. High doses of OA LAR were combined with short acting OA. In January 2015 the patient started in a Telotristat etiprate study which gave a good control of diarrhea and flushing. In April 2015 Ms. A. was diagnosed with a depressive episode, panic disorder and general anxiety disorder despite being treated with Bupropion 150mg a day for the last 8 months. Bupropion was switched to Escitalopram 5mg. 3 months later, full recovery of the depressive episode and panic and generalized anxiety disorder was obtained under treatment with daily Escitalopram

5mg without any increase in diarrhea, nausea or flushing. Discussion: The development of the depression in patients with a carcinoid tumor may be partly explained by possible tryptophan depletion since the important shunting of tryptophan into 5-HT in the body may result in a relative deficiency of this precursor in the brain. Our patient did not experience no major symptoms such as diarrhea, flushing, and abdominal cramps when treated with low dose SSRI. This could be caused by the additional treatment with telotristat epirate (TE). TE inhibits tryptophan hydroxylase, the rate-limiting enzyme in the conversion of tryptophan to serotonin in the enterochromaffin cells. The molecule was designed not to cross the blood–brain barrier at the intended dose.

**Conclusion:** We report a case of a depressed and anxious patient with a metastatic carcinoid tumor who was successfully treated with low dose SSRIs in combination with Telotristat epirate without important gastrointestinal side effects. Further research is needed to clarify whether the low dose of SSRI's or the additional treatment with Telotristat epirate may have benefitted our patient.

### **53. Dignity Therapy+: A brief psychological and existential Intervention for dying patients and their families. A randomized controlled trial.**

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**Background:** Even though nowadays, there are good palliative care programs, there is still a lack of interventions that specifically address spiritual and existential issues experienced by terminal-ill cancer patients. Dignity Therapy (developed by Chochinov, 2012) is a brief psychotherapeutic intervention that was specifically developed for patients nearing the end of their lives. Dignity Therapy (DT) has been shown to be highly feasible, to increase sense of dignity, to significantly improve quality of life in terminal-ill cancer patients, and to be helpful to their families. However, prior studies have failed to demonstrate a significant reduction of psychological distress, anxiety or depression by use of DT. Particular methodological reasons (e.g. floor effects for depression and anxiety, and measurement issues) might explain this failure of DT to reduce psychological distress in terminally ill patients.

**Objective:** This multicenter study applies DT in a controlled trial design, including only patients with clinically relevant stress levels (HADS  $\geq$  13). This study investigates the feasibility of Dignity Therapy with regard to recruitment and acceptance of this treatment in the context of a hospital-based palliative care program in Switzerland. Furthermore, the object of this study is to test whether Dignity Therapy is likely to increase sense of dignity and quality of life and reduce psychological distress, anxiety or depression in terminally-ill patients, and to determine whether the inclusion of partners/ family members in Dignity Therapy might mitigate psychological distress in both patients and partners.

**Methods** A total of 153 patients (aged  $\geq$  18 years) with a life expectancy  $<$ 6 months, who receive palliative care in 3 different palliative care centers will be randomly assigned to DT, DT+ with partner, or standard palliative care (SPC) in a 1:1:1 ratio. Group differences will be tested by one-way analysis of variance (ANOVA). Intervention effects will be analyzed using mixed models with repeated measurements.

**Hypotheses:** We hypothesize that DT+ will yield greater reductions in psychological distress (HADS) and a greater increase in quality of life in both the patients nearing the end of their life and the patient's partner as compared to the control groups receiving DT or SPC. Further we hypothesize that treatment gains in the DT+ group will be sustained in the long term in partners/family members, i.e. three months after the patient has died.

#### 54. Delusional parasitosis in an HIV+ transgender female

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**Case:** This is the case of a 31-year-old transgender M to F, past medical history HIV on HAART, no formal past psychiatry history, who presented to the ED with abdominal pain and found to have elevated transaminases. Psychiatry was consulted for patient's belief that she was infested with parasites. Over the past 5 months, patient observed tiny white eggs and clear fibers coming out of her scalp, penis, anus, eyes, and lips. She had many excoriations on her skin from where she attempted to squeeze out bugs and fibers. She received multiple medical work-ups at other hospitals and was treated for both lice and scabies with no effect. Patient reported stressed and tense mood, poor sleep due to racing thoughts and skin picking, poor appetite, poor concentration, and feelings of hopelessness. She had stopped going outside and seeing other people, rather spending all day looking in the mirror, picking her skin, and then showering. Patient reported buying "poppers", or alkyl nitrites, off the street in the week preceding presentation and her urine toxicology was positive for amphetamines. She was admitted to medicine for elevated bilirubin and transaminases. Due to the liver dysfunction, consult psychiatry treated her with Ativan 1 mg to target her anxiety and poor sleep, rather than with antipsychotics. By the next day, patient's transaminases started trending down and patient's delusional beliefs became less fixed. She was discharged with Ativan for two weeks and given an outpatient psychiatry appointment.

**Conclusion:** This patient's presentation was most consistent with Delusional Parasitosis vs. Morgellons. Delusional Parasitosis is a rare disorder in which patients firmly believe they are infested with parasites. It is a well-known entity in HIV patients, though typically associated with dementia. Morgellons is similar, but with the delusional belief that inanimate objects, such as fibers, exist within the skin lesions. This disorder is typically treated with anti-psychotics, but in this case, the patient's delusions seemed to dissolve with Ativan. Of course, an amphetamine-induced delusion with skin picking was considered, though the time course of amphetamine use and onset of symptoms did not line up. This case was also complicated by presence of elevated bilirubin and transaminases, which on its own can cause pruritus, which perhaps became distressing and developed into a somatic delusion, or was an unrelated finding secondary to amphetamine use.

#### 55. Psychodermatology: is acne only a skin condition?

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Acne is a multifactorial disorder of the pilosebaceous units. Although the many forms of acne can affect all age groups, it is most common in adolescence, when it can be prevalent in up to 80% of the population. Acne vulgaris is often considered a minor disorder, however, it is important to appreciate that the condition can result in severe psychological and social disturbances. Healthcare professionals often underestimate the adverse effects of acne and may lack an empathetic attitude towards the emotional suffering of their patients. It is important to remember that although acne is not a life-threatening disease, it can cause distress and adverse psychosocial consequences such as depression, poor self-esteem, and social phobia. Body dysmorphic disorder and suicide ideation should also be screened for in patients with low self-esteem and who experience social isolation and constriction of activities. Acne has also been associated with impaired health-related quality of life. This work aims to highlight the importance of acknowledging the psychological effects of acne and providing patients with effective support. Psychological comorbidities, assessment and treatment options are described.

## 56. Psychodermatology: a case study of patient with epidermolysis bullosa

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**Background:** Epidermolysis Bullosa (EB) is a genetically determined disorder characterized by blistering and erosions of skin after minimal trauma.

