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A selection of the best abstracts submitted

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1 – What Greek women with breast cancer want to know about their illness and how much do they want to participate in treatment decision making?

Almyroudi A, Degner LF, Paika V, Pavlidis N, Hyphantis T

Department of Psychiatry, Medical School, University of Ioannina, Greece

Faculty of Nursing, University of Manitoba, Winnipeg, MB, Canada

Department of Medical Oncology, Medical School, University of Ioannina, Ioannina, Greece

Background and aims: Greek breast cancer patients are engaged in difficult decisions surrounding their care in a health care system dominated by the paternalistic model of physician-patient interaction. This study aimed to assess Greek female breast cancer patients' preferences for participation in treatment decision making and their information needs.

Methods: The "Control Preferences Scale, a card-sort measurement designed to elicit preferences for participation in decision making, was administered to 329 breast cancer patients. Cassileth's Information Styles Questionnaire was used to assess information needs.

Results: The majority of patients (71.1%) preferred to play a passive role in treatment decision making, and most of them wanting to delegate responsibility of the decision completely to their doctor (45.3%). Twenty four per cent preferred a collaborative role, whereas only 4.6% chose an active role. Most women expressed a general desire for as much information as possible about their illness (62.6%), while a substantial proportion (37.4%) did not want detailed information, wishing to avoid awareness of bad news. Preference for a passive role and less information was significantly associated with neglecting having screening investigations such as mammography ($p<0.001$) and Pap test ($p<0.0005$) pre-diagnostically.

Conclusions: Most Greek breast cancer patients prefer to play passive roles in decision making, and a substantial proportion does not want detailed information about their illness. These results should alert oncologists to provide the proper amount of information and to encourage

patient participation in decision making whenever possible, in order to make progress in providing a more patient centred care.

2 – Morbidity and medical care utilization in patients with anxiety and somatoform disorders

*Andersen NLT, Eplov LF, Andersen JT, Birket-Smith M Liaison Psychiatry Unit, Mental Health Center Copenhagen, Copenhagen University Hospital, Denmark
Psychiatric University Center Ballerup, Denmark
Laboratory of Clinical Pharmacology, Copenhagen University Hospital, Denmark*

Liaison Psychiatry Unit, Mental Health Center Copenhagen, Copenhagen University Hospital, Denmark

Background and aims: Somatoform disorders have been reviewed several times. Many studies have shown that this group of patients utilize significantly more medical care services than the background population. Only few studies have longer follow-up periods and are based on structured interviews.

Methods: 380 patients with somatoform diagnoses and 174 patients with anxiety disorders (SCID-NP for DSM-III-R) at baseline are included in a case-control study (FOLSOM) and compared with 554 controls matched on gender and age. Data from the following registers constitute the study: The National Patient Registry, The Danish Psychiatric Central Register, The National Health Insurance Service Registry, The Causes of Death Registry and the DREAM database.

Results: Our preliminary results show that the somatoform patients had health care costs that were 2.8 ($p<0.0001$) times higher. They had 11.8 ($p<0.0001$) times as many emergency service visits and 2.1 as many visits to the GP ($p<0.0001$). Somatoform patients with a total amount of somatic symptoms above the median (14) utilized more visits to their GP ($p=0.004$), more medical outpatient visits ($p=0.0006$), but no more visits to psychiatric facilities ($p=0.886$). Age younger than 30 years at somatisation debut was correlated with total use of somatic health care ($p=0.012$).

Conclusion: Patients with somatoform disorders are more costly and are higher users of health care services

compared to controls and patients with anxiety. Patients with many somatic symptoms have higher utilization of health care and the utilization is primarily medical, not psychiatric.

3 – Physical versus mental health problems: A study of young adults seeking help at the primary healthcare centre

Åsbring P

Applied Public Health/Public Health Sciences, Karolinska Institutet, Stockholm, Sweden

Background: The mental health of young adults in Sweden has worsened since the beginning of 1990, especially among women. However, there is a lack of knowledge in terms of to which extent mental and physical problems coincide when young people seek help at the primary healthcare centre (PHC) and if they receive help for their mental health issues there.

Aim: The aim was to study young adults' experiences with physicians at four PHC's in Stockholm County concerning mental ill-health. A special question at issue was to find out if young adults that seek help for physical problems also describe that they have mental health problems and if these health needs were met as well at the PHC.

Methods: 600 questionnaires were handled out by the reception staff from each of the four PHC's. The questionnaire was answered by 246 persons between 19 and 28 years who had sought help for physical as well as mental health problems.

Results: The results show that mental and physical ill-health among the young adults coincides. For example, although 89% were seeking help for physical problems, 81% thought that the causes to why they didn't feel well at present depended entirely or partly on psychological/life related reasons. However, only one-third of those that considered their mental health as bad discussed their mental problems with the physician.

Conclusion: There seem to be a discrepancy between how young adults describe their mental health and what health problems they are seeking help for at the PHC.

4 – Life events in conversion disorder: Role of timing and nature of events

Aybek S, Nicholson T, Craig T, David A, Kanaan R
*Service Neurologie CHUV, Lausanne, CH
Institute of Psychiatry, London, UK*

Aims: To compare the frequency of life events in the year preceding illness onset in a series of Conversion Disorder (CD) patients, with those of a matched control group and to characterize the nature of those events in terms of "escape" potential. Traditional models of CD hypothesise that relevant stressful experiences are "converted" into physical symptoms to relieve psychological pressure,

and that the resultant disability allows "escape" from the stressor, providing some advantage to the individual.

Methods: The Life Events and Difficulties Schedule (LEDS) is a validated semi-structured interview designed to minimise recall and interviewer bias through rigorous assessment and independent rating of events. An additional "escape" rating was developed.

Results: In the year preceding onset in 25 CD patients (mean age 38.9 years \pm 8) and a similar matched period in 13 controls (mean age 36.2 years \pm 10), no significant difference was found in the proportion of subjects having ≥ 1 severe event (CD 64%, controls 38%; $p=0.2$). In the last month preceding onset, a higher number of patients experienced ≥ 1 severe events than controls (52% vs 15%, odds ratio 5.95 (CI: 1.09-32.57)). Patients were twice as much more likely to have a severe escape events than controls, in the month preceding onset (44% vs 7%, odds ratio 9.43 (CI: 1.06-84.04)).

Conclusion: Preliminary data from this ongoing study suggest that the time frame (preceding month) and the nature ("escape") of the events may play an important role in identifying key events related to CD onset.

5 – Psychiatric consultancy in oncology and hematology units: A survey on liaison, patient needs management aspects and clinic interventions

Barbagallo C, Ciano R, Taboga F, Zuanon S, Mattiussi E, Perozzi P, Ragogna M, Balestrieri M
AOUD Santa Maria della Misericordia – Udine Clinica di Psichiatria

Background and aims: In recent year, consultancies made by the psychiatric clinic of Udine in Oncologic and Haematologic wards have been many, according to the literature.

Within these two services, we found several similarities with regard to clinical characteristics, concerning the diseases in exam and the relational dynamics. We therefore decided to focus on the consultancies within these services

Methods: We created a schedule to collect clinical and other data including:

- the main motivation for the consultancy request
- the principal needs of the patient
- the kind of psychiatric intervention planned

Results: Our work allowed us to consider interesting aspects of the liaison characteristics of the clinic and the wards which were examined. We found that the prevalence of requests for psychiatric consultations, underlying reactive-situational problems of patients and department operators and difficulties in the management of these patients were particularly complex.

Conclusion: From the data analysis we have been able to devise a series of comments to enhance the consultancy request procedure and liaison work. We have been able

to recognise the diversity of problems faced by patients and understand that the psychiatric consultancy does not always resolve these difficulties.

6 – Affect regulation and attachment mental representations in a sample of systemic lupus erythematosus patients: a pilot study

Barbasio C, Giovannelli L, Granieri A

Department of Psychology, University of Turin, Italy

Background and aims: A rather neglected topic of investigation in psychosomatic research is the role of attachment mental representations as factors contributing to modify the susceptibility to stress and to potentially disturb the autonomic and/or immune systems. Several studies confirm the idea of a link between attachment insecurity and somatic illness. We hypothesise that the dysregulated answer to stressors in Systemic Lupus Erythematosus (SLE) patients may be better understood through the investigation of psychological variables, such as patterns of attachment and alexithymia. In particular we suppose that alexithymia is associated with insecure and/or traumatic experiences in relationships with primary caregivers.

Methods: Forty SLE women without other diseases have been processed to a psychometric evaluation. We used Adult Attachment Interview (AAI) for the analysis of the mental representations of attachment, and the Toronto Alexithymia Scale (TAS-20) for the evaluation of alexithymic traits.

Results: Although the small size of our SLE group means the results should be treated cautiously, for what concerns the attachment representations distribution we found a high incidence of unresolved traumatic experiences and of preoccupied states of mind among SLE patients. These attachment representations influence the affect regulation especially regarding the difficulty in identifying and describing feelings.

Conclusion: Our findings suggest a model in which attachment insecurity and disorganization may be considered factors which contribute to modify the susceptibility to stress in SLE patients through affect dysregulation. This susceptibility may contribute to alter the psychoimmunological homeostasis and therefore it can be considered a risk factor for health.

7 – Psychological characteristics of psychiatric and psychosomatic patients referred for psychotherapy

Barbosa F, Barbosa M, Barbosa A

Consultation Liaison Psychiatry Department-Hospital de Santa Maria / Lisbon School of Medicine

Background and aims: Psychotherapeutic support is important both in psychiatric and psychosomatic patients. Our aim is to characterize psychiatric and psychosomatic patients referred for psychotherapy.

Method: 50 psychiatric patients (affective, anxiety, personality disorders, eating disorder and drug dependence), with an average age of 29.29, sequentially collected from an ambulatory psychiatric consultation and 26 sequential psychosomatic patients (autoimmune and dermatological diseases), with an average age of 38.04, collected in a medical ambulatory specialized consultations of the same university hospital, were assessed by means of clinical interview and by the following questionnaires: SF-36, AAS-R, TAS-20, HADS, NEO-FFI and BSI.

Results: In both samples we found high prevalence psychopathological symptoms, namely anxiety symptomatology, alexithymia traits, insecure attachment styles and impaired quality of life.

We found significant statistical differences between the two groups in personality dimensions, with psychiatric patients experiencing higher levels of neuroticism and introversion; avoidant insecure attachment style; and in some dimensions of quality of life, namely physical functioning, bodily pain and general health perception, with higher impairment for psychosomatic patients. Interestingly, we did not find significant statistical differences in psychopathological symptoms.

Conclusions: The psychological and emotional suffering is present in both populations, affecting the lives of patients and their adaptation to everyday life.

What differentiates the two samples is not the psychopathological symptoms, but psychological factors, such as attachment and personality dimensions. It is important to undertake a systematic assessment of these factors to determine how best to intervene with these patients.

8 – Cognitive behavior therapy in hypochondriasis: What works and for whom

Barsky A

Department of Psychiatry, Brigham and Women's Hospital, Boston, USA

Background: The mistaken belief of serious illness is the hallmark of hypochondriasis. It is thought to result from a misinterpretation of some benign bodily discomfort or somatic symptom. Thus the hypochondriacal patient has both a somatic perception and a cognitive appraisal of that perception.

Method: Literature review

Results: Studies of hypochondriacal patients in medical clinics reveal severe somatic symptoms and high rates of medical care utilization. In population-based samples respondents with hypochondriasis may report low levels of medical utilization and less prominent somatic symptoms.

These may represent two subtypes of hypochondriasis. One is characterized by prominent somatic symptoms; high levels of medical utilization, resistance to mental

health care; a relatively fixed and unalterable belief that serious occult disease is present; and a primary request for somatic relief. The other hypochondriacal subtype is characterized by relatively minor or non-existent somatic symptoms; high levels of health-related anxiety and disease fear; some insight into the fact that they are not seriously ill; and a marked avoidance of medical care but some attendance at anxiety disorder and obsessive-compulsive disorder clinics.

This distinction has several clinical implications. The first subtype may benefit more from cognitive behavior therapy to correct somatic misinterpretation and misattribution, and to improve coping with somatic distress. In contrast, the second subtype may be more responsive to pharmacotherapy and other treatments for anxiety disorders and obsessive compulsive disorder.

Conclusion: Further studies are needed to test the validity of these two forms hypochondriasis in terms of phenomenology, comorbidity and differential treatment response.

9 – Psychotic symptoms, HPA axis and stress in first episode of psychosis

Belvederi Murri M, Mondelli V, Di Forti M, Dazzan P, Murray R, Pariante C

Institute of Psychiatry, King's College London, Department of Psychological Medicine, London, UK

Background and aims: The association between hypothalamic-pituitary-adrenal (HPA) axis activity and psychotic symptoms has been mainly studied in chronic illnesses and has shown inconsistent findings. The aim of the study is to investigate the association between psychotic symptom dimensions, stress and HPA axis activity in first-episode psychosis (FEP) patients.

Methods: Sixty-six subjects with FEP (mean age 30.1 ± 8.8 , 39.4% females) were recruited from the South London and Maudsley (SLAM) NHS Foundation Trust, as part of the Genetic and Psychosis study. Symptoms dimensions were investigated using PANSS and OPCRIT and stressful events were assessed using the Brief Life Events Questionnaire. Salivary cortisol was collected at awakening, at 15, 30, 60 minutes after awakening and at noon and 8pm. CAR and diurnal cortisol were measured as areas under the curve. Pearson, Spearman and partial correlation analyses were used as appropriate.

Results: Stressful life events were negatively correlated with diurnal cortisol ($R = -0.29$; $p = 0.025$), while there was a trend for a positive correlation with CAR ($R = 0.20$; $p = 0.12$). CAR was correlated with negative ($R = -0.29$; $p = 0.028$) and disorganized dimensions ($R = 0.28$; $p = 0.033$) measured with OPCRIT and with positive symptoms measured with PANSS ($R = 0.31$; $p = 0.026$). PANSS positive symptoms were also negatively correlated with diurnal cortisol ($R = -0.32$; $p = 0.029$).

Statistical significances disappeared after adjusting for number of life events.

Conclusions: These findings show an association between psychotic symptom dimensions and HPA axis activity and suggest that this association is influenced by the occurrence of stressful life events. Future longitudinal studies are needed to clarify the interplay between these factors.

10 – Crying and mental disorder

Benecke C, Tschiesner R, Wieser S

Institut für Psychologie, Universität Innsbruck

Background and aims: Investigating the relation of crying with mental disorder and with emotional and interpersonal components in female subjects (patients with mental disorders, healthy controls).

Method: The sample includes 120 female subjects (102 with a mental disorder, 18 healthy controls). All subjects have been diagnosed according to DSM-IV (SCID-Interviews, Axis I+II); additionally psychodynamic interviews (OPD, Operationalized Psychodynamic Diagnostics, Task Force OPD 2008) and several questionnaires (e.g. SCL-90R; INTREX; EER) have been conducted. OPD-interviews have been videotaped, and facial affective behavior was analyzed with Emotional Facial Action Coding System (EmFACS). 41 subjects did cry during the OPD-interview.

Results: There were no significant differences in crying vs. non-crying between the diagnostic groups (healthy controls, depression, anxiety disorders, somatoform disorders, eating disorders, borderline personality disorder). Crying vs. non-crying subjects did not differ in symptom severity (SCL-90R). Significant differences between crying and non-crying subjects were found with regard to “interpersonal relationship” (INTREX), “emotional experience” (EER) and facial affective behavior (EMFACS): non-crying subjects show higher levels of aggressive affect, and crying subjects higher levels of social bonding.

Conclusion: Neither mental illness itself nor symptom severity is connected with crying in psychodynamic interviews. Despite mental illness interpersonal closeness and low level of aggression is associated with crying when talking about painful live events; interpersonal distance and aggression may serve as defence strategies to prevent emotional involvement in painful memory.

11 – Alexithymia impact on psychological outcomes in patients who had undergone cardiac surgery

Beresnevaitė M^a, Benetis R^a, Rašinskienė S^b, Kinduris Š^c, Barauskienė V^d

^a Laboratory of Clinical Cardiology, Kaunas University of Medicine Institute of Cardiology, Kaunas, Lithuania

^b Kaunas Vytautas Magnus University

c Laboratory of Intensive Therapy and Cardiovascular Research, Kaunas University of Medicine Institute of Biomedical Research, Kaunas, Lithuania

Background and aims: There is solid evidence that psychological factors are associated with cardiovascular diseases. However for cardiac surgery, reports on alexithymia and psychological outcomes are inconsistent. The aim of this study was to investigate alexithymia association with psychological factors in patients after cardiac surgery.

Methods: This study involved 139 patients aged 28 to 75 years (94 men and 45 women) two months after cardiac surgery (coronary artery bypass graft or/and cardiac valve surgery). Psychological symptoms (somatization, obsession-compulsion, interpersonal sensitivity, depression, anxiety, anger-hostility, phobic anxiety, paranoid ideation, psychotism and three distress aspects – global severity index, positive symptom total, positive symptom distress index) were assessed using Symptom Checklist - 90 Revised. The Mini International Neuropsychiatric Interview for the Diagnostic Statistical Manual IV criteria was used to identify mental disorders. Psychosomatic syndromes were evaluated according to the Interview for the Diagnostic Criteria for Psychosomatic Research. The 20-item Toronto Alexithymia Scale (TAS-20) was used for the alexithymia assessment, its score ≥ 61 was evaluated as alexithymia.

Results: 27% of patients ($n=38$) were assessed as being alexithymic. The most strong relations were found between TAS-20 score and depression ($p=0.001$) and positive symptom distress index ($p<0.01$). Also TAS-20 was associated with interpersonal-sensitivity, paranoid ideation, psychotism, global severity index and positive symptom total scales scores ($p<0.05$). Occurrences of mental disorders or psychosomatic syndromes were not associated with alexithymia.

Conclusion: Two months after cardiac surgery alexithymia was related to psychological outcomes – depression, distress, interpersonal-sensitivity, paranoid-ideation and psychotism. Alexithymic patients may need more individual support and attention than other cardiac surgery patients.

12 – Effect of spirituality well-being on the end of life in terminal cancer patients

Bovero A^{a,b}, Palmisano D^a, Aitoro F^b, Torta R^a

^a Psychoncology Unit – Department of Neurosciences, S. Giovanni Battista Hospital and University of Turin, Italy

^b “Valletta” Hospice ASL T01, Turin, Italy

Background and aims: The impact of spirituality on quality of life in a sample of terminal cancer patients in hospice.

Methods: One hundred patients were recruited in hospice “Valletta” in Turin and were evaluated with the following Rating Scales: Hospital Anxiety and Depression Scale (HADS), Visual Analogue Scale (VAS), McGill Pain Questionnaire (MPQ), Functional Assessment of Cancer Therapy Spiritual Well-Being Scale (FACIT-Sp) and Brief Cope. Religiosity was measured with the following two questions: “Do you consider yourself a religious person” (yes/no) and “How often do you pray”. All data analysis were performed using the Statistical Package for Social Sciences.

Results: Significant correlations in the sample were seen among FACIT-Sp total score, depression and anxiety ($p<0.05$, $p<0.01$), between FACIT-Sp meaning/peace subscale and depression ($p<0.05$), correlations between pain and FACIT-Sp faith subscale ($p<0.05$) and between some coping styles (religion, acceptance) ($p<0.01$). The Independent Samples t-Test highlighted significant differences between the two groups (prayers/not prayers) for anxiety ($p=0.05$), negation ($p<0.01$) and spiritual well being ($p=0.05$). Besides significant differences were shown between the two groups (participants with low spiritual well-being/participants with high spiritual well-being) for anxiety, depression ($p<0.01$), pain ($p<0.01$) and for some positive coping styles (religion, acceptance) ($p<0.01$).

Conclusion: These results showed the importance of spirituality at the end of life and suggested that spirituality may play an important role at improving quality of life among the dying.

13 – From the ear to the heart to the brain: Efficacy of a newly composed and individualized music therapy on depressive disorders – results of a prospective controlled clinical trial

Brandes VM, Terris DD, Fischer C, Loerbroks A, Jarczok MN, Ottowitz G, Titscher G, Fischer JE, Thayer JF

Research Program Music Medicine, Paracelsus Private Medical University, Salzburg, Austria, Mannheim Institute for Public Health, Heidelberg University, Germany, Hanusch Hospital, Vienna, Austria, Ohio State University, USA

Background and aims: Music therapy enjoys a growing interest from clinical practice and neurobiological research. Different music triggers different activation patterns in depressed patients than in healthy controls. We evaluated a new receptive music therapy method which was developed on the basis of experiments which confirmed positive effects of specific music composition on heart rate variability (HRV).

Methods: Enrolled subjects ($n=203$, average age 49.6 ± 13.1 years, 28.1% male) were randomized into four arms: music therapy 1 (MT1), music therapy 2 (MT2),

placebo (nature sounds) and waiting-list control group. Subjects listened for 30 minutes, twice daily. Multivariate linear regression models assessed depressive symptom changes over five weeks, based on a composite scale (COMP) and the Hamilton Rating Scale for Depression (HAM-D), Beck Depression Inventory (BDI) and Hospital Anxiety and Depression Scale (HADS-D) alone. HRV was measured pre and post treatment and again after 5 weeks.

Results: On average, a significant, positive change in COMP was observed for MT1 ($\beta=1.44$, $p=0.030$), but not for MT2 ($\beta=1.14$, $p=0.059$) or Placebo ($\beta=0.57$, $p=0.397$). HRV (HF Power) was improved in probands listening to MT 1. After 15 weeks, study participation was associated with a mean HAM-D score reduction of 60% for 89,1% of the compliant probands.

Conclusions: Based on possible neurophysiologic and neuro-chemical effects, receptive music therapy, as explored in this pilot controlled trial, appears to be associated with reduced depressive symptoms and high treatment compliance, and may therefore potentially represent an effective depression treatment alternative, alone or in combination with psychosocial and pharmacological approaches.

14 – A preliminary longitudinal study on the importance of early intervention in panic disorder

Bressi C, Ciabatti M, Nocito EP, Catenacci E, Porcellana M^a, Invernizzi G, Marinaccio PM

Psychiatric Clinic, Department of Mental Health, Fondazione IRCCS Ca' Granda, Ospedale Maggiore Policlinico, Milan. Università degli Studi di Milano, Italy

^a Azienda Ospedaliera Niguarda Cà Granda, Milan, Italy

Background and aims: Recent studies have focused their attention on factors that may predict outcome in Panic Disorder, highlighting how longer Duration of Untreated Illness (DUI) seems to be associated with the occurrence of comorbid Major Depression. This study aimed at broadening this researches and identifying key-factors on which focus intervention to achieve the best outcome.

Methods: 35 patients with a diagnosis of Panic Disorder (DSM IV-TR) were consecutively recruited after a psychiatric consultation in the Emergency Service or a psychiatric visit in the Department of Mental Health, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan. Patients were randomly assigned to Cognitive-Behaviour Therapy, Brief Dynamic Psychotherapy (Malan, 1976) or routine psychiatric therapy. A standardized questionnaire, Hamilton Rating Scale for Depression (HAM-D), Hamilton Rating Scale for Anxiety (HAM-A), Panic and Anticipatory Anxiety

Scale (PAAAS) and Toronto Alexithymia Scale–20 items (TAS-20) were administered at baseline (T0) and after 6 months (T1).

Results: Non-parametric correlation (Pearson's correlation) highlighted significant correlations between HAM-D at T1 and HAM-A, PAAAS, number and intensity of panic attacks at T0 ($p<0.05$). Moreover, at T0, TAS-20 was associated ($p<0.05$) with PAAAS and number of Panic Attack. A One Way-Anova was conducted too, showing those who had a DUI lower than 12 months had a significant higher TAS-20 External oriented thinking at T0 ($p<0.05$).

Conclusions: Our results suggest the importance of early intervention in Panic Disorder, in order to better manage anxiety symptoms, improve the characteristic concrete thinking and prevent the development of a depressive mood in the long period.

15 – Alexithymia and interpersonal patterns in somatoform disorders

Bressi C, Nocito EP, Dipasquale E, Porcellana M^a, Invernizzi G, Marinaccio PM

Psychiatric Clinic, Department of Mental Health, Fondazione IRCCS Ca' Granda, Ospedale Maggiore Policlinico, Milan, Università degli Studi di Milano, Italy

^a Azienda Ospedaliera Niguarda Cà Granda, Milan, Italy

Background and aims: There has been a growing attention in literature on alexithymia and recent studies highlight that alexithymic subjects have more interpersonal problems than non alexithymics. Since alexithymia is characterised by deficits in identifying (F1) and describing (F2) feelings and external oriented thinking (F3) and it has been studied at first in psychosomatic disorders, this study aimed at evaluating the existence of a significant associations between alexithymia and specific patterns of interpersonal relationships in patients suffering from somatoform disorders.

Methods: 21 patients, with a diagnosis of somatoform disorder (DSM IV-TR), were consecutively recruited after a psychiatric consultation in medical or surgery wards of the Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan. Patients were then followed in the Department of Mental Health and they completed the 20-items Toronto Alexithymia Scale (TAS-20) for the assessment of alexithymia and the Inventory of Interpersonal Problems (IIP) for the evaluation of relational functioning.

Results: Non-parametric correlations (Spearman's correlation) revealed a significant correlations between difficulty in socializing due to individualism and TAS-20 total score ($p<0.05$, $r=0.546$), F1 ($p<0.01$, $r=0.567$)

and F2 ($p < 0.01$, $r = 0.598$). Moreover, according to our data, TAS-20 F3 was associated with empathy and guilty ($p < 0.05$, $r = 0.438$) while aggressiveness was significantly correlated with TAS-20 total score ($p < 0.01$, $r = 0.571$) and TAS-20 F1 ($p < 0.01$, $r = 0.663$) and F2 ($p < 0.01$, $r = 0.458$).

Conclusion: Our study suggest that, among patients suffering by somatoform disorders, the interpersonal relationship style of alexithymic subjects is based on hostility, lack of empathy and indifference, leading to cold and socially avoidant behaviours.

16 – Interpretation of body sensations in panic disorder: What kind of first aid patients ask for?

Bressi C, Nocito EP, Ciabatti M, Fontana R, Porcellana M^a, Invernizzi G, Marinaccio PM

Psychiatric Clinic, Department of Mental Health, Fondazione IRCCS Ca' Granda, Ospedale Maggiore Policlinico, Milan, Università degli Studi di Milano, Italy
^a Azienda Ospedaliera Niguarda Cà Granda, Milan, Italy

Background and aims: As it is widely described in literature, panic disorder patients seem to be particularly prone to misinterpret somatic sensations and they were found to be more likely to interpret them as signs of physical or mental collapse. This study aimed therefore at evaluating if, according to the meaning given to panic attack, patients refer to different specialists at first.

Methods: 35 patients suffering from Panic Attack Disorder (DSM IV-TR) were consecutively recruited after psychiatric consultation in the Emergency Service or psychiatric visit in the Department of Mental Health (DMH), Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan. They were then followed at the Panic Disorder Service of the DMH and they were asked for symptom attributions (organic disorder, stress, psychological causes) and the kind of specialist (First Aid Service, psychiatrist) they referred too.

Results: A Chi-square test was performed highlighting a significant correlation between symptoms attributions and dispatcher ($p < 0.05$), characterized as follow: 45% of those who refer to Emergency Service attributed their symptoms to an organic disease, 33% to stress and 22% to psychological causes, while 12.5% of those who refer to a psychiatrist referred symptoms to an organic disease, 25% to stress and 62.5% to psychological causes.

Conclusions: Our study suggest that panic disorder patients refer to different kind of physicians according to interpretation given to bodily sensation, thus supporting the hypothesis present in literature according to which there may be cognitive bias in attributing anxiety symptoms which may lead to a delay in early interventions.

17 – Somatization and dysfunctional interpersonal patterns: Is there a specific association?

Bressi C, Nocito EP, Ciabatti M, Sollazzo R, Porcellana M^a, Marinaccio PM

Psychiatric Clinic, Department of Mental Health, Fondazione IRCCS Ca' Granda, Ospedale Maggiore Policlinico, Milan, Università degli Studi di Milano, Italy
^a Azienda Ospedaliera Niguarda Cà Granda, Milan, Italy

Background and aims: In recent years interpersonal functioning in psychiatric disorders has raised great attention in order to better manage functional outcome. Moreover, in pain disorders, somatization and a non-assertive and social avoidant behaviour were found to be the main defensive mechanism utilized by these subjects. This study aimed to evaluate the possible association between somatization and specific patterns of interpersonal relationship in patients suffering from depression and anxiety.

Methods: A consecutive sample of 210 outpatients, with a diagnosis of depressive or anxiety disorder (DSM IV-TR), was recruited after a psychiatric consultation in the medical or surgery wards of the Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan. They were then followed in the Department of Mental Health and they completed the Inventory of Interpersonal Problems (IIP) for the assessment of relational functioning and the Symptom Check List-90 items (SCL-90) to evaluate the severity of somatic discomfort perceived.

Results: Non-parametric correlation (Pearson's correlation) was performed to assess significant associations and the results showed a significant association ($p < 0.05$) between SCL-90 somatization and IIP assertiveness, submissiveness and intimacy.

Conclusion: Our results suggest that patients suffering from depression and anxiety who have difficulty in creating intimate relationship, obeying authority and being assertive, may express their discomfort by means of their body through somatization.

18 – Peripheral inflammation, stress and sickness responses in healthy men

Brydon L^a, Harrison NA^b, Walker C^a, Wright CE^a, Wawrzyniak A^a, Critchley HD^c and Steptoe A^a

^a Psychobiology Group, Department of Epidemiology and Public Health, University College London, London, United Kingdom

^b Institute of Cognitive Neuroscience and Wellcome Trust Centre for Neuroimaging, Institute of Neurology, University College London, London, United Kingdom

^c Brighton and Sussex Medical School, University of Sussex, Brighton, United Kingdom

Background and aims: Chronic inflammatory and infectious diseases are commonly accompanied by a set

of cognitive and affective symptoms, collectively known as ‘sickness behaviour’. These symptoms, including confusion, fatigue, psychomotor slowing and depression are thought to be driven by pro-inflammatory cytokines released from macrophages during activation of the early innate immune response. Peripheral cytokines can signal to the brain to alter neurotransmitter metabolism and neuroendocrine function. Circulating cytokine levels are elevated in patients with inflammatory disease and correlate with depressive symptoms in these individuals.

Methods: To further understand the pathways linking inflammation and sickness behaviour, we ran a series of double-blind, randomised, placebo-controlled trials investigating the effects of a peripheral immune stimulus (typhoid vaccine) on immunity, mood and cognitive function in healthy men.

Results: Typhoid vaccine induced a significant increase in men’s circulating levels of the inflammatory cytokine, interleukin-6 (IL-6). Men with larger IL-6 responses displayed greater increases in negative mood, and slower reaction times on a cognitive task. Inflammation-associated changes in mood and psychomotor performance were related to altered neural activity in the subgenual anterior cingulate cortex (a region implicated in the etiology of depression) and the substantia nigra (a mid-brain dopaminergic nucleus facilitating movement and motivational behaviour). Individuals subject to an acute psychological stressor at the time of vaccination developed larger cytokine and mood responses, suggesting that as seen in animals, stress may exacerbate responses to immune activation in humans.

Conclusion: These findings provide a mechanistic insight into the interaction between inflammation, stress and sickness behaviour in humans.

19 – MUS as a threat to patients’ identity. A conversation analysis of reattribution

Burbaum C

Dept. of Psychosomatic Medicine and Psychotherapy, University Hospital Freiburg, Germany

Objective: Interactions between patients suffering from medically unexplained symptoms (MUS) and their physicians are usually perceived as difficult and unsatisfactory by both parties. In this qualitative study, patients’ reactions to psychosomatic attributions were analyzed on a micro-level.

Methods: 144 consultations between consultation-and-liaison (CL) psychotherapists and inpatients with MUS, who were treated according to a modified reattribution model, were recorded. Linguists and psychologists evaluated these consultations by applying conversation and positioning analysis.

Results: When introducing a psychosomatic attribution, therapists use discursive strategies to exert interactional

pressure on the patient; while simultaneously using careful and implicit formulations. Three linguistic patterns could be found in which patients subtly refute, drop or undermine the psychosomatic attribution in their reply. Moreover, in this context patients position themselves as somatically ill or justify their own life situation.

Conclusion: The results suggest that patients interpret psychosomatic attributions and even subtle suggestions from the psychotherapists as face-threatening ‘other-positionings’.

Practice implications: When implementing the reattribution model, it should be taken into account that interactional resistance might be a necessary step in the process of the patient’s understanding. Nevertheless therapists should introduce reattribution in a patient-centered rather than persuasive way and they should openly address patients’ fears of being stigmatized.

20 – Cooperation between C/L psychiatrists in a general hospital and general practitioners in private practice

Burian R, Lehmann D, Barrett B, Diefenbacher A

Department of Psychiatry, Psychotherapy and Psychosomatics, Evangelisches Krankenhaus Königin Elisabeth Herzberge, Herzbergstraße 79, 10365 Berlin

Background: Little is known about the long-term effect of recommendations given by C/L- psychiatrists during inpatient treatment in general hospitals once patients have been discharged into primary care treatment. The following study aimed to find out whether improving communication between C/L psychiatrists in general hospitals and general practitioners in private practice by a telephone call or a written note results in a higher degree of concordance to such recommendations, and if so, whether any long-term impact on treatment and outcome can be discerned.

Method: Controlled randomized trial on 117 general hospital inpatients with depression and/or anxiety disorder. Patients were divided into two intervention groups. Group A: the C/L psychiatrist made a 5-10 min. telephone call to the patient’s GP’s. Group B: a written note was handed to patients to relay to their GP. Control group: GPs were simply sent a discharge letter by the attending hospital physician, as is the usual procedure. Telephone follow up to the patients: 6 weeks, 6 and 12 months, and 4 years after discharge. Follow-up included the assessment of patients’ Hospital Anxiety and Depression Scale (HADS) score.

Results: Follow-up calls succeeded in reaching 91 patients six weeks after discharge declining to 36 patients after four years. GP’s concordance to CL-psychiatrists recommendations was significantly best in the telephone call group. It was found that HADS scores improved

after 6 weeks with a positive correlation of better GP's concordance and patient's depression scores. But HADS scores worsened again over time in the majority of patients.

Conclusions: A telephone call seems to be an effective communication tool to initiate psychiatric treatment in the primary care setting, with general practitioners following psychiatrists' recommendations to a significantly higher degree than those receiving recommendations in writing. However, the improvement in scores disappeared over the long term, and no statistically significant difference could be demonstrated between patients whose GP's had a higher or lower degree of concordance to the single intervention. The overall results suggest that introducing collaborative care models would be advisable.

21 – The model of collaborative care in Portugal, efficacy and its application

Cardoso G, Caldas de Almeida JM

New University of Lisbon, Mental Health Department, Lisbon, Portugal

Background: The two affiliated psychiatric departments of the New University of Lisbon Mental Health Department have their services organized on a basis of a close collaboration between the mental health teams and primary care centers.

Aim: To give a general overview of the main characteristics of mental health and primary care collaboration.

Method: The models used by both mental health services in the management of common mental disorders including the rules for referral of patients to mental health, articulation of interventions and back referral to GPs, triage on the urgency of the referrals, regular meetings to discuss cases and training, will be presented and discussed.

Results: The assessment of this collaborative work initiated in one of the departments is underway.

22 – Inflammation and depressive-like symptoms in mice: Role of indoleamine 2,3-dioxygenase activation

Castanon N

Laboratory of Psychoneuroimmunology, Nutrition and Genetics, INRA-CNRS-Bordeaux II University, Bordeaux, France

Background and aims: Elevated activity of the tryptophan-degrading enzyme indoleamine 2,3-dioxygenase (IDO) has been proposed to mediate comorbid depression in inflammatory disorders. However, the mechanisms underlying in vivo activation of brain IDO in this context and the causative role of this activation in mediating depressive-like behavior induced by innate immune system (IIS) stimulation had not been directly tested so far.

Methods: In order to answer this question, we combined pharmacologic and genetic approaches by using a competitive IDO inhibitor (1-methyltryptophan) and mice deficient for IDO or the receptor of IFN-gamma, a proinflammatory cytokine involved in IDO activation. We have previously shown in mice that acute or chronic IIS stimulation, resulting respectively from lipopolysaccharide (LPS) or Bacillus Calmette-Guérin, (BCG) administration, is associated with activation of peripheral and brain IDO and development of depressive-like behavior. We measured therefore how IDO blockade alters biochemical (cytokine production and IDO activation) and behavioral responses to LPS or BCG administration.

Results: We demonstrate that blockade of IDO activation prevents development of depressive-like behavior as assessed in well-defined and validated murine behavioral tests (the forced swim test and tail suspension test) in response to LPS or BCG. We also show an essential role for the cytokines IFN-gamma and tumor necrosis factor (TNF)-alpha in the induction of IDO that mediates depressive-like symptoms.

Conclusion: Together, these results prove that IDO is required for the development of depressive-like behavior that is caused by inflammation and point to the catabolism of tryptophan along the kynurenine pathway as a promising therapeutic target.

23 – Are somatic symptoms useful in diagnosing depressed oncological patients?

Castelli L, Binaschi L, Varetto A, Mussa A, Torta R

Clinical and Oncological Psychology, Department of Neuroscience, University of Turin

Background and aims: To date there is no agreement on the usefulness of somatic symptoms in order to diagnose a mood disorder in psycho-oncology: somatic symptoms could be either secondary to the oncological pathology or primary due to a mood disorder itself.

This study aimed at investigating the relevance of somatic, behavioural and cognitive clusters in mood disorders, comparing data of the Hospital Anxiety and Depression Scale (HADS) to data of the Montgomery Asberg Depression Rating Scale (MADRS).

Methods: 151 consecutive oncological patients were evaluated for depression using the HADS and the MADRS. Behavioural, somatic and cognitive clusters of the MADRS were analysed, comparing depressed and non depressed patients, subdivided according to the HADS-Depression (HADS-D) cut-off. Since the HADS-D does not include somatic symptoms of depression, this comparison allowed us to evaluate the relevance of the three different clusters on the diagnosis of depression, especially the relevance of the somatic cluster.

Results: According to the HADS-D, 57.4% of patients scored above the cut-off (≤ 8) for depression. As for the MADRS, 44% of patients scored between 0-9 (absence of depression), 43.7% showed mild/moderate depressive symptoms and 12.3% showed severe depression. Comparisons between patients above and below the HADS-D cut-off evidenced a significant differences in all the three clusters of the MADRS, behavioral, cognitive and somatic ($p < 0.01$).

Conclusion: Results suggest that somatic symptoms of depression can be differentiated from somatic symptoms secondary to the oncological pathology, and that can be useful in diagnosing mood disorders in oncological patients.

24 – A comparative study on subjective sleep quality and predictive factors in renal transplant and dialysis patients

Ceyhun HA, Kirpinar I*, Yazici E, Ozan E
Atatürk University Psychiatry Department, Erzurum, Turkey

Background and Aim: Sleep and sleep-related disorders are common in end state renal disease (ESRD) patients. The main goal of this study was to compare the ESRD patients with renal transplant, with dialysis and healthy controls in terms of subjective sleep quality and related factors.

Methods: The sample of the study consisted of 48 transplant recipients and 42 receiving dialysis and a control group of 43 healthy volunteers. Structured Clinical Interview for the DSM-IV (SCID-I), Pittsburgh Sleep Quality Index (PSQI), State and Trait Anxiety Inventory (STAI-I,II), Hospital Anxiety Depression Scale (HADS) and a questionnaire for demographic information were administered.

Results: PSQI of renal transplant patients averaged (5.40 ± 2.67), a value significantly lower than in dialysis patients (8.31 ± 4.31 , $p < 0.05$) but similar with control subjects (6.16 ± 3.28 , $p > 0.05$). When the patients were divided into 'good' (PSQI < 5) or 'poor' (PSQI > 5) sleepers, the prevalence of poor sleepers among Tx patients (14.6%) was significantly lower than that of the dialysis group (47.6%, $p < 0.05$) and similar with control group (30.2%, $p > 0.05$) for most the items of the PSQI, namely, subjective sleep quality, sleep latency, and duration. Number of depressive disorder by SCID in poor sleepers ($n=35$) significantly more than good sleepers ($n=16$, $p < 0.05$). Existence of depressive disorder, male gender, duration of chronic renal disease, Trait Anxiety scores predicted poor sleeping.

Conclusion: This study suggest that renal transplantation preserves sleep quality of patients as well as renal functions. Poor sleep seems to be a part of depressive symptomatology in renal transplant patients. These

patients should be followed for depression and other psychiatric symptomatology.

25 – Depression, as a risk factor for noncompliance among renal transplant recipient

Ceyhun HA^a, Kirpinar I^{a*}, Aras N^a, Keleş M^b
^a Atatürk University Psychiatry Department, Erzurum, Turkey
^b Atatürk University Nephrology Department, Erzurum, Turkey

Background and Aim: Depression, likely to be the most common psychopathology in patients with end stage renal disease (ESRD), is associated with increased morbidity and mortality. The aim of this study was to investigate prevalence of Major Depressive Disorder (MDD) in transplant recipients and comparison with dialysis patients and healthy controls, and relationships between MDD and medication compliance.

Methods: 48 kidney transplant recipients, 42 dialysis patients and 43 healthy volunteers were evaluated with Structured Clinical Interview for the DSM-IV (SCID-I) for psychiatric disorders, a questionnaire for clinical and demographic information and a visual analogue scale for medication adherence.

Results: Prevalance of MDD was similar in transplant recipients and control group (respectively 37.5% and 25.5%), significantly greater in dialysis group (52%, $p < 0.05$), while anxiety disorders were similar in all groups ($p > 0.05$). Adherence to medication was significantly lower in dialysis group than transplant recipients. Employment, compliance to drug treatment, physician and regimen; period after transplantation and level of activity were statistically different between diagnosis of MDD for ESRD patients.

Conclusion: Depressive disorder could occur during the transplant process due to psychological stressors, medications and physiological disturbances. Our study suggests that a depression is an important contributor to low medication adherence in patients with ESRD. The patients' adherence to the immunosuppressive therapy is an important condition for maintaining graft functioning. The diagnosis and treatment of depression which effect the prognosis and outcome of the ESRD is important. In the light of our results, the evaluation of psychiatric aspects in dialysis and transplantation patients with biological aspects seems important.

26 – Sexual life of renal transplant recipient

Ceyhun HA, Kirpinar I*, Aras N
Atatürk University Psychiatry Department, Erzurum, Turkey

Background and Aim: Sexual dysfunction (SD) is a common complaining among end-stage renal disease (ESRD) patients. Studies about SD in posttransplantation

period have reported various results. The aim of this study was to investigate the prevalence and related factors of SD renal transplant patients' and to compare renal transplant and dialysis patients and healthy volunteers.

Methods: 40 transplant recipients and 34 patients on maintenance receiving dialysis and 31 healthy volunteers who were similar in point of gender, age and marital status have been included to this study. All subjects were assessed with The Arizona Sexual Experiences Scale (ASEX) and Hospital Anxiety and Depression Scale and a personal information form.

Results: Average age of participants was 38.58 ± 11.53 . 68.6% (n=72) of patients was men; 31.4% (n=33) was women. Total ASEX scores were significantly higher in dialysis group than other groups ($p < 0.05$). Patients with higher ASEX scores had less education level, elder age, longer duration of dialysis, higher depression scores and more comorbid diseases ($p < 0.05$). Multivariate analyses demonstrated that the most effecting factors on SD were presence of comorbid disease and education level in renal tx and dialysis groups. In females, total ASEX scores were significantly higher and the most influenced domain was sexual desire and reaching orgasm.

Conclusion: This study determined that sexual life of the patients with dialysis was influenced negatively while transplant patients have a similar wellbeing with healthy controls. Subjects with sexual dysfunction have poorer quality of life for that reason diagnosis and treatment of sexual dysfunction should be included in the clinical assessment.

27 – A culturally competent model for consultation liaison psychiatry services in North West England

*Chaudhry N, Husain M, Chaudhry IB, Husain N
University of Manchester*

Background and Aims: While psychiatric symptoms are more common among some ethnic minorities compared to majority group, they are less likely to receive specialist mental health care. It is likely that they are treated by other sources including general medical physicians, alternative practitioners and traditional healers

To improve the accessibility and cultural appropriateness of mental health services for the multicultural population of the Northwest of England.

Methods: To facilitate cultural consultations, referrals and identification of appropriate clinical and community resources the first step was development of database projects 1) a community organization resource database 2) Individual clinicians, interpreters, culture brokers and resource persons [Greater Manchester] database 3) Library of literature in culture and mental health (validated psychiatric instruments etc). Next step was to review training models, develop teaching materials and in-service training activities for professionals. We

developed a “Cultural Competency Training Package” for healthcare professionals. The analysis of multicultural critical incidents and involvement in research programs addressing cultural issues to contribute towards developing cultural competency (case conferences, seminars, and workshops).

Results: The Culture Consultation Service now offers Cultural formulation using following instruments:

- 1) Confirmation of diagnosis using SCID
- 2) South Asian identity schedule
- 3) Short explanatory models interview
- 4) Life events and difficulties schedule
- 5) Semi structured interview exploring clinician patient transference and counter transference.

Conclusions: Development of this culture consultation service effectively supplements existing services with significant improvement in pathways to mental health care.

28 – Hypochondriasis in Australia: Results from the 2007 Australian national survey

Clarke DM, Meadows G

Psychological and Behavioural Medicine Unit, Monash Medical Centre, Monash University, Melbourne, Australia

Background and Aims: Studies in general practice (GP) suggest that around 20% of GP attendees have somatisation, with high symptom burden and illness worry. There are, however, no solid estimates of this phenomenon in the general community. We sought to measure hypochondriasis in an Australian population survey.

Method: The 2007 National Survey of Mental Health and Wellbeing used the WMH-CIDI to assess the level of psychiatric disorder in the Australian community (n=8,841). Based on DSM criteria, hypochondriasis was considered present if a respondent acknowledged ‘worrying a lot about serious illness despite reassurance from a doctor’ and this worry had continued for 6 months or more.

Results: Lifetime prevalence of hypochondriasis was 5.7%; 12 month prevalence was 4.2%. Rates were significantly higher in females than males, and in the middle aged. Eighty percent of people with hypochondriasis also had a diagnosis of either an anxiety, depressive or substance use disorder; over 60% had an anxiety disorder.

Conclusion: Hypochondriasis, characterised by persistent illness worry, is prevalent and chronic. It is strongly associated with other disorders, especially anxiety.

29 – Somatisation in primary care practice in Australia

Clarke DM, Piterman L, Austin D

Psychological and Behavioural Medicine Unit, Monash Medical Centre, Monash University, Melbourne, Australia

Background and Aims: We sought to measure the prevalence of somatisation (multiple somatic symptoms and hypochondriasis) amongst Australian general practice attendees, its recognition by general practitioners (GPs), and its relationship with symptoms of depression and anxiety.

Method: A sample of 10,507 consecutive attendees from 340 GPs completed self-report measures. Somatic symptom severity was measured with the 15 item Patient Health Questionnaire (PHQ-15); hypochondriasis with the Whitely-7 index; and depression and anxiety by the Kessler Psychological Distress scale (K10). Somatisation was defined by the presence of moderate to severe somatic symptom severity and hypochondriasis; GP recognition of somatisation was determined by their audit responses indicating whether they thought any physical complaints were “mostly explained by a psychological disturbance”.

Results: Overall, 18.5% of patients were classified as somatisers and 9.5% as ‘probable cases’ of depression or anxiety. 29.6% of somatisers had high anxiety or depression scores, in contrast to 4.9% of non-somatisers. Gender and age asserted significant but weak effects on scores. GPs identified somatic complaints as “mostly explained by psychological disturbance” in 25.1% of somatisers.

Conclusions: Somatisation is common in general practice, and more prevalent than depression or anxiety. A minority of somatisers have significant anxiety and depression. By contrast, the majority of patients with depression and anxiety have a significant degree of somatisation. Recognition of depression and anxiety may be hindered by a somatic presentation and attribution, and may be difficult to treat unless health anxieties are addressed.

30 – Depressive mood predicts cancer diagnosis in women undergoing a colonoscopy

Consoli SM^{a,b}, Lemogne C^{a,b}, Abgrall-Barbry G^c, Lamarque D^d, Jian R^{b,e}

^a Dpt of CL psychiatry, European Georges Pompidou Hospital, Paris, France

^b Paris Descartes University, Paris, France

^c Dpt of psychiatry, Hôtel-Dieu Hospital, Paris, France

^d Dpt of Hepato-Gastro-Enterology, Hôtel-Dieu Hospital, Paris, France

^e Dpt of Hepato-Gastro-Enterology, Georges Pompidou European Hospital, Paris, France

Objectives: In patients presenting with clinical signs that may indicate a colorectal cancer, clinicians may interpret the presence of a depressive mood as decreasing the likelihood of cancer diagnosis, especially in women. This study aimed to examine the association between depressive mood and subsequent diagnosis of cancer in candidates for a colonoscopy. We hypothesized that depressive mood would be related to subsequent cancer diagnosis, after adjusting for confounding variables.

Method: Ninety-three patients (34 men, mean age \pm SD = 56.6 \pm 9.7 years, 59 women, mean age \pm SD = 54.2 \pm 12.9 years) were given the 13-item Beck Depression Inventory to assess depressive mood before undergoing colonoscopy. Psychological, demographic, and clinical covariates were collected, as well as the result of the subsequent colonoscopy. Cancer was defined as advanced neoplasia, or adenoma \geq 10 mm, with high-grade dysplasia, villous/tubulovillous histologic characteristics, or any combination thereof.

Results: The colonoscopy found a cancer in 28 patients (30.1%). Cancer patients were older ($P=0.007$), more likely to be male ($P=0.025$), and to present with anemia ($P<0.001$) and unexplained weight loss ($P=0.003$). Depressive mood predicted cancer diagnosis in women ($P=0.005$), but not in men ($P=0.471$). In regression analyses both depressive mood and depression*sex interaction predicted cancer diagnosis, even after adjusting for age, anemia, and unexplained weight loss ($P=0.01$ and 0.041, respectively, for depression and depression*sex interaction).

Conclusions: Results suggest that depressive mood should not be interpreted as decreasing the likelihood of cancer diagnosis in patients presenting with clinical signs requiring a colonoscopy. On the contrary, even if depressive mood is frequent in irritable bowel syndrome patients, clinicians should consider depressive mood as increasing the likelihood of cancer diagnosis when appraising the need for a colonoscopy, to search for colorectal cancer in women.

31 – Population-based study of stress in three functional somatic syndromes

Creed F, Chew-Graham C, Macfarlane G, Tomenson B, Davies I, Littlewood A, McBeth J

Psychiatry and Primary Care Research Groups, ARC Epidemiology Unit, University of Manchester, UK; Dept of Public Health, University of Aberdeen, Scotland, UK

Background: Few population-based studies have examined childhood and adult stress in relation to 3 functional syndromes in the same sample.

Method: Prospective population-based cohort study of 1443 UK adults (58% response) with 741 (75% of those agreeable) followed up 1 year later. We excluded medically explained syndromes by examining medical

records. We identified risk factors at baseline and follow-up for participants with Chronic Widespread pain (CWP - 9.4% of sample), Irritable bowel syndrome (IBS - 3.5% of sample) & chronic fatigue (CF - 12.6% of sample).

Results: Baseline analysis indicated common effects across the 3 syndromes for many demographic features, reported childhood abuse and recent stressful life events. There was no common effect for the following:

- less than 12 years of education was associated only with CWP

- recent serious illness in a close relative, neuroticism, HADS anxiety and SF12 mental scores were associated only with Chronic fatigue, indicating worse mental health in this syndrome.

In logistic regression controlling for confounders: Persistent Chronic Widespread Pain (42% of baseline cases) was predicted by numerous bodily symptoms (OR=1.22 [95% CI: 1.1-1.5]) and recent serious problems with close friends (OR=4.1 [1.3-12.7]). Persistent chronic fatigue (46% of baseline cases) was predicted by HADS depression (OR=1.3 [1.13-1.5]) & numerous bodily symptoms (OR=1.1 [1.0-1.2]).

Conclusions: The different pattern of correlates for chronic widespread pain and chronic fatigue could indicate different mechanisms in these syndromes which should be investigated in future genetic and physiological studies.

32 – Psychological treatment for irritable bowel syndrome – possible mechanisms

Creed F, Tomenson B, Guthrie E, Ratcliffe J, Fernandes L, Read N, Thompson DG, on behalf of the North of England IBS Research Group

Psychiatry & Gastrointestinal Sciences Research Groups, University of Manchester

University of Sheffield Centre for Human Nutrition

Background: The determinants of long-term outcome of severe irritable bowel syndrome (IBS) following psychological or antidepressant treatment are unclear. We reported previously that somatisation mediated the response to psychotherapy and antidepressants in people with reported sexual abuse. Here we aimed to assess the predictors of short- and long-term outcome.

Methods: Patients with severe IBS were randomly allocated to psychotherapy, an SSRI antidepressant, paroxetine, or routine care. At baseline, 3 and 15 months later assessments were made of depression, somatisation, abdominal pain and health status (SF-36) as the main long-term outcome measure. The relationship between these was assessed using path analysis.

Results: Of 257 patients with severe IBS, 225 (87.5%) were successfully followed up 15 months later. Severity of abdominal pain after the 3 months treatment was predicted by baseline somatisation ($\beta=0.19$, $p<0.01$) but

not depression. At 3 months, psychotherapy predicted depression severity ($p=0.033$) but not abdominal pain whereas antidepressant treatment predicted severity of depression ($p=0.003$) and abdominal pain (0.0043). At long-term follow up health status was predicted by baseline somatisation ($\beta=-0.12$, $p=0.045$) and by both psychotherapy ($\beta=0.18$, $p=0.001$), and antidepressant treatment ($\beta=0.21$, $p<0.001$); these treatments did not influence long-term outcome via depression or pain.

Conclusions: The long-term outcome of patients with severe IBS treated with antidepressant or psychotherapy is not primarily mediated by changes in depression or pain. Somatisation and its antecedents are important. Further understanding of the mechanisms involved is necessary for us to develop more efficacious treatment for these patients.

33 – Illness perceptions determine quality of life and psychological distress in patients suffering from irritable bowel syndrome

De Gucht V, Maes S

Leiden University, Institute of Psychology, Department of Clinical and Health Psychology

Background and aims: The illness perceptions that patients hold are known to influence Health-Related Quality of Life (QOL) and psychological distress. The aim of the present study was to examine the contribution of illness perceptions to QOL and distress in a population of patients suffering from Irritable Bowel Syndrome (IBS). **Methods:** Members of a patient support group (N=144) filled out self-report questionnaires with respect to illness perceptions (IPQ-Brief), disease-specific QOL (IBS-QOL), anxiety, depression and somatization (BSI). Only patients meeting the Rome III criteria for IBS were included in the study (N=123; Mean age (SD) = 32.43 (11.82); 88% were women). As some of the IPQ dimensions correlated highly with each other, they were subjected to a principal component analysis (PCA). This PCA resulted in two factors, namely an impact and a control factor. These factors, together with their interaction term, were entered as determinants into a hierarchical multiple regression analysis.

Results: The IPQ impact factor significantly predicted each of the QOL dimensions, anxiety, depression and somatization ($p<0.001$). In addition, the control factor significantly predicted the dysphoria dimension of QOL ($p<0.05$). The interaction between impact and control predicted anxiety ($p<0.05$).

Conclusion: The perceived impact of IBS is the strongest determinant of QOL and distress in this patient population. Future longitudinal research should explore whether this dimension predicts the development of acute bowel symptoms into IBS, as well as the perpetuation and aggravation of IBS.

34 – Influence of gender on baseline characteristics of depression and future risk for incident stroke in an elderly population: Results from the ZARADEMP project

De-la-Cámara C, Gracia-García P, Roy JF, Santabárbara J, López-Antón R, Campayo A, Quintanilla MA, Saz P, Marcos G, Lobo A, and the ZARADEMP Workgroup CIBERSAM. Instituto Aragonés de Ciencias de la Salud. Departments of Psychiatry, Public Health and Psychology, Universidad de Zaragoza, Hospital Clínico Universitario and Hospital Universitario Miguel Servet, Zaragoza, Spain

Background and aims: Stroke and depression are conditions of major concern for public health in the aging population. Previous research suggests that depression increases the risk for an incident stroke. There are gender differences both in depression and stroke epidemiology. We study the prospective relationship between baseline characteristics of depression and the risk of incident stroke. We hypothesize that gender moderates this association.

Methods: A randomly selected population-based sample (N=4,803) aged 55+ was interviewed according to the ZARADEMP Project. Depression and dementia was assessed with the Spanish standardized version of the GMS-HAS-AGECAT package. Cardiovascular conditions and risk factors as hypertension (HTN), diabetes mellitus (DM), acute coronary syndrome (ACS), stroke, smoking and statin use were assessed at baseline and follow-up (2.5 years after) examinations with the EURODEM risk factor questionnaire. Cognitive and functional status was measured using MMSE and Katz and Lawton & Brody Scales. Individuals with a history of stroke or/and depression were excluded, as well as subjects with dementia. Depression criteria: AGE-CAT cases and sub-cases. Multivariate binary logistic regression models were stratified by gender.

Results: After controlling by sociodemographic (age and education), metabolic (smoking, HTN, DM, ACS) and cognitive/functional functioning, we found that depression was an independent risk factor for incident stroke in men (OR 3.79; 95% CI [1.37-10.54]). We found no significant association in women (OR 1.48; 95% CI [0.67-3.24]).

Conclusion: To our knowledge, this is the first epidemiological study reporting that gender moderates the association between baseline first-ever depression and incident stroke in the general elderly population.

35 – The cardiovascular response of a scientist conducting an interview with hypertensive patients and healthy controls

*Deter HC, Apel L, Blecher A, Orth-Gomér K
Dept of Psychosomatics, Charité Campus Benjamin Franklin, Berlin, Germany
Abteilung Psychosomatik und Psychotherapie, Charité Campus Benjamin Franklin
Universitätsmedizin der Freien und der Humboldt Universität, Berlin*

Background and aims: In patients with essential hypertension (EH) cardiovascular reactions to laboratory stress are much higher than in normal controls (C). It would be hypothesized that there is also an interaction between patients and the experimenter (E) during the interview according cardiovascular parameters. The aim of this study was to examine if cardiovascular responses of an E confronted with the two groups (EH, C) are different.

Method: 22 patients with hypertension (13 EH, 9 with renal hypertension (RH)) and 22 healthy controls (C) underwent an emotion stimulating interview (ESI; which provoked anger, anxiety, depression and other emotions, triggered by the E over 45 min). In the E HR, SBP and DBP were measured every 2 min by Tonoport, Berlin, Ger. This parameters and the double product (HRxSBP) were calculated during the ESI and evaluated by repeated measure analysis.

Results: Groups were comparable according to gender, age; daytime and season of the year. There was a significant time effects over all groups during the interview in the HR of the physician (it decreased, $F 5.68$; $p=0.001$) and the DBP (it increased, $F 2.54$; $p=0.01$). We found a time x group effect of HRxSBP as a measurement for cardiovascular activation if the experimenter, who was confronted with EH, RH and C (significant ($F 1.86$; $p=0.04$)). In a sub analysis we could show that the comparison between EH and C was highly responsible for this significant time x group effect.

Conclusion: We found in the E the same HR x SBP differences during his confrontation with EH, RH and C as seen in a former study looking at the SBP x HR pattern in these patients (Deter et al 2007). It seemed, that there is a correlation of cardiovascular responses between patients/controls and the E during an ESI. Perhaps the higher autonomic tension seen in EH (compared to C) was “transferred” to the E and intensified. The study shows clearly that E is not independent, but influenced by his examined subjects. A better understanding of hypertensive patients, their cardiovascular responses and the effects on other persons like scientific experimenters and physicians seems an interesting task for promoting research and medical practice in EH.

36 – Association of alexithymia and burnout in medical professionals

Diaconescu L^a, Popa-Velea O^a, Mihăilescu A^a, Diaconescu I^b

^a University of Medicine and Pharmacy “Carol Davila”, Bucharest, Department of Medical Psychology

^b Institute of Cardiovascular Diseases “C. C. Iliescu”, Bucharest

Aim: The aim of this study was to evaluate the relative contribution of alexithymia on burnout levels of medical professionals working in two medical specialties, characterized by different specific of distress.

Method: Participants were 40 doctors and nurses (13 men, 27 women; mean age = 37.12, SD=9.87) from surgery and psychiatry wards of 2 university hospitals in Bucharest. Design of the study was transversal, with a single administration of Toronto Alexithymia Scale (Bagby et al., 1994) and Maslach Burnout Inventory (Maslach & Jackson, 1981).

Results: Multivariate analysis of variance showed that exhaustion component of burnout had a direct association to two components of alexithymia, namely difficulty identifying feelings ($F=6.96$, $p<.01$) and externally-oriented thinking ($F=4.94$; $p<.03$). In what concerns alexithymia, difficulty of describing feelings was more prevalent at psychiatrists than at surgeons (10.15 vs. 9.90; $p<.04$), whereas difficulty of identifying feelings was more prevalent at surgeons than at psychiatrists (12.19 vs. 11.63; $p<.03$). Total alexithymia scores were superior in doctors compared to nurses (39.00 vs. 20.60; $p<.03$) and differed significantly by gender, with men having higher total scores (39.53 vs. 31.92; $p<.03$), higher subscores of difficulty identifying feelings (14.15 vs. 10.85; $p<.003$) and difficulty describing feelings (10.38 vs. 9.85; $p<.04$).

Conclusions: Alexithymia, being an important predictor of exhaustion, is a factor that should be considered when designing therapeutic programs for avoiding or addressing burnout at medical professionals.

37 – Characteristics of psychosocial interventions that improve depression in people with coronary heart disease: A systematic review with meta-regression

Dickens C, Cherrington A, Garrett C, Bower P, Bundy C, Gask L, Coventry P

National Institute of Health Research Collaboration for Leadership in Applied Health research and Care (NIHR CLAHRC) for Greater Manchester

Background and aims: Depression is common in people with coronary heart disease (CHD) and predicts worse medical outcomes. Psychosocial interventions may improve depression, though the variations in methodology of existing trials mean that it is unclear

which psychosocial interventions are effective in people with CHD. The review aims to identify the characteristics of psychosocial interventions that improve depression in people with CHD.

Methods: Randomised controlled trials of psychosocial interventions in patients with CHD that included depression as an outcome were identified by searching major electronic databases. For eligible studies, the main characteristics of the intervention were coded into 12 categories: general discussion, education, skills training, exercise, behavioural therapy, relapse prevention, problem solving, cognitive behavioural therapy, social support, relaxation, biofeedback, others. Standardised mean difference (SMD) in depression score were calculated for each intervention and random effects meta-regression was used to examine the relationships between individual intervention characteristics and depression outcomes.

Results: 56 independent studies were identified, providing data on 58 separate interventions. Interventions including education (SMD=0.14, $p<0.0005$), exercise (SMD=0.17, $p=0.04$), problem solving (0.36, $p=0.001$), cognitive behavioural therapy (SMD=0.25, $p<0.0005$), social support (SMD=0.16, $p=0.03$) and relaxation (SMD=0.17, $p=0.006$) were associated with improvement in depression status. Interventions were usually highly mixed, however, including between 1 and 7 individual components. On meta-regression no single intervention characteristic was associated with improved depression status.

Conclusions: Psychosocial interventions used in CHD are highly complex in their structure. Whilst some trials of psychosocial interventions have clearly shown improvement in depression, it remains unclear what combination of characteristics are required to improve depression in CHD.

38 – Does cancer cause posttraumatic stress disorder (PTSD)?

Dorfer M, Greimel E, Lambauer M, Lahousen M

Medical University of Graz, Department of Obstetrics and Gynaecology

Background and aims: The diagnosis of gynaecological cancer can have a severe psychological, sometimes even traumatizing impact. The symptoms of this impact are often put on a level with PTSD. There is controversy whether a cancer diagnosis meets the criteria of a traumatic stressor. The present study aims at examining distressing symptoms and assessing the actual prevalence of PTSD.

Methods: A sample of 210 patients with gynaecological malignancies (ovarian 70, endometrial 61, cervical 52 and vulva 27) have been screened for PTSD symptoms and

psycho-social factors at a follow-up visit from January to June 2009. The Impact of Event Scale (IES-R) which includes intrusion, avoidance and hyperarousal was used as a screening tool. A structured clinical interview following the DSM-IV PTSD criteria was conducted with patients who showed noticeable PTSD symptoms.

Results: Of the 210 patients 22 showed noticeable PTSD symptoms; 4 of them had to be excluded. Of the remaining 18 patients only nine were finally diagnosed with an actual PTSD according to the DSM-IV criteria. These patients experienced distressing life events in addition to their cancer diagnosis or were in an advanced stage of their illness.

Conclusion: Gynaecological cancer can cause PTSD, however, the percentage of the actual disorder is not more than about five percent. The results show that psychological support is needed throughout the course of disease and treatment in order to prevent PTSD.

39 – Influence of music on patients undergoing percutaneous coronary intervention

Dorfmann S^a, Wallner H^b, Höfer S^a

^a Department for Medical Psychology, Innsbruck Medical University

^b Hospital Schwarzach, Austria

Background and aims: Although percutaneous coronary intervention (PCI) is less burdensome than bypass surgery, patients still experience elevated levels of anxiety as they are awake during this procedure. The aim was to investigate the effects of music on perceived anxiety, relaxation and physical parameters before, during and after PCI.