**Case:** A 60-year old female patient was seen at our outpatient dermatological department in Alcañiz Hospital in Spain. After taking a detailed history, followed by a dermatological examination, the diagnosis of Epidermolysis Bullosa was confirmed. No one had ever told the patient what her diagnosis was so it was necessary to give detailed explanation of treatment options. The patient showed signs of sadness and was very withdrawn and after a few visits the dermatologist asked the psychologist in the team to sit in with him to meet the patient and offer psychosocial support. The patient was born at home, in a small village in the region of Aragon. The family realized their daughter had a problem when her ears were pierced a week after birth. As a child, any fall or bump had dramatic effects on her skin. She recalls having had a very difficult time during adolescence when she became aware of how different she was to others. She retreated from social life and left her house only to go to school. At the age of 22 she decided to “normalize” her life and soon after she met her future husband. Her husband has epileptic crisis and a difficult temperament, not very empathetic towards his wife’s illness or suffering.

The patient’s hands are deformed and she has no nails on hands or feet. She has alopecia in head and pubic area. She is especially worried about her sight as she is shortsighted and has cataracts, which are blinding her considerably. Her main fears are going blind or needing a surgical intervention and not being able to have it because of her illness.

Several visits were scheduled with both the dermatologist and the psychologist. Little by little, the patient gained confidence in the staff and she began to unfold some of her “secrets” and the issues that were causing her suffering and worry.

Some psychological screening tools were used (Symptom Checklist-90-R, Hospital Anxiety and Depression Scale), as well as a dermatology specific quality of life questionnaire (Dermatology Life Quality Index). She had a very impaired quality of life (DLQI=20), screened positive for depression and anxiety, and manifested the following symptoms: loneliness, nervousness, sadness, excessive worrying, fears, desire to cry, headaches and muscular pain.

The patient continues having monthly sessions in the psychodermatology department of the hospital.

## 57. System ACTH – cAMP as a factor of the psychological status changes in chronic viral hepatitis

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**Background:** Liver is known as a multifunctional organ involved in the exchange of vital substances (amino acids, biological amines, hormones, including adrenocorticortopine hormone (ACTH) - the

most important hormone of chronic phase of stress), providing the normal functioning of the nervous system, organs and tissues, promoting survival.

Purpose of the study: To study the activity of the ACTH - cyclic AMP system, as one of the possible factors that influence on the emotional state of patients with chronic hepatitis.

**Method:** The study involved 159 patients with chronic hepatitis (B and C), age from 18 to 60 years. The diagnosis has been established on the basis of complex of clinical and paraclinical data. In all patients were investigated fasting serum ACTH level (Method RIA ACTHK CIS international-kit), cAMP (RIA Amersham UK cyclic AMP essay kit), 30 healthy individuals served as the control group (without pathology of the nervous and endocrine system, of internal organs and family history).

**Results:** It was showed an increase of ACTH level ( $55,79 \pm 4,95$  pg / ml) in chronic hepatitis in contrast to healthy individuals' data ( $37,13 \pm 3,28$  pg / ml,  $p < 0,01$ ). The most significant increase of ACTH was found in women ( $59,95 \pm 4,66$  pg / ml) compared to men ( $46,91 \pm 3,77$  pg / ml,  $p < 0,01$ ), in overweight patients ( $59,06 \pm 3,29$  pg / ml versus normal ( $51,29 \pm 2,29$  pg / ml,  $p < 0,05$ ). The cAMP level in the same groups of patients with CH was higher ( $16,46 \pm 1,42$  pmol / ml) compared to the control group data ( $12,38 \pm 1,03$  pmol / ml,  $p < 0,05$ ). The more significant increase of cAMP was found in women ( $19,54 \pm 1,82$  pmol / ml,  $p < 0,01$ ) versus the values of men. In overweight patients with CH the level of cAMP was smaller ( $13,21 \pm 0,75$  pmol / ml,  $p < 0,01$ ) versus data of normal weight patients ( $17,76 \pm 1,12$  pmol / ml,  $p < 0,01$ ).

**Conclusion:** The received results indicate a hormone disbalance between hormone activator - ACTH and cyclic nucleotide AMP (second messenger of hormonal activity of liver cells) in chronic hepatitis. These changes confirm the existence of prolonged chronic stress in patients with CH of viral etiology, which certainly affects the emotional status of the patient. Chronic virus-mediated stress activates ACTH-cyclic AMP system, changing the psychological status, especially in women and overweight individuals.

## 58. Psychopathology in irritable bowel syndrome: meta-analysis of observational data

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**Background:** Psychopathology is widely recognised as a feature of irritable bowel syndrome (IBS). This quantitative synthesis of existing literature evaluated how strong associations are between IBS and psychopathology, and how their magnitude varies across types of psychopathology and study.

**Method:** Meta-analysis of studies assessing psychopathology (using validated measures) in people with IBS relative to a comparison group. We searched bibliographic databases, hand-searched references, and contacted authors to obtain unpublished data. Data on study methodology, quality and psychopathology outcomes was extracted systematically from all studies. Random effects meta-analysis was used to quantitatively synthesise results across studies.

**Results:** 200 papers were included providing data on up to 314,128 IBS participants and 1,164,724 comparison group participants. The odds of having a psychiatric disorder were 3.42 times higher in the IBS than comparison group participants (95% CI 2.47-4.73), 3.00 times higher (95% CI 2.60-3.47) for anxiety disorders, 2.41 (95% CI 2.27-2.57) for depressive disorders, 3.37 (95% CI 3.11-4.63) for somatic symptom and related disorders, 2.28 (95% CI 1.79-2.89) for trauma and stressor-related disorders, 2.51 (95% CI 2.38-2.65) for bipolar disorder, 2.03 (95% CI 1.5-2.64) for psychosis, 1.75 (95% CI 1.41-2.16) for obsessive compulsive and related disorders, and 1.34 (95% CI 1.10-1.64) for substance-related and addictive disorders (all  $ps < 0.01$ ). The odds of having an eating disorder or dissociative disorder were not significantly higher in IBS. Heterogeneity within each analysis was significant ( $p < 0.05$ ), moderate ( $I^2$  values 42.2%-98.5%), and not well explained by methodological factors such as recruitment site, IBS diagnostic method, gender, or whether participants developed IBS post-infection.

**Discussion:** We found robust evidence for heightened psychopathology in IBS. Effect sizes were in the small to moderate range suggesting that psychopathology is not a universal feature of IBS. Certain types of psychopathology (e.g. anxiety and somatic symptom disorders) are more strongly associated with IBS than other conditions (e.g. psychosis and obsessive-compulsive disorders) which are nonetheless associated with IBS. Factors hypothesised to influence rates of psychiatric disorder in IBS did not fully explain the substantial variance in psychopathology ORs between studies. These findings have implications for biopsychosocial models of IBS.

## 59. Collation of one's feeling of health and stress

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**Background:** Taste disorders are adverse effects of various diseases (zinc deficiency) and medicines and are frequently reported in the field of otolaryngology and dentistry. Taste disorders are seen mainly among elderly people over the age of 65 years. However, the possible existence of a latent taste disorder has been pointed out. On the other hand, most recently, a taste disorder has been reported to occur in younger people due to the nutritional imbalance caused by an irregular dietary life, intake of food additives, and so forth. Early detection of a taste disorder and its treatment is considered to be important. Thus, based on the findings of a tool assessing one's self-consciousness of one's own health, the Japanese version of the GHQ-30, a taste test, and a test of sense of coherence (hereinafter SOC), the author reports the correlation between self-perceived health and stress.