Methods: In a randomised study the patients' health status (PHQ) and anxiety level (state-trait anxiety inventory) was assessed at day of admittance (t0), levels of relaxation/agitation, pulse and blood pressure were measured at t0, 20 minutes before (t1), immediate beginning of (t2) and immediately after (t3) PCI. Patients in the intervention group (IG) received 20 minutes relaxation music of their choice immediate before PCI, the control group (CG) received treatment as usual during the waiting period.

Results: In total 40 patients (IG:20/CG:20, 100% male) participated in the study (IG mean age: 69±9; CG mean age: 67±10). The groups were comparable in all variables. Pulse was stable from t0 to t1 for both patient groups, however dropped at the beginning of PCI. by 3 bpm for the IG group, and increased by 2 bpm in the CG (p-value=0.07). Relaxation/agitation showed a linear increase in the CG, and a u-shaped course in the IG (p<.001).

Conclusion: This randomised study documented the influence of relaxation music immediate before PCI on subjective anxiety levels as well as on bodily parameters

of arousal. Music intervention can be considered as adjuvant intervention to increase subjective levels of relaxation and reduce physical arousal for patients undergoing PCI.

40 – Depression in cardiac patients: Exhaustion or depression, depression or disease severity?

Doyle F^a, Conroy RM^b, McGee HM^a, Delaney M^b

^a Departments of Psychology and

^b Epidemiology & Public Health Medicine, Division of Population Health Sciences, Royal College of Surgeons in Ireland, Dublin 2

Background and aims: Depression is associated with poor prognosis in cardiac patients. However, at least two controversies remain in the literature. Firstly, some contend that 'vital exhaustion', but not depression, accounts for the depression-prognosis association. Secondly, others suggest depressive symptoms are actually a marker of cardiovascular disease severity. We assessed 1) the latent structure of exhaustion and depression 2) whether elevated depressive symptoms were better predicted by cardiovascular disease indices, or by theoretical vulnerabilities for depression.

Methods: In a cross-sectional design, data from cardiac patients (total n=430), who completed depression and vital exhaustion assessments was analysed. A subset (n=336) also completed questionnaires assessing depressive vulnerabilities (stressful life events, reduced positive reinforcement, distorted cognitions, type D personality).

Results: Mokken scaling formed a unidimensional scale, ordered in a hierarchy reflecting symptom prevalence: fatigue/exhaustion (common), depression (less common) and hopelessness (rare). Disease indices accounted for 7% of the variance in depressive status (pseudo R²=0.07, $\chi^2=137.9$, p<0.001). Adding vulnerabilities increased the overall variance explained to 22% (pseudo R²=0.22, $\chi^2=58.6$, df=4, p<0.001).

Conclusion: Depressive symptoms form a clear hierarchy in cardiac patients, from fatigue to hopelessness. Vital exhaustion may be considered a less severe form of depression. Furthermore, theoretical vulnerabilities predicted depression status better than did either demographic or disease indices, which suggesting that depression is not simply a result of cardiovascular disease severity.

41 – Twenty-year systematic review of the impact of depression on subsequent secondary prevention behaviours in patients with coronary heart disease

Doyle F^a, Kowalczyk A^b, Morgan K^a

^a Department of Psychology, Division of Population Health Sciences, Royal College of Surgeons in Ireland, Dublin

^b School of Social Work & Social Policy, Trinity College Dublin

Background and aims: Depression is associated with increased risk of morbidity and mortality in those with coronary heart disease (CHD). However, recent research has suggested that this association is largely mediated by sub-optimal health behaviours. We aimed to systematically review the longitudinal association between depression and subsequent secondary prevention activities.

Methods: Electronic databases (PsychInfo, PubMed, CINAHL) were systematically searched for longitudinal studies of CHD patients which measured depression at baseline and reported one of the following health behaviours at follow-up: cardiovascular medication adherence, smoking continuation/cessation, cardiac rehabilitation attendance/completion, physical activity levels, diet modification, change in body mass index (BMI). The timeframe was 1990-2009.

Results: 42 articles were initially identified containing at least one relevant outcome measure. Articles were of heterogeneous quality, which did not allow data to be combined for meta-analysis. Multiple papers from single datasets were eliminated. The following numbers of articles showed that depression was associated with suboptimal adherence behaviours: 6/9 for medication adherence; 6/12 for smoking; 9/19 for cardiac rehabilitation attendance/completion; 10/20 for physical activity; 1/6 for poorer diet adherence; 0/6 for BMI increase. Few studies used objective measures of behaviours.

Conclusion: The evidence for depression impacting on subsequent poorer health behaviours in those with CHD is limited. A dearth of quality studies exists. Studies with sufficient power and objective outcome measures of health behaviours are urgently needed to determine if depression impacts on such behaviours over time.

42 – Differential association of somatic and cognitive symptoms of depression and anxiety with inflammation: Findings from the Netherlands study of depression and anxiety

Duivis HE^a, Vogelzangs N^b, Kupper N^a, de Jonge P^{a,c}, Penninx BWJH^b

^a Center of Research on Psychology in Somatic Diseases, Tilburg University, Tilburg

^b Department of Psychiatry/EMGO+ Institute, VU University Medical Center, Amsterdam

^c Department of Psychiatry, University Medical Center Groningen, Groningen

Background and aims: There is some evidence showing that depression and anxiety are associated with inflammation. Most studies, however, do not differentiate between somatic and cognitive symptom dimensions of

depression and anxiety, whereas these dimensions could be differentially associated with inflammation. Therefore, we examined if somatic and cognitive symptoms of depression and anxiety are differentially associated with IL-6 and CRP.

Methods: Data were derived from 2887 participants from the Netherlands study of Depression and Anxiety (NESDA). Depression and anxiety symptoms were measured using the Inventory of Depressive Symptoms and the Beck Anxiety Inventory. Both questionnaires were divided into somatic and cognitive subscales. Blood samples were collected to determine IL-6 and CRP.

Results: Unadjusted linear regression analyses revealed that both somatic and cognitive symptoms of anxiety were associated with IL-6 ($\beta=.143$, $p < .001$; $-.089$, $p=.001$) and CRP ($\beta=.154$, $p < .001$; $\beta=-.063$, $p=.020$), although in opposite direction. Somatic symptoms and not cognitive symptoms of depression were significantly associated with IL-6 ($\beta=.085$, $p=.002$) and CRP ($\beta=.146$, $p < .001$). After adjustment (demographics, lifestyle factors and medication use) only somatic and cognitive symptom scales of anxiety remained significantly associated with IL-6 ($\beta=.059$, $p=.027$; $\beta=-.064$, $p=.015$).

Conclusion: We found evidence that somatic and cognitive symptom scales of depression and anxiety are differentially associated with inflammation. These findings suggest that the association between internalizing psychopathology and inflammation may be due to sickness behavior.

43 – Psychological and genetic determinants of the irritable bowel syndrome

Dumitrascu DL, Hotoleanu C, Pop I, Popp R

University of Medicine and Pharmacy Iuliu Hatieganu Cluj, Romania

Background: Although there is no single gene polymorphism involved in etiopathogenesis of irritable bowel syndrome (IBS), recent studies show the importance of polymorphisms in the promoter region of the serotonin reuptake transporter gene. A functional polymorphism represented by insertion, respectively deletion of 44 base pairs in the 5-HT- transporter-gene-linked polymorphic region (5-HTTLPR) was found to be associated with the IBS with constipation, respectively with diarrhea predominance.

Aim: We aimed to analyse the association of these polymorphisms with IBS and the subtype of IBS. We looked for the main psychological features of these patients.

Method: We designed a pilot case-control transversal study. We enrolled 2 groups of 16 cases, first group with IBS, including 8 cases with diarrhea predominance and 8 cases with constipation and the second group, sex- and aged- matched controls. We used PCR for genetic

analysis. Anxiety, depression, alexithymia, quality of life were investigated with STAI, BDI, TAS and SF36 respectively.

Results: We identified a significant association of long allele genotype (resulting from insertion) with IBS with constipation. No differences were found between 2 sexes. No significant association was found between short allele genotype and IBS with diarrhea subtype. Both groups of IBS showed similar scores for anxiety, depression, quality of life and alexithymia. These parameters were as expected impaired vs. controls.

Conclusions: There is a significant association between long allele genotype and IBS with constipation subtype. The association does not depend upon sex. No significant association was identified between short allele genotype and IBS diarrhea subtype. Bowel transit abnormalities were associated with similar changes of main psychological factors.

44 – Job strain, inflammatory biomarkers and coronary events in healthy workers: The MONICA/KORA Augsburg case-cohort study

Emeny RT^a, Baumert J^a, Zierer A^a, Lacruz ME^a, Herder C^b, Koenig W^c, Thorand B^a, Ladwig KH^{a,d} for the KORA Investigators

^a *Helmholtz Zentrum Muenchen, German Research Center for Environmental Health, Institute of Epidemiology, 85764 Neuherberg, Germany*

^b *Institute for Clinical Diabetology, German Diabetes Center, Leibniz Center for Diabetes Research at Heinrich Heine University, 40225 Duesseldorf, Germany*

^c *Department of Internal Medicine II-Cardiology, University of Ulm Medical Center, 89081 Ulm, Germany*

^d *Department of Psychosomatic Medicine and Psychotherapy, Klinikum rechts der Isar, Technische Universitaet Muenchen, 81644 Munich, Germany*

Background: Whether job strain contributes to the aetiology of coronary heart disease (CHD) is uncertain, and mechanisms that underlie this relationship unknown.

Method: We investigated associations between job strain and biomarkers of subclinical inflammation and endothelial dysfunction with CHD, and examined whether these biomarkers provide mechanistic links between job strain and CHD. Study participants (n=1,027; age 35-64, 68% male) were selected from employed participants of the prospective, population-based MONICA/KORA Augsburg study (1984-2002).

Results: The case-cohort sample contained 951 non-cases and 114 incident CHD cases. Work stress, assessed by Karasek's Job Strain Index, and 9 biomarkers were measured at baseline, and the main outcome (CHD), reported as sudden cardiac death or myocardial infarction (fatal and non fatal), was obtained after an average of 13 years. Baseline levels of C reactive protein

(CRP), interleukin (IL)-6 and sICAM were significantly increased in all cases. In the high job strain group only, cases had significantly increased IL-18, IL-8 and monocyte chemoattractant protein (MCP)-1 compared to non-cases. In crude, Cox proportional hazard models, increased job strain significantly predicted CHD (hazard ratio 2.57, 95% CI 1.09-6.07, P-value=0.032). Models fully adjusted for CHD risk factors reduced the strength and significance of this association; however, with MCP-1 in the model, the significant risk of job strain was restored with a 13% change in estimate. While both CRP and MCP-1 were associated with CHD in fully adjusted models, only MCP-1 remained significant after adjustment for job strain.

Conclusion: These results suggest that work stress associated inflammatory burden may contribute to CHD pathogenesis.

45 – The combined effect of depression and anxiety in somatization of primary care users

Fabião C, Silva MC, Fleming M, Barbosa A

Universidade Católica Portuguesa

Instituto de Ciências Biomédicas Abel Salazar

Departamento de Psiquiatria de Ligação/Hospital de Santa Maria/Faculdade de Medicina de Lisboa

Aim: The aim of this is to determine the association of somatization with current and severe forms of depression and anxiety.

Methods: In a two-phase cross-sectional study 206 consecutive adult primary care users were screened with an adapted version of the SOMS-2 and were further interviewed by a psychiatrist using the Mini International Neuropsychiatric Interview to diagnose depressive and anxiety disorders. Somatization was present in persons that after the clinical interview (with General Practitioner clinical opinion and medical records consulted) presented 4 or more medically unexplained symptoms (MUS) in the Portuguese version of SOMS-2 (sensitivity=86%, specificity=95.5%).

Results: Among the participants, 167 (81%) accepted to be interviewed, 76.6% of them were women and the average age was 44 years (sd=15). Somatization was present in 54 (32.2%) persons, current and severe depression in 21.5% and 6% and current and severe anxiety in 23.4% and 19.8%. The relative risk of somatization in persons with current anxiety was rr=1.9 (95% CI: 1.3-2.9) decreasing in persons with severe anxiety, rr=1.7 (95% CI: 1.1-2.7); in the presence of current depression was rr=1.7 (95% CI: 1.1-2.7) increasing to rr=3.6 (95% CI: 2.8-4.6) in persons severely depressed. After adjusting for the effects of depression, anxiety was no longer significant, while both current and severe depression remained significant, rr=2.3 (95% CI: 1.5-3.6) and rr=3.2, 95% CI: 1.8-5.6), respectively.

Conclusion: There is a “dose-response” relation between depression and somatization, while the relation between anxiety and somatization is questionable, since it disappears after adjusting for depression.

46 – Human psychophysiological responses to pain – an integrated reproducible phenotype

Farmer AD, Coen SJ, Kano M, Aziz Q

Wingate Institute of Neurogastroenterology, Barts & The London School of Medicine & Dentistry, London, UK

Background: 120 healthy subjects (68 males, median age 29.2 years, range 19-55 years) were genotyped for 5-HTTLPR polymorphisms and personality assessed. Autonomic nervous system (ANS) parameters were measured at baseline and continuously thereafter. 7 painful visceral stimuli (mid-oesophageal balloon distension) followed by 7 painful somatic stimuli (nail bed pressure) were administered to the subject’s pain tolerance. Serum cortisol was measured at baseline and following painful visceral & following somatic stimulation. A cohort of 30 subjects (18 males, median age 29 years, range 20-54 years) had the study repeated at 1 year to evaluate reproducibility of responses.

Results: Neuroticism was negatively correlated with the mean intensity of visceral & somatic stimuli ($p=0.001$, $r=-0.38$ & $p=0.003$, $r=-0.45$ respectively) but positively correlated with baseline, post-somatic & post-visceral pain cortisol ($p<0.0001$, $r=0.42$, $p<0.0001$, $r=0.48$ & $p<0.0001$, $r=0.53$ respectively). Hierarchical cluster analysis identified 2 psychophysiological clusters: Cluster 1 ($n=59$) were more neurotic ($p<0.0001$), less extrovert ($p<0.0001$), more anxious ($p<0.0001$), had lower resting PNS tone ($p=0.01$), higher baseline cortisol ($p=0.006$), habituated less to visceral & somatic pain ($p=0.005$ & $p=0.04$ respectively) who increased their PNS tone to visceral & somatic pain ($p<0.0001$ & $p<0.0001$ respectively). The ss genotype for 5-HTTLPR was more prevalent in this group ($p=0.04$). Cluster 2 ($n=61$) had the opposite profile with the ll genotype being more prevalent ($p=0.032$).

Conclusions: In health, two distinct & reproducible psychophysiological endophenotypes exist in response to visceral & somatic pain. The clinical relevance of these warrants further investigation.

47 – Attachment style and temperament in people with early stages of multiple sclerosis

Fazekas C, Khalil M, Enzinger C, Fuchs S, Fazekas F

Medical University Graz, Department of Medical Psychology and Psychotherapy/Clinical Psychomatics, Department of Neurology

Background and aims: Attachment style and temperament can influence coping with stress. It has been suggested that these traits may also be associated

with distinct patterns of neuroendocrine/immunologic response. We therefore assessed the association between these personality variables and disease-activity in a cohort of people with early multiple sclerosis (MS) to explore their possible impact on the course of the disease.

Methods: Patients with a clinically isolated syndrome (CIS) or relapsing remitting MS (RRMS) were asked to complete the Adult Attachment Scale (AAS) and the Temperament and Character Inventory (TCI) as part of a prospectively planned follow-up study. Relapses and fMRI data were recorded at regular outpatient visits. Clinical data encompassed the Expanded Disability Status Scale (EDSS), the annualized relapse rate, disease duration and therapy.

Results: Study participants ($n=85$; 39 with CIS; 46 with RRMS) were assessed with a low EDSS (median 2) and a low relapse rate (median .52 for the RRMS subgroup). None of the calculated group comparisons (between CIS and RRMS; EDSS <2 and >2 ; annualized relapse rate for RRMS $<.52$ and $>.52$) revealed a significant association between investigated personality variables and clinical parameters.

Conclusion: Findings suggest that attachment style and temperament are not significantly associated with clinical variability in early MS.

48 – Domestic violence experienced in childhood and subjective health in adult life: A survey among marginalised groups in Austria

Fazekas C, Freidl W, Rami R, Pretis M, Feistritzer G

Medical University Graz, Department of Medical Psychology and Psychotherapy / Clinical Psychomatics, Institute of Social Medicine and Epidemiology; Institute of Empirical Research IFES, S.I.N.N. Evaluation

Background and aims: Domestic violence experienced in childhood has been suggested to have a detrimental effect on health status in adult life. This assumption may be particularly relevant for socially disadvantaged and marginalised people. We therefore assessed the association between domestic violence experienced in childhood and health status in this group based on a demand-resource model of health.

Methods: A structured interview survey was conducted in three federal provinces in Austria, which targeted a quota sample of 486 subjects in long-term unemployment. Multivariate co-variance analyses were performed for the independent variable violence experienced in childhood..

Results: The study results demonstrate that all three levels of the demand-resource model of health (health and health behavior as well as personal health resources and social health resources) significantly deteriorate with domestic violence experienced in childhood among men. No such differences were found in women. Overall,

women reported better health and resources than men in this cohort, except for the quantity of symptoms.

Conclusion: Domestic violence prevention would thus deserve to be a priority in public health interventions, especially in socially under-privileged men.

49 – Training in psychosomatic medicine and associated effects: Analyses of communication skills, patient health outcome and reported clinical routine

Fazekas C, Leitner A, Pieringer W

Medical University Graz, Department of Medical Psychology and Psychotherapy / Clinical Psychomatics; Danube University Krems, Department for Psychosocial Medicine and Psychotherapy

Background and aims: In Austria three consecutive levels of long-term training in psychosomatic medicine have been in place for medical doctors for more than ten years. Therefore we probed for different effects of these programs in three studies.

Methods: In study 1 communication skills were analyzed pre and post training by rating 136 videotaped doctor-patient interviews with RIAS (Roter Interaction Analysis System). In study 2 patient health outcome (n=56) of psychosomatic and psychotherapeutic interventions was investigated. Data collection included a symptom checklist (SCL90-R), a scale for depression (ADS-L) and a scale for anxiety (STAI-G). Study 3 focused on reported clinical routine in a questionnaire survey. It was conducted among all Austrian GPs with an according training background and among a random national sample of GPs without such training.

Results: Study 1 shows significant improvement of communications skills associated with training. Study 2 demonstrates a positive patient health outcome over a wide range of symptoms and corresponding sleeper effects half a year after the intervention. Participants in study 3 reported a linear increase of psychosomatically oriented diagnostic and therapeutic routine procedures with the level of training.

Conclusion: Results point at the efficacy and clinical relevance of these training programs.

50 – Burn-out syndrome among Italian psychiatry residents: Results for Italy from the BOSS international study

Ferrari S^a, Pingani L^a, Cuoghi G^a, Jovanovic N^b, Beezhold J^c, Rigatelli M^a

^a Ricercatore Universitario in Psichiatria

^b Università degli Studi di Modena & Reggio Emilia

^c Clinica Psichiatrica, Policlinico di Modena, Via del Pozzo 71 41124 Modena

Background and aims: Acknowledged risk factors for burnout syndrome include being a mental health

worker, younger age (in the sense of less professional experience) and status as a residents. The aim of the BOSS International Study was to put all these and other risk factors together and study their associations, as predictors of this undesirable condition. 20 countries worldwide were involved. Results from the Italian participants are displayed and discussed here.

Methods: An invitation to join in the study was sent to 193 residents in psychiatry from the whole national territory of Italy, including a link to the BOSS online questionnaire (Italian version); this collects data on demographics, education, working circumstances, and from five psychometric instruments (Maslach Burnout Inventory – MBI-GS, Areas of Worklife Survey, PHQ-9, Big Five Inventory - 10, Suicide Ideation and Behaviour Questionnaire).

Results: A total of 113 residents completed the survey (58.5% response rate, 22/78% M/F, mean age 30.3-3.7). Mean scores at the three MBI components were 2.9 (exhaustion), 1.9 (cynicism) and 4.8 (professional efficacy), accounting for low levels of burnout among the respondents. 14% of respondents confessed they were on daily medication, mainly antidepressants (42%) and self-prescribed (50%). Out of all respondents, 34.8% met criteria for PHQ-9 minor depression, and 8.9% for major depression. Only PHQ9-depression was found to be a statistically significant predictor of burnout.

Conclusions: Despite the low level of burnout among Italian residents in psychiatry, other findings in the BOSS survey suggested the need for improved support and tutoring of young psychiatrists-to-be. This presents a significant challenge for training organisations.

51 – Psychiatry and culture: Quantifying the contamination

Ferrari S^a, Menozzi M^a, Piemonte C^a, Pontoni G^a, Masoni L^b, Rigatelli M^a

^a Psychiatric Department, University of Modena & Reggio Emilia, Modena, Italy

^b Celtic & Scottish Studies, University of Edinburgh, Edinburgh, UK

Background and aims: Psychiatry has strong and circular connections with culture and society, which are reflected in a continuous and progressive phenomenon of “contamination” of common language and colloquial expressions. The analysis of this phenomenon might provide with significant elements for training and clinical activities. The aim of this work was to collect and analyze expressions in colloquial language originally derived from psychiatric technical terminology.

Methods: A hundred and ten fifth-year medical students (M/F% = 42/58; mean age = 23.5 ± 3.1) attending their semester in psychiatry were asked to list and discuss

as many words, phrases and expressions as possible referring to psychiatry and mental health. A semi-qualitative analysis of the expressions collected was carried out.

Results: A list of 150 expressions was drawn and then classified in the following 5 categories: technical psychiatric terms; medical-neurological terms; references to psychoanalysis; terms referring to abnormality and need for care; not pertinent terms. Psychiatric expressions, though usually exploited with pertinence, are used alternatively to define individual or others' states or conditions, with different intentions in the two cases, either as means for emphasis or ridiculisation.

Conclusion: Due to fears and prejudices evoked by psychiatric themes, an attempt on exorcising and taking distance leads to the use of psychiatric terms as potentially offensive and despising. This work suggests the need to work – especially in training settings – on filling the gap between common and medical languages and to analyze critically the contaminations as suggestive of very relevant cultural issues.

52 – Update in psycho-geriatric activity at a CL psychiatry service in the general hospital

*Ferrari S, Forghieri M, Pingani L, Rigatelli M
Department of Psychiatry, University of Modena*

Background and aims: The progressive ageing of general population and as a consequence of patients admitted to the General Hospital accounts for the increasing activity of psychiatric consultation on geriatric patients. The quantification and qualitative exploration of this specific CL psychiatry clinical chapter is relevant for the implementation of effective interventions. The aim of the study is to describe the experience of a CL Psychiatry Service with patients aged 65 and more.

Methods: By searching the clinical database of the Modena CL Psychiatry Service, data on psychiatric consultations for over-65 patients carried out between 2000 and 2009 were collected and correlated to each other and to non over-65 patients. Data included: demographics, reason for referral (psychiatric history, clinical question, suspected diagnosis), outcome of consultation (final psychiatric diagnosis, psychotropic drug prescription, back-referral).

Results: Over-65 patients accounted for 43% of all consultations (males 44%, mean age 75±13). Sixty-seven percent of referrals were referred by Internal Medicine wards and the most common reasons for referral were depression (42%), agitation (10%) and confusion (8%). Reasons for referral differed significantly from that of under-65 patients ($p=.003$). A medical-psychiatric comorbidity was assessed in 77% of cases, with adjustment disorders and mixed anxiety-depression as most common

psychiatric diagnoses (67%). Psychotropic drugs were prescribed in 78% of cases.

Conclusions: CL Psychiatry activities for elderly patients in the general hospital are frequent and clinically challenging. Unmet needs for elderly inpatients might be the underestimated question concerning coping strategies and adjustment reactions toward the presence of a medical illness.

53 – The role of acceptance in quality of life and symptom severity of irritable bowel syndrome patients

Ferreira N^{a,b}, Gillanders D^a, Morris P^a, Eugenicos M^b

^a Department of Clinical and Health Psychology, University of Edinburgh

^b Gastroenterology Department, Western General Hospital, Edinburgh

Background: Psychosocial factors have been shown to be important in explaining outcomes (Quality of Life and Symptom Severity) in patients with Irritable Bowel Syndrome (IBS). A new factor called Acceptance has been associated with better outcomes in other chronic conditions (e.g. chronic pain and epilepsy). No study has yet looked at the role of acceptance in IBS.

Aim: The aim of this study was to investigate whether acceptance is associated with outcomes in IBS patients.

Methods: One hundred and twelve consecutive IBS patients attending a Motility clinic were recruited. Participants completed a series of questionnaires assessing the outcomes of Impact on Quality of Life and Symptom Severity, as well as age, length of illness, causal attributions, stress, anxiety, depression and acceptance. Correlation and multiple regression analysis were used with significance set at $p<.01$.

Results: Higher levels of Acceptance were associated with lower perceived Impact on Quality of Life ($r=-.705$) and Symptom Severity ($r=-.557$). Regression analyses showed that Acceptance significantly contributed to explain Impact on Quality of Life ($\Delta R^2=0.246$) and Symptom Severity ($\Delta R^2=0.095$) beyond the effects of age, illness length, causal attributions, anxiety, stress and depression. According to this regression model acceptance also proved to be a good predictor of Impact on Quality of Life ($\beta=-.582$) and Symptom Severity ($\beta=-.425$).

Conclusions: Acceptance is associated with and may predict IBS outcomes. Therapeutic interventions targeting acceptance may prove useful for treatment.

54 – Mindfulness treatment for bodily distress disorders

Fjorback LO, Schröder A, Christensen HJR, Ørnbøl E, Rehfeld E, Arendt M, Fink P

The Research Clinic for Functional Disorders and Psychosomatic, Aarhus University Hospital, Aarhus Sygehus, Denmark

Objective: To examine the efficacy of mindfulness treatment in severe bodily distress disorder (somatization and related disorders).

Methods: All patients accepted at referral underwent a 6-hour neuropsychiatric assessment interview, psychological and physical examination, and blood tests were taken. The 120 patients included in the study were randomized to either mindfulness treatment consisting of mindfulness based stress reduction combined with psychoeducation for somatization; a manualized program with eight weekly 3½ hour group training sessions and one follow-up session (n=60), or psychiatric consultation intervention in which the patients were offered a psychiatric consultation after the assessment interview (n=60).

Outcome: The patients are followed up at 3, 6, and 12 months. Primary outcome measure is physical health measured with the SF-36 physical component summary. Secondary outcome measures are health care utilization, physical symptoms, psychosocial functioning, psychiatric symptoms, health anxiety, mindfulness, and lifestyle factors.

Results: 83% of the patients randomized to mindfulness treatment completed 6 or more sessions. Preliminary end of treatment results will be presented.

Conclusion: The compliance was high in both treatment modalities, indicating that the patients find it useful to be listened to, getting a clear definition of their illness, and having reattribution of their illness perception. This suggests, that both treatments are feasible and acceptable to patients with severe bodily distress disorder. The preliminary results indicate, that the mindfulness treatment significantly improved both bodily pain and general health, whereas both treatment modalities significantly improved health anxiety.

55 – The stigma of chronic pain patients and its correlation with hypochondriac fears and depression

Freidl M, Piralic-Spitzl S, Aigner M

Department of Psychiatry and Psychotherapy, Medical University of Vienna, Austria

Objectives: To investigate to what degree chronic pain patients suffer from depression, hypochondrias and fears of stigma 140 consecutive in- and out-patients (66% female, age 19-80 years) with somatoform pain disorders (presented at the Behavioural Medicine Pain Clinic in the Department of Psychiatry and Psychotherapy, Vienna)

were investigated using the Structured Clinical Interview-D, the Link stigma questionnaire, Beck Depression Inventory (BDI) and the Whiteley Index (WI).

Methods: The BDI (21 Items) was employed for measuring of the severity of depression. The WI, a 14-item scale, assessed hypochondriac symptoms; (cut-off point at 7), the Link questionnaire (12 items) fears of stigma.

Results: 75% (N=140) of the patients reported fears of stigma, 43.5% fulfilled also the criteria for a depressive mood disorder, 21% showed sub-depressive symptoms, the correlation was highly significant. 33.3% of the patients also suffered from hypochondriac fears, the correlation with the size of the pain also was significant.

Conclusion: Most of the patients suffering from somatoform pain disorder report fear of stigma, which is associated with depression and hypochondriac fears. This should be an important issue for C/L psychiatry and further investigations.

56 – The impact of psychosocial and socioeconomic factors on health status in children with cystic fibrosis

Freinschlag N^{a,b}, Giesinger J^a, Smrekar U^{a,b}, Mitmansgruber H^b, Beck T^b, Eder J^a, Ellemunter H^a and Schießler G^b

^a Medical University Innsbruck, Cystic Fibrosis Centre, Innsbruck, Austria

^b Medical University Innsbruck, Dept. of Medical Psychology, Innsbruck, Austria

Aim: The study objective was the investigation of psychosocial variables affecting the disease trajectory in patient diagnosed with cystic fibrosis (CF). In addition, we analysed the impact of socioeconomic status on patients' health status.

Method: Between 2000 and 2009 all patients treated at the CF Centre at Innsbruck Medical University and aged below 18 (n=103) were included in the study and assessed longitudinally. As measures of physical health status we recorded lung function values and body mass index (BMI). Psychosocial status was assessed using the Cystic Fibrosis Problemchecklist (CFPC) and Hospital Anxiety and Depression Scale (HADS). Lung function and BMI were recorded quarterly. Psychosocial and sociodemographic variables were collected annually at routine examinations.

Results: Our results suggest a strong association between mother's marital status and lung function (mean FEV1: single parent 82.1% vs. parent with spouse 96.2%). In addition, we find an impact of mother's educational status on lung function (mean FEV1: compulsory school 79.6% vs. university degree 98.6%). We did not find any significant association with BMI and psychosocial variables.

Conclusion: A strong impact of education and marital status on the child's health status was found, although in Austria treatment costs are fully covered by general health insurance and all patients receive the same treatment. We conclude that it is essential to turn attention to the parent's marital and educational status. To be able to prevent a negative impact, further research is necessary to investigate how these factors affect lung function.

57 – Breaking bad news in China: The dilemma between patients' rights to be informed and traditional norms. A first communication skills training for Chinese oncologists

Fritzsche K, Tang L, Goelz T, Wuensch A

*Department of Psychosomatic Medicine and Psychotherapy, University Medical Center, Freiburg, Germany
Beijing Cancer Hospital, China*

Background and aims: Current practice of breaking bad news in China is to disclose information first to family members, who then decide whether the patient should be informed. However, recently the patients' right to be informed has been laid down by law. Oncologists find themselves in a dilemma now and have to come up with an appropriate way to respect cultural and legal demands. This new way should be conveyed in communication skills trainings (CST). However, CSTs have not been established in China so far.

Methods: A first CST about breaking bad news took place at the Beijing Cancer Hospital in April 2009. 31 physicians were trained. The workshop included interactive presentations and role-play. To assess the acceptance of the workshop we used established questionnaires assessing (i) the acceptance (by rating scale from 1-6) and (ii) the feeling of competence of participating physicians before and after the workshop (by VAS of 10 cm).

Results: The workshop worked well: (i) the overall evaluation was rated very good (mean = 1.2), also the learning environment (m=1.3), practice orientation (m=1.4) and role play (m=1.4) (selection).

(ii) After the workshop the physicians felt more secure in all domains, e.g. they had a higher theoretical knowledge (+3.9) and could apply it more easily (+3.1), they felt more secure talking about death with the patient (+2.1) and talking about prognosis with the family (+1.3).

Conclusion: The workshop works also for Chinese culture. It shows high acceptance and can improve the feeling of competence of participating physicians in many domains. However, it also shows that some ideas have to be better adapted to Chinese culture.

58 – Immune activation and changes of amino acids relevant for PNI

Fuchs D

Division of Biological Chemistry, Biocenter, Medical University, Innsbruck, Austria

Background and aims: Essential amino acids tryptophan and phenylalanine are important precursor molecules of neurotransmitter 5-hydroxytryptamine and of DOPA and catecholamines dopamine, adrenalin and noradrenalin. There are several interactions between immune response and their biochemistry.

Discussion: The monooxygenases responsible for the biosynthesis of biogenic amines share the cofactor 5,6,7,8-tetrahydrobiopterin (BH4), and GTP-cyclohydrolase I, the primary enzyme in the biosynthesis of BH4, is triggered by pro-inflammatory stimuli, e.g., interferon-gamma (IFN γ). Tryptophan-degrading enzyme indoleamine 2,3-dioxygenase (IDO) is also strongly induced by IFN γ , and was demonstrated in patients with virus infections, autoimmune syndromes and cancer as well as during pregnancy. IDO-induced tryptophan depletion may cause serotonin deficiency and increase susceptibility for reduced quality of life, mood changes and cognitive impairment. IFN γ is also the most important stimulus for the high output of reactive oxygen species (ROS), which not only can wipe out antioxidant systems but also destroy oxidation-labile compounds such as BH4. As a consequence, the activity of BH4-dependent mono-oxygenases like phenylalanine-4-hydroxylase (PAH) is hampered, as is the biosynthesis of DOPA and of catecholamines.

Conclusion: Immune system activation and inflammation can substantially influence metabolism of biogenic amines which might play a role in the precipitation of mood disturbances and sickness behavior in inflammatory conditions. It is hoped that the concurrent measurement of phenylalanine/tyrosine and kynurenine/tryptophan will allow to dissect whether serotonergic or adrenergic treatment is more adequate for the individual patient.

59 – Development of a computer-adaptive screening tool for psycho-oncological treatment needs

Gamper EM, Meraner V, Giesinger JM, Kemmler G, Oberguggenberger A, Sperner-Unterwieser B, Holzner B
Department for Psychiatry and Psychotherapy/ Consultation-Liaison-Service

Objective: Diagnosis and treatment of cancer entail a considerable amount of distress which in a large percentage of patients would require psychooncological treatment (POT). There is though a lack of precise and economic measures for assessing the need for POT. Its detection in clinical routine often depends on procedural and personnel conditions. The aim of the study was the development and implementation of a screening tool for

distress. A further aim is the construction of a computer-adaptive testing (CAT) version.

Methods: 115 breast cancer outpatients attending the Department of Gynaecology at Innsbruck Medical University were consecutively included in a pilot study. Logistic regression analysis and ROC analyses identified the most predictive items from a set of questionnaires (EORTC-QLQ-C30, HADS and Hornheide Screening Instrument) and other additional questions. The development of the CAT screening tool comprises generating an item bank, developing the CAT-algorithm and applying and implementing the CAT in clinical practice.

Results: Data from 105 breast cancer patients (mean age 58.8, SD 12.3) were analysed. The EORTC QLQ-C30 scales Emotional Functioning and Role Functioning as well as the yes-no question after psychiatric/psychological/psychotherapeutic treatment at any point in lifetime showed high predictive power with regard to need for POT (AUC=0.88; CI 95% 0.82-0.95). The generation of the item bank resulted in 52 preliminary items which will be subjected to further analyses.

Conclusion: The implementation of precise and effective measures for POT needs is essential for providing comprehensive and high quality cancer care. CAT methodology contributes to the reduction of patient burden and assessment duration, and increases measurement precision.

60 – A prevention programme for somatoform disorders is effective for affective disorders

Garcia-Campayo J, Arevalo E, Claraco LM, Alda M, Lopez Del Hoyo Y

Department of Psychiatry, Miguel Servet University Hospital, University of Zaragoza, Spain

Objective: To assess the effectiveness of a psycho-educational programme for the primary prevention of somatoform disorders in healthy primary care patients.

Methods: Randomized, controlled trial. Participants (N=104) were randomly assigned to: (1) a psycho-educational intervention, or (2) no intervention at all. The primary outcome measure was somatoform disorder psychiatric diagnosis at 5-year follow-up. Secondary outcome measures were hypochondriasis, locus of control and attribution of symptoms and psychological distress.

Results: At 3 and 6 months, and 5 years, the intervention group significantly decreased hypochondriasis and somatic attributions; and increased psychological and normalizing attributions and internal locus of control. Five years after baseline, the prevalence of somatoform disorders showed no differences between both groups. Nevertheless, overall psychiatric morbidity was

less prevalent in the intervention group (odds ratio: 2.72; 95% CI:1.10-6.72). In addition, a decrease in depression and anxiety subscales and in overall General Health Questionnaire scoring ($p<.05$) was found in the intervention group.

Conclusions: A primary prevention programme for somatization seems to be useful, not to decrease somatoform disorders, but to prevent anxiety and depressive disorders. The effects of overlapping psychobiological mechanisms are discussed.

61 – Development of a computer-adaptive version of the EORTC QLQ-C30 Fatigue scale

Giesinger JM^a, Groenvold M^c, Petersen MA^c, Gamper EM^a, Kemmler G^b, Young T^d, Arraras JI^h, Conroy T^f, Lockett T^e, Verdonck-de Leeuw I^g, Holzner B^a

^a Department of Biological Psychiatry, Innsbruck Medical University, Innsbruck, Austria

^b Department of General and Social Psychiatry, Innsbruck Medical University, Innsbruck, Austria

^c Department of Palliative Medicine, Bispebjerg Hospital, Copenhagen, Denmark

^d Lynda Jackson Macmillan Centre, Mount Vernon Hospital, Northwood, UK

^e Psycho-oncology Co-operative Research Group (PoCoG), School of Psychology, The University of Sydney, Sydney, Australia

^f Département d'oncologie médicale, Centre Alexis Vautrin, Vandoeuvre-lès-Nancy, France

^g Department of Clinical Psychology, VU University Medical Center, Cancer Center Amsterdam, Amsterdam, The Netherlands

^h Department of Oncology, Hospital of Navarre, Pamplona, Spain

Background and aims: Computer-adaptive testing (CAT) is an advanced method for measuring patient-reported outcomes. With help of an algorithm CAT selects the items most relevant for an individual patient from an item bank.

Our study aim was the development of a CAT version of the EORTC QLQ-C30 Fatigue scale, its implementation in a software package and its use in daily clinical routine.

Methods: Our project is part of a large project on CAT development conducted by the EORTC Quality of Life Group. To set up an initial English fatigue item list an extensive literature research was performed.

These items were refined through multi-stage expert reviews, translated to German, Danish, Spanish, French and Dutch, and filled in by a pilot patient sample to collect feedback. In a next step a large patient sample is recruited for all language versions to gain data for development of the item bank and the CAT algorithm.

Results: Literature research resulted in 588 fatigue items, from which 44 were selected after comprehensive expert reviews. Based on feedback from 52 oncological patients wording and translation of several items were revised. Data collection for item response theory analysis has started in November 2009 (520 patients recruited; aim n=1500). Preliminary results of the CAT-analysis will be presented.

Conclusion: By generating individually tailored item sets, CAT reduces patient burden and assessment duration, and increases measurement precision. In addition, electronic data capture increases data quality and reduces the amount of human resources required for data collection.

62 – Screening for post natal depression: Is it effective or efficient?

Gilbody S

University of York, UK

Background and aims: Depression in the post natal period is associated with substantial morbidity; affecting both the mother and the psycho-social development of the infant. Despite effective treatments, this disorder is often missed. This has led to call for screening programmes for this disorder. Screening programmes must demonstrate that they do more good than harm and must achieve this at a favourable ratio of costs to benefits.

Methods: Using a series of criteria for judging the value of screening programmes, we applied advanced methods of evidence synthesis (diagnostic meta-analysis and decision modelling) to:

1. Judge the psychometric properties of instruments (such as the Edinburgh Post Natal Depression Scale);
2. Judge the clinical benefits and harms associated with screening
3. Judge the cost effectiveness of this approach.

Results: 1. The EPDS is a well validated instrument, and we identified the optimum cut point based upon 55 studies (cut point 12, sensitivity = 0.86 (95% CI 0.81 to 0.89) and specificity of 0.87 (95% CI 0.80 to 0.92).

2. There were no randomised trials of the effectiveness of screening for this disorder.

3. From our decision model, screening was unlikely to be cost effective, based upon feasible estimates of effectiveness of treatments, the natural history of the disorder and the costs of a screening programme. We judged the cost effectiveness of screening to be over £41 103 (€45 398, \$67 130) per Quality Adjusted Life Year compared with routine care, which makes this an inefficient strategy in most healthcare settings.

Conclusion: Screening for post natal depression is superficially attractive, but should not be the main priority for this important disorder.

63 – Psychological adjustment, self-integration and self-regulation in diabetes mellitus

Gois CJ^{a,b}, Ferro AC^a, Santos AL^a, Sousa FP^a, Ouakinin SR^a, Do Carmo I^c, Barbosa AF^{a,b}

^a Psychiatry Department, Santa Maria Hospital, Lisbon, Portugal

^b Faculty of Medicine, University of Lisbon, Lisbon, Portugal

^c Endocrinology, Diabetes and Metabolism Department, Santa Maria Hospital, Lisbon, Portugal

Background and aims: Distance between self and disease paired with positive and negative new identities may contribute to psychological adjustment to diabetes mellitus concerns. The present investigation aimed to detect main trends on self management in patients with both diabetes types within a self-regulatory framework.

Methods: 121 adult patients with both diabetes types answered to a question about having diabetes or being a diabetic and that was combined with self-benefices or self-damages concerning diabetes. Psychological adjustment to diabetes, anxiety and depression were also evaluated.

Results: Type 1 diabetes answered more “being a diabetic” and type 2 “having diabetes” and there was no association with differences in psychological adjustment. Almost 16% of patients had any benefit with diabetes and a better psychological adjustment than patients reporting losses, independently of diabetes type. Education was positively associated with profits with diabetes. Patients referring “to have diabetes” and profits had the best diabetes psychological adjustment.

Conclusion: Better psychological adjustment to diabetes association with positive self-profits and more education highlights future interest on clinical investigation toward exploring the balance linked to the positivity a life transition such as a chronic disease represents.

64 – A distinctive symptom profile in post-myocardial infarction depression: Divergences in cognitive, appetitive and affective symptoms

Groenewold NA^{a,b}, Doornbos B^a, Zuidersma M^a, Vogelzangs N^c, Aleman A^b, de Jonge P^a

^a Department of Psychiatry, University Medical Center Groningen, Groningen, The Netherlands

^b BCN Neuroimaging Center, University Medical Center Groningen, Groningen, The Netherlands

^c Department of Psychiatry, VU University Medical Center, Amsterdam, The Netherlands

Background: Major depression is experienced by approximately 20% of myocardial infarction (MI)-patients, whereas the twelve-month prevalence is approximately 5% in the general population. Post-MI depression is often a first-ever depressive episode while

regular psychiatric depressions are mostly recurrent. We hypothesized that post-MI depression would differ both quantitatively and qualitatively from psychiatric depression in terms of cognitive and somatic symptoms. This study aims to clarify the specific symptom profile that characterizes post-MI depression by comparing large samples of post-MI and psychiatric depression.

Methods: The study population consisted of currently depressed MI-patients participating in the MIND-IT study (N=211) and currently depressed adults without a heart condition participating in the NESDA study (N=568). Presence of DSM-IV diagnostic criteria in the past month was established by the CIDI. Logistic regression analyses were executed for the presence of each depression symptom derived from the CIDI, with history of myocardial infarction as predictor.

Results: Psychiatric depression is more severe and more often recurrent than post-MI depression. Post-MI depressed patients show significantly more depressed mood (OR=2.00, $p<0.05$) and significantly less loss of interest (OR=0.47, $p<0.01$), eating problems (OR=0.60, $p<0.05$) and concentration impairments (OR=0.17, $p<0.001$) compared to depressed patients from psychiatric care, after statistically controlling for group differences in age and sex.

Conclusion: The results confirm the hypothesis that post-MI depression is characterized by a specific symptom profile. In post-MI depression depressed affect is more frequently experienced, while several cognitive and appetitive symptoms are less common.

65 – Cognitive correlates with changes in the fronto-temporal cortex in bipolar disorders

Gutierrez-Galve L, Summers M, Bruno S, Wheeler-Kingshott C, Cipolotti L, Roy JF, Lobo A, Ron M
Institute of Neurology, UCL, London (UK)

Hospital Clinico Universitario de Zaragoza (Spain)
Instituto Aragonés de Ciencias de la Salud, Zaragoza (Spain)

We examined the relationship between cognition and cortical parameters (thickness, surface area and grey matter volume) in Bipolar Disorder subgroups.

25 BP I (10 males; mean age 37.4; mean disease duration 13.4) and 11 BP II (3 males; mean age 42.8; mean disease duration 14.9). 30 patients were receiving medication. Imaging was performed on a 1.5T GE Signa MRI scanner. A T1-weighted axial dataset was obtained using an IR-SPGR echo sequence. Images were processed using FreeSurfer software (version 4.3.0). Premorbid IQ, current IQ, executive functions (Strategy score of the Spatial Working Memory Test (SWM)) and visual memory (Doors and People Test: Shapes subtest) were measured. Associations between cognitive measures and

cortical parameters were examined using linear mixed models adjusted by age, gender and total brain volume.

There were no significant differences in age, gender, total brain volume, BDI, disease duration, cortical parameters and cognition, although BP II subgroup present greater IQ decline ($p=0.003$), and a trend to worse score in current IQ ($p=0.070$) and visual memory ($p=0.054$). Larger temporal cortical area was associated with higher current IQ score ($p=0.015$) and smaller IQ decline ($p=0.022$) in the BP II group.

The most salient findings of our study were the association between temporal cortical area and IQ decline. By contrast, cortical thickness was not related to cognition. This finding suggests that persistent depression, rather than mania may be linked to cognitive impairment and cortical changes or perhaps those BP II patients represent a clinical phenotype with a different pattern of neuropsychological deficits.

66 – Effects of escitalopram in prevention of depression in patients with acute coronary syndrome (DECARD): Randomised controlled trial

Hansen BH, Hanash JA, Rasmussen A, Fischer Hansen J, Trærup Andersen NL and Birket-Smith M
Liaison Psychiatry, Psychiatric Centre Copenhagen

The prevalence of depression in patients after acute coronary syndrome (ACS) is higher than in general population and has a negative impact on prognosis and quality of life. No studies have examined prevention of post-ACS depression.

Aims: To evaluate the effect of treatment with escitalopram on prevention of post ACS depression.

Method: In a double blind randomised controlled trial two university hospitals in Copenhagen, Denmark consecutively enrolled non-depressed post-ACS patients to treatment with escitalopram or matching placebo for 12 months within eight weeks after an ACS episode. Endpoint was the ICD-10 diagnosis of depressive episode (moderate or severe) and significant depressive symptoms, i.e. a score of more than 13 on the Hamilton Depression Scale.

Results: Patients were well matched at baseline. Among the 120 patients treated with escitalopram two developed depression and seven had depressive symptoms compared to ten (log rank, $p=0.022$) and 17 (log rank, $p=0.046$) in the 119 patients treated with placebo. No serious adverse events related to escitalopram were recorded.

Conclusions: Twelve months treatment with escitalopram prevented depression and depressive symptoms in post-ACS patients, but did not prevent new cardiac events.

67 – Somatoform headaches in a Danish primary care patients

Hansen HJ^{a,b}, Ørnboel E^a, Fink P^a

^a The Research Clinic for Functional Disorders and Psychosomatics, University Hospital

^b Dpt. Clinical Oral Physiology, School of Dentistry, Faculty of Health Sciences, University of Aarhus, DK 8000 Aarhus C, Denmark

Headache attributed to somatisation disorder (ICHD-II [International Classification of Headache Disorders 2ed, 2004] & DSM-IV) is considered to be a rare disorder. However, detailed information on prevalence of somatoform types of headache is not available. In a study conducted in the year 2000 (FIP) among 1785 primary care patients with a new health problem, 63% complained of self-reported headache within the last month (65% females, mean age 38 years). 701 patients were selected for a semi-structured standardized psychiatric interview (SCAN ver. 2.1) and screened for somatoform disorders, anxiety and depression. Tension headache as a somatoform symptom was observed in 176 patients (25%) and somatoform facial pain in 44 patients (6%), while headache due to organic causes was observed in 99 patients (14%). Headache attributed to somatisation disorder (ICHD-II) was observed in 26 (3.7%) patients.

Important additional DSM-IV diagnoses among the 701 patients were: Somatisation disorder N=26, undifferentiated somatoform disorder N=118, chronic pain disorder N=84 and conversion disorder N=47 patients.

Conclusion: Tension headache as somatoform symptom is the most common symptom among patients with functional disorders. Headache with functional/psychosomatic etiology was found to be more prevalent than headache due to organic causes. Headache with co-existing depression or anxiety were found to be diagnostically inseparable.

68 – Psychological aspects of Tako Tsubo Syndrome

Harb BM^a, Absenger D^b, Janauschek C^b, Fuchs-Strizek R^c, Guy-Roustayan Y^d, Wonisch M^a

^a Centre for Cardiac Rehabilitation St. Radegund, PV

^b Centre for Cardiac Rehabilitation Felbring, PV

^c Centre for Cardiac Rehabilitation Saalfelden, PV

^d Centre for Cardiac Rehabilitation Hohegg, PV

Background and aims: Tako Tsubo Syndrome (TTS) is a rare disease of myocardium occurring as a result of emotional/physical stress. Stress reaction shows an alteration of hypothalamic–pituitary–adrenal-axis. There exists an association between posttraumatic-stress-disorder (PTSD) and hypocortisolism.

Aim was to examine psychological aspects associated with an incidence of TTS.

Methods: 18 patients with TTS (88.9% woman, 61.39a ± 10.71) and a matched coronary-heart-disease (CHD) sample (62.72a ± 10.11) were analysed for psychological aspects, risk factors. No significant differences existed in gender, age and size of emotional stress in the parallel groups. Following measurements were used: BFI-10, DS14, FLZ, HADS, PTSD Screen, TICS.

Results: There were no significant differences in psychological aspects (negative affectivity, social inhibition, chronic stress, depression, anxiety, extraversion, neuroticism, openness, agreeableness, conscientiousness, life satisfaction) between TTS and CHD.

Patients with TTS exhibited significant higher incidence of PTSD ($\chi^2(1)=4.50$, $p=.034$). There existed no significant differences in risk factors (blood pressure, total cholesterol, HDL, LDL, BMI, pack years) between TTS and CHD.

Patients with TTS had significantly lower triglyceride levels (92.00+34.59 vs. 131.83+50.97, $T(34)=2.74$, $p=.010$).

Conclusion: We found a relationship between TTS and stress disorder, which confirms the psychological hypothesis, containing a dysfunction of catecholamine. Further studies should include measurements of cortisol levels in acute incidence of TTS.

69 – Brief psychodynamic-interpersonal psychotherapy for patients with pain-predominant multi-somatoform disorder: A randomized controlled trial

Henningsen P^a, Sattel H^a, Gündel H^b, Guthrie E^c, Kruse J^d, Lahmann C^a, Noll-Hussong M^a, Ohmann C^e, Ronel J^a, Sack M^a, Sauer N^{a,f,g}, Schneider G^h

^a Department of Psychosomatic Medicine, Technische Universität Munich, Germany

^b Department of Psychosomatic Medicine, Medizinische Hochschule Hannover, Germany

^c Department of Psychological Medicine, University of Manchester, UK

^d Department of Psychosomatic Medicine, University Hospital Giessen, Germany

^e Coordination Centre for Clinical Trials, University of Düsseldorf, Germany

^f Department of Psychosomatic Medicine, University of Heidelberg, Germany

^g Department of Psychosomatic Medicine, Henriettenstiftung Hannover, Germany

^h Department of Psychosomatic Medicine, University Hospital Münster, Germany

Background: Patients with severe and disabling pain and bodily distress which cannot be explained by underlying organic pathology are common in all levels of health care and are typically difficult to treat for physicians as well as for mental health specialists. Treatment research

so far is mostly limited to single functional somatic syndromes, with preliminary evidence indicating that psychodynamic-interpersonal therapy (PIT) is beneficial in Irritable Bowel Syndrome. The aim of this study was to test whether brief PIT is effective in improving bodily quality of life in patients with pain-predominant bodily distress.

Methods: Patients with pain-predominant multisomatoform disorder recruited in different somatic settings were randomly assigned to receive 12 sessions of PIT (N=107) or enhanced medical care (EMC, N=104). The pre-specified primary outcome was the physical component summary of the Short Form Health Survey (SF-36) at follow-up 9 months after end of treatment.

Results: At follow up, both groups revealed a modest, but significant improvement for physical quality of life. Comparing both groups, significantly greater improvement was achieved following PIT in comparison to the control condition. PIT showed an additional improvement for depression.

Conclusion: This trial provides evidence that psychodynamic-interpersonal therapy is superior to enhanced medical care in improving bodily quality of life in patients with pain-predominant multisomatoform disorder.

70 – High job strain is associated with life-threatening arrhythmic events among long QT syndrome (LQTS) mutation carriers

Hintsala T^a, Hintsanen M^a, Määttänen I^a, Swan H^b, Toivonen L^b & Keltikangas-Järvinen L^a

^a *Institute of Behavioral Sciences, Psychology, University of Helsinki, Helsinki, Finland*

^b *Department of Cardiology, Helsinki University Central Hospital, University of Helsinki, Helsinki, Finland*

Background and aims: Work stress is suggested to be a risk factor for coronary heart disease and cardiac events. Our aim was to examine whether work stress is associated with arrhythmic events in long QT syndrome (LQTS).

Methods: Participants were from the Finnish LQTS registry. Participants had a molecularly established mutation of KCNQ1, KCNH2 or SCN5A channel, and were thus diagnosed as LQT1, LQT2 and LQT3 mutation carriers accordingly. There were 403 LQTS mutation carriers who were working and reported work stress. Work characteristics were measured with Job Content Questionnaire and Occupation stress Questionnaire.

Results: Binary regression analysis including LQTS patients with arrhythmic events and LQTS mutation carriers without arrhythmic events showed an association of symptomatic status of LQTS with high job strain OR 2.06 (95% CI 1.20 to 3.52). LQTS mutation carriers who perceived high job strain had more than 2-fold increased

risk for arrhythmias compared to those who reported low job strain.

Conclusion: Work stress is associated with arrhythmic events in LQTS in this large sample of molecularly defined LQTS patients. For therapeutic interventions it is important to assess how strong predisposing factor job strain is for arrhythmic events in LQTS in future studies. It is important to also note that among LQTS mutation carriers who are already genetically predisposed to cardiac vulnerability, job strain may further increase the risk for life-threatening arrhythmias.

71 – Associations of activity, emotionality, and sociability temperaments with work stress

Hintsanen M^a, Hintsala T^a, Widell A^a, Kivimäki M^b, Raitakari OT^c and Keltikangas-Järvinen L^a

^a *Department of Psychology, University of Helsinki, P.O. Box 9, 00014 Helsinki, Finland*

^b *Department of Epidemiology and Public Health, University College London, London, UK*

^c *Department of Clinical Physiology, University of Turku, Turku, Finland; and Turku University Hospital, Turku, Finland*

Background and aims: This study aimed to examine association between innate temperament and work stress.

Methods: The participants were a random sample of 588 men and 673 women (aged 24–39 years) participating in the population-based Cardiovascular Risk in Young Finns study in 2001. Temperament was self-assessed with EAS questionnaire that comprises three temperament traits; i.e. emotionality, activity, and sociability. Work stress was measured using Karasek's demand-control - model in which a combination of high demands and low control results in job strain, and Siegrist's effort-reward imbalance model (ERI) in which effort-reward imbalance is resulted from a combination of comparatively high efforts and low rewards.

Results: After adjusting for age, higher emotionality was associated with higher job strain and ERI. Higher sociability was associated with lower job strain and ERI. Gender differences were found in activity. In men higher activity was associated with higher ERI whereas in women higher activity was associated with lower job strain. With an exception of activity, adjusting for age, education and occupational status did not essentially attenuate these results.

Conclusion: The results suggest that individual differences in innate temperament may contribute to variation in work stress. Thus, the common interpretation of stress measurements as an indicator of environmental circumstances might not necessary lead to entirely valid conclusions.

72 – QOL and psychological distress of kidney transplanted patients: Results of an implementation study of computer-based patient-reported outcome (PRO) monitoring in a nephrology outpatient unit

Hoflehner A, Rumpold G

Medical University Innsbruck, Department of Medical Psychology

Objectives: Although, kidney transplantation offers patients with end-stage renal disease the greatest potential for increased longevity and enhanced quality of life (QOL), there are several factors, such as side effects of immunosuppressants, which have a negative impact on QOL.

Methods: A longitudinal study (Mai 2007–February 2008) involved patients at different stages following a functioning renal graft. QOL-assessment (SF-12, ESRD-SCLTm, MESI, K10-Scale and BSI) was computer-based (Computer-based Health Evaluation System). Socio-demographic and clinical data, including a comorbidity index (CCI), were collected.

Results: In total 120 patients (70.8% male; mean age 51.9±13.6; mean time since transplantation 7.1±6) were included. On average PRO was assessed 2.9 times per patient. No difference in QOL and psychological distress for transplant recipients, at different stages following a functional renal graft, except for MESI (Medication-Experience-Scale-for-Immunosuppressants) were found. The attitude towards immunosuppressants significantly deteriorated in patients in the first year after transplantation (patients within the first year changed from baseline to follow up 3±5.4 vs. patients transplanted one to five years -1±5.1; p=0.049). CCI reduced only the physical component summary PCS (SF-12; 46.03±8.16 vs. 49.55±8.12; p=0.020). In comparison to healthy controls (norm) no significant differences for QOL and psychological distress variables were found, except for PCS. Distress and reduced QOL were assessed only in (10%-21%) of the patients.

Conclusion: Though patients after renal transplantation meanwhile have a high QOL in general, there is a need to identify psychosocial risk patients economically by using computer-based PRO-monitoring, to establish an adequate psychosocial treatment.

73 – Prevalence of anxiety and depression in patients with different cardiac diseases

Huber A, Höfer S

Department for Medical Psychology, Innsbruck Medical University

Background and aims: Anxiety and depression in cardiac patients are often reported as comorbidities and discussed as parameters influencing etiopathology, quality of life (QoL) and major adverse cardiac events (MACE). The aim was to compare the prevalences of

anxiety and depression of various cardiac diseases at different timepoints following in-patient stay.

Methods: In a long term cross-sectional study the Hospital Anxiety and Depression Scale and the MacNew QoL instrument were answered by 190 patients (mean age 66±13 years; 37.4% female) after hospitalization (21% myocardial infarction [MI], 26% angina pectoris [AP], 25% heart failure [HF] and 12% arrhythmia [AR]). The follow-up period was up to 9 months (phase 1), 10-12 months (phase 2) and more than 12 months (phase 3) following in-patient stay.

Results: A significant decrease of anxiety (p<.05) but a strong increase of depression (p<.01) compared to the baseline was observed for all patients. AP-patients in phase 2 showed less anxiety (p<.05), as did AP-patients (p<.01) and AR-patients (p<.05) in phase 3. HF- and AR-patients experienced a strong increase of depression in the follow-up period (p<.05). QoL correlated in all time-phases negatively with anxiety and depression (r = up to -.845). Initial depressive symptoms predict MACE within phase 1 after hospitalization (p<.05). HF-patients had the highest prevalence of anxiety and depression.

Conclusion: This study demonstrated differences concerning anxiety and depression of various cardiac diseases at different time intervals. Rehabilitation programmes or post-hospital care should be aware of the trajectory of mental health of cardiac patients.

74 – Effectiveness of collaborative care for depression in Dutch primary care

Huijbregts KML, De Jong FJ, Martens F, Adèr HJ, Van Marwijk HWJ, Beekman ATF, Van der Feltz-Cornelis CM

Trimbos Instituut, Utrecht, The Netherlands

Background: Collaborative care is a promising treatment model for Major Depressive Disorder (MDD). It has proven to be more effective than Care as Usual (CAU) in primary care in the US and in the UK. Following these positive experiences, our research group has developed the CC:DIP-protocol.

Aim: To evaluate the (cost)effectiveness of collaborative care in Dutch primary care.

Method: Cluster randomized Controlled trial in the primary care setting. 18 healthcare centres were randomised into the collaborative care or the care as usual group. Patients were selected by screening or by the General Practitioner if the PHQ9 score was > 9, and if MINI interview confirmed classification as MDD. Informed consent was asked and the protocol was approved by a medical ethical committee. Outcome measures were severity of depression according to PHQ9 and Costs. Follow up assessments were at 3, 6, 9 and 12 months. Multi Level Analysis was performed and the role of concomitant chronic medical illness and Medically

Unexplained Symptoms (MUS) as effect modifiers was explored.

Results: A total of 150 patients were included as of August 2009. 63% of the patient suffered from at least one concomitant chronic illness.

Data on 3 months follow up are complete. Important elements of the CC:DIP-protocol were consultant-liaison psychiatry, contracting, care management, monitoring of treatment progress with the PHQ-9, Problem Solving Treatment and an antidepressant algorithm. An online patient tracking system supported the care manager and facilitated adherence to the protocol.

The Multi Level Analysis revealed that collaborative care was more effective than care as usual three months after inclusion. The PHQ9 dropped from 15.6 to 9.6 in the collaborative care group and from 14.8 to 12.0 in the care as usual group and the mean effect was 3 points more improvement in collaborative care compared to CAU ($P=0.0045$). OR for response rate in terms of >50% reduction of PHQ9 score was 1.29 in favour of collaborative care.

Conclusion: Our conclusion is that collaborative care for MDD is more effective than CAU in Dutch primary care. More information about the effectiveness at six months, and the influence of comorbid chronic somatic diseases and concomitant somatic symptoms on the effectiveness of collaborative care will be presented at the conference in Innsbruck.

75 – Irritable Bowel Syndrome, psychological distress and disability: A population based study from Kenya

Husain N^{a,b}, Chaudhry IB^{a,b}, Whidby N^a, Notiar A^{a,b}, Hawa F^c, Alavi Z^d, Creed F^a

^a University of Manchester

^b Lancashire Care NHS Foundation Trust

^c Kenya Medical Training Centre 4) Centre in Africa for Learning & Living

Background: Little is known about irritable bowel syndrome (IBS) in non-Western countries. In this study we aimed to assess the prevalence and correlates of IBS in rural Kenya.

Methods: Population-based survey using translated standard questionnaires to diagnose Rome II IBS and assess distress (SRQ), disability (BDQ) and stressful life events. Data were collected from 1682 participants (94% response rate).

Results: 14.6% met criteria for Rome II IBS ($p=0.001$) but 1/4 reported prior treatment for parasitic gut infection so these were excluded from the IBS group. The revised prevalence was 114/904 (12.6%) females and 73/779 (9.3%) males ($p=0.004$). Participants with IBS had a higher SRQ total score than the remainder (10.9 [sd=4.4]) v 7.2 [4.7]; $p<0.001$); they were more likely to rate their

health as poor or fair (43.9% v 26.8%; $p<0.001$) and had a higher mean disability (BDQ) score: 6.9 [5.3] v 5.1 [5.0], $p<0.001$. Only 7% had visited a doctor and 8% a faith healer for bowel symptoms.

In logistic regression female gender was associated with IBS (OR=1.4 [95% CI: 1.0-1.9] until SRQ total was included in the model when only number of children and SRQ score (OR=1.16 [1.1-1.2]) were correlates. In linear regression to predict disability IBS was a correlate ($p<0.001$) until SRQ score (standardised beta = 0.37) was added to the model. In the whole sample 55.5% women and 36.2% of men scored over 7 on SRQ.

Conclusions: The sex difference in IBS symptoms is explained by marked distress in Kenyan women, and distress is the principal correlate of disability.

76 – Stress vulnerability in patients with urticaria and angioedema

Iamandescu IB

“C. Davila” Medical University, Medical Psychology Dept., Bucharest, Romania

University of medicine and pharmacy “Carol Davila” Bucharest, Romania

Background and aims: Although urticaria (U) and angioedema (AE) of pure psychogenic etiology have been contested in the literature, there are many forms with other etiologies (food, drugs, etc.) having also psychological triggers .

Method: The author reviews published data and personal researches made between 1979 and 2009, focused on personality traits of urticaria patients with psychogenic triggers .

Results: Personal studies confirmed that psychological etiology has a constant involvement in cholinergic U and evidenced an optional role in triggering some forms of spontaneous acute U/AE or physical U/AE, as well as in maintaining and aggravating chronic U.

U/AE with psychogenic triggers occur in patients with increased vulnerability to emotional distress (more frequently in females) and in cases of prolonged evolution of the disease. The main personality traits of such patients are: anxiety, obsessive-phobic personality, impulsivity, hypersensitivity and depression.

Conclusions: In such U/AE patients, especially with chronic U, it is advisable to search for psychological triggers and for certain psychiatric disorders, especially anxiety and depression. The approach by a team of specialists (including psychologists and psychiatrists) might have a positive effect on the evolution of the disease, as well as adding to antihistamines the antidepressants and anxiolytics.