**Objective:** The author requested junior students of a certain women's college to participate after explaining the study goal, to examine if one's self-perceived health is correlated with stress. The author conducted the Survey on Daily Life, a nutrition survey, the Japanese GHQ-30, an SOC test, and a taste test. Finally, 27 subjects (average age: 21 years) agreed to participate in the surveys; however, the final sample comprised 25 valid participants as one subject who did not participate in the taste test and another who reported of suffering from a disease were excluded from the study.

**Method:** 1. In "the everyday life investigation", the participants answered questions regarding health conditions, whether they were taking oral medicine, dinner time, sleep, menstrual period, menstrual cycle, part-time job, tooth brushing, height, weight, BMI, temperature, age, sports activities, etc. 2. The "GHQ-30 for Japan" is a questionnaire developed in 1978 by D. P. Goldberg and published as a Japanese edition by Nakagawa et al and Nihon Bunka Kagakusha. This includes questions on six items: (A) tendency to common disorders, (B) physical symptoms, (C) sleep disorders, (D) social action disorders, (E) uneasiness and dysthymia, and (F) suicidal feelings or depression. 3. SOC is a major concept in salutogenesis, which was advocated by Antonovsky. Yamazaki et al. examined its English scale that was developed in 1987, tested its reliability and validity on general adults in 1997, and subsequently translated it Japanese (1999). The scale consists of 29 items, 11 of which are on comprehensibility, 10 on manageability, and 8 on the sense of meaningfulness. The responses to the items are made on a 7-point scale, and the total score corresponds to the SOC score. In other words, according to Antonovsky, an individual is likely to cope with tensions generated by various stressors by mobilizing internal resources such as physical constitution and external resources such as social support. Comprehensibility, manageability, and sense of meaningfulness may be taken into consideration in developing the ways to cope with stress. 4. The taste test was conducted using a filter paper disk which has a test paper to quantitatively and qualitatively evaluate taste ("Taste Disk," Sanwa Kagaku Kenkyusho Co., Ltd.). Solutions with 4 basic tastes, i.e., sweetness, saltiness, sourness, and bitterness, were drop-immersed in each filter paper (diameter: 5 mm) with 5 stages of concentration gradients. The stimuli were applied, in an ascending order of concentration, on the bilateral side of the tongue tip (domain of chorda tympani) or of the soft palate (domain of greater

petrosal nerve), for 2–3 seconds, and the subjects were asked to discriminate each of them. When the participants could not identify the taste or gave a wrong answer, the test was repeated with a disc of higher concentration until a right answer was provided. This test was performed approximately  $\geq 3$  hours after breakfast (between 11:00 a.m. and 12:00) in a room at 25°C right after the participants rinsed the oral cavity with water. For the scale to evaluate taste threshold, 1–5 points were assigned to the 5 concentrations, in an ascending order. In case of inability to discriminate the taste even with the maximum concentration, 6 points were awarded.

**Results:** The average score of the Healthy group on the “GHQ-30” was  $7.375 \pm 5.86$ , while that of the Unhealthy group was  $14.9 \pm 7.75$ , with a significant difference of 5% ( $p < 0.005$ ). Similarly, with reference to the subscale scores of both groups, significant differences were observed in 3 items: “General Disease Trend” ( $p < 0.005$ ), “Somatic Symptoms” ( $p < 0.005$ ), and “Anxiety and Dysthymia” ( $p < 0.05$ ). Additionally, in terms of the SOC scores, significant differences were observed in “Comprehensibility (co)” and “Manageability (ma)”, while no significant differences were observed in “Sense of meaningfulness (me)”. Furthermore, for the taste test, no significant differences were observed in the identification of “Sweetness”, “Saltiness”, and “Sourness”, while significant differences were observed in the identification of “Bitterness” ( $p < 0.05$ ).

**Conclusion:** It is evident that one’s sense of health is predominantly comprehended physically (General Disease Trend, Physical Symptoms), and then mentally (Anxiety and Dysthymia). Further, as compared with the Unhealthy group, the Healthy group may comprehend a physical change more quickly and may take preventive measures. Additionally, even if an abnormal condition is confirmed, the Healthy group may not tend to fall into pessimism and may rather assume a future-oriented stance. Moreover, no differences were found between the groups in terms of the taste examination for “Sweetness”, “Saltiness”, and “Sourness”, while the average value for “Bitterness” was found high in the Unhealthy group as compared to that in the Healthy group. It may be presumed that, as compared to the Unhealthy group, the Healthy group may be more sensitive to “Bitterness”. Taste disorders have been found to be particularly common among young females with dietary problems. This suggests that, their lack of sensitivity to “Bitterness” may indicate their state of stress.

## 60. Refinement and revalidation of the demoralization scale: The DS-II

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**Background:** Demoralization is a maladaptive coping response that presents with hopelessness, helplessness, and loss of meaning and purpose. The Demoralization Scale (DS) was initially validated in 2004 to enable measurement of demoralization in advanced cancer patients. Subsequent limitations indicated the need for psychometric strengthening. The present study aimed to refine and revalidate the DS to form the DS-II.

**Method:** Palliative care patients ( $n = 211$ ) completed a battery of questionnaires, including a revised version of the 24-item DS and measures of symptom burden, quality of life, depression, and attitudes toward end-of-life. Exploratory factor analysis and Rasch modeling were used to evaluate, modify, and revalidate the scale, and provided information about dimensionality, suitability of response format, item-fit, -bias, and -difficulty. Test-retest reliability was examined for 58 symptomatically stable patients at five-day follow-up. Spearman’s rho correlations were used to assess convergent validity. Mann-Whitney U tests with calculated effect sizes were used to examine discriminant validity and determine the minimal clinically important difference (MCID). Cross-tabulation frequencies with a chi square analysis were employed to examine discriminant validity with major depression.

**Results:** Exploratory factor analysis supported a 22-item, two-component model. Separate Rasch modeling of each component resulted in collapsing the response option categories, from a 5-point to 3-point Likert scale, and item removal. Both final 8-item subscales met Rasch model expectations. The DS-II demonstrated internal consistency (Meaning and Purpose subscale:  $\alpha = 0.84$ ; Distress and Coping Ability subscale:  $\alpha = 0.82$ ; Total:  $\alpha = 0.89$ ) and test-retest reliability (ICC = .80). The DS-II demonstrated convergent validity with measures of psychological distress, quality of life, and attitudes toward end-of-life. Discriminant validity was demonstrated, as (1) the DS-II differentiated patients with different functional performance levels and high/low symptoms, with a difference of 2 points on the DS-II between groups considered clinically meaningful; and (2) co-morbidity with depression was not found at moderate levels of demoralization.

**Conclusion:** The DS-II is a psychometrically sound and appropriate measure of demoralization. Given our revalidation and simplification, the DS-II is an improved and more practical measure of demoralization for research and clinical use.