77 – The role of bullying and school absenteeism in the development of functional somatic symptoms in adolescents: The TRAILS-study

Janssens KAM^a, Oldehinkel AJ^{a,b}, Dijkstra JK^c, Veenstra R^{c,d}, Rosmalen JGM^a

^a Interdisciplinary Center for Psychiatric Epidemiology and Graduate Schools for Behavioral and Cognitive Neurosciences and for Health Research, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands

^b Department of Child and Adolescent Psychiatry – Sophia Children's Hospital, Erasmus Medical Center, Rotterdam, The Netherlands

^c Department of Sociology, University of Groningen, Groningen, The Netherlands

^d University of Turku, Turku, Finland

Background and aims: Functional somatic symptoms (FSS), symptoms which cannot be explained by conventional diseases, are known to result in school absenteeism. It is unknown whether school absenteeism on its turn is a maintaining factor of FSS, nor which factors initiate or moderate this relationship. The aim of this study was to examine whether school absenteeism is a maintaining factor of FSS, and whether being bullied initiates or amplifies this maintaining effect of school absenteeism on FSS.

Methods: This study is part of Tracking Adolescents Individual Lives' Survey (TRAILS). Data from assessment wave 2 (N=2149, 51.0% girls, mean age = 13.65, SD=0.53) and assessment wave 3 (N=1816, 53.3% girls, mean age = 16.25, SD=0.72) were used. Being bullied was assessed at T2 by peer nominations, school absenteeism at T2 by both parent and teacher reports, and FSS at T2 and T3 by the Youth Self-Report. Structural equation modelling was used to test our hypotheses.

Results: School absenteeism was a maintaining factor of FSS. Being bullied predicted FSS at T2 and T3 and school absenteeism. Moreover, it initiated the maintaining effect of school absenteeism on FSS. However, being bullied did not amplify this maintaining effect of school absenteeism on FSS.

Conclusion: This study suggests that school absenteeism is a maintaining factor of FSS, and that being bullied initiates, but not amplifies this maintaining effect.

78 – Altered pain experience and fear learning deficits to thermal pain stimuli in fibromyalgia patients

Jenewein J, Moergeli H, Sprott H, Büchi S, Grillon C, Hasler G

Department of Psychiatry, University Hospital Zurich, Switzerland

Department of Rheumatology and Institute of Physical Medicine, University Hospital Zurich, Switzerland

Psychiatric University Hospital, University of Berne, Switzerland

Objective: Anticipatory anxiety to an unpredictable danger increases pain intensity in healthy subjects. This study addressed the impact of anticipatory anxiety on pain perception in patients with chronic pain conditions.

Method: 14 female subjects with fibromyalgia (FMS) and with rheumatoid arthritis (RA), and 14 age matched healthy controls (HC) underwent differential Pavlovian conditioning. Conditioned stimuli (simple black squares and triangles) were paired with thermal stimuli of low temperatures (CS-), and in a pseudorandomized way in the other half of the trials with high (CS+paired) or low temperatures (CS+unpaired) of 6 sec duration. The conditioned response was measured by pain/anxiety self-rating and heart rate.

Results: In the FMS group only 50% of the subjects was aware of the conditioned stimuli (RA 86% and HC 100%). Subjects of the RA and HC, but not the FMS group, rated the pain and anxiety intensity of the same stimulus (low temperature) significantly higher in the unpredictable condition (CS+unpaired) than in the predictable condition (CS-). The main effect of type of conditioned stimulus on heart rate was significant in the HC subjects, showed a tendency in the RA group, but not in the FMS group.

Conclusions: Results support fear learning deficits including altered pain processing in FMS compared to RA and HC, presumably due to contextual fear. Since anxiety and anxiety-related behaviour may substantially contribute to the development and maintenance of chronic pain in FMS, the results of this research may provide clues for further research in psychophysiology and psychological treatment in patients with FMS.

79 – Rank-order stability of Cloninger's psychobiological model of temperament and character

Josefsson K, Jokela M, Hintsanen M, Hintsala T, Salo J, Keltikangas-Järvinen L

Institute of Behavioural Sciences, University of Helsinki Finnish Institute of Occupational Health

Background and aims: To our knowledge there have been no studies that have examined the rank-order stability and the reciprocal relationships of Cloninger's psychobiological model of temperament and character in a longitudinal sample with at least three measurement points and a time span of ten years before this study.

Methods: The subjects were 465 men and 858 women participating in the Cardiovascular Risk in Young Finns Study. We used MPlus and a path analytic approach to evaluate the rank-order stability and reciprocal relationships of temperament and character traits. Mean scores of the traits were used in analyses.

Results: Rank-order stability was found to be as high or even higher than the stability of the Five-Factor Model. In addition, when the stability of the traits was controlled, reciprocal relationships explained only little of the remaining variance.

Conclusion: Our results contradict previous studies which found temperament dimensions to be less consistent than personality traits. The results show that Cloninger's model can be used to get a stable estimate of temperament. It is known that extreme bias of temperament or character may predispose a person to personality disorders. Therefore our finding that the rank-order stability of temperament and character is fairly high has implications for clinical work. A stable construct also makes it easier to find the link between molecular genetics and the development of personality.

80 – Incidence and predictors of delirium after cardiac surgery: Results from the IPDACS study

Kazmierski J, Kowman M, Banach M, Fendler W, Okonski P, Banys A, Jaszewski R, Rysz J, Mikhailidis DP, Sobow T, Kloszewska I

Department of Old Age Psychiatry and Psychotic Disorders, Medical University of Lodz, Poland; Department of Cardionephrology and Hypertension, University Hospital No 2 in Lodz, Medical University of Lodz, Poland; Department of Pediatrics, Medical University of Lodz, Poland; Department of Cardiac Surgery, University Hospital No 3 in Lodz, Medical University of Lodz, Poland; Department of Anesthesiology and Intensive Cardiac Care, University Hospital No 3 in Lodz, Medical University of Lodz, Poland; Department of Nephrology, Hypertension and Family Medicine, Medical University of Lodz, Poland; Department of Clinical Biochemistry, Royal Free Hospital Campus, University College Medical School, University College London, London, UK.

Aims: The knowledge base regarding the issue of postoperative delirium is still limited. Therefore, in the current study we evaluated the incidence and independent predictors of delirium after cardiac surgery.

Methods: A total of 563 consecutive patients admitted for cardiac surgery were preoperatively examined using the Mini-Mental State Examination and Mini International Neuropsychiatric Interview to assess psychiatric comorbidity. Additionally, other variables connected to the patients' medical condition and surgical and anaesthetic procedures were evaluated. Diagnosis of delirium following surgical intervention was based on Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) criteria.

Results: The incidence of postoperative delirium according to DSM-IV criteria was 16.3% (95% CI: 13.5–19.6%). The onset of delirium was most frequently diagnosed on the 4th postoperative day (IQR: 3-5).

Patients with postoperative delirium had a longer stay in the intensive care unit (5 vs. 2 days, $p < 0.001$) and total duration of hospitalization (18 vs. 15 days, $p < 0.001$) compared with patients who did not develop delirium.

Multivariate stepwise logistic regression analysis revealed that advanced age, preoperative cognitive impairment, an ongoing episode of major depression, anaemia, atrial fibrillation, prolonged intubation and postoperative hypoxia were independently associated with delirium after cardiac surgery.

Conclusions: According to the current analysis, the aforementioned conditions independently predispose to delirium following cardiac surgery. Since some of these factors can be successfully treated and eliminated pre- and postoperatively, this study should be helpful in reducing the risk of delirium and improving medical care of patients undergoing cardiac surgery. (Clinical Trials Identifier: NCT00784576)

81 – The use of DSM-IV and ICD-10 criteria, and diagnostic scales for delirium among cardiac surgery patients: Results from the study of incidence and predictors of delirium after cardiac surgery

Kazmierski J, Kowman M, Banach M, Fendler W, Okonski P, Banys A, Jaszewski R, Rysz J, Sobow T, Kloszewska I
Department of Old Age Psychiatry and Psychotic Disorders, Medical University of Lodz, Poland; Department of Cardionephrology and Hypertension, University Hospital No 2 in Lodz, Medical University of Lodz, Poland; Department of Pediatrics, Medical University of Lodz, Poland; Department of Cardiac Surgery, University Hospital No 3 in Lodz, Medical University of Lodz, Poland; Department of Anaesthesiology and Intensive Cardiac Care, University Hospital No 3 in Lodz, Medical University of Lodz, Poland; Department of Nephrology, Hypertension and Family Medicine, Medical University of Lodz, Poland.

Background and aims: Diagnostic accuracy of different diagnostic systems in estimating the incidence of delirium among surgery patients has not been investigated to date.

Thus, we evaluated the frequency of delirium according to DSM-IV and ICD-10 criteria, and the cut-off values of the Memorial Delirium Assessment Scale (MDAS) and Delirium Index (DI) in diagnosing delirium among cardiac surgery patients.

Methods: The IPDACS Study recruited 563 consecutive patients admitted for a heart operation with cardiopulmonary bypass. Postoperatively, DSM-IV and ICD-10 criteria, as well as the MDAS were used to diagnose delirium. Additionally, the severity of delirium was assessed with the use of the DI.

Results: The incidence of delirium diagnosed on the

basis of DSM-IV and ICD-10 criteria, and the MDAS was 16.3% (95% CI: 13.5–19.6%), 14.2% (95% CI: 11.4–17.2%) and 11.7% (95% CI: 9.5–14.8%), respectively. Chi2 McNemar testing showed that ICD-10 criteria produced a greater number of delirium diagnoses than MDAS (Chi2 4.65, df=1, p=0.03), whereas DSM-IV criteria yielded more diagnoses of delirium than ICD-10 (Chi2 11.08, df=1, p=0.0009) and the MDAS (Chi2 23.0, df=1, p<0.0001).

The cut-off scores of 10 on the MDAS and 7 on the DI were optimal to the presence or absence of delirium.

Conclusions: The current study indicates that DSM-IV criteria are more inclusive, while ICD-10 criteria more restrictive in establishing a diagnosis of delirium following surgery. The cut-off scores of 10 on MDAS and 7 on DI are advisable in diagnosing delirium in the population of cardiac surgery patients. (Clinical Trials Identifier: NCT00784576)

82 – Gene-by-childhood environment interaction leading to disease prone stress vulnerability

Keltikangas-Järvinen L, Hintsanen M, Hintsala T, Merjonen P, Salo J

The Institute of Behavioural Sciences, University of Helsinki

Background and aims: The metabolic syndrome (MetS) belongs to the most important worldwide problems of the public health, being one of the major risks of cardiovascular disease and type II diabetes. The etiology of MetS is multifactorial, the role of chronic stress being constantly documented. Research is mostly focused on environmental loadings while individual stress vulnerability has not been given that much attention to. Recently, there is evidence that the roots of adulthood stress vulnerability are in childhood experiences, and especially in the early gene-by-environment interactions. In other words, there are genetic dispositions that in certain environments lead to high and stable stress vulnerability. This study focuses on that issue.

Methods: We studied a dopamine-by-childhood stressful environment interaction in a development of adulthood MetS. The study was carried out in a population based cohorts of total of 3600 subjects who had been followed for 27-years since their early childhood (The Cardiovascular Risk in Young Finns sample).

Results: It was found that DRD2 gene polymorphism interacted with environment so that a combination of a low dopamine level and a high frequency of stressful life changes in an early childhood (in age between 0 and 6 years) predicted a high level of MetS in adulthood.

Conclusion: This finding suggests that an inability to cope with stress may be as important as an actual environmental stress loading. The finding emphasizes the importance of an early prevention, too.

83 – The challenges of family therapy at the end-of-life

Kissane DW and Zaider T

Memorial Sloan-Kettering Cancer Center

Background and aims: Family Focused Grief Therapy (FFGT) has proven efficacy in ameliorating depression and distress among ‘at risk’ bereaved family members when a relative dies from cancer. To integrate this preventive model into regular practice, routine screening of family functioning permits identification of ‘at risk’ families. Early engagement around family concerns empowers the safe continuation of FFGT. Several barriers to engaging these families are explored.

Methods: Screening with the Family Relationships Index occurs at entry to palliative care. Families with reduced communication, cohesion and conflict resolution are invited to undertake therapy. A linear mixed-effects model assessed outcomes post sessions on family-disclosure.

Results: From 4247 families with advanced cancer screened with the FRI, 1913 (45%) have optimal family functioning not needing a preventive intervention. Some 1442 (31%) had major barriers to care including geographic inaccessibility; absence of members with small families, social isolation or complete estrangement; prominent language barriers or cognitive limitations. Some 421 individuals (115 families) have engaged thus far in a dose-intensity study of FFGT. Once FFGT is commenced, the rate of attrition before 5 therapy sessions is 8%. Family-disclosure increases significantly per session [95% CI 0.42–1.71] (p<0.005). Family-disclosure is associated with increased within-family alliance (collaboration/cohesiveness) [$\beta=0.30$, p<0.001], greater perceived helpfulness of sessions [$\beta=0.07$, p<0.01] and greater positive affect [$\beta=0.66$, p<0.0001].

Conclusion: Preventive models of care raise several barriers to implementation. Once engaged, families gain considerably through FFGT.

84 – Prediction of the transfer into daily life of progressive relaxation after a inpatient psychosomatic rehabilitation

Klosterhalfen S^{a,b}, Becker N^c, Welsch K^{a,c}, Köllner V^{a,b}

^a MediClin Blietal Kliniken, Fachklinik für Psychosomatische Medizin, Blieskastel, Germany

^b Medizinische Fakultät der Universität des Saarlandes, Homburg/Saar, Germany

^c Differentielle Psychologie und psychologische Diagnostik, Universität des Saarlandes, Saarbrücken, Germany

Background and aims: Progressive Relaxation (PR) is one of the most frequently applied relaxation techniques in psychosomatic rehabilitation. Although clinical efficiency is encouraging the transfer into daily routine

often fails. The aim of this prospective study was to assess which factors have a positive influence on the frequency of daily practice after discharge.

Methods: 350 patients in a psychosomatic rehabilitation clinic attended a course in PR and were interviewed at the beginning of therapy (T1), at discharge (T2) and three months after discharge (T3). The response rate (T3) was 78%. The patients evaluated their symptoms, the alteration of relaxation experience and wellbeing as well as the frequency of exercising in a modified version of the ET-ANAM-questionnaire (Krampen, 2002).

Results: Three months after discharge 50.2% practiced PR at least once a week. The experience of relaxation during the training was identified as the best predictor of a successful transfer to daily routine. The correlation between this experience and the frequency of daily practice was significant ($r=0.357$; $p<0.01$) while the correlations between symptom reduction and the frequency of daily practice cannot be considered as clinically relevant.

Conclusion: The experience of relaxation seems to have a deeper impact on long-term transfer than the actual symptom reduction itself. Therefore relaxation trainings during inpatient rehabilitation should enable patients to experience positive effects immediately during the training program to enhance the transfer of the training into daily life.

85 – Posttraumatic stress disorder before and after lung transplantation

Köllner V^a, Brandsch S^a, Schäfers HJ^b, Sybrecht GW^c, Wilkens H^c

^a Fachklinik für Psychosomatische Medizin, Mediclin Blietal Kliniken, Blieskastel

^b Klinik für Thorax- und Herz-Gefäßchirurgie, Universitätsklinikum des Saarlandes, Homburg Saar

^c Medizinische Klinik V, Universitätsklinikum des Saarlandes, Homburg Saar

Background and aims: The aim of lung transplantation (LP) is to improve prognosis but also quality of life (QOL). Symptoms of Posttraumatic stress disorder (PTSD) in patients before for and after lung transplantation (LTx) were analysed, since there is very limited data about its prevalence and its impact on QOL.

Methods: 45 patients on waiting list for lung transplantation (LP, 52.9±9.1 years, 13m/31f) and 47 transplanted patients (TP, 49.2±12.9 years, 26m/22f) were included. PTSD symptoms were measured by IES-R (Impact of Event Scale) and SKID. Health related quality of life was assessed by SF-36.

Results: 14 patients (15.2%) fulfilled criteria for PTSD in IES-R, 11 of them before and 3 after Tx. In SKID 9 patients fulfilled the diagnostic criteria for PTSD, 4 of

them related to lung disease and 5 to other traumatic life events. In 3 patients the traumatic event was related to the waiting period and only in one case experiences during ICU-stay after LTx were cause of PTSD. Quality of life had a negative correlation with PTSD symptoms scales (intrusion $r=-0.489$, $p<0.01$; avoidance $r=-0.740$, $p<0.01$; hyperarousal $r=-0.488$, $p<0.01$).

Conclusion: About 10% of our patients before and after Tx had comorbid PTSD. This had a negative impact on quality of life. Events during waiting time were experienced more frequently as traumatic than events related to Tx. Interventions aimed to prevention of psychic traumatisation before and after Tx are needed.

86 – Psychosomatic factors in the elderly

Kopp M

Semmelweis University, Institute of Behavioural Sciences

Aims: The aim of the present study was to analyse the psychosomatic predictors of four years long survival in the aging Hungarian population, and to identify gender differences in this respect.

Methods: People above 69 years of age in the national representative Hungarostudy 2002 who consented to be contacted again, the data of 263 men and 416 women were collected in 2006 within the frame of the follow-up Hungarostudy 2006. By 2006 67 men (25.5%) and 85 women (20.4%) died from this age groups. Socio-economic and psychosocial measures, self-rated health, depressive symptoms (BDI), WHO well-being, negative affect, self-efficacy, religious practice and health behavioural factors were included into the analysis.

Results: In both genders the following predictors of survival were found: self-rated health (male OR: 2.05, female OR: 2.16), WHO well-being (male OR: 1.94, female OR: 2.06) and sport activity (male OR: 4.31, female OR: 3.65). Self-efficacy (OR: 2.58) and satisfaction with personal relations (OR: 2.12) among men and regular religious practice (OR: 2.75) among women predicted survival. BDI above 10 (male OR: 2.72, female 2.29) predicted death in both genders, hopelessness (OR: 2.14) and negative affect (OR: 2.18) only among men, while low subjective social status (OR: 1.82) and unhappiness (OR: 1.82) only among women. Education, income, marital status, smoking and alcohol consumption in 2002 were not significantly related to death in this age group.

Conclusion: Psychosomatic factors are strong predictors of survival in old age, but the gender differences are less important among the elderly than in the younger population.

87 – Clinical psychologists in CL-services – competitors or colleagues?

Kreikenbohm, T^a, Gründel M^b & Helle M^c

^a Department of Psychiatry and Psychotherapy, Psychooncology, Kreisklinikum Siegen, Germany

^b Department of Haematology /Oncology, Psychosocial Service-Unit, University Clinic Göttingen, Germany

^c Department of Applied Human Sciences, Clinical Psychology, University of Applied Sciences, Stendal, Germany

Background: The treatment of medically ill patients with high demand for psychosocial care or somato-psychic comorbidity in settings of general hospitals is one of the future challenges for multi-professionally organized care structures such as CL services. The academic group of clinical psychologists is still underrepresented in such care structures, which are traditionally dominated by medical doctors. The unclear formulation of working spectra for clinical psychologists in German speaking countries, as well as limitations caused by missing knowledge about necessary professional key competencies are prominent shortcomings. Additionally, suggestions for specific education curricula, enabling clinical psychologists to cope with the specific features of this application field are rare until the present day.

Methods: The empirical data is based on a cooperation with staff of ten CL-services in Germany and Austria. All participants (medical doctors n=25/n=23 psychologists, with 5.3 years average of working experience in CL services) filled in a questionnaire focussing on characteristics of the field of application, professional key competencies and contents for specific training curricula.

Results and Conclusion: The results entail a set of professional key competencies together with a proposal for a specific education curriculum for postgraduate clinical psychologists. Due to the explorative character of the empirical research and a consecutive development of the education curriculum the present study may be used as a contribution to find more integration opportunities for clinical psychologists. The psychosocial care of primarily somatic ill patients in the setting of the general hospital needs to be regarded as one of the few potential growth areas in clinical psychology.

88 – Development and validation of a structural quality model for diagnosis related groups (DRGs) in the field of psychosomatic medicine in Austria

Kumnig M, Schüßler G

Innsbruck Medical University, Department of Medical Psychology

Background: Psychosomatic treatment is considered as very comprehensive with diseases bio-psycho-

socially conditioned and requiring complex treatment. Recently the development of standardized guidelines has been accelerated within the inpatient treatment of psychosomatic disorders. Thus, these standards should also be implemented in Austria.

Aim: To develop and validate a new structural quality model to investigate, (a) what form of psychosomatic disorders, (b) what form of treatment is needed, and based on that, (c) what form of inpatient therapeutic care constitutes the most effective form of treatment, in accordance to scientific and economic aspects.

Methods: A data and literature-based review assembled main physical diseases and simultaneously documents observed concomitant mental disorders.

Results: The current Austrian model for diagnosis related groups (DRGs) doesn't include psychosomatic services appropriately. Standardized, evidence-based diagnosis and therapeutic indication should be ensured for inpatient treatments. Current documentation isn't able to cover the actual state of the inpatient treatment of psychosomatic disorders. Based on redefined criteria a new model shall be developed which meets the specific demands of inpatient care by providing a systematic survey of both physical and mental diagnoses.

Conclusion: An adequate classification of psychosomatic disorders can only be guaranteed by independent DRG-groups within the national Austrian framework. Core areas of inpatient psychosomatic medicine are: (a) diseases with their bio-psycho-social aspects, (b) physiological-functional disorders caused by emotions/conflicts or by traumata, (c) conversion disorders, (d) an unhealthy life-style; (e) mental disorders associated by physical sensations.

89 – Psychosocial aspects in the psychological clinical diagnostic of kidney transplant candidates: Psychosocial vulnerability predicts psychosocial outcome after a kidney transplantation

Kumnig M

Innsbruck Medical University, Department of Psychiatry and Psychotherapy, Department of Medical Psychology

Background: As life-threatening and potentially disabling diseases, renal diseases and their treatment cause stress as well as other psychosocial problems. Patients' nonadherence and distress are highly prevalent among renal patients, and both influence treatment course and outcomes. Pretransplant medical evaluation of kidney transplantation candidates includes an assessment of psychosocial data, that also has the character of an educational strategy to promote greater compliance.

Aim: The identification of at-risk patients and the ongoing counselling are main tasks of pretransplant psychosocial assessment: evaluation of patients' understanding of

transplantation, their ability to give meaning to living kidney donation, their adherence to prescribed regimes, and on their confidence in being able to deal with physical and psychological stresses.

Methods: This lecture synthesizes the research on psychosocial aspects of kidney transplant candidates, with a particular focus on clinical experiences within the scope of psychological diagnostic investigations.

Results: Miscellaneous studies have shown that pretransplant vulnerability markers (such as personality-related cognitive beliefs) are significant predictors of psychosocial outcome and adjustment after living kidney donation. Patients who are non-compliant in following their pre- and posttransplant regimen endanger their health. Furthermore trait anxiety and depressive symptoms are associated with decreased physical, mental, and social functioning.

Conclusion: Familiarity with these vulnerability markers enables early identification of at-risk transplant patients and facilitates the care team to assimilate psychological investigations in the treatment plan. Especially patients with high pretransplant psychosocial vulnerability should receive ongoing counselling. In Addition, an effective intervention strategy should focus on enhancing patients' self-efficacy and threat appraisal.

90 – Standards in the psychosomatic treatment of people with alopecia areata: Results from a multidisciplinary review

Kumnig M, Schüßler G

Innsbruck Medical University, Department of Medical Psychology

Background: Alopecia areata (AA) is a disorder causing baldness without scars, concerning the scalp (alopecia totalis) or all body hair (alopecia universalis). AA can elicit significant psychosocial problems particularly. The unpredictability of AA and partly insufficient therapy add to the experienced psychosocial disabilities.

Aim: To assess the effects of interventions and to develop standardized implications for the treatment.

Methods: A multidisciplinary review conducted in September 2009 included all studies focussing on the psychological-supported treatment and the psychosocial consequences. Only a few clinical trials have explored the psychosocial comorbidity of AA.

Results: First results indicated that most studies have revealed that people with alopecia show higher levels of anxiety and depression combined with lower self esteem, poorer quality of life, and body image. Leaving AA untreated is a legitimate option for many patients. Spontaneous remission occurs in up to 80%.

Conclusion: These findings, however, must be viewed under reserve. Only few treatments applying

psychosomatic methods have been assessed, showing varying efficacies. Spontaneous remission and adverse events of various treatment attempts have to be considered. Not-treating combined with a supportive psychosocial treatment, taken anxiety and depression traits under therapeutic consideration, is often the best option. Furthermore, the studies have shown that AA may cause substantial psychological and social disabilities which should be assimilated to enable patients to cope with the psychosocial consequences. The precise relationship between emotionality, personality, experiential factors and AA challenges researchers and clinicians who strive to enhance the effectiveness of psychosomatic treatment.

91 – Immune activation and psychological outcome in patients with lung cancer

Kurz K^{a,b}, Fiegl M^{c,d}, Pircher M^c, Weiss G^a, Denz HA^c, Holzner B^e, Fuchs D^{b}*

^a Division of Internal Medicine I, Innsbruck Medical University, Innsbruck, Austria

^b Division of Biological Chemistry, Biocenter, Innsbruck Medical University, Innsbruck, Austria

^c Division of Oncology, Hospital Natters/Innsbruck, Natters, Austria

^d Division of Haematology and Oncology, Innsbruck Medical University, Innsbruck, Austria

^e Department of Biological Psychiatry, Innsbruck Medical University, Innsbruck, Austria

Background: Patients suffering from malignant tumor disease often suffer from fatigue and decreased quality of life. Immune activation might contribute importantly to the deterioration of patients' quality of life, e.g. by immune-mediated degradation of the essential amino acid tryptophan, which might affect serotonin metabolism.

Methods: Fifty patients with lung cancer answered questionnaires, namely the FACT-An, FACT-F and the MAC questionnaires to assess their psychological status and coping capacity. Markers of inflammation and immune activation (neopterin, C-reactive protein) as well as haemoglobin concentrations and tryptophan degradation were determined in the blood of patients and were correlated with scores of psychological tests.

Results: Patients with lung cancer suffered from an increased fatigue feeling and reported about impaired quality of life. Markers of inflammation and immune activation were elevated in patients, and also enhanced immune-mediated tryptophan degradation was observed. Significant correlations existed between scores of different psychological tests and also patients' self-assessment of their fatigue and quality of life. FACT-An and FACT-F scores were correlated highly significantly with inflammatory markers and immune-

mediated tryptophan degradation. Immune activation and tryptophan catabolism were not related with MAC scores.

Conclusions: Immune-mediated tryptophan degradation appears to be involved in the development of fatigue and impaired quality of life in patients with lung cancer. Decreased tryptophan levels do not seem to influence coping strategies of patients.

92 – What determines the effectiveness of clinical consultations?

Leentjens AFG

Maastricht University Medical Centre, Maastricht, the Netherlands

Background and Aim: Adherence to advice given by the CL psychiatrist is the most important factor for the effectiveness of psychiatric consultation. In this systematic review we aim at identifying factors that increase adherence with advice given by the consultation psychiatrist during in-patient consultation.

Method: Systematic literature review

Results: Eighteen mostly retrospective studies reported on the level of adherence with recommendations given by the consultation psychiatrist in a hospital setting. Thirteen of these also reported on the association between several clinical variables and the level of adherence.

Adherence with discharge advice was complied with best (median 91% compliance, range in the different studies from 85 to 95%); adherence to medication advice was also good (median 79%, range 68-98%), but adherence with diagnostic advice was poor (56%, range 29-75%). Patient related variables were not associated with the level of adherence, nor were consultee related variables. Some consultant related variables were associated with adherence to advice, such as the level of professional expertise, the organisation of liaison activities, following up on patients after initial consultation, and prescription of medication by the consultant himself during the consultation.

Conclusion: this review provides evidence that an active approach of the consultant in terms of liaison activities as well as consultation procedures, increases adherence to advice, and thus the effectiveness of consultation. Prospective qualitative research is needed to identify consultation methods that may further enhance adherence.

93 – Gender differences in alexithymia and associated interpersonal problems over the course of inpatient psychotherapeutic treatment

Lehmann V^a, Ankerhold A^b, Franke GH^a, Frommer J^c, Haase M^c, Jäger S^a, Salewski C^a, Tögel C^d, Ulrich C^b and Grabe HJ^e

^a Department of Rehabilitation Psychology, University of Applied Sciences Magdeburg-Stendal, Germany

^b Psychiatric and Psychosomatic Clinic, Uchtsprunge, Germany

^c Department of Psychosomatic Medicine, Otto-von-Guericke University, Magdeburg, Germany

^d Salus-Institute of Mental Health, Magdeburg, Germany

^e Department of Psychiatry and Psychotherapy, Ernst-Moritz-Arndt University, Greifswald, Germany

Background and aims: Previous research has either investigated gender differences in alexithymia or the relation between alexithymia and interpersonal problems. This longitudinal study aims to join all three aspects by investigating psychosomatic inpatients according to their level of alexithymia and its relation to gender and interpersonal problems.

Method: 334 inpatients completed the Toronto Alexithymia Scale (TAS-20), the Inventory of Interpersonal Problem (IIP-C), and the Symptom Checklist (SCL-90-R) at three different times during treatment. Factorial ANOVAs as well as repeated measures MANOVA were applied to test various differences within the named dimensions. Linear multiple regressions were performed to examine changes in the level of alexithymia, interpersonal problems, psychological distress, and their associations.

Results: An overall trend was revealed of women reporting more alexithymic characteristics. Significant gender differences emerged on two of the three TAS-factors (difficulties identifying feelings and external oriented thinking) as well as on those ends of the IIP-dimensions labelled as Submission and Love. TAS-scores decreased significantly over the course of treatment. The three investigated aspects were connected when predicting a high amount of variance in the general psychological distress.

Conclusion: It is suggested that men and women differ according to specific characteristics in alexithymia and associated interpersonal problems. Furthermore, they profit differently from psychotherapeutic inpatient treatment.

94 – Can bright light therapy ameliorate symptoms associated with low back pain (LBP)? A randomized controlled trial

Leichtfried V^a, Kantner-Rumplmair W^b, Raggautz M^a, Bartenbach C^c, Aigner M^d, Winkler D^d, Jonas L^e, Gehmacher D^f, Schobersberger W^a

^a Institute for Sports Medicine, Alpine Medicine & Health Tourism, Department for Medical Sciences, UMIT Hall, Austria

^b Psychosomatic Pain Ambulance, University Hospital for Medical Psychology & Psychotherapy, Innsbruck, Austria

^c Bartenbach LichtLabor, Aldrans, Austria

^d University Hospital for Psychiatry and Psychotherapy, Medical University, Vienna, Austria

^e Health Resort Bad Häring, Bad Häring, Austria

^f Orthopaedics Centre Dr. Gehmacher, Innsbruck, Austria

Background and aims: Low back pain is supposed to be one of the most frequent musculoskeletal complaints in Western society, with remarkable impact on a person's quality of life. Sufficient data support the coincidence of psychosocial items such as depression, anxiety and fear avoidance behaviour with the intensity of pain.

The aim of the presented randomized controlled trial (RCT) was to evaluate whether pain intensity and depressive symptoms could be altered with the application of bright light.

Methods: Light intensity was set to 5.000 lux for intervention and 400 lux for sham group, respectively. The control group got treatment as usual. Light exposures were performed in an innovative light cabin (Bartenbach LichtLabor GmbH).

After the first screening assessment the randomized patients were exposed to light for 30 minutes once a day, three times a week, in a three weeks period. Pain intensity was assessed using the respective subscore of the Brief Pain Inventory (BPI), the occurrence of depressive symptoms by the Hospital Anxiety and Depression Scale (HADS-D). Values evaluated before and after the three week intervention were calculated and groups were compared.

Results: 104 patients were included in the analyses. BPI subscores and HADS-D subscores decreased with median (1st; 3rd quartile) 1.0 (0.0; 1.75) and 1.5 (0; 3.0) more in the intervention group as compared to control group [0.25 (-1.13; 1.13); p=0.041] and [0 (-1; 1.5), p=0.024].

Conclusion: The presented RCT could show that bright light positively influences pain intensity as well as depression in patients suffering from LBP.

95 – Psychosocial care in paediatric oncology and haematology

Leiss U^a, Schröder HM^b, Lilienthal S^c, Schreiber-Gollwitzer BM^d, Griessmeier B^e, Wevers-Donauer G^f, Minetzke-Gruner AC^g, Maier S^h

^a Univ. Klinik für Kinder- und Jugendheilkunde, Medizinische Univ. Wien

^b Klinik für Kinder- und Jugendmedizin, Universität zu Lübeck

^c Klinik und Poliklinik für Pädiatrische Hämatologie und Onkologie, Universitätsklinikum Hamburg-Eppendorf

^d Kinderklinik Dritter Orden, München

^e Zentrum für Kinder- und Jugendmedizin, Universität Frankfurt

^f Univ. Kinderklinik, Homburg

^g Charité CVK, Pädiatrie, Berlin

^h Rehabilitationsklinik Katharinenhöhe, Schöwald/Schwarzwald

Background and aims: The professional society Psychosocial Association in Paediatric Oncology and Haematology (PSAPOH) has been working on the development of a uniform, structured procedure in the psychosocial care of malignant diseases in childhood/adolescence since 1997. In 2008 comprehensive guidelines were published, describing the structural and framework conditions as well as important aspects of psychosocial diagnostics, indication, intervention and documentation. Furthermore the guideline outlines which interventions have proved effective in the psychosocial care of children/adolescents with cancer and their relatives.

Methods: The integration of comprehensive clinical experience and the scientific findings available was of central importance for the development of the presented guidelines. The method chosen for the scientific foundation entails the omission of a considerable amount of thematically relevant scientific and clinical literature.

Results: In view of the relatively small case number of child cancer patients in relation to adult cancer patients, there is currently a lower number of psychosocial studies in paediatric oncology which fulfill the criteria of evidence levels I and II (randomised-controlled trial RCT, review of RCT, cohort-study). 40 studies, 4 systematic reviews and 2 meta-analysis are discussed as well as current approaches to implement the guidelines in clinical practice.

Conclusion: Further research is needed for the quality development of care concepts based on a continuing process of integrating research findings and clinical expertise. Research is needed for example on the effectiveness of specific interventions for quality of life and emotional adjustment, and the identification of risk factors regarding psychosocial reintegration.

96 – Female sexual function and quality of life in dialysis and renal transplant patients

Lerda S^a, Lasaponara F^b, Zullo G^a, Sterpone S^a, Munno D^a, Fontana D^d, Segoloni G^c

^a Neuroscience Department, Consultation Liaison Psychiatry and Clinical Psychology Service, University of Turin, Italy

^b Surgical Department, Urological Kidney Transplantation Service, University of Turin, Italy

^c Surgical Department, Urological Section, University of Turin, Italy

^d Medical Department, Nephrology-Dialysis and Kidney Transplantation Section, University of Turin, Italy

Background and aims: Sexual dysfunction (SD) is a common problem in end-stage renal disease (ESRD). In contrast to basic and clinical research in the field of male SD, the sexual problems of women have received relatively little attention and are often under-treated. For this reason, we compare the sexual function and QoL in female ESRD patients during dialysis and after renal transplantation.

Methods: 30 female ESRD patients (27 peritoneal dialysis, 3 hemodialysis, mean age 47.93 ± 13.97 years) were enrolled. All patients were asked to complete FSFI, M-SDS and SF-36 questionnaires at two different moments: during dialysis (t0) and 6 months after renal transplantation (t1).

Results: Female SD was found in 70% of ESRD patients at t0 and in 45% at t1. During the dialysis only 33% of patients acknowledged having an active sexual life, in contrast to the 57% after transplantation. Only 23% of patients with SD had discussed this problem with their gynecologist, renal or primary provider during dialysis, and none reported having received treatment.

The rates of depression were 54% and 40% in the ESRD patients at t0 and t1, respectively. During dialysis a significant negative correlation was found between total FSFI score and age ($p < 0.01$), SDS score ($p < 0.01$). Results also indicated a positive correlation between total FSFI and SF-36 ($p < 0.01$).

Total FSFI result significantly improved after transplantation ($p < 0.05$). Regarding the SF-36, at t0 patients had lower scores on vitality, social activity and general health perception ($p < 0.05$).

Conclusions: Female sexual dysfunction is common in ESRD. This aspect can be related with depression. Women with ESRD should be consulted for sexual dysfunction and be correctly treated to improve the quality of life. Our study demonstrates that a successful transplantation is the most effective way to retain good sexual function in women with chronic renal failure.

97 – Temperament and character factors in adults with epilepsy

Lerda S, Macario PF, Zullo G, Sterpone CMS, Munno D
Neuroscience Department, Consultation Liaison Psychiatry and Clinical Psychology Service, University of Turin, Italy

Background and aims: Having a chronic condition like epilepsy imposes serious burden for the patient. This is reflected by a higher level of psychological complaints. Anyway it is possible that other factors, for example personality aspects, can have strong influence in these questions.

We investigated temperament and character patterns in patients with epilepsy and their associations with clinical variables and psychological adjustment.

Methods: The sample was comprised of 58 subjects with epilepsy and 60 healthy controls matched for age and sex. All of the participants were assessed for personality (TCI), depression (BDI), coping (COPE) and illness adjustment (IBQ).

Results: Adults with epilepsy showed higher harm avoidance, and lower persistence and self-directedness than controls ($p < 0.05$). They also resulted more depressed ($p < 0.05$) and tended to use less active strategies in coping with their problems ($p < 0.05$). On IBQ, 36% showed significant disease conviction and high psychological perception of illness, 28% denial, and 19% affective disturbance. Harm avoidance appeared positively to correlate ($p < 0.05$) with onset of neurological disease ($p < 0.01$), seizure frequency ($p < 0.01$), dysfunctional coping ($p < 0.05$), and negative illness behaviour (disease conviction, affective disturbance, irritability) ($p < 0.01$). Low persistence was significantly associated with non active coping ($p < 0.05$). Self-directedness correlated positively with educational level ($p < 0.01$) and bad coping ($p < 0.05$). At last inversely proportional correlation was found between self-directedness and depression ($p < 0.01$), irritability ($p < 0.01$), affective disturbance ($p < 0.01$), hypochondria ($p < 0.01$), and disease conviction ($p < 0.05$).

Conclusions: Adults with epilepsy have temperament and character patterns distinct from those of healthy controls. We can not speak about a specific epileptic personality, but we suppose an important impact on psychological adjustment to epilepsy depending from temperament and character dimensions.

98 – Evidence that a novel, “transmural” organisation of psychiatric interventions reduces medical service use and length of stay in the somatic hospital

Leue C, Vandebroek N, Driessen G, Strik J, Severeijns R, Kruimel J, Moonen A, Albers R, van Os J
Maastricht University Medical Centre

Objective: Services providing care at the interface of medical and psychiatric comorbidity in the somatic hospital are under increasing pressure to be cost-effective. Previous work suggests that psychosomatic care may gain in cost-effectiveness by shifting from inpatient to outpatient care solutions.

Method: A novel, “transmural” form of collaborative care (Medical Psychiatric Centre – MPC) was created between a tertiary care University Medical Centre (hereafter: UMC) and a primary care Community Mental Health Centre (hereafter: CMHC) with a view to treat somatic and psychiatric multimorbidity initially inside and, if convenient and acceptable, outside the hospital. A record linkage study was conducted, linking cost data of hospital medical service use, length of stay (LOS) and transmural psychiatric interventions in patients referred to the MPC over the two-year period of 2007-2008. Analyses quantified pre-post cost changes around MPC referral.

Results: Referral rates were highest for somatoform disorders or affective conditions with comorbid somatic diseases. Comparisons revealed lower costs of medical service use (- € 59; 95% CI - € 103.9 to - € 14.3; $p < 0.01$) and LOS (- € 113; 95% CI - € 184.8 to - € 42.1; p -value < 0.01) after referral to the MPC. Conversely, cost of transmural psychiatric intervention was higher after MPC referral, with evidence for age and sex-specific effects. Overall, total costs were lower after MPC referral (- € 73; 95% CI - € 145.2 to - € 1.5; $p < 0.05$).

Conclusion: A novel transmural approach towards treatment of common somatoform disorders or comorbid affective conditions, guiding patients from inside the hospital to accept primary mental health care, is acceptable and cost-effective.

99 – Influence of mindfulness-based cognitive therapy for people with severe functional disorder: A qualitative study

Lind AB, Risoer MB, Kolstad H, Fink P
The Research Clinic for Functional Disorders and Psychosomatics / Department of Occupational Medicine, Aarhus University Hospital

Background: Studies show that people with severe functional disorders often are vulnerable to stressors and have difficulties coping with stress. We aimed to investigate how patients experienced and coped with stress in everyday life, before and after treatment with mindfulness-based cognitive therapy (MBCT). And how

patients had experienced and coped with stress during their life history.

Methods: A qualitative grounded theory methodology was chosen in order to capture the patients’ individual experiences and attitudes as well their social processes. 24 consecutively referred patients aged 20-45 years diagnosed with functional disorder participated in MBCT in two groups. They were all interviewed in-depth by a semi-structured interview-guide 1-2 months before and 4-6 months after treatment. Observations and video recordings of therapy sessions and patient log books reflecting their experience during treatment contributed to data collection. Data analysis was supported by Nvivo.

Preliminary findings: Patients said that they were very sensitive towards stress in daily life. They experienced their body to react highly on stressors with muscle tension, fatigue and pain. They expressed that they tried to ignore their bodily sensations and often used avoidance as coping strategy. During life they had tried to avoid difficult feelings of sadness and anger and were not trained in mastering these feelings. After treatment, patients experienced to be in better contact with their bodily sensations. They more often narrated being able to navigate in accordance with bodily sensations and thereby adapting more constructively to stressors in daily life. The improved contact to their body also connected them to strong feelings of sorrow, sadness, frustration and anger they had to deal with.

Conclusion: Patients with severe functional disorders often use avoidance as coping strategy in order not to experience difficult feelings of sorrow, sadness, anger and pain. MBCT seems to help people to connect to their bodily sensations, and thereby to connect to their feelings. This may cause ambiguity as they are confronted with difficult feelings.

100 – Biopsychosocial research – skin conductance reactivity post stress and social orientation

Linder MD^{a,e}, Miggitsch EM^{b,e}, Trapp M^{b,c,e}, Richtig E^{d,e}, Egger JW^{b,c,e}

^a University Dermatology Clinic of Padua, Italy

^b Research Unit of Behavioural Medicine, Health Psychology and Empirical Psychosomatics, Medical University of Graz, Austria

^c University Clinic of Medical Psychology and Psychotherapy, Medical University of Graz, Austria

^d University Clinic of Dermatology and Venereology, Medical University of Graz, Austria

^e International Society of Biopsychosocial Medicine, Austria

Background and aims: In the biopsychosocial model (organic unity theory or body -mind unity theory), now regarded as the most significant theory to describe

the relationship between body and mind, skin - as an organ reacting sensitively to changes in the autonomic nervous system - is an important object of research. In former studies we could demonstrate correlations between the reactivity of psycho-vegetative parameters and psychological coping. In this study we investigated the association of social orientation and vegetative regeneration after a combined mental/ergotropic task.

Methods: Skin conductance level (SCL) was measured continuously in 39 healthy volunteers (23 men, 16 women; mean age: 26.3 SD+ 4.2) by the Task Force[®] Monitor (CNSystems, Graz, Austria) who accomplished a combined ergotropic and mental stress task .

“Social orientation (SO)” (evaluated by means of the German version of the Freiburger personality inventory [FPI-R]) was assessed in all participants. According to the SO measured the volunteers were divided into three subgroups.

Results: SCL values showed significant differences among the different SO subgroups (Kruskal-Wallis test: $p=0.002$).

Conclusion: Subjects with high values of SO showed (in an intra-group comparison) a significant lower regeneration of SCL post stress. Social factors like SO may hence influence sympathetic/vegetative regeneration and hidropoiesis post stress.

101 – Lifetime risk of developing Alzheimer’ disease in a Southern European population: Implications for psychosomatic psychiatry

Lobo A, López-Antón R, Santabárbara J, Saz P, Ventura T, Martín A, Roy JF, Quintanilla MA, Campayo A, Lobo E, Marcos G

Department of Medicine and Psychiatry, University of Zaragoza, Department of Preventive Medicine, University of Zaragoza, Centro de Investigación Biomédica en Red de Salud Mental (CIBERSAM), Ministry of Science and Innovation

Background: There is very limited information on the person’s unconditional risk of developing Alzheimer’s disease (AD), but the subject may be of interest for both individuals and clinicians.

Methodology: Data from the ZARADEMP project, a three-wave, longitudinal study to document incidence and risk factors of dementia are presented. A representative stratified random sample of adults aged 55+ years and over ($n=4,803$) was assessed in wave I, and dementia free individuals were followed up for up to 4.5 years.

Standardized Spanish versions of assessment instruments were used, including the Mini-Mental Status Examination, the Geriatric Mental State-AGECAT and the History and Aetiology Schedule. Incident cases of dementia were diagnosed by a panel of research psychiatrists using DSM-IV criteria. Lifetime risk was calculated modelling

the cumulative incidence function of age to AD, taking into account the competing risk of death using univariate and multivariate Fine & Gray’s survival models adjusted by sex and education.

Results: During follow-up, 16,025 person-years, 86 individuals developed AD. The adjusted probability to develop AD increased drastically with age, and lifetime risk was 0.082 for men and twice as high for women, 0.167. Risks for specific age strata have similarly been calculated. A strong association was also observed between low educational level and lifetime risk of AD.

Conclusions: This is the first report in the international literature about the adjusted probability to develop AD. Liaison psychiatrists working with primary care physicians or other specialists may now be able to give documented opinion on the risk to develop this devastating disease.

102 – Affect experience and affect regulation in patients with carotid-artery stenosis before and after carotid endarterectomy vs. conservative treatment

Loeffler-Stastka H, Tschachler A, Stigler K

Dept. of Psychoanalysis and Psychotherapy, Medical University Vienna

Background and aims: Cerebrovascular diseases are likely to evoke depressive symptoms. This prospective pilot study evaluated the influence of carotid-artery endarterectomy (CEA) versus conservative treatment on affect experience and affect regulation in patients with asymptomatic, but severe carotid-artery stenosis. Secondly, we aimed to find predictors for the decision, which patients engage and profit from CEA or a conservative treatment.

Methods: Affect parameter (AREQ), personality characteristics (SWAP), alexithymia (Tas-20), cognitive functioning (TMT) were assessed in semi-structured interviews with 20 patients (mean age: 69.5 years) including a counter-transference measurement (CTQ), 50 days before and 9 months after treatment intervention (CEA: $N=11$, conservative therapy: $N=9$). At the beginning of the doctor-patient-contact both types of intervention were eligibly indicated from the somatic point.

Results: The pre-post comparison showed a decrease in the AREQ-factor “Intense negative affect” ($p=.047$) and an increase in the CTQ-factor “Helpless/inadequate” ($p=.031$) in the CEA-group. Comparing the groups at the second time-point the CEA-group showed lower “Intense negative affect” ($p=.04$) and higher “Ego-strengthened, acting out” behaviour ($p=.047$) than the no-CEA-group. In case of CEA, linear regression analysis revealed a significant prediction model (Nakelkerke’s $R^2=.866$, $p=.005$) with the factors (patient’s: TAS 2: “Difficulties in describing emotions”: $B=2.5$, $p=.010$;

clinician's: "Positive counter-transference": $B=1.7$, $p=.017$; "Protective CT": $B=1.6$, $p=.027$; "Specially overinvolved CT": $B=-1.3$, $p=.026$; "Disengaged CT": $B=-1.5$, $p=.033$) explaining the changes in affect-regulation and behavioural, psychological functioning.

Conclusion: Patients receiving CEA seem to address clinicians more intensively concerning the doctor-patient relationship dyad from the very beginning.

103 – Goal ownership and self-efficacy predict physical exercise and fatigue in rheumatoid arthritis patients: A follow-up study

Maes S, De Gucht V, Hurkmans E and Vliet-Vlieland T Leiden University, Institute of Psychology, Department of Clinical and Health Psychology and Leiden University Medical Center, Department of Rheumatology

Background and aims: Self-regulation cognitions are potentially important determinants of self-management and related disease outcomes in Rheumatoid Arthritis (RA) patients. This study examined (a) if goal ownership and self-efficacy at baseline (T1) predicted physical activity and fatigue at one-year follow-up (T2), and (b) if physical activity at T2 mediated the relationship between goal ownership and self-efficacy at T1 and fatigue at T2 in RA patients.

Methods: At T1, 270 RA patients participated in the study. Of these, 129 patients who reported having a physical activity goal also participated at T2 (mean age (SD) = 60.5 (SD=13.6); 68% were women). Both at T1 and T2 patients filled out self-report measures with respect to goal ownership (Treatment Self-Regulation Questionnaire; TSRQ), self-efficacy (Self-Regulation Skills Battery; SRSB), physical activity (Short Questionnaire to Assess Health-enhancing physical activity; SQUASH), and fatigue (Checklist Individual Strength-20; CIS-20). Hierarchical regression analyses and mediator analyses were conducted. Sociodemographic and disease-related variables were entered as control variables in the regression analyses.

Results: Goal ownership and self-efficacy at T1 significantly predicted physical activity ($p<.05$) and fatigue ($p<.05$) at T2 next to disease activity. Physical activity at T2 was significantly associated with lower levels of fatigue at T2 ($p<.05$). No mediator effect was found.

Conclusion: Strengthening patients' goal ownership as well as increasing patients' self-efficacy should be important targets of interventions aiming at increasing physical activity and reducing fatigue in RA patients.

104 – On one possible method of psychological treatment for alexithymia

Malkina-Pykh IG

Research Center for Interdisciplinary Environmental Cooperation of Russian Academy of Sciences

Background and aims: The study examined 1) associations between alexithymia, extraversion/neurotism, locus of control, body image dissatisfaction, time competence, inner directivity, feeling reactivity and spontaneity and 2) effectiveness of rhythmic movement therapy for alexithymia.

Methods: The sample of 23 patients addressed psychological counseling (group 1) and 19 practically healthy persons randomly selected in population (group 2) were administered the 26-item Toronto Alexithymia Scale, Rotter's Locus of Control Scale, Eysenck Personality Inventory (EPI), Shostrom's Personal Orientation Inventory (POI) and Body Image Test (D. Jade).

Results: At the base-line assessment the patients of the group 1 compared with those of the group 2 had significantly different levels of alexithymia as well as of all other characteristics, except for extraversion. Highly significant associations were obtained between alexithymia and other personal traits under study. After that alexithymics were randomly divided into two groups A (12 participants) and B (11 participants). Group A participants received the program of rhythmic movement therapy, group B participants received the gestalt therapy. Patients of the groups A and B were repeatedly tested after 16 weeks of treatments. The results demonstrated significant improvements of alexithymia level as well as the level of all other personal traits in patients of A group compared to unimproved patients of B group.

Conclusion: The evaluation of the overall effects of two treatment programs allows to assume that rhythmic movement therapy is rather effective method of psychological treatment not only for alexithymia, but also for some other personal traits associated with alexithymia.

105 – Medically unexplained symptoms: What about differential diagnosis? Some cautionary statements

Malt UF

Director, Dept of Neuropsychiatry and Psychosomatic Medicine, Division of Clinical Neurosciences, Oslo University hospital-Rikshospitalet, and Professor of Medicine (Psychiatry & Psychosomatic medicine), Institute of Psychiatry, Faculty of medicine, University of Oslo, Norway

Background and aims: Review of the findings in patients referred to a 3rd line university department for "medical unexplained symptoms".

Methods: All patients were subject to a comprehensive neuropsychiatric and psychosomatic assessment:

Psychosomatic and MINI neuropsychiatric interviews; psychometric assessments [Toronto Alexithymia Scale; Eysenck personality Questionnaire, Neuroticism and Social conformity (Lie) scales; Health Locus of Control Scale; Buss-Perry Aggression Questionnaire; General Health Questionnaire – 30 items; Hospital Anxiety Depression rating scale; 139 items somatic symptoms checklist (expanded version of the Giessener Beschwerde Bogen); Symptom Checklist 90]; comprehensive biochemical screening and EEG. Additional examinations - on indication - included Standardized Mensendieck physiotherapy Test; Heart Rate Variability; Galvanic Skin Response; neurocognitive assessments; 18F-PET and MR of the brain.

Results: In almost every case so-called medical unexplained symptoms were in fact explainable. The majority of the patients suffered from somatic symptoms caused by true physiological processes being part of psychiatric disorder. The most frequent disorders found were previously undetected bipolar II and III disorders and fearful or non-fearful panic disorders. In a few cases, temporal or frontal lobe dysfunctions; previous undetected somatic disorder or side-effects of non-psychiatric drugs explained the so-called “medical unexplained symptoms”.

Conclusion: Our findings challenge the validity of the concept “medical unexplained” and suggests that the conclusion “medical unexplained” in most cases reflect insufficient assessments or perhaps poor knowledge of neurobiology of mental and somatic disorders.

106 – The Danish nationwide “Back to work (TTA)” project

Martiny K^a, Mortensen OS^b, Birket-Smith M^a

^a Liaison Psychiatry Research Unit, Mental Health Centre Copenhagen, Copenhagen University Hospital, Denmark

^b Clinic of Occupational and Environmental Medicine, Bispebjerg University Hospital, Copenhagen, Denmark

Background and aims: Long-term sick leave carries in itself a health hazard and an increased risk of permanent or intermittent unemployment. Persons on long-term sick leave often need a tailored support to get back to work. The Danish nationwide “Back to work (TTA)” project will focus on the impact of such a formalized support concept. The project is funded by the Danish Prevention fund and implemented by the National Research Centre for the Working Environment (NFA).

Methods: Persons in 20 municipalities, having been on sick leave for 8 weeks, are randomized to usual management by social workers or an intensive “Back to work” support concept in a 2 years follow-up period. Three key elements in the support concept are in focus:

Multidisciplinary assessment, increased coordination between involved parties and early intervention. The support concept consists of three elements: “Back to work” coordinators (social advisor) “Back to work” teams (psychologist and physiotherapist) and “Clinical units” (liaison medical consultations from Psychiatrist, Occupational physicians and General practitioners). Through the joined effort of these three elements the project seeks to deliver an immediate assessment and a tailored intervention to help a person reach the goal of re-employment.

Results: The TTA project will begin in April 2010 and run for 2 years. Outcome is the rate of achieving employment in the two groups.

Conclusion: The TTA project will yield substantial new knowledge on the impact of offering persons on long-term sick leave an intensive support structure on the rate of reemployment compared to standard practice.

107 – Psychosocial aspects in pregnancy and postpartum

Mautner E, Greimel E, Trutnovsky G, Daghofer F, Egger JW & Lang U

Universitätsklinik für Frauenheilkunde und Geburtshilfe

Background and aims: Pregnancy, birth and the postpartum period may be critical life events for women. The aim of the study was to explore psychosocial and medical factors on quality of life and depressive symptoms during pregnancy and postpartum.

Methods: The study group included 112 women. Health related quality of life was measured using the WHO-QOL-BREF questionnaire. Depression was assessed with the Edinburgh Postnatal depression Scale. Data were collected prospectively at three assessment times. Statistical analyses were performed using ANOVA and MANCOVA.

Results: The results indicated that pregnant women had lower quality of life in the physical dimension compared to a non-pregnant reference group. Younger age was associated with lower quality of life in the psychological and the global quality of life dimension. Older pregnant women showed better quality of life in the social and environmental dimension.

Risk factors for decreased quality of life were during pregnancy risk for preterm birth, poor social support, an unwanted pregnancy and poorer financial situation. Two till five day postpartum risk factors were early week of gestation, mood disturbances in pregnancy and poorer health status of the newborn. Three till four month postpartum risk factors for decreased quality of life and depressive symptoms were poor social support, mood disturbances in pregnancy, poor health status of the child and lower social class.

Conclusion: It is important to pay attention to these risk factors to provide a good care and treatment for pregnant women. The counselling should be multi professional including psychological support to reduce childbirth burden.

108 – Conversion and dissociative disorders in primary care attenders referred to a psychiatric consultation-liaison service

*Menchetti M, Indrio C, Del Gobbo I, Lia L, Berardi D
Institute of Psychiatry, Bologna University, Bologna, Italy*

Background and aims: Very few data are available on the impact of conversion and dissociative disorders in primary care. Aim of the study is to assess prevalence and correlates of these disorders in patients referred to a Psychiatric Consultation-Liaison Service for Primary Care Physicians (PCPs).

Methods: In a 2-year period (2008-2009), patients referred to the Psychiatric Consultation-Liaison Service who complained somatic symptoms were evaluated with the Mini International Neuropsychiatric Interview, the Somatization Section of the Composite International Diagnostic Interview, the Dissociative Disorders Interview Schedule, the Dissociative Experiences Scale, and the Work and Social Adjustment Scale. It was carefully examined clinical records to exclude other physical and neurological conditions. Six months after baseline, a brief interview with the PCP was scheduled to obtain information on clinical course.

Results: During the 2-year period, 207 patients were referred to the Consultation-Liaison Service. Out of these, 33 patients (15.9%) showed conversion and/or dissociative symptoms; seven patients refused to join the study or were excluded, leaving a final sample of 206 patients. Regarding prevalence, 24 patients (11.6%) met criteria for a diagnosis of a conversion disorder, while 16 (7.7%) met criteria for a dissociative disorders; in 14 cases there was comorbidity between the two disorders. Eleven patients presented comorbidity with other Axis I disorders. Conversion and dissociative disorders were associated with moderate levels of disability.

Conclusions: Conversion and dissociative disorders are relatively frequent among patients referred by their PCPs for a specialist consultation.

109 – Patient-reported outcomes in breast cancer patients undergoing endocrine therapy (PRO-BETH): Adherence rates and symptom burden over the disease trajectory

Meraner V, Oberguggenberger A, Giesinger J, Sperner-Unterweger B, Kemmler G, Hubalek M, Beer B, Oberacher H, Holzner B

Department of Psychiatry and Psychotherapy, Department of Gynaecology and Department of Legal Medicine

Background: Only few studies have investigated the issue of breast cancer patients' adherence to aromatase inhibitor (AI) therapy and factors influencing adherence behavior. These limited results are inconsistent and vary due to heterogeneous study designs and methodological problems. The main objective of our study was the comprehensive evaluation of adherence rates over the course of AI therapy in post-menopausal breast cancer patients using a multi-method approach. We focused on the impact of patient-reported physical symptoms and psychosocial burden on patients' adherence behavior.

Methods: Breast cancer patients who met inclusion criteria were consecutively included in the study at the outpatient unit of the Department of Gynecology, Innsbruck Medical University. Within their routine after care appointment patients completed a comprehensive patient-reported outcome (PRO) assessment including the FACT-ES, the HADS. In addition, adherence was rated by the treating physician.

Results: 169 patients (mean age 64.2 SD 8.7) within AI therapy at least 3 months and no more than 5 years after primary treatment were included in the study. 10 patients (5.9%) were rated as being non-adherent. We found no significant differences between adherent and non-adherent patients with regard to PRO scales. A trend level significance in favour of non-adherent patients was found for endocrine symptoms (effect size 0.69; $p=0.08$) and depression (effect size 0.75; $p=0.09$).

Conclusion: In contrast to the literature we found very high adherence rates. Our results suggest, that there might be an association between adherence and depression and endocrine symptom burden. Further research is necessary to explore causal relations between these factors which are supposed to be interdependent. Due to the low proportion of patients rated as being non-adherent, group comparisons suffered from a relevant lack of power. As patient recruitment for this study is still ongoing, this might be overcome.

110 – Treating anxiety in CAD patients

Merswolken M, Siebenhüner S, Orth-Gomér K, Deter HC

Abteilung Psychosomatik und Psychotherapie, Charité Campus Benjamin Franklin, Universitätsmedizin der Freien und der Humboldt Universität, Hindenburgdamm 30, 12200 Berlin

Background and aims: Anxiety is frequent in patients with CAD and influences the course of the disease but few studies have investigated the effects of psychotherapy interventions in CAD patients with elevated anxiety

scores. Therefore the main aim of this study was to evaluate the effects of a 6 month psychotherapy intervention on anxiety in this group of patients.

Methods: 62 patients with CAD and elevated levels of anxiety were recruited and randomized into a 6 month psychotherapy intervention or a control condition (treatment as usual). Patients were included if they were aged ≤ 75 years, had a documented CHD, and had, within the previous 3 month, no myocardial infarction (MI) or coronary artery bypass grafting (CABG). Medically eligible patients were screened for anxiety with the Hospital Anxiety and Depression Scale (HADS) and were included if they had a score of 8 or higher on the HADS-anxiety-subscale. At 6 month follow up change in anxiety scores were evaluated.

Results: At 6 months follow-up significant reductions (intervention group: -2.0 ± 2.3 ; control group: -1.8 ± 2.8 ; $P < 0.01$) were found in both groups in the HADS anxiety scale but no significant differences between the groups were observed. Adjustment for baseline differences and disease severity did not change these results. A small trend towards a beneficial effect of the intervention for low active-coping patients could be observed.

Conclusion: Our study showed that elevated anxiety scores were reduced over time. As in some previous studies the effects of a psychotherapy intervention in distressed patients with CAD were small. Anxiety reduction was unrelated to disease severity. A subgroup of low-active coping patients might benefit from this kind of intervention.

111 – Establishing a biopsychosocial model of care for gastroenterology outpatients: A South Australian experience

Mikocka-Walus A^{a,b,c} and Andrews JM^{c,d}

^a School of Nursing and Midwifery, University of South Australia

^b School of Psychology, University of Adelaide

^c Department of Gastroenterology and Hepatology, Royal Adelaide Hospital

^d School of Medicine, University of Adelaide

Background and aims: Gastrointestinal and hepatologic disorders commonly coexist with psychological problems such as anxiety and depression. Psychological stress has been found to have a significant impact on patients' outcomes. Despite this the biopsychosocial approach has not been widely used in management of gastroenterology outpatients. This paper aims to report on our experience with establishing a biopsychosocial model of care for gastroenterology outpatients in South Australia.

Methods: The introduction of the biopsychosocial model of care has been designed to comprise three phases: 1) epidemiological research on psychological co-morbidities in gastroenterology outpatients; 2) testing

psychological interventions to contribute to management; 3) changes to the existing outpatient clinic functioning by including allied-health practitioners as members of the gastroenterology team.

Results: Phase 1 had been completed and six studies (i.e. systematic review, 3 cross-sectional, 1 cohort prospective management study, 1 interview based qualitative study) conducted. Phase 2 has been initiated: 1 pilot RCT completed (i.e. intervention on providing gastroenterologists with information regarding their patients' mental health) and another has just started (i.e. the impact of cognitive-behavioural therapy on long-term clinical and psychological outcomes). Phase 1 showed that high levels of anxiety and depression were present in gastroenterology outpatients; and that a history of psychological co-morbidity was associated with a greater risk of adverse outcomes (admissions/surgery).

Conclusion: The significant burden of psychological co-morbidity in gastroenterology outpatients warrants further research into effective psychological treatments to be included as part of standard care.

112 – Acceptance and change in a psychosomatic clinic: Shifts in experiential avoidance, mindfulness and meta-emotions predict changes in symptoms and well-being

Mitmansgruber H^a, Beck TN^a, Grubinger T, Schüßler G^a, Dahlbender RW^b

^a Innsbruck Medical University, Department of Medical Psychology, Austria

^b Klinik am schönen Moos, Clinic for Psychosomatic Medicine, Bad Saulgau, Germany

^c Innsbruck Medical University, Department of Medical Statistics, Informatics, and Health Economics, Austria

Background: Allegedly, mindfulness/acceptance is a common beneficial factor in psychotherapy and change, and specifically designed treatments have been confirmed to be effective in alleviating symptoms. However, treatments that are not explicitly mindfulness-based or acceptance-based, have seldom been investigated. We explored a treatment package that is not explicitly mindfulness- or acceptance-based in its effect to alter mindfulness, experiential avoidance (EA) and meta-emotions (emotions about emotions) and the predictive power of the constructs to explain variance in symptoms and psychological well-being.

Methods: In a psychosomatic clinic, 293 inpatients with diverse psychological and somatic problems received intense psychotherapeutic interventions of various backgrounds (psychodynamic, cognitive-behavioral, experiential) for a period of 6 weeks. At admission and discharge mindfulness measures and measures on symptoms and psychological well-being were administered.

Results: Patients reported reductions in experiential avoidance and negative meta-emotions and gains in mindful awareness and positive meta-emotions from admission to discharge. These changes were highly predictive for reductions in symptoms and gains in well-being. Symptom reduction is specifically predicted by reduced self-contempt and increased self-compassion, whereas increased psychological well-being is predicted by less self-contempt and more interest in one's emotions (but not by self-compassion).

Conclusion: Building an accepting stance towards inner mental experiences has been confirmed as a beneficial common factor in various psychotherapies (even if not directly the target). Differentiation of meta-emotions allows for the detection of distinct processes in emotion regulation and change. Theoretical implications are discussed.

113 – Prevalence and characteristics of depression in an inpatient primary care

Moayedoddin BA, Rubovszky GR, Andreoli A.

Hôpitaux Universitaires de Genève (HUG)

Background and aims: Major Depression is a common disease in primary care, with a prevalence of 10–15%. It is still under-diagnosed and under-treated. The purpose of this study was to estimate the prevalence of major depression, to identify characteristics of patients suffering from major depression, and to highlight the importance of its screening by doctors in charge, among 3 internal medicine units in the university hospital of Geneva, Switzerland, with a background of a previous study in the same department in 2004.

Methods: 557 consenting patient's aged between 18 and 70, without psychotic disorder, delirium, or substance dependence were assessed for presence of major depression with the SCID interview between 2007 and 2008.