## 61. Anomalous Perception of Activity Levels in Adolescents with Chronic Fatigue Syndrome (CFS/ME)

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**Background:** Do adolescents with CFS/ME and their parents judge the adolescents' levels of activity more or less accurately compared with healthy adolescents and their parents? Further, how do desired and expected levels of activity in the future compare for CFS/ME individuals and for healthy individuals, and for their respective parents?

**Method:** A group of 19 CFS/ME participants and a group of 19 age-matched healthy control participants took part in the study. Mean age for both groups was 14 years. Both groups of adolescents wore an activity monitor for three days, from getting up in the morning until going to bed at night, in order to measure objectively their amount of activity. Subjective levels of activity were measured on a visual analogue scale. Mood and fatigue levels were monitored using standard measures.

**Results:** Objective measures of activity level did not differ significantly between the CFS/ME group and the healthy controls. In contrast, subjective ratings of activity level were significantly lower both for CFS/ME adolescents and for their parents than for healthy adolescents and their parents, respectively. This difference for adolescents with CFS/ME appears to be due to their elevated perceived fatigue rather than their elevated levels of anxiety or depression. Further, the desired future activity levels were significantly higher than the expected future activity levels in the CFS group for both adolescents and their parents, but this was not the case for the healthy group.

**Conclusion:** There was no significant difference in the objective measure of activity between the CFS/ME and healthy adolescents. Thus elevated levels of fatigue reported to clinicians may not directly reflect physical activity. Under-perception of activity levels and the asymmetry between desired and expected levels of future activity could contribute to a feeling of ill-health in the CFS/ME group and may play a maintaining role in the disorder. From a clinical perspective, supplementing self or parental report by objective activity levels may be useful, as may also be addressing expectations of future levels of activity among the CFS/ME adolescents.

## 62. Children with depression

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**Background:** Prevalence of depressions in children, difficulties in its diagnosing, treatment and rehabilitation as well as social medical prognosis are one of the essential problems of present-day medicine.

**Method:** The study group included 165 children with depression. Study design: clinical psychopathological; psychological: CDRS-R test, structured psychological interviews, Luscher's test, project drawing tests; neurophysiological: EEG and HRV (heart rate variability) multidimensional linear and nonlinear tests; serotonin, cortisol, and melatonin measurements;

**Results:** Our study enabled the authors to develop a method of diagnosing anxiety in children with depression, based on the determination of the intensity of the symptoms of anxiety and depression, integration of the information, obtained from the projective drawing tests ("Ability to adapt to critical situations" and "I and my disease") which reflects personal anxiety, depressive tendencies, alarm indices according to EEG and HRV data. The diagnostic index "Coefficient of pronouncedness of the anxiety and depression indices" has been proposed to reveal the expression of the anxiety and depression symptoms. It is calculated as the sum of scores: a CDRS –R depression test, the level of anxiety according to the projective tests information, and an anxiety index according to the EEG and HRV data.

**Conclusion:** the technology for diagnosis of anxiety in children with depression makes it possible to single out the informative markers of the unfavorable course and recurrent depression in children and to provide the quality of social functioning.

## 63. Diagnostic technology applied for predicting depression in children

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**Background:** The mathematical model is intended for the clinical diagnosis of the depression types for children.

**Method:** The study group included 125 children with depression. A discriminant function method with the analysis of the anamnestic, clinical - psychopathological, somatoneurological, biological, psychological, some features of the cerebral neurodynamics and heart rate variability, and social register-blocks were used with the subsequent encoding of quality and quantity parameters of all the blocks [Byuyul A., 2001, Medik V.A., 2007]. Statistical data processing has been carried out using the SPSS 17.0 application package with the Student's t-test.

**Results:** Calculation of the diagnostic coefficients by a discriminant function method made it possible to reveal some clinical signs for the diagnosis and differentiation of the depression variants: infantilism, mood instability, phobias, reduced activity, decreased memory and attention (unstable type), excitability, anxiety, somatic complaints, and self-underestimation. The significance level is 0.0001 ( $P < 0.001$ ). A territorial map has been invented for the depression differentiation as regards behavior, anxiety, phobias, asthenia, and somatic state of children on the basis of the values of both discriminant functions.

**Conclusion:** The developed mathematical model classifies correctly 95.8% of our patients with different typological variants of depression. The worked out information system for the definition of depression in children allows the specialists to improve the quality of medical maintenance of children, suffering from affective pathology.

#### 64. Psychopharmacological therapy of adolescents with anorexia nervosa and recurrent depression

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**Background:** skillful dissimulation of the true causes of fasting in adolescents leads to diagnostic errors and delayed adequate therapy. Patients of the kind are in the field of vision of psychiatrists within 1.5-2 years after the disease onset, as a rule at the stage of an expressed cachexia that requires immediate hospitalization and therapeutic intervention.

**Method:** the study design includes clinical psychopathological, somato - neurological, and psychological methods for examination of 54 adolescent girls, aged 12-14, with a recurrent depression, as well as the factors, which determine disorders in alimentary behavior (anorexia nervosa) in teen-agers. Psychological tests employed in the study are as follows: Children's Depression Rating Scale Revised (CDRS - R), Columbia - Suicide Severity Rating Scale (C-SSRS), and Mendelevitch - Yakhin Scale to establish a neurotic state.

**Results:** in all adolescent girls with anorexia nervosa, included in the study, depressive disorders were present in puberty. Behavioral syndrome and an aggressive vulnerability prevailed in the structure of depression. Cognitive component was represented in the form of an unstable type of poor memory and a decreased rate of sensorimotor reactions. Episodic recurrent attacks of bulimia have also been registered in the medical history of our patients. Practically all patients with depression and anorexia nervosa ignored physical symptoms of the disease. The level of psychological parameters, namely: asthenia, anxiety, depression, vegetative and phobic disorders was minimal. The profile of a neurotic state level corresponded with the "plateau" configuration, which complicated greatly the diagnosis of affective pathology. Our model of therapeutic intervention included: behavioral intervention, 1% Semax neuropeptide (one month course according to the schedule) . Therapeutic neuroplasticity, multimodal effect, and a disease -modifying therapy effects in short terms provide regression of emotional-cognitive rigidity in adolescent girls with anorexia nervosa.

**Conclusion:** In adolescent girls with a recurrent depression anorexia nervosa has specific features that require early differentiation, and neurodegenerative therapy.

#### 65. Neuropsychiatric side-effects of long-term Efavirenz use

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**Background:** Aim To investigate the longer-term neuropsychiatric side-effects of Efavirenz in our select patient cohort so as to help inform patient care. Efavirenz, a non-nucleoside reverse transcriptase inhibitor (NNRTI) used for the treatment of Human Immunodeficiency Virus (HIV) can cause neuropsychiatric side-effects in up to 50% of people and these are said to mostly resolve by six months. The 2015 British HIV Association guidelines no longer recommend Efavirenz in its first-line treatment regimens and since 2012 have cautioned its use in those with a psychiatric history. However, there is lack of clarity regarding the prevalence and monitoring of longer-term neuropsychiatric side-effects in the cohort already established on Efavirenz. In Edinburgh's Regional Infectious Diseases Unit (RIDU), since 2012 there has been a drive by the HIV integrated mental health service to recommend changing Efavirenz based treatment regimens in a cohort of patients on account of its psychiatric morbidity.