Results: Of 557 patients assessed, 81 subjects (14.5%) met criteria A for major depression. After correction for B, C and D exclusion criteria, 70 (12.6%) patients met criteria for major depression. Among patients with major depression, depressed mood was found in 67 subjects (95.7%). Fifty-six patients (80%) had markedly diminished interest or pleasure. Fatigue was present in 64 subjects (91.4%) and 33 patients (47%) had recurrent thoughts of death.

Conclusion: This study confirms, with similar prevalence compared to the previous study, that major depression is a common comorbidity in primary care. The presence of physical illness does not seem to influence to a great extent these results. These patients' profile highlights the necessity of a targeted, continuous and active support given by psychiatry liaison in primary care.

114 – Validation of the Chronic Tinnitus Acceptance Questionnaire (CTAQ)

Moschèn R^a, Schlatter A^a, Rumpold G^a, Schmidt A^b

^a Department of Medical Psychology

^b Department of Hearing, Voice and Speech Disorders, Innsbruck Medical University

Aim: Tinnitus-related cognitions and coping styles are among others decisive factors for the individual course of disease of patients with chronic tinnitus. This study aimed to examine the reliability and validity of Tinnitus-adapted version (CTAQ) of the Chronic Pain Acceptance Questionnaire (CPAQ, German version, Nilges, 2006).

Methods: Fifty-nine outpatients with chronic tinnitus who attended the Department of Hearing, Voice and Speech Disorders at the Univ.-Hospital of Innsbruck were asked to complete the CTAQ, the Tinnitus-Questionnaire (TF, Goebel & Hiller, 1998), the Short Form Health Survey (SF-36, Bullinger & Kirchberger, 1998), the Symptom-Checklist (SCL-90-R, Franke, 1995) and the Inventory of Interpersonal Problems (IIP-C, Horowitz, 1994).

Results: The internal consistency (Cronbach's alpha) of the CTAQ and the subscales was 0.85 and 0.88 respectively. The principal component analysis with varimax rotation reproduced the two-factor-solution of the original version (CPAQ: "activity engagement" and "pain willingness") and explained a variance of 48.1%. Significant differences in the CTAQ were observed on the sociodemographic variables occupational status and education, on the medical variables noise frequency and use of a noiser. Additionally, several significant correlations of the two subscales in comparison with the TF, SCL-90, IIP-C and the SF-36 were shown and substantiating the validity of CTAQ.

Conclusions: This results demonstrated that the CTAQ is a reliable and valid measure to assess tinnitus-related cognitions and coping styles of chronic tinnitus patients. As the reduction of tinnitus-related distress is one of the psychotherapy goals, the CTAQ can be adopted as an evaluation instrument for psychotherapy research with tinnitus patients.

115 – Gut-directed hypnotherapy for patients with functional GI disorders

Moser G, Trägner S, Gajowniczek EE, Mikulits A, Michalski M, Führer M, Dejacco C, Miehsler W

Univ. Klinik für Innere Medizin III, Medizinische Universität Wien, Austria

Introduction: Gut directed hypnotherapy has been shown to be highly effective in irritable bowel syndrome (IBS) and in functional dyspepsia (FD). A brief overview will be given for the efficacy of hypnosis in IBS and FD. Since single sessions may be expensive, a randomized

controlled trial with group-hypnosis (GHT) for IBS patients has been started at the University Hospital in Vienna.

Methods: 43 patients with IBS, fulfilling Rom III-criteria, age 18-80 years, were randomized to either standard medical treatment (SMT) or GHT with SMT. GHT consisted of 10 weekly sessions with 6 pts (a 45 min) over 12 weeks. The same frequency of doctor visits were offered for control patients.

Results: IBS-symptoms ($p < 0.001$), anxiety ($p = 0.043$) and depression ($p = 0.006$) were reduced significantly up to 3 months after the end of GHT, compared to controls. There was a greater improvement in physical wellbeing ($p < 0.001$), psychological status ($p < 0.001$) as well as life satisfaction ($p = 0.001$) for the GHT- patients. Gender, age, disease duration, psychological state, IBS-type or additional bloating did not influence the success of GHT.

Conclusion: gut-directed hypnosis in single and in group-sessions is highly effective in the treatment of functional gastrointestinal disorders, especially for IBS-patients.

116 – Somatization in general practice. Epidemiologic, demographic and socioeconomic data from the first bulgarian investigation

Natsov I

Bulgarian Psychiatric Association, Cherven Briag, Bulgaria

Background and goals: Prevalence of somatization, sociodemographic features and the health expenses of patients with somatization syndrome in primary care in district Pleven, Bulgaria.

Methods: 816 consecutive patients in 13 general practices were investigated using self-rating scale-Screening for Somatoform Symptoms, followed by structural clinical interview. By means of unparametric analysis, Mann-Whitney –U test and t-test the following variables are considered: sex, age, family status, ethnicity, place of residence, employment. Using the data of patients medical records, the following indexes were studied : the number of visits to GP; to medical specialists; to emergency; number of hospitalizations; days out of work; psychiatric consultations; laboratory and diagnostic investigations.

Results: Sex, age, family status, ethnicity, place of residence, employment probably are of importance in supporting the somatoform symptomatic. The number of visits and hospitalizations of patients with somatization syndrome significantly overweight the number of visits in control group. The relation between the number of visits to GPs in target group compared with control group is 3:1.

Conclusion: The health expenses are significantly more in the group of somatoform patients. The last group remain out of the view of psychiatric specialists. Unfamiliarity of somatoform disorders lead to unnecessary laboratory and medico-diagnostic investigations. It is necessary a purposeful teaching and liaison effort toward GPs and another medical specialists in order to minimize the health expenses.

117 – Basic Body Awareness Therapy (B-BAT) for patients with chronic pain

Nielsen ASR

Denmark

Background: The Liaison Clinic of PCK offers group therapy for patients with chronic pain. They wish to add a physical dimension to it. With the physiotherapy ward they agree on two groups of nine weekly sessions each, consisting of 1½ hours of psycho-education and discussion, followed by 1½ hours of group physiotherapy. The physiotherapeutic intervention is described separately as pilot project below. 14 patients were referred, seven in each group. The aim was to examine whether and how this type of patients could profit by physiotherapy as group treatment. They were examined before and after with BARS (Body Awareness Rating Scale), VAS (Visual Analogue Scale) and semi structured interviews. Observations and participants reflections were reported each time. Intervention consisted of education and exercises concerning physical balance, posture, grounding, respiration, relaxation and stretching, mainly B-BAT. Participants were asked to exercise between sessions.

Results of the first period were indistinct as several participants dropped out. In the second period 2 participants achieved a new understanding and ability to change conduct towards pain, 2 participants showed growing development, and one was locked in old patterns. In BARS there was an average increase in movement harmony of 16%, VAS hardly changed.

Conclusion: In the second group, where visitation was more precise, the chosen method turned out to be usable.

118 – Transcranial magnetic stimulation in psychogenic tremor – a pilot study

Nowak DA, Dafotakis M, Ameli M, Vitinius F, Weber R, Albus C and Fink GR

Department of Neurology, University Hospital of Cologne, Cologne, Germany

Cognitive Neurology Section, Institute of Neuroscience and Biophysics (INB3-Medicine), Research Centre Jülich, Jülich Germany

Department of Psychosomatics and Psychotherapy, University of Cologne, Cologne, Germany

Department of Medical Psychology, University of Cologne, Cologne, Germany

Department of Neurology, University Hospital Aachen, Aachen, Germany

Background: Psychogenic tremor is the most common psychogenic movement disorder. Its prognosis is widely held to be poor and strongly depends on the patient's insight into the psychogenicity of the syndrome.

Methods: The clinical value of transcranial magnetic stimulation (TMS) for (i) establishing the diagnosis with a high level of certainty, (ii) modulating symptom severity and (iii) facilitating patients' insight into psychogenicity was tested in 11 patients with psychogenic tremor of the upper limb. After explaining the psychogenic origin of the syndrome and providing a neurobiological model, 30 TMS pulses were applied over the hand area of the primary motor cortex contralateral to the affected hand(s) at a rate of 0.2 Hz. 15 pulses were administered at intensities of 120% and 140% of the resting motor threshold, respectively. Kinematic motion analysis was used to document the effectiveness of the TMS procedure.

Results: All patients met the diagnostic criteria of conversion disorder. Time elapsed since symptom onset was on average 48±57 months. Tremor affected both hands in 7 patients, one patient had additional head tremor. The TMS procedure caused a significant reduction of tremor frequency and thus established the diagnosis of documented psychogenic tremor according to the criteria proposed by Fahn and Williams (1988) in each patient. The duration of symptom relief was transient in 7 patients, 4 patients had lasting symptom relief. Some of the patients were able to consider psychogenicity after TMS procedure.

Conclusion: The present study demonstrates that TMS is a helpful tool to (i) establish the diagnosis of psychogenic hand tremor with a high level of certainty, (ii) reduce tremor intensity and (iii) facilitate patients' insight into the psychogenic origin of the syndrome that is necessary to obtain adherence to psychotherapy.

119 – Patient-reported outcomes in breast cancer patients undergoing endocrine therapy (PRO-BETH):

Comparison of methods for adherence evaluation

Oberguggenberger A, Meraner V, Giesinger J, Sztankay M, Sperner-Unterweger B, Hubalek M, Beer B, Oberacher H, Holzner B

Department of Psychiatry and Psychotherapy

Department of Gynaecology

Department of Legal Medicine

Background and aim: Current studies on adherence to endocrine therapy in breast cancer patients often suffer from methodological limitations due to a lack of well-

validated assessment methods for adherence. There is no gold standard for the measurement of adherence.

The aim of our study was a comparison of three different approaches to evaluate adherence.

Methods: Breast cancer outpatients treated with tamoxifen or aromatase inhibitors (AI) at Innsbruck Medical University completed the assessment after their routine after care appointment. The multi-method approach comprised the Simplified Medication Adherence Questionnaire, physicians' ratings, and blood levels for AI or tamoxifen. To determine discriminative power of the questionnaire and the physicians' ratings we calculated effect sizes for blood levels comparing adherent with non-adherent patients.

Results: 313 patients (mean age 58.5 SD 11.7) within endocrine therapy at least 3 months and no more than 5 years after primary treatment were included in the study. 53.7% of the patients received anastrozol, 12.8% were treated with letrozol, and 33.5% received tamoxifen. Across all treatment regimens discriminative power was higher for physicians' ratings (effect size 1.2) than for questionnaire (effect size 0.2).

Conclusion: Self-administered instruments to measure adherence may suffer from low sensitivity in detecting non-adherent patients. Determination of blood levels of aromatase inhibitors or tamoxifen may provide a meaningful measure for patients' adherence. However, attention should be paid to pharmacokinetic issues if blood levels are used as objective criterion for adherence assessment.

120 – Body integrity identity disorder-clinical and neurobiological insights into a new disease

Oddo S, Thiel A, Skoruppa S, Steis N, Stirn A

University Hospital Frankfurt, Clinic for Psychosomatic Medicine and Psychotherapy, Frankfurt, Germany

Background and aims: Body Integrity Identity Disorder (BIID) is a new phenomenon which describes the wish to have a healthy limb amputated, which arises early in childhood and persists during the whole life. Neural correlates have not been described until now. Only little is known about the aetiopathology. We performed the first study with a multimodal approach that comprised psychotherapeutic work, standardized questionnaires and fMRI-measurements.

Methods: We analyzed 30 BIID-sufferers by clinical interviews and psychometric testings e.g. on depression, body-dysmorphic-disorder (BDD), obsessive-compulsive-disorder (OCD) and personality disorder. The fMRI-study was performed with 12 BIID-sufferers and 12 healthy controls. The wished, amputated body schema was presented in contrast to the intact body. The amputated body was constructed by Photoshop.

Results: The data show that BIID-sufferer are high functioning patients with no sign of psychotic or BDD symptoms. We found narcissistic traits and minimal signs of OCD. We observed a neural implementation of the desired, amputated body. The intact body schema did not differ from the healthy control group. When looking at the amputated body the BIID-patients activated a complex neural network of cortical and subcortical areas, including the reward system. The basal ganglia, the limbic system were activated as well as sensorimotoric areas and structures of sexual arousal (thalamus and cingulum).

Conclusion: BIID is a new pathology which has not been entered in DSM or ICD. It is a disorder with a correlation at brain level. Further analysis of amputated BIID-sufferers will give more insights on the state after fulfilling the wish.

121 – A classification of elderly patients with medically unexplained symptoms seen in a general hospital in Japan

Ohta D, Yamada U

Department of Psychosomatic Medicine, St. Luke's International Hospital, Japan

Background and aims: We have difficulty in treating elderly patients with medically unexplained symptoms (MUS). So we aimed to classify elderly patients with MUS seen in a general hospital.

Methods: We included 70 patients >65 y.o. with MUS visited psychosomatic department of our hospital in 2009. Baseline characteristics (age, gender, symptoms, family background, clinical course, and therapeutic approach) were investigated. And they were classified mainly from their clinical course by psychosomatic medical specialists in our hospital.

Results: Patients were classified into five types based on their clinical feature. Type 1 is MUS with obsessive personality trait. They complain symptoms obstinately, some of them develop dementia in their courses. Type 2 is MUS based on severe anxiety and often seek support from their family or physicians. Sedative pharmacotherapy by antidepressants or antipsychotics are often effective to this type. Type 3 is MUS with hypochondric symptoms. Good physician-patient relationship itself is effective for this type of patients. Type 4 is MUS with cenesthopathy. Some severe cases of type 4 withdraw from their daily life. Guidance for regular daily rhythm and antipsychotic drugs are effective to this type. Type 5 is MUS with strained autonomic nervous system and some gastrointestinal symptoms. Respite and antidepressants are effective for type 5 patients.

Conclusion: We showed a new classification of senile MUS. Type 1 is frequent and type 5 is the most curable in senile MUS.

122 – Cognitive intervention may prolong women's lives by reducing stress behavior

Orth-Gomér K, Schneiderman N, Blom M, Walldin C, Wang H, Deter HC

Karolinka Institute

Background and Aims: In the Stockholm Female Coronary Risk study, we observed that women's psychosocial stress profile had a stronger emphasis on stressors in marriage and family as compared to work – despite the fact that almost all women had a job outside home. We tailored a behavioral stress reduction program for women accordingly.

Methods: Consecutive women, under age 75, who were hospitalized for an acute coronary event were offered to participate in a randomized controlled trial of group based cognitive behavioral therapy, the Stockholm Women's Intervention Trial for Coronary Heart Disease (SWITCHD).

Initiated 4 months after hospitalization, groups of four to eight women met for a total of 20 sessions, that were spread over a year. Behaviorally trained research nurses with experience from intensive coronary care, provided education about risk factors, relaxation training techniques, methods for self-monitoring and cognitive restructuring, for self care and compliance with clinical advice. Gender specific stress reduction was implemented throughout the program.

Results: With a mean follow-up duration of 7 years, 20% of women in the usual care and 7% of women in the stress reduction died, yielding an almost 3-fold protective effect (OR=0.33 P=0.007). Multivariate control for clinical prognostic factors, including age, severity of disease, ejection fraction <40%, pharmacotherapy, largely confirmed the crude results.

Furthermore, behavioral changes in the intervention and usual care groups in regard to the psychosocial measures were compared. The most obvious behavioral change was found for Everyday Stress Behavior, which decreased more steeply in the intervention than in the usual care group (P<0.01). Changes in standard behavioral or physiological risk factors did not offer an explanation of the mortality effects.

Conclusion: The gender specific approach to stress reduction has the potential of prolonging life in women with coronary disease. It may be partially explained by stress related behavior change.

123 – Differential association of somatic and cognitive symptoms of depression with atherosclerosis

Oude Voshaar RC^{a,b}, Bus BAA^a, Marijnissen RM^{a,c}, Holewijn S^d, B. Franke B^{a,e}, den Heijer M^{d,f}, de Graaf J^d

^a Radboud University Nijmegen Medical Centre, Department of Psychiatry, Nijmegen, The Netherlands

^b Nijmegen Mental Health Center, Division of Old Age Psychiatry, Nijmegen, The Netherlands

^c Department of Old Age Psychiatry, De Gelderse Roos, Arnhem, The Netherlands

^d Radboud University Nijmegen Medical Centre, Department of General Internal Medicine, Nijmegen, The Netherlands

^e Radboud University Nijmegen Medical Centre, Department of Human Genetics, Nijmegen, The Netherlands.

^f Radboud University Nijmegen Medical Centre, Department of Epidemiology and Biostatistics, Nijmegen, The Netherlands

Background and aim: Atherosclerosis, the underlying process leading to vascular events, has been associated with depression. The aim of the present study was to examine whether this association differs between somatic-affective and cognitive-affective symptoms of depression.

Methods: In 1261 community-dwelling older people participating in the Nijmegen Biomedical Study (NBS), free of stroke and dementia, we measured the intima-media thickness (IMT) of the carotid artery as a proxy for generalized atherosclerotic disease and assessed depressive symptoms using the Beck Depression Inventory (BDI). Principal components analysis of the BDI-items yielded two factors, representing a cognitive-affective and a somatic-affective symptom cluster. Multiple regression analyses corrected for confounders were conducted, with separate models testing the BDI sum score and both depression symptom clusters.

Results: We found a significant correlation between the BDI sum score and the IMT. However only somatic-affective symptoms were associated with the IMT, whereas cognitive-affective symptoms were not. The association between the somatic-affective symptom cluster and the IMT was significantly larger in people suffering from coronary artery disease compared to people without a cardiac history (interaction, $p < .001$). In patients free of coronary artery disease, however, the association remained significant.

Conclusion: The association between atherosclerosis and depression can be explained the association with the somatic-affective symptom cluster of depression. Future studies should examine whether subclinical vascular disease inflate the depressive symptom score due to overlapping symptoms or whether the results point to a specific subtype of depression.

124 – The role of alexithymia in patients with colon adenoma

Panno A^a, Lauriola M^a, Tomai M^b, Potenza AE^c

^a Dept. of Social and Developmental Psychology, University of Rome “La Sapienza”.

^b Dept. of Clinical Psychology, University of Rome “La Sapienza”.

^c Day Surgery Operative Unit, “Complesso Integrato Columbus” Rome.

Background and aims: The issue whether alexithymia influence cancer initiations and progression is somewhat controversial (Butow et al., 2000; Garssen et al., 2003). There is empirical evidence (McKenna et al. 1999; Butow et al. 2000) in support of this hypothesis based on breast cancer research. In the present study, we studied colonic adenoma and adenocarcinoma patients, and designed a prospective study, in which alexithymia is assessed before a diagnostic lower gastrointestinal endoscopy.

Methods: 34 patients affected by colorectal neoplastic disease at endoscopy were compared to 121 negative patients. The TAS-20 was administered one-week before examination, while the diagnosis resulted from biopsies taken during endoscopy. Patients with psychiatric conditions (e.g. Depression, Anxiety, PTSD etc.), taking psycho-active medications, having history of neoplastic disease or other gastrointestinal pathology were excluded from analyses.

Results: Though the prevalence of alexithymic patients was greater than expected, both the proportion of alexithymic patients and the average TAS-20 score were not statistically different from those reported in studies of alexithymia and endoscopy outcomes. Patients were classified either as alexithymic, nonalexithymic or borderline according to the TAS-20 cut-offs. Nonalexithymic patients were significantly more frequent than alexithymic patients among the negative outcome category. Conversely, alexithymic patients were significantly more frequent than nonalexithymic ones among the adenoma or adenocarcinoma category.

Conclusions: Based on the present data it is concluded that alexithymia is likely a psychological factor statistically associated in the progression and course of the colon adenoma. These findings could playing an important role in the treatment with these patients.

125 – Increased nocturnal blood pressure in relation to inaccurate sleep perception in healthy subjects

Pennestri MH, Lanfranchi PA, Montplaisir J

Centre d'étude du sommeil, Hopital du Sacre-Coeur de Montreal

Background and aims: Patients with paradoxical insomnia present a discrepancy between subjective and objective measures of sleep. Studies found increased physiological activation in this condition. This study

aimed to investigate sleep characteristics and nocturnal cardiovascular parameters among healthy subjects not complaining of sleep disorders, with either low or high accuracy in their sleep duration perception.

Methods: We studied 21 healthy subjects (14 women; mean age = 45.0±8.9 years). Heart rate (HR) and non-invasive beat-to-beat blood pressure (BP) were continuously recorded during one night of polysomnography. Subjects were free of any medical, psychiatric or sleep disorders and weren't on any medication. Subjects were divided in 2 groups: (1) high accuracy group: difference between objective (polysomnographic) and subjective sleep duration <30 minutes, mean difference = -8.6±18.2, n=9; (2) low accuracy group: underestimation greater than 30 minutes, mean difference = 73.6±34.0, n=12. Between-group differences were assessed with t-tests.

Results: The 2 groups were similar in age, body mass index and objective sleep measures, i.e. sleep latency, sleep efficiency, total sleep time, number of awakenings and micro-arousals index. Mean HR during the night was also similar. However, the low accuracy group had higher mean nocturnal systolic BP (111.7±11.5 versus 100.3±11.9 mmHg, p=0.04) and diastolic BP (62.6±8.6 versus 55.4±4.7 mmHg, p=0.04) compared to the high accuracy group.

Conclusion: This study shows that healthy subjects underestimating their sleep duration have higher nocturnal BP. These results support studies reporting increased physiological activation in inaccurate sleep perception and emphasize the link between paradoxical insomnia and hyperarousal.

126 – Health related quality of life, anxiety and depression among patients with carcinoid tumors

Piselli M, Cotichelli P, Moretti P, Alpini A, De Giorgio G, Ferolla P, Quartesan R

Section of Psychiatry, Clinical Psychology and Psychiatric Rehabilitation, Department of Clinical and Experimental Medicine, University of Perugia, Italy. Functional Area Homogeneous of Psychiatry – University of Perugia – Department of Mental Health ASL 3 of Umbria

Background: The presence of psychiatric symptoms among patients with carcinoid tumors has been known for some time. However, few studies have examined the psychiatric coming from the real presence of symptoms of anxiety depression and HRQoL in this type of patients.

Objectives: 1. To evaluate the prevalence of anxiety and depression and HRQoL in patients with carcinoid tumors. 2. To compare the anxious and depressive symptoms in patients with carcinoid tumors divided, according to the anatomical and functional classification internationally, in Gastro-Entero-Pancreatic (GEP) and non-Gastro-Entero-Pancreatic (non-GEP).

Method: A total of 45 patients with carcinoid tumors are recruited consecutively during the activities of consultation and liaison psychiatry at the Santa Maria della Misericordia Hospital of Perugia. HRQoL was measured by the EORTC QLQ-C30 3.0 and GI.NET-21, anxiety and depression by the Hospital Anxiety and Depression Scale.

Results: 26.7% of our sample showed anxiety, while 44.4% depression. The patients with GEP showed higher level of anxiety and depression respect other group. The psychiatric symptoms more frequently reported from GEP group were: tension, worrying thoughts, restless, sadness, loss of interest, hopeless. At all assessments of quality of life patients with GEP reported higher levels of physical-, emotional-, cognitive-, and social function compared with non-GEP.

Discussion and Conclusion: To our knowledge, this is the first Italian study that investigated the prevalence of anxiety and depression in patients with carcinoid tumors and the first that investigated the different distress degrees among GEP and non-GEP. These data can be explained with the most frequent carcinoid syndrome in patients with GEP. This aspect should be object of further studies with larger population and with dosage of plasma levels of tryptophan, platelet-rich plasma levels of serotonin and urine levels of 5-HIAA

127 – Influence of light on patients undergoing percutaneous coronary intervention

Platter M^a, Wallner H^b, Höfer S^a,

^a Department for Medical Psychology, Innsbruck Medical University

^b Hospital Schwarzach, Austria

Background and aims: Architectural and environmental variables affect human behaviour and emotions. Effects of light on mood, morbidity and mortality have been demonstrated previously. The aim of this project was to analyse the effects of a computerized lighting installation on patients undergoing percutaneous coronary interventions (PCI).

Methods: Data on quality of Life (MacNew), state anxiety (STAI-X1) and other variables directly related to PCI procedures were collected. Control group (CG, without light; n=96) and intervention group (IG, with light; n=74) were assessed at admission (MacNew, t0), before (STAI-X1, t1) after PCI (STAI-X1; t2) and one month later (MacNew; MACE, Major Adverse Cardiac Events, t3).

Results: Both groups were comparable (CG: mean age: 67.0±10, male: 60.4%, bmi: 27.9±4.8; IG: mean age: 67.6±9, male: 53.5%, bmi: 26.9±3). There were no significant differences in PCI related variables (i.e. light experience) or satisfaction with treatment variables between the two groups. State anxiety was reduced in

both groups over time (-6.9 ± 11.7 ; $p=0.001$). However, reduction of anxiety in the intervention group was about half the amount than in the control group (IG: -4.4 ± 13.9 ; KG: -8.4 ± 9.7 ; $p=0.031$).

Conclusions: The use of the computerized lighting installation did not further improve the situation of patients in the catheterisation lab.

128 – Associations between alexithymia, perceived stress, burnout and perceived social support at students

Popa-Velea O, Diaconescu L, Mihăilescu A, Cioca I
University of Medicine and Pharmacy “Carol Davila”, Bucharest

The aim of this study was to evaluate the associations between alexithymia, perceived stress (PS), burnout and perceived social support (PSS) at undergraduate students.

Method: 299 undergraduate students (94 men, 205 women; mean age = 19.23, SD=.59) were administered Toronto Alexithymia Scale (Bagby et al., 1994), Perceived Stress Scale (Cohen & Williamson, 1988), Maslach Burnout Inventory (Maslach & Jackson, 1981) and Duke-UNC Functional Social Support Questionnaire (Broadhead et al., 1988).

Results: Total alexithymia score correlated negatively to PSS ($F=9.14$, $p<.003$), with participants receiving more support having less difficulties in identifying own feelings ($F=12.28$, $p<.001$). PS correlated positively with difficulty describing ($F=14.09$, $p<.0001$) and identifying own feelings ($F=6.24$, $p<.01$). Total alexithymia score was moderated by gender, with higher scores at women ($F=6.73$, $p<.01$). Components of burnout correlated negatively to PSS (depersonalization; $F=6.27$, $p<.01$) and positively to PS (emotional exhaustion; $F=35.025$; $p<.0001$) and alexithymia (emotional exhaustion; $F=7.00$; $p<.009$).

Conclusions: These results emphasize the importance of providing PSS and minimize PS to prevent alexithymia and burnout at undergraduate students.

129 – Quality of life in elderly patients with congestive heart failure

Porojan MD, Poanta L, Dumitrascu DL
University of Medicine and Pharmacy “Iuliu Hatieganu”, Cluj-Napoca

Background: Evaluation of the patient with congestive heart failure is usually based on objective clinical outcomes and complementary examinations but patient self-assessment is increasingly recognized as important.

Objective: The aim of the study was to assess health-related quality of life in elderly patients with congestive heart failure.

Methods: A Romanian version of the generic quality of life measure (QLQ-C30) containing fifteen items included in functional scale, symptoms scale, the global health status/quality of life, was applied to 150 patients with congestive heart failure. Cardiopulmonary evaluation included assessment of New York Heart Association (NYHA) functional class, left ventricular ejection fraction (LVEF), and the distance covered during a six minute walk test.

Results: General compliance was 95%. The elderly patients with congestive heart failure self-evaluated their global health status and quality of life as very good 10%, good in 21%, medium 40%, poor 10% and very poor 19% of cases. Symptoms scale showed poor results for dyspnoea (20%), fatigue (13%), pain (7%), financial difficulties (12%) and very poor results for dyspnoea (6%) and fatigue (9%). Functional scales showed poor results for physical functioning (38%), emotional functioning (15%) and very poor results for physical functioning (7%). Statistic analysis showed that quality of life significantly decreased with NYHA functional class and LVEF.

Conclusions: Quality of life assessment using the questionnaire method proved to be feasible and useful as soon as elderly patients accepted with satisfaction this study. In congestive heart failure, quality of life decreases as NYHA functional class, LVEF and walk test worsens.

130 – Is alexithymia a protective factor as regards the adjustment to a severe chronic disease?

Pucheu S, Consoli SM
Department of Consultation Liaison Psychiatry, Georges Pompidou European Hospital, Paris and Pierre et Marie Curie University, Paris

Objective: to study the prevalence of alexithymic characteristics and the links between alexithymia and the severity of the disease in patients suffering from four different chronic diseases and to explore the potential protective role of alexithymia on quality of adjustment in the severe forms of disease.

Methods: 145 subjects suffering from 4 different diseases (35 insulino-dependent diabetes (Db), 33 non diabetic End Renal Stage Disease on haemodialysis (Hd), 37 cardiac failure (CF) and 40 colon cancer (CC)) completed the PAIS-SR (adjustment difficulties) and the TAS-20 (alexithymia) Each population was first divided into 3 grades of severity, according to clinical criteria. Slightly severe and moderately severe cases were then pooled for comparisons with very severe cases.

Results: 31.7% of the patients could be considered as alexithymic (mean TAS score >56) without a significant difference between pathologies. There was no association between alexithymia and the severity of the disease

($\rho=0.00$). Adjustment difficulties were positively correlated both with the severity of the disease and with TAS-20 continuous score (respectively $\rho=0.39$ and $r=0.30$; $p>0.001$). In total population PAIS-SR scores were higher both in severe cases and alexithymic patients, with no interaction effect (two way ANOVA). Separate analyses carried out in each clinical group found only a severity effect ($p=0.035$) in CC patients, only an alexithymia effect in Hd patients ($p=0.04$) and an interaction effect in Db patients ($p=0.008$) and in CF patients ($p=0.014$). Db patients exhibited more adjustment difficulties in severe cases within the non alexithymic group and fewer difficulties within the alexithymic one. CF patients exhibited more adjustment difficulties in severe cases only within the non alexithymic group.

Conclusion: Results support the hypothesis of a protective role of alexithymia in severe forms of a chronic disease, but only in some types of diseases: insulin-dependent diabetes and cardiac failure. Further studies are needed to understand such an effect dependent of the type of the disease.

131 – Stress and coping in the hospitalized Latin American immigrant patient

Qureshi A, Revollo HW, Martinena P, Collazos F, Ramos, M, Dip E, Casas M

Servei de Psiquiatria, Hospital Universitari Vall d'Hebron

Background and aims: Effective CL work with immigrant patients can be aided by a greater understanding of risk and protective factors related to mental health. Stress related to the migratory process has been identified as one of the key risk factors, and coping styles are viewed as important means of mitigating stress. The objective of this study is to examine how stress and coping impact mental health in immigrant patients from Latin America in a large general hospital.

Methods: The sample consists of 200 Latin American immigrant inpatients between 18 and 65 years of age. The instruments used are: the Barcelona Immigration Stress Scale (BISS), the Perceived Stress Scale (PSS), the Coping Strategies Questionnaire (CAE), the Social Adaptation Self evaluation Scale (SASS), the Hospital Anxiety and Depression Scale (HADS), and an interview sheet assessing sociodemographic and attitudinal items.

Results: Both acculturative stress and perceived stress are related to psychosocial suffering in Latin American immigrant patients, although general psychosocial stressors have a greater impact than those stressors related to the migratory process. Coping strategies differentiate between those who show greater distress. Social connectedness and quality of life in Spain contribute to psychosocial well being.

Conclusion: The management of stress and the development of social connectedness both are key to the promotion of psychosocial well-being in immigrant patients hospitalized in a tertiary care hospital.

132 – The Psychosomatic Day Hospital for the elderly (PDH 55+) – a four year review

Reichhart C, Steinlein C and Soellner W

Klinik für Psychosomatische Medizin und Psychotherapie, Nürnberg, Germany

The Psychosomatic Day Hospital for The Elderly opened in 2006 offers a psychodynamically oriented group-treatment especially for elderly outpatients. It is the first and only suchlike institution in Germany. 9 patients are treated 5 days a week in a half-open group setting. The concept contains among others psychodynamic-interactive group psychotherapy, art therapy, dance therapy, qigong, cognitive training, and psycho-educational elements.

The “typical” patient is 63 years old (range from 52 to 82), a woman (only 20% are men), has no experiences in psychotherapy and is “sent” (only about 10% are initially self motivated). E.g. 25% of the patients are admitted on the recommendation of the Consultation and Liaison Psychosomatic Team of the General Hospital of Nuremberg. Most patients suffer from somatoform disorders, depressions, anxiety disorders, adjustment disorders or personality disorders. 75% of the patients are very satisfied with the result of the 4-6 weeks psychotherapy, 20% are more or less satisfied. The efficacy of this concept has been evaluated in a waiting-control-group trial since 2008. First data will be presented in 2011.

133 – Anxiety and risk of incident coronary heart disease: A meta-analysis

Roest AM, Martens EJ, de Jonge P, Denollet J

CoRPS – Center of Research on Psychology in Somatic diseases, Tilburg University, Tilburg, The Netherlands

Background and aims: In contrast to other negative emotions, such as depression, less research has focused on the association of anxiety with incident coronary heart disease (CHD). Our objective was to assess the association between anxiety and risk of CHD.

Methods: A meta-analysis of references derived from MEDLINE, EMBASE and PSYCINFO (1980- May 2009) was performed without language restrictions. Endpoints were cardiac death, myocardial infarction (MI) and cardiac events. The authors selected prospective studies of (non-psychiatric) cohorts of initially healthy persons in which anxiety was assessed at baseline.

Results: Twenty studies reporting on incident CHD enclosed 249,846 persons with a mean follow-up

period of 11.2 years. Anxious persons were at risk of CHD (hazard ratio (HR) random: 1.26; 95% confidence interval (CI): 1.15-1.38; $p < 0.0001$) and cardiac death (HR: 1.48; 95% CI: 1.14-1.92; $p = 0.003$), independent of demographic variables, biological risk factors and health behaviors. There was a nonsignificant trend for an association between anxiety and non-fatal MI (HR: 1.43; 95% CI: 0.85-2.40; $p = 0.180$). Subgroup analyses did not show any significant differences regarding study characteristics, with significant associations for different types of anxiety, short and long-term follow-up and both men and women.

Conclusion: Anxiety appeared to be an independent risk factor for incident CHD and cardiac mortality. Future research should examine the association between anxiety and CHD with valid and reliable anxiety measures and focus on the mechanisms through which anxiety may affect CHD.

134 – Prognostic association of anxiety following myocardial infarction with mortality and new cardiac events: a meta-analysis

Roest AM, Martens EJ, Denollet J, de Jonge P

CoRPS – Center of Research on Psychology in Somatic diseases, Tilburg University, Tilburg, The Netherlands.

Background and aims: The role of anxiety regarding cardiac prognosis in myocardial infarction (MI) patients is unclear. The aim of this study was to assess the association of anxiety following MI with cardiac prognosis.

Methods: A meta-analysis of references derived from MEDLINE, EMBASE and PSYCINFO (1975 - March 2009) was performed without language restrictions. Endpoint was cardiac outcome defined as all-cause mortality, cardiac mortality and cardiac events. The authors selected prospective studies with at least 6 months follow-up and anxiety had to be assessed within 3 months after MI with reliable and valid instruments.

Results: Twelve papers met selection criteria. These studies described follow-up (on average 2.6 years) of 5750 MI patients. Anxious patients were at risk of adverse events (odds ratio (OR) fixed: 1.36; 95% confidence interval (CI): 1.18-1.56; $p < .001$). Anxiety was also specifically associated with all-cause mortality (OR fixed: 1.47; 95% CI: 1.02-2.13; $p = .04$), cardiac mortality (OR fixed: 1.23; 95% CI: 1.03-1.47; $p = .02$) and new cardiac events (OR fixed: 1.71; 95% CI: 1.31-2.23; $p < .001$).

Conclusion: Post-MI anxiety is associated with a 36% increased risk of adverse cardiac outcomes in bivariate analyses. Since the existing literature is quite small and contains several limitations, more research is needed to the association of anxiety and prognosis in MI patients and to assess the extent to which this association is

independent of clinical variables, such as disease severity, and other psychological variables, especially depression.

135 – Building a comprehensive Patient-Reported Outcome Measurement Information System (PROMIS) – a key road initiative from the U.S. National Institutes of Health (NIH)

Rose M for the PROMIS Initiative

Department of Psychosomatic Medicine University Clinic Hamburg-Eppendorf and Schön Klinik Hamburg-Eilbek & Department of Quantitative Health Sciences, University of Massachusetts

Background and aims: Item Response Theory (IRT) and Computer Adaptive Test (CAT) methods promise to increase the precision of Patient-Reported Outcome (PRO) measures with decreased respondent burden. In 2004 the U.S. National Institutes of Health initiated the develop a comprehensive Patient-Reported Outcomes Measurement Information System (PROMIS) to transform the way self-assessment tools are employed for accurate and efficient measurement of PROs in clinical research and practice.

Methods: Within the first five years of the project more than 7,000 existing items have been reviewed and different qualitative methods used, including expert review, focus groups, cognitive interviews etc, to define a hierarchically health-domain framework. For the empirical work 21,133 participants from clinical populations as well as the general population have answered different subsets of >1,000 items.

Results: Qualitative and quantitative analysis allowed for the development of 12 IRT item banks assessing different health domains, including Pain-Impact (41 items), Depression (29 items), Fatigue (95 items), and Physical Functioning (124 items). Simulated CATs using 4-10 items/domain have shown to provide more precise measurements over a larger measurement range than legacy tools of similar length.

Conclusions: First results from the PROMIS initiative indicate that a large collaborative effort using modern psychometric methods can provide more precise PRO measures than currently available. In addition, the underlying IRT item banks may also facilitate the standardization of health assessments in the future.

136 – Short and precise patient self-assessment of Heart Failure symptoms using a Computerized Adaptive Test (HF-CAT)

Rose M^{a,b}, Anatchkova M^a, Fletcher J^d, Blank A^d, Bjorner J^{c,e}, Löwe B^b, Rector T^f, Ware J^{a,g}

^a Department of Quantitative Health Sciences, University of Massachusetts, Worcester, MA, USA

^b University Medical Center Hamburg-Eppendorf and

Schön-Kliniken Hamburg-Eilbek, Germany

^c QualityMetric Inc., Lincoln, RI, USA

^d Albert Einstein College of Medicine, Bronx, NY, USA

^e National Institute of Occupational Health, Copenhagen, Denmark

^f VA Medical Center and Department of Medicine, University of Minnesota, Minneapolis, MN, USA

^g School of Medicine, Department of Medicine, Tufts University, Boston, MA, USA

Background: Assessment of dyspnea, fatigue and physical function is fundamental for patients with heart failure (HF). New techniques used for computer adaptive tests (CAT) promise to provide more precise and less burdensome self-assessment tools. Our aim was to build the first CAT for heart failure patients.

Methods: 74 ultra short items were developed to assess physical disability, fatigue and dyspnea, and administered to 750 HF-patients (60±13 years) to build three item banks. The resulting HF-CAT was administered to 100 HF-patients (58±12 years) on a hand-held computer. A number of legacy tools, including the SF-36 and the Minnesota Living with Heart Failure Questionnaire (MLHFQ) were administered to evaluate its construct validity.

Results: The final item banks included 20-30 items, HF-CAT administrations took 3 minutes on average to complete 4-5 items/scale. Corresponding scales showed high correlations with the SF-36 physical function ($r=-.87$) and vitality ($r=-.85$) scale, a Shortness of Breath Scale ($r=.84$), and the MLHFQ ($r=-.70/-54/-70$). The short HF-CAT identified differences between patients classified by the NYHA class significantly better than the larger MLHFQ. Simulation studies showed a more precise measurement of all three HF-CAT scales over a larger range than comparable static tools of similar length. Outpatients preferred the HF-CAT assessment compared to the MLHFQ paper-pencil assessment (45% vs 30%), found it less burdensome (46% vs 26%) and time consuming (70% vs 13%).

Conclusion: The results demonstrate the potential of the HF-CAT to increase the feasibility, validity and precision of patient self-assessments for patients with heart failure.

137 – Associations between personality profiles and atherosclerosis: The cardiovascular risk in young Finns study

Rosenström T, Hintsanen M, Jokela M, Keltikangas-Järvinen L

University of Helsinki, Institute of Behavioural Sciences

Background and aims: On theoretical level, personality is described as a dynamic multidimensional construct. On an empirical level, it is often analyzed as a static set of independent traits. We explore the consequences of this

discrepancy in the context of psychosomatic medicine.

Methods: By examining associations of Cloninger's temperament and character profiles, it is shown that profile level (multidimensional) quantitative analysis is needed for comprehensive understanding of the effects of personality to atherosclerotic risk. Sub-clinical atherosclerosis is assessed with ultrasound measured carotid artery intima-media thickness. Association to temperament is established using data from the Cardiovascular Risk in Young Finns study. Result is confirmed in two separate measurements, from 605 males and 844 females in 2001, and from 682 males and 943 females in 2007, and with two data analytic approaches, theory driven (profile) and exploratory (model-based clustering).

Results: Participants with a combination of Independent temperament (low novelty seeking, harm avoidance and reward dependence) combined with Disorganized character (low self-directedness, low cooperativeness and high self-transcendence) had 0.05 mm thicker intima-media than general population ($p=.029$). Observed effect size is larger than those previously observed for personality, exceeding several times that of traditional risk factor, cigarette smoking (0.01 mm).

Conclusion: Combination of Independent temperament and Disorganized character is an atherosclerotic risk. This conclusion cannot be drawn from statistical analyses with inappropriate independence assumptions regarding the personality traits. The risk status of this profile is more interpretable than previous associations in this topic, and can be interpreted via stress evoking behaviour.

138 – Meta-analysis and meta-regression of hypothalamic-pituitary-adrenal axis activity in functional somatic disorders

Rosmalen JGM^a, Tak LM^a, Ormel J^a, Manoharan A^c, Kok I^a, Wessely S^b, Cleare A^b

^a Interdisciplinary Center for Psychiatric Epidemiology, University Medical Center Groningen, University of Groningen, The Netherlands

^b Psychological Medicine, King's College, London, UK

^c Biostatistics and Computing, King's College, London, UK

Background: Alterations in stress responsive systems are thought to play a role in the aetiology of functional syndromes, such as chronic fatigue syndrome (CFS), fibromyalgia (FM), and irritable bowel syndrome (IBS). In line with this, in a recent meta-analysis we found reduced parasympathetic nervous system function in functional syndromes, with no evidence for differences between CFS, FM and IBS. The aim of the current meta-analysis was to study the association between basal hypocortisolism and functional syndromes, and to identify potential moderators of this association, such

as type of functional syndrome, gender, medication use, co-morbidity with depressive disorder, and physical inactivity.

Method: We performed a systematic search without language restrictions in the Medline, Embase and PsycINFO databases. Cross-sectional case-control studies of HPA-axis activity in adult subjects with CFS, FM, or IBS were selected. A standardized mean difference (SMD) between cases and controls of basal cortisol levels in either saliva, serum, or urine was calculated.

Results: Meta-analysis on 82 studies revealed that although basal cortisol levels were generally lower in functional syndrome subjects compared to controls, this association did not reach statistical significance (SMD -0.07, 95% CI -0.18 to 0.04, $p=0.125$). However, when the three functional syndromes were assessed separately, statistically significant hypocortisolism was observed in CFS subjects compared to controls (SMD -0.14, 95% CI -0.28 to 0.00, $p=0.047$), but not in FM or IBS. In a moderator analysis, hypocortisolism was associated with female gender, absence of confounding medication use, and presence of co-morbid depressive disorder. However, when all potential moderators were entered into a meta-regression analysis, only type of functional syndrome remained a significant predictor of hypocortisolism.

Conclusion: We did not find evidence to consider all functional syndromes as hypocortisolemic disorders.

139 – The effects of cardiac surgical procedures on health-related quality of life, cognitive performance, and emotional status outcomes: A prospective 6-month follow-up study

Rothenhäusler HB, Stepan A and Kapfhammer HP
Department of Psychiatry, University of Medicine of Graz

Background and aims: The success of routine coronary artery bypass graft surgery (CABG) is now no longer judged solely by its effects on traditional end points such as mortality rates but by its influence on biopsychosocial dimensions. The aim of this study was to assess the course of health-related quality of life, cognitive and emotional change during the six months after elective CABG, and to investigate how cognitive impairments, depression and posttraumatic stress symptoms were related to quality of life.

Methods: In a prospective study, we followed up for 6 months 138 of the original 147 patients who had undergone elective CABG surgery. Preoperatively, and at 6 months after surgery, a series of psychometric observer-rating and self-rating scales were administered to evaluate cognitive functioning (SKT), depressive symptoms (BDI), posttraumatic stress symptoms (PTSS-

10), and health-related quality of life (SF-36 Health Status Questionnaire).

Results: The measurements of health-related quality of life (HRQOL) indicated significantly higher SF-36 values on all of the eight health-related domains from preoperative to 6-month follow-up assessments. However, at 6-month follow-up, patients with clinical depression had significantly lower SF-36 values on all of the eight health-related domains when compared with patients without depression (mental health [MH]: $p<0.001$; role-emotional [RE]: $p<0.001$; social functioning [SF]: $p<0.001$; vitality [V]: $p<0.001$; general health [GH]: $p<0.001$; bodily pain [BP]: $p<0.01$; role-physical [RP]: $p<0.01$; physical functioning [PF]: $p<0.05$). Also, at 6-month follow-up, patients with posttraumatic stress disorder (PTSD) had significantly lower SF-36 values on RE ($p<0.001$), MH ($p<0.01$), SF ($p<0.01$), GH ($p<0.01$), V ($p<0.05$), and BP ($p<0.05$) when compared with patients without PTSD. Finally, at 6-month follow-up, patients with cognitive deficits had significantly lower SF-36 values on PF ($p<0.05$) when compared with patients without cognitive impairments.

Conclusion: We underscore the need for early and comprehensive bio-psycho-social diagnosis and therapy of post-CABG patients in order to treat emotional distress and CABG-related cognitive impairments and enhance patients' quality of life at an early stage after cardiac surgery.

140 – Dissociation and emotional crying

Rottler V^a, Vingerhoets A^b, Brodner J^a, Barth C^a, Wirsching M^a and Bauer J^a

^a Dept. of Psychosomatic Medicine and Psychotherapy, Freiburg University Medical School

^b Clinical Psychology Section, Tilburg University

Background and aims: If crying is considered to be an emotional expression, dissociative patients, whose ability to express emotions is impaired, should cry less frequently than healthy controls. We analyzed in psychiatric/ psychosomatic outpatients and in healthy controls the association between dissociative symptoms and crying.

Methods: 398 unselected outpatients were compared to 229 matched controls. Patients and controls completed the SCL-90R and the Dissociative Experiences Scale (DES). In addition, self-reported frequencies of emotional crying during the last 12 months and effects of crying on the subjective mental condition were assessed.

Results: Patients obtained higher scores than controls on depression ($p<.001$), dissociation ($p<.05$) and crying ($p<.001$). More controls than patients reported improved mood after crying (69.6% vs. 51.9%, $p<.001$). Correlations between crying and dissociation were

$r=.27$ and $r=.33$ for patients and controls, respectively. When controlling for depression, the respective partial correlations were $r=.08$ and $r=.17$.

Conclusion: Contrary to expectation, we found a positive rather than a negative association between crying and dissociation. More precisely, those high on dissociation report more crying than those low on dissociation. Controlling for depression results in a considerable decrease in the strength of this association, which suggests that depression might be a more important determinant of crying than dissociation.

141 – Cardiovascular burden and long-term risk of first-ever depression: Implications for the vascular depression hypothesis from a population-based study

Roy JF, Santabárbara J, De-la-Cámara C, Gracia-García P, López-Antón R, Ventura T, Gutierrez-Galve L, Saz P, Marcos G, Lobo A and the ZARADEMP Workgroup CIBERSAM. Instituto Aragonés de Ciencias de la Salud. Departments of Psychiatry, Public Health and Psychology, Universidad de Zaragoza. Hospital Clínico Universitario and Hospital Universitario Miguel Servet. Zaragoza, Spain.

Background and aims: Depression and Cardiovascular Disease (CVD) are the leading contributors to the burden of disease worldwide. Therefore, consequences of a causal association between increased cardiovascular burden and first-ever depression are immense. The purpose of this study was to determine whether cardiovascular burden would demonstrate increased risk for first-ever depression in community-dwelling persons.

Methods: A randomized stratified population-based sample of 4,803 individuals aged 55 or older were interviewed at the baseline wave of the ZARADEMP study. Subjects underwent detailed assessment of medical history, including cardiovascular manifestations (stroke, acute myocardial infarction, unstable angina pectoris) and risk factors (RF; metabolic: diabetes mellitus, hypertension and obesity; behavioural: smoking, alcohol intake, statin use). Conventional psychosocial factors and individuals physical and cognitive functioning was assessed (MMSE, Katz Index, Lawton & Brody Scales). A standardized, structured research interview was conducted using the Geriatric Mental State (GMS) Examination. Depression was assessed at baseline and at 2-year ($n=4,061$) and 5-year ($n=3,160$) follow-up visits. Clinically relevant depression was diagnosed with AGE-CAT criteria. Individuals with a positive depression history were excluded.

Results: Multivariate Cox proportional hazards models showed a significant association between an increased baseline cardiovascular co-morbidity/metabolic CVRF and first-ever depression, after adjustment for

psychosocial and behavioural risk factors (1 CVD/RF: HR=1.15; 95% CI [0.92-1.45]; 2 co-morbid CVD/RF: HR=1.53; 95% CI [1.10-2.12]; 3+ co-morbid CVD/RF: HR=2.26; 95% CI [1.10-4.68]).

Conclusion: Our results indicate a direct relationship between increased cardiovascular burden and first-ever depression in the elderly population. This significant association is not modified by conventional psychosocial or cardiovascular risk factors, supporting the vascular depression hypothesis.

142 – Integrated practice model outcomes compared with traditional consultation models

Rundell JR

Psychosomatic Medicine Research Program, Mayo Clinic, Department of Psychiatry and Psychology, Rochester, Minnesota, USA

Background and aims: At Mayo Clinic, there are 3 models of psychosomatic medicine (PM) outpatient consultation: 1) Traditional consultation, 2) Collaborative consultation with health psychologists and psychiatric nurses and therapists, and 3) Integrated care (PM psychiatrists on multidisciplinary teams in primary and specialty clinics).

Methods: Program elements of the 3 models were compared. Financial, documentation and satisfaction outcomes of collaborative consultation were compared to traditional consultation. Categorical data were analyzed with the chi-square test; t-tests were used to analyze continuous data.

Results: 55% of patients seen by PM psychiatrists at Mayo Clinic are in integrated care programs, 25% in collaborative care, and 20% in traditional consultation. Over 20 integrated care programs at Mayo Clinic include PM psychiatrists. Each has a unique model of integrated care. Examples include primary care, bariatric surgery, transplantation, rehabilitation, and high-risk obstetrics. Financial performance is 14% better when collaborative care is compared to traditional consultation ($p=.05$). Dictation costs are 30% less ($p<.001$). Nursing capabilities are leveraged so that the number of consults seen is increased by 33% ($p=.01$). Documentation standards are met at the 95%-100% level, compared to 50%-60% ($p=.02$). A standard measure of provider satisfaction was 50% higher in the collaborative model ($p<.001$). Standard patient satisfaction ratings were higher in the collaborative model by 20% ($p<.001$).

Conclusion: Collaboration can improve financial performance, patient and provider satisfaction, and documentation compliance. Integrated care settings can become the predominant mode of PM consultation and can offer multiple opportunities to expand the scope and practice of PM.

143 – Social support may buffer against chronic low-grade inflammation associated with childhood adversities

Runsten S^{a,b,c}, Korkeila J^{a,b}, Korkeila K^c, Koskenvuo M^d, Rautava P^{e,f}, Vainio O^{g,h}

^a Department of Psychiatry, University of Turku, Kunnallissairaalaant. 20, 20700 Turku, Finland

^b Harjavalta Hospital, Satakunta Hospital District, Finland

^c City of Turku Department of Health Care and Social Services, Turku, Finland

^d Department of Public Health, University of Helsinki, Helsinki, Finland

^e Clinical Research Centre, Turku University Hospital, Finland

^f Department of Public Health, University of Turku, Finland

^g Institute of Diagnostics, Department of Medical Microbiology, University of Oulu, Oulu, Finland

^h Clinical Microbiology Laboratory, Oulu University Hospital, Oulu, Finland

Background and aims: Childhood adversities have been linked to elevated high-sensitivity CRP (hsCRP), which has been associated with increased morbidity. Good social support has been linked to lower hsCRP and lack of social integration has been reported to worsen the prognosis in heart disease and cancer. We hypothesised that social support is a mediating factor between childhood adversities and hsCRP.

Methods: A sample of 312 women was drawn from the data of the nationwide Health and Social Support Study (the HeSSup Study). The cohort was stratified into groups of good or inadequate social support giving two groups of 100 subjects. Additionally invited groups were randomly drawn control group of 50 subjects and a group of 62 women who had reported depressive symptoms. Of the 230 women reached, 116 took part. They filled questionnaires about childhood adversities and social support; blood samples were drawn to measure hsCRP.

Results: Social support score (SSQ) was lower when the number of adverse experiences in childhood was higher ($r: -0.251, p=0.007$) or childhood abuse was reported ($r: -0.242, p=0.009$), but childhood adversities were not significantly linked to hsCRP. HsCRP and SSQ were inversely associated ($r: -0.188, p=0.046$). The mean hsCRP was lower in the highest than in the lowest SSQ quartile, and this association was more evident when adjusting for age, SES and BMI ($r: 0.306, p=0.008, CI: -0.971--0.149$).

Conclusion: This finding suggests that social support may attenuate the health risks caused by childhood adverse experience.

144 – Post-Traumatic Stress Disorder (PTSD), temperament, stress coping styles and social support in HIV-positive people

Rzeszutek M

University of Warsaw, Department of Psychology, Stawki 5/7 Street, 00 – 183 Warsaw

The aim of this research is to investigate the link between post-traumatic stress disorder, temperament, stress coping styles and social support in HIV-positive people. In particular, this study is focus on evaluating personality and social predictors and moderators of traumatic stress, caused by a terminal illness.

Participants are recruited from adult HIV-positive patients of Wolski Hospital in Warsaw and also organizations helping people with HIV/AIDS. They fill personality and social support questionnaires and a special survey with basic, anonymous information about themselves and their disease.

It was investigated that particular temperament traits and stress coping styles can increase the risk of PTSD in HIV-positive people. In addition to this, particular features of social support may be an important protective asset in case of trauma caused by a terminal illness.

Understanding the role of above mentioned variables in the PTSD dynamics in HIV-positive people can shed some light on psychological problems of those people and contribute for improving their quality of life.

145 – History of stroke, incident depressive disorder and competing risk of death

Santabárbara J, Roy JF, De-la-Cámara C, Gracia-García P, López-Antón R, Martín A, Saz P, Marcos G, Lobo A and the ZARADEMP Workgroup

CIBERSAM, Instituto Aragonés de Ciencias de la Salud, Departments of Psychiatry, Public Health and Psychology, Universidad de Zaragoza, Hospital Clinico Universitario and Hospital Universitario Miguel Servet, Zaragoza, Spain.

Background and aims: Prior research suggest that a clinically relevant episode of stroke is an independent risk factor of an incident depressive disorder in hospitalised patients. Little is now in population-based studies.

Methods: A representative stratified random sample ($n=4,803$) aged 55+ years was assessed in wave I of the ZARADEMP study, a longitudinal study to document incidence and risk factors of depression and dementia. Individuals free of dementia and depression at the baseline were followed up at wave II (2.4 years) and wave III (4.7 years). The ZARADEMP structured interview included the standardised Spanish versions of the MMSE, GMS-HAS-AGECAT package and the Katz and Lawton & Brody indexes. Statistical Analyses: the cumulative incidence function of time to first depression

was modelled taking into account the competing risk of death, using Fine & Gray's survival models adjusted by psychosocial (sex, age, education) and cerebrovascular risk factors (BMI, alcohol, smoking, unstable angina, myocardial infarction, diabetes, hypertension, and statin use) and both cognitive (MMSI score) and physical functioning (Katz and Lawton & Brody indexes).

Results: Bivariate analyses (Model 1) showed that individuals with a history of stroke at the baseline or follow-up examinations had an increased risk depressive disorder diagnose (HR=1.53; 95% CI [1.12-2.10]). This increased risk remained significant after adjusting for potential confounders: Model 2 = Model 1 + cerebrovascular risk factors (HR=1.61; 95% CI [1.16-2.25]); Model 3 = Model 2 + psychosocial risk factors (HR=1.53; 95% CI [1.07-2.19]); Model 4 = Model 3 + cognitive & physical impairment (HR=1.55; 95% CI [1.09-2.23]).

Conclusions: This is the first study in literature reporting stroke as a long-term risk factor of depression in the community independently from potential confounders and the competing risk of death.

146 – Evolution of the cognitive impairment in chronic fatigue syndrome

Santamarina P, Freniche V, Jacas C, Alegre J, Sáez N, Rodríguez A, Parramón G

Psychiatry Department, Hospital Universitario Vall d'Hebron, Barcelona

Chronic Fatigue Unit, Internal Medicine Department, Hospital Universitario Vall d'Hebron, Barcelona

Background and aims: Patients with chronic fatigue syndrome (CFS) report concentration and memory impairment, which can be one the most disabling aspects of the condition. Some neuropsychological studies have shown cognitive impairment, particularly in attention and executive functions. Although 85% of CFS patients complain of cognitive worsening over the course of the illness, the evolution of the deficit has received little attention in the literature. The aim of this study was to examine the evolution of cognitive impairment in patients with CFS.

Methods: Fifty-six women, aged 30 to 61 years and diagnosed with CFS according to the criteria of Fukuda were enrolled. We excluded patients with mental disorders (except depression reactive to illness) and organic diseases that can course with cognitive impairment. Patients were assessed with neuropsychological tests that included clinical measures of memory, attention, executive function, psychomotor skills, and premorbid intelligence level. Raw scores adjusted according to normative data were transformed to standard scores (T scores). Patients were divided into 3 groups based on the

duration of the disease since diagnosis (≤ 12 months, 13-48 months, and > 48 months).

Results: Scores indicating impairment (T scores < 40) were found for attention and executive tasks. After controlling for the effects of mood, demographics, and clinical factors, there were no differences between the 3 groups in terms of cognitive function.

Conclusion: The attention and executive function deficits observed are consistent with findings from previous studies. The cognitive impairment occurring in CFS was not found to be more severe with longer disease duration.

147 – Return to work after rehabilitation of patients with fibromyalgia syndrome (FMS)

Schlösser A^{a,b}, Bernardy K^{a,c}, Köllner V^{a,b}

^a Fachklinik für Psychosomatische Medizin, MedClin Bliestal Kliniken, Bliedtal, Germany

^b Medizinische Fakultät der Universität des Saarlandes, Homburg/Saar, Germany

^c Klinik für Anästhesiologie, Intensivmedizin und Schmerztherapie, Universitätskliniken des Saarlandes, Homburg/Saar, Germany

Background and aims: The effectiveness of inpatient psychosomatic rehabilitation for patients with FMS and especially the effect on return to work is discussed controversy. The aim of the present study is the evaluation of long time course and return to work after psychosomatic rehabilitation of fibromyalgia patients.

Methods: 579 FMS patients were asked by mail 1-5 years after their stay about the development of their ability to work and how they evaluate the rehabilitation retrospectively.

Results: We received data of 211 patients, meaning a response rate of 36.4%. Mean age was 53.7 years (SD \pm 5.9). 202 (95.7%) were female, 9 (4.3%) male. 19.9% were working full time, 20.2% half time and 6.2% had a "minijob". 10.4% are unemployed and 42.7% disabled. 68.7% retrospectively reported that in-patient rehabilitation helped them considering their quality of life and their level of activity. 61.1% reported a reduction of pain and 59.7% of depression, but only 48.3% in comorbid symptoms. Most patients reported that psychotherapy was helpful (82.5%) as well as passive treatment (82.0%), aerobic exercise (74.9%) and patient education (71.3%), whereas the medical treatment was only considered helpful by 50.3%.

Conclusion: In our study about half of the FMS -patients are still able to work in the long term course after inpatient psychosomatic rehabilitation. Most patients experience an improvement in their quality of life and their activity, and it seems to be mostly the multimodal setting that provides positive outcomes.

148 – Psychosocial factors in liver transplant for cholangiocarcinoma

Schneekloth TD, Jowsey SG, Biernacka JM, Burton MC, Vasquez AR, Spitzer MD, Gores GJ
 Mayo Clinic, Mayo Clinic College of Medicine

Background and aims: Psychosocial screening of transplant candidates is mandated by the United Network of Organ Sharing in the United States. Psychopathology has been commonly observed in liver transplant candidates and up to 83% have Axis I diagnoses. This illness burden may negatively impact transplant outcome. Liver transplantation for cholangiocarcinoma, a formerly fatal diagnosis, remains controversial and involves a rigorous pre-transplant protocol of chemoradiation. We assessed psychiatric and substance use disorders in patients who underwent transplantation for cholangiocarcinoma.

Methods: We retrospectively reviewed the records of 144 liver transplant recipients who participated in a pre-transplant psychosocial screening protocol between 2000 and 2004. A transplant psychiatrist evaluation provided DSM-IV diagnoses. Rates of pre-transplant psychiatric and substance use disorders were compared between 26 patients with cholangiocarcinoma and 118 other liver transplant recipients using Fisher's exact tests.

Results: Of the total cohort, 26% had a pre-transplant psychiatric diagnosis, 18% had a substance use disorder, and 43% were former or current smokers. The cholangiocarcinoma cohort was less likely to have an alcohol use disorder ($p=0.04$), though the rates of any substance use disorder were not significantly different ($p=0.09$). The two groups did not differ significantly in the likelihood of having a psychiatric disorder or smoking history. There was a trend toward more adjustment disorders in the cholangiocarcinoma group ($p=0.11$).

Conclusions: This study suggests that patients with cholangiocarcinoma are at lower risk for alcohol use disorders than other liver transplant recipients. Psychosocial assessment and support is recommended through the transplant process including monitoring for adjustment disorders.

149 – A novel treatment approach for people with severe functional somatic syndromes (STreSS-1): Randomized trial

Schroeder A^a, Rehfeld E^a, Oernboel E^a, Sharpe M^c, Licht RW^b, Fink P^a

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

^b Mood Disorders Research Unit, Aarhus University Hospital, Aarhus, Denmark

^c Psychological Medicine Research, School of Molecular and Clinical Medicine, University of Edinburgh, Edinburgh, United Kingdom

Background: Functional somatic syndromes (FSS) such as fibromyalgia or irritable bowel syndrome are highly prevalent and may be persistent and disabling for patients and costly to services. We aimed to assess the efficacy of a cognitive behavioral group treatment (STreSS) for patients with a variety of chronic, disabling FSS and somatoform disorders who met criteria for the unifying diagnosis of severe, multi-organ Bodily distress syndrome, in improving physical health.

Methods: We compared STreSS with usual care in a randomized trial. 120 consecutively referred patients aged 20–45 years with severe FSS were recruited and using a computer-assisted block protocol, randomly assigned to a cognitive behavioral group treatment (54 patients) or to enhanced usual medical care (66 patients). The primary outcome was improvement in physical health measured at 16 months from randomization assessed with SF-36 Perceived Physical Health (PPH) score. Analysis was by intention to treat. The trial is registered with ClinicalTrials.gov, number NCT00132197.

Findings: Patients in the intervention group reported better physical health at outcome ($p<0.0001$). The adjusted mean difference in PPH-score at 16-months was 4.1 (95% CI 1.5–6.7), a moderate effect size (0.51; [95% CI 0.19–0.83]). The number needed to treat to achieve one additional treatment response was 4.8 (95% CI 2.5–52.5).

Conclusion: Specialized Treatment for Severe Bodily Distress Syndromes (STreSS) provides a promising model for the management of patients with various severe FSS. Our approach may be a feasible alternative to the current organization of care in many different medical specialties.

150 – First empirical evidence of a real-life PNI mechanism of cancer-related fatigue: Findings from an integrative single-case study on a patient with breast cancer

Schubert C^a, Fritzsche K^b, Burbaum C^b, Geser W^c, Ocaña-Peinado FM^d, Fuchs D^e

^a Clinic of Med. Psychology, Innsbruck Medical University, Innsbruck, Austria

^b Dept. of Psychosomatic Medicine and Psychotherapy, University Hospital Freiburg, Freiburg, Germany

^c Institute of Psychology, University of Psychology, Innsbruck, Austria

^d Dept. of Statistics and Operations Research, University of Granada, Granada, Spain

^e Division of Biological Chemistry, Biocenter, Innsbruck Medical University, Innsbruck, Austria

Background: There is evidence that chronic cancer-related fatigue (CaRF) is related to a dysfunctional stress system.

Methods: To test this under everyday life conditions, we used a single-case based integrative approach combining time-series analysis with immunological measures. The 49-year-old woman under study (breast cancer diagnosis 5 years ago, CaRF, no depression) collected her entire urine over a period of 28 days in 12-hour intervals (total of 55 measurements). Additionally, questionnaires regarding CaRF (VAS), emotional states (3-Skalen-EWL) and everyday routine (DIARI) were filled in in 12-hour intervals. Fear of cancer recurrence (FOR) was measured via VAS using the phrase: ‘during the last 12 hours have you had any thoughts, memories, pictures or dreams regarding your disease