**Method:** This retrospective cohort study was carried out from April-July 2015. A list of all patients who had been taken off Efavirenz between 15/08/12 and 16/12/2014 for whatever reason was sourced from our department's database to give a total of 50 patients. Information on a number of parameters concerning mental health status and Efavirenz use was gathered from psychiatric and medical case notes, and analysed using Microsoft Excel.

**Results:** 42 out of 50 patients (84%) who were taken off Efavirenz had neuropsychiatric side-effects of sleep, mood and anxiety symptoms on long-term Efavirenz prescription. Of these:

- 48% had no previous psychiatric history.
- 29% required psychotropic medication to be prescribed for the first time ever whilst on Efavirenz.
- 86% were on Efavirenz for more than 1 year and 41% remained on it for 5 years or more (range 1y2m – 14y7m) before it was changed.

**Conclusion:** Neuropsychiatric side-effects remain problematic even for patients established on Efavirenz for many years. We recommend regular monitoring of sleep, mood and anxiety disorders and a low threshold for switching from Efavirenz to better tolerated newer alternatives.

## 66. Biopsychosocial anamnesis using the intermed SELF ASSESSMENT - IMSA

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**Background:** As any experienced health care professional knows, patients often have a combination of medical, psychological and / or social problems. This may impede treatment and recovery of both medical and psychological conditions.

**Method:** By mapping biopsychosocial care needs, an effective multidisciplinary care program for complex patients can be designed. To efficiently identify biopsychosocial care needs, there has recently been developed a written self-assessment questionnaire, the INTERMED Self Assessment (IMSA), based on the existing INTERMED interview (IM).

**Results:** IMSA validation study: 850 in and outpatients from 5 European countries completed the IM and IMSA. Feasibility, reliability (Cronbach's alpha 0.80; intraclass correlation coefficients of IMSA with IM .78 [95% CI .75-.81]) and validity of the IMSA were satisfactory (convergent validity of IMSA with mental health [SF-36 subscale and HADS] and medical health [CIRS]; discriminant validity with quality of life [EQ-5D]; Spearman's rank correlations -.65, .002, .28 en -.59 resp). The IMSA predicted future health care use and quality of life (see table). Results were comparable between hospital sites, in and outpatients and age groups.

**Conclusion:** The IMSA is a valid, generic and efficient method to determine biopsychosocial complexity of patients. The IMSA shows how the patient evaluates his own health and his relationship with the health care system. The IMSA is therefore suitable to use in conversation with the patient and to formulate care plans that add value to the patient and his quality of life. The IMSA is useful in various levels of health care, both in somatic and in mental health care, and is freely available.

## 67. Patient perspectives of an interdisciplinary pain rehabilitation program

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**Background:** Chronic pain is a major public health concern, and associated with high rates of disability and healthcare costs. In the United States, rates of opioid prescriptions for chronic pain have been exceedingly high despite lack of evidence for their long-term use. Alternately, research supports the efficacy of biopsychosocial approaches to pain management, including comprehensive pain rehabilitation programs. Despite this, these treatments remain underutilized and significant barriers exist, including physician and patient perceived helpfulness and acceptability of these interventions. In response, the current study examined patient perspectives following participation in an interdisciplinary rehabilitation program with well-documented successful treatment outcomes in several published studies. The primary goal of this research was to understand what aspects of treatment patients found helpful, which can inform conversations about these interventions with patients.

**Method:** Patients included 470 adults with treatment refractory chronic pain who enrolled in a 3-week comprehensive pain rehabilitation program and completed a patient feedback survey at discharge. This sample represents 94% of patients who completed the program during the study time period. Patients were asked to respond to the following question: "What are three of the most important pain management tools/skills you have learned?" (open-ended). Responses were coded by two independent raters.

**Results:** Overwhelmingly, patients endorsed breathing and relaxation strategies as the most helpful skill learned to manage chronic pain (85%), which was followed by moderation and/or modification (47%), physical therapy, exercise, and/or stretching (39%), and cognitive therapy (24%). No patients remarked that medication use was one of the most important treatment components, and the majority of patients tapered off of opioid pain medications during the course of the treatment program.

**Conclusion:** There is a need to integrate behavioral pain management strategies in chronic pain treatment, rather than as an adjunctive recommendation. This is consistent with patient-centered and evidence-based approaches, and is supported by patients' own perspectives and experiences in the current study.

## 68. Alcohol and Other Drug team in a CL service - a model for collaborative care

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**Background:** We aim to improve timely and comprehensive mental health care to Dual diagnosis in-patients on general wards in a Tertiary hospital.

**Method:** We have developed a collaborative approach to managing patients requiring Psychiatric and AOD input. Referral criteria and pathways have been agreed. Patients are triaged by the nursing team, and discussed at a daily meeting with the CL team. This enables the multidisciplinary team to provide a multifaceted assessment. Patients are followed up as out-patients if required, or referred to appropriate Community services.

A referral database (Excel) has been maintained from the time of setting up the service, and has been collated at 12 months.

**Results:** The 2 teams see an average of 260 patients each month. Response times are within 24 hours, and include a standardized comprehensive mental health assessment and risk assessment document. Detailed information about sources of referral, response times, ICD Diagnostic codes and follow up arrangements are discussed.

**Conclusion:** Integrated psychiatric care for medical and surgical patients with co-morbid substance use provides a patient focused and effective model of health care delivery in a General Hospital.

#### **69. The Techniques for Overcoming Depression Questionnaire: Mokken Scale analysis, reliability, and concurrent validity**

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**Background:** The Techniques for Overcoming Depression (TOD) questionnaire assesses the frequency with which patients being treated for depression use cognitive-behavioral techniques in daily life. This study examined its latent structure, reliability and concurrent validity.

**Method:** The TOD was administered at the initial and final treatment sessions in three trials of cognitive behavior therapy (CBT) (combined n = 260). Exploratory factor analysis and Mokken scaling were used to determine its dimensionality, and sensitivity to change and concurrent validity were also assessed. A mixed model predicted depression outcomes.

**Results:** The TOD is unidimensional, both at the initial evaluation (H = .46) and the end of treatment (H = .47). It is sensitive to change and the total score correlates with therapist ratings of the patient's socialization to CBT (r=.40, p<.05), homework adherence (r=0.36, p<0.05), and use of cognitive-behavioral techniques (r=.51, p<.01). TOD scores were associated with post-treatment depression scores in two of the trials (p<.01 in both analyses).

**Conclusion:** The TOD is a unidimensional, reliable, valid, and clinically informative measure of self-reported use of cognitive-behavioral techniques for overcoming depression.

#### **70. Prevalence of stress, its determinants and coping strategies among Saudi medical consultants**

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**Background:** Aims: To determine the perceived stress among consultants in Saudi Arabia and its associated risk factors, including personal and work-related stressors, as well as coping strategies and the available plus wanted resources to cope with this stress among medical consultants in kingdom of Saudi Arabia.

**Method:** A cross-sectional study of all medical consultants registered at the Saudi Commission for Health Specialties, conducted between February and March 2015. We used a self-administrated questionnaire that included socio-demographic characteristics, associated other risk factors, including personal and work-related stressors. In addition, the authors assessed the likelihood of stress with the perceived stress scale (PSS) and stress-coping strategies using the 28-item brief coping scale (BCS). questionnaire sent using Perceived Stress Scale -10

**Results:** 582 consultants completed all the study scales. The mean age of the participating consultants was 46.9±7.9 years. They were composed of approximately 71% males, 56% Saudi, and 93% married. The mean Perceived Stress score was 17.65±5.36 represented approximately 44% of the test maximum score while 33.8% had PSS score ≥20. Out of the socio-demographic and clinical characteristics, stress level was significantly associated with younger age, female gender and Saudi nationality.

Consultants with the highest stress level had the highest maladaptive stress-coping scores. Perceived stress had significant negative correlations with the scores of active coping, positive reframing, acceptance, religion, and overall adaptive stress-coping strategies. Overall maladaptive stress-coping

strategies were highly used among younger age, females, Saudi, non-married, those who had psychiatric illness, and those who sleep less than 6 hours per day.

## **71. Maternal depression and the role of psychosocial intervention: perception of community health workers in Pakistan**

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**Background:** Low income countries have a critical shortage of health professionals. In countries such as Pakistan, Community Health Workers (CHWs) can play an important role in improving access to health care services and hence improve health outcomes. To explore the efficacy of a training program; Learning Through Play Plus, a combination of Learning Through Play (LTP) and Thinking Healthy Program (THP) on knowledge and attitudes of CHW's regarding child development, maternal depression and Cognitive Behaviour.

**Method:** A qualitative approach was used to explore experiences of CHWs whodelivered the intervention. Three-day training was provided to 216 CHWs on LTP and THP. Trained facilitators conducted focus groups before and after the training to explore their prior knowledge and expectations. A semi-structured topic guide was developed for this. All the focus groups were audio-recorded. The data were analysed using framework analysis principles.

**Results:** Four key themes emerged from the focus groups; the psychosocial context these women live in (poverty, work-overload, interpersonal conflicts, lack of support from family, lack of awareness of depression and scarcity of mental health services) CHWs perception of depression (role of negative thoughts in depression), the impact of maternal depression on children and the impact of training for CHWs (improvement in CHWs knowledge related to children).

**Conclusion:** Training CHWs improves their knowledge about child development and psychological therapies. This can contribute to improving access to maternal health care services and improving child development outcomes.

## **72. Is there a preference for exuberant or meditative music for the hypertensive and coronary patients?**

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**Background:** The selection of musical pieces for music therapy is dependent on the musical preferences of the patients and these may be related to their personality traits.

**Objectives:** To verify hypothesis if patients with hypertension and coronary artery disease having high level of some traits in the sphere if aggressivity, anxiety and depression could show a link between these traits and their preference for a particular tempo and atmosphere of the heard music.

**Method:** In a group of 63 patients with hypertension and coronary disease versus 63 patients with other diseases without cardiac co morbidity it was applied psychological tests: (DCPR) type A behavior test and DASS 21 (anxiety, stress, depression) and aggressivity scale. All patients listened to music with different atmosphere and tempo (fast and exuberant versus slow and meditative).

Musical pleasure was evaluated by marks from 1 to 10 and averages were correlated with scores on psychological tests.

**Results:** Meditative music was preferred by patients with high scores for both irritability and type A-patients. Music, Regarding to the aggressiveness, elevated anger scores in cardiac and non-cardiac patients were correlated with rejection of both kinds of music (meditative and exuberant), while increased hostility was correlated negatively only with exacerbated music for the cardiac.

**Conclusion:** The multitude of correlations between psychological traits and musical preferences of the two lots require a specific evaluation of musical preferences of cardiac patients and non-cardiac patients, but is worth mentioning that cardiac patients with increased level of hostility require prudent use of music therapy.

### **73. Art therapy for patients in acute psychotic episodes**

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**Background:** Art therapy (AT) has a long tradition for the understanding and the treatment of patients with severe mental disorders and group art therapy has become a common adjunctive intervention in hospital settings. The development of art therapy was inextricably linked to the treatment of psychotic patients, which on the one hand can be seen as a consequence of the long-standing interest in their creative expressions. The relationship between the patient/creator, the therapist and the artifact allows a finely nuanced regulation of interpersonal contact and intensity. Art therapy has been considered particularly helpful to patients who are unable to express their inner life verbally - may it be because of its 'abnormal' or 'unspeakable' contents, formal thought disorder, alexithymia, or fear of being overwhelmed by emotion. Art therapy in psychotic people can help to restore orientation and structure within internal and external experiences. Art therapy might, like any other psychotherapy, but even more so through the reflection of images and artifacts, help to recover mentalising function in psychosis by promoting the formation of mental representations of thoughts and feelings and to develop a "language for mental content which supports mentalisation". Purpose: Study aimed to evaluate the feasibility of psychodynamic art therapy for the treatment of patients with schizophrenia, and the efficacy of this intervention during acute psychotic episodes.

**Method:** Thirty-six inpatients of Center for Mental Health (M. Asatiani Research Institute of Psychiatry) with ICD-diagnoses of schizophrenia (F20.0-F20.9) age between 20-60 were randomised to either 12 twice-weekly sessions of psychodynamic group art therapy plus treatment as usual or to standard treatment alone. Art therapy was administered in 12 sessions of 90 minutes for 6 weeks. Groups included between 3 and 6 patients. At 12 weeks, 55% of patients randomised to art therapy, and 66% of patients receiving treatment as usual were examined. The setting was a room designed as an art studio in the clinic. Primary outcome criteria were positive and negative psychotic and depressive symptoms. All patients gave written informed consent. No patients who were unable to consent were included. In addition, legal representatives of patients, if present, were informed about study participation. Scales used: 17 – Item Hamilton Rating Scale for Depression (HRSD) for depression and Scale for the assessment of negative symptoms (SANS). Exclusion criteria were any other psychiatric disorder apart from schizophrenia, relevant use of alcohol or illegal substances, organic brain disease or severe somatic disease impairing cerebral function, inability to give informed consent, acute suicidal intention and aggression.

**Interventions:** The approach was non-directive – patients could choose to create whatever they wanted and use any available material they liked. They were encouraged to find their own image at their own pace. Interventions by the art therapist aimed at supporting the art process and helping to understand the image. The last 30 minutes of a session were reserved for a shared viewing and reflecting on the images. Each patient was asked if he/she wanted to present his/her image and to talk about it. Other patients were invited to comment and share their observations and ideas. If a patient did not want to share his image, this wish was respected.

**Results:** With post-treatment and follow-up scores of SANS and HRSD patients who had received AT had a significantly greater mean reduction of positive and negative and also depressive symptoms at

12-week follow-up than patients treated as usual. The significance of the group difference in negative symptoms at 12 weeks was reduced to a trend. Social functioning was significantly higher in the AT group. There were no significant interactions between intervention group and gender.

**Conclusion:** Evidence on the efficacy and effectiveness of AT in patients with schizophrenia is far from being conclusive and benefits might be limited to a subgroup of patients. Results of this study suggest AT can be implemented in routine hospital settings for patients experiencing acute psychotic states. With all due caution, findings from this psychodynamic AT in acutely psychotic inpatients prove the feasibility of similar projects and point to a possible positive effect of the intervention on psychotic symptoms and psychosocial functioning. These preliminary results must be substantiated by further independent research.

#### **74. About the sensitivity and reliability of practical assessment of communication skills**

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**Background:** Communication skills are an essential competence of physicians. Since these skills have a strong behavioral component, their assessment should include practical test formats like objective structured clinical examinations (OSCEs). However, measurement problems like ceiling effects and insufficient reliabilities of these practical formats have been reported when assessing communication skills.

The present study sought to address the presence and severity of these measurement problems regarding communication skills in comparison with other, non-communicative practical skills. To this end, psychometric characteristics of the assessment of communication skills were compared to those of (other) practical skills within the OSCEs conducted in internal medicine at the University of Heidelberg.

**Method:** Data of OSCEs conducted from summer 2013 to summer 2015 (5 semesters) with a total number of 843 students were used. In each semester, 140-170 students were examined by 4 different OSCEs, each including 10 stations. These stations either assessed communicative or other practical skills or both. The subtasks of the OSCEs were classified according to whether they aimed to measure communicative and/or other practical skills and test quality criteria were analyzed.

**Results:** On average, 4-5 OSCE stations at least partially assessed communication skills, 2-3 of them exclusively. The average performance regarding communication skills was 80-82% of overall test scores and 85-88% regarding other practical skills.

Cronbach's alpha for the entire OSCE varied from 0.72-0.76 (semester means). For communication skills, values varied from 0.25-0.47 and for other practical skills from 0.68-0.72.

**Conclusion:** We found no indication for ceiling effects regarding communication skills (i.e., scores were even lower than those of other practical skills). However, in contrast to other practical skills, reliabilities of the assessment of communication skills were not satisfactory.

This result is consistent with the literature, where low reliability is typically attributed to context dependence of communication. Thus, the results undermine this as being an issue of special relevance within the realm of communicative as compared to non-communicative practical skills. Future research is necessary to determine whether this context-specific measurement of communication skills is preferable (e.g., higher content validity when assessing different subcomponents) or if and how it should be reduced.

## 75. Effect of roleplaying using a psychosomatic patient scenario on Japanese medical students

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**Background:** The medical interview skill is an important aspect of medical education in moving toward diagnosis and treatment. An important element in promoting patient understanding is determining psychosocial background. There are differences in cultural background between the West and Japanese culture, and therefore, many Japanese students have insufficient skills in interviewing patients. They may feel hesitant to talk with their patients.

For medical interview training, we used role-playing sessions with psychosomatic patient scenarios. This session aims to develop interview skills, including hearing patients' psychosocial backgrounds and understanding patients' comfort levels. The students play as both doctor and patient. Many students have been trained to interview as physicians, but our training requests them to be a patient, as well. After the session, we discussed each role and investigated their opinions using a questionnaire after the session.

We studied the effect of the role play session by analysing the questionnaire.

**Method:** For a student (fifth-grader) who participated in bedside teaching at the Nihon University medical department, we distributed the unsigned free-response questionnaire asking for a description of feelings involved in the role play medical interview.

**Results:** Some of the comments made were as follows: 'It was a good opportunity to think about psychosomatic disorders';

'Do not feel as much resistance in being asked about psychosocial background as I had thought';

'It was said to be important to understand psychosocial background, and I realized the meaning of this through this session';

'Asking about psychosocial background by a doctor does not feel as unpleasant as expected';

'The sympathetic doctor was very easy to talk to'.

Other various opinions were also provided.

**Conclusion:** It is suggested that students developed new awareness of medical interviews by playing both roles. In particular, the hesitation to interview may be reduced after the session. They come to understand attitudes with knowledge of patients' psychosocial background, and the feeling of resistance to the interview was reduced. The roleplaying experience in the training was found to be useful in improving future medical interviews.

## 76. Postgraduate-training in psychiatry and psychotherapy across Europe: A glance on psychosomatics

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**Background:** Huge heterogeneity exists in European post-graduate training in regard to which extend psychosomatics is trained as a subspecialty of psychiatry or allied specialty or underrepresented in training programmes.

**Method:** Data of 42 European Countries has been gathered between 2014 and 2016 by a questionnaire primarily sent to the representatives of the European Federation of Psychiatric Trainees.

**Results:** Only in the German speaking countries Austria, Germany, Liechtenstein and Switzerland the title is awarded psychiatrist and psychotherapist. In 4 out of 42 countries psychosomatics is an obligatory part of training in psychiatry. In Germany it is an optional part and an allied specialty. In 2 countries it is trained in combination with liaison psychiatry. The duration varies between one month and 12 months. A deficit in training in psychosomatics was detected when comparing the time dedicated to training in psychosomatics with the percentage of disease-adjusted life years provided by the World Health Organisation.

**Conclusion:** Although psychosomatics is included practically in most post-graduate training programmes it is not adequately represented quantitatively in mandatory training and labeled accordingly.

## 77. Organization and activity of consultation-liaison psychiatry in a French university hospital

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**Background:** Aim: To describe the organization of Consultation-Liaison (C-L) Psychiatry in La Timone University Hospital, in Marseille, France; and its activity over a short period of 2 months.

**Method:** The C-L psychiatry team meets inpatients in this general hospital upon request of the treating medical or surgical team. This request has to be expressed through a specific protocole, using an online form, informing the patient's name / treating unit / reason for hospitalisation / reason for psychiatric request / current treatment. The C-L psychiatrist meets with the treating doctor, before and after meeting the patient. Results on the activity of C-L psychiatry in this hospital were collected using the written reports given to the treating teams by the C-L team, from June 1<sup>st</sup> to July 31<sup>st</sup> 2013.

**Results:** C-L psychiatry managed 47 patients between June 1<sup>st</sup> and July 31<sup>st</sup> 2013. 34 patients received psychiatric care and follow-up, leading for 19 of them to modifying or starting a psychiatric

treatment (anti-depressant: 15; neuroleptic: 7), and for the 15 remaining patients a psychotherapeutic follow-up without drug prescription. For 13 patients referred to the C-L team, the evaluation showed that no psychiatric care was needed. For 11 of them, treating doctors were looking for a differential diagnosis, for the 2 others the request for psychiatric consultation was not a psychiatry-related motive.

**Conclusion:** Results show that C-L psychiatry's work is diagnosis and treatment oriented. Although the collaboration between C-L psychiatrists and other specialists improves patient care, too few patients are referred to C-L psychiatry. The liaison part of the C-L team should work on raising other specialist's awareness on the benefit of referring patients to them.

## **78. The use of liaison psychiatric services on a neurological ward: a retrospective study**

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**Background:** Epidemiological research shows that the life-time prevalence of psychiatric comorbidity in hospitalized patients is twice as high as in the general population (Alonso et al, 2004; Huyse et al, 2001). Moreover, up to 55% of the neurological patients may show at a certain point during their illness psychiatric symptoms (Finke et al, 2003). However, the high prevalence of psychiatric comorbidity in neurological patients is not always reflected in the use of consultation and liaison psychiatric services.

The aim of this retrospective study is to investigate the use of liaison psychiatric services on a neurological ward.

**Method:** All neurological patients who received a liaison psychiatric consultation and were hospitalised in 2013, were retrospectively asked to participate in the study. Informed consent was given by 89% of the patients. Information about the liaison psychiatric consultation and psychiatric comorbidity were analysed.

**Results:** 98 (7,1%) of 1386 patients, who were admitted on the neurological ward in 2013, were assessed by the liaison psychiatric team. The liaison psychiatric team is mostly consulted for the acute psychiatric disorders: substance abuse related disorders (19,3%), psychotic spectrum disorders (13,2%), trauma and stress related disorders (10,2%). In addition, 17,3% were diagnosed with depressive disorder and 6,1% with anxiety disorders. Our study further confirms the findings of a higher consult ratio for somatic symptoms and related disorders (13,2%), mostly due to conversion disorder. Finally, about 20% of the psychiatric consultation did not result in a psychiatric diagnosis.

**Conclusion:** Liaison psychiatric services are little used on a neurological ward, but more often in case of acute psychiatric or somatic symptom and related disorders.

**79. What characteristics of personality are more likely associated with depressive symptoms? Does gender make a difference?**

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**Background:** This study investigated gender differences in social support, personality traits, laboratory data, and depressive symptoms for patients with hemodialysis, a leading treatment mode for ESRD.

**Method:** In total, 1,810 patients (including 939 females and 871 males) responded completely, yielding an effective response rate of 80.37%. Social Provision Scale (24 items with  $\alpha = .919$ ) was used to measure social support. Big Five Inventory Scale ( $\alpha = 0.760$ ) was used to assess five dimensions of personality: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. Beck Depression Inventory-II (BDI-II) (21 items with  $\alpha = .919$ ) was used to measure depressive symptoms. The following parameters were measured: Erythropoietin (EPO) (units per month), serum albumin (g/dl), hematocrit (%), and hemoglobin (g/dl).

**Results:** Women were at higher risk to develop depressive symptoms than were men, with 36.7% versus 34.8%, respectively. All participants who were higher in the neuroticism trait, lower in social provision, and higher in HCT (still in abnormal range) were associated with more depressive symptoms. Women with low openness to experience and higher use of EPO (indicator of anemia) showed higher depression, while men with low extraversion and low serum albumin were found to be more closely related to depression. The findings highly suggest that men and women have different factors in predicting depressive symptoms.

**Conclusion:** To lessen depressive symptoms, motivational intervention can be used to improve neuroticism; learning new things may increase women's openness to experience, and facilitating interactions between families and friends tend to show improvement in men's extraversion. Medical staff and patients should supervise their clinical data closely to maintain good renal function, and moderate depressive symptoms.

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### Potential conflicts of interest

- Jordi Blanch: Receipt of honoraria or consultation fees and participation in a company's sponsored speakers' bureau: Gilead, Ferrer; attendance to conferences supported by Pfizer/Janssen.
- Albert Leentjens: Honorarium as Editor-in-Chief J Psychosom Res (which is affiliated with the EAPM); travel support.
- Ursula Werneke: Exhibitors at educational events UW has organized: Masterclass Psychiatry Programme and EAPM 2016, Luleå, Sweden: Astra Zeneca, Janssen, Lilly, Lundbeck, Novartis, Servier, Otsuka, Shire in 2014, 2015 and/or 2016.
- All others: No conflict of interest to report.

## SPEAKERS PLENARY SESSIONS, WORKSHOPS AND MASTERCLASSES

### Plenary sessions

- Törbjörn van Elvsåshagen, Oslo
- Robert Maunder, Toronto
- Gun Heimer, Uppsala
- Carmine Pariante, London
- Gary Rodin, Toronto
- Colin Shapiro, Toronto
- Michael Sharpe, Oxford
- James Strain, New York
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## **Workshops and masterclasses**

- Elinor Bergdahl, Umeå
- May Blom, Stockholm
- Hans-Christian Deter, Berlin
- Marjolein de Vugt
- Hans Ericson, Sundsvall
- Per Fink, Aarhus
- Lene Hardt Sanchez Toscano, Aarhus
- Gun Heimer, Uppsala
- Per-Axel Karlsson, Ojebyn
- Albert Leentjens, Maastricht
- Mille Moeller Thastrum, Aarhus
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- Carmine Pariante, London
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## **Potential Conflicts of interest speakers of plenary sessions, workshops and masterclasses**

- Törbjörn van Elvsåshagen: Honoraria for lecturing from GlaxoSmithKline, Pfizer, and Lundbeck.
- Per-Axel Karlsson: Participation in several drug studies, particularly phase IV studies concerning potential adverse effects. Lately, collaboration with Lundbeck (om LAI), Janssen (Risperdal), Lilly (om Zypadhera) and Medivir (Adasuve). Many presentations for various hospitals and drug companies, but no economic interests.
- Albert Leentjens: Honorarium as Editor-in-Chief J Psychosom Res (which is affiliated with the EAPM); travel support.
- Robert Maunder: Royalties from a book written together with Jon Hunter on the topic of the talk.
- Carmine Pariante: Research grant from Johnson & Johnson and from a collaborative award with Wellcome Trust, Johnson & Johnson, GSK and Lundbeck.
- Colin Shapiro: I have shares in a company Neurozone and I will make reference to ways in which the company hopes to decrease stigma in psychiatry inter alia.
- David Taylor: Employment NHS, KCL, MHRN, DfT, DVLA; advisory Board member: Lundbeck, Servier, Sunovion; lectures: Janssen, Otsuka, Servier, Lundbeck; research Funding: BMS, Janssen, Lundbeck; attendance at conferences: nil; shares or other interests: nil.
- Jim van Os: In the past 5 years, the Maastricht University psychiatric research fund managed by Prof. Jim van Os has received unrestricted investigator-led research grants or recompense for presenting research from Servier, Janssen-Cilag and Lundbeck, companies that have an interest in the treatment of psychosis.
- Ursula Werneke: Exhibitors at educational events UW has organized: Masterclass Psychiatry Programme and EAPM 2016, Luleå, Sweden: Astra Zeneca, Janssen, Lilly, Lundbeck, Novartis, Servier, Otsuka, Shire in 2014, 2015 and/or 2016.

- Simon Wessely: Trustee of Combat Stress, a veteran's charity, the Science Media Centre and the Police Rehabilitation Trust. I have received a speakers fee from Janssen for a non promotional talk on psychological management of chronic fatigue syndrome.
- All others: No conflict of interest to report.

#### PEER REVIEWERS

We are grateful to all our peer reviewers for their time and commitment given to the EAPM 2016

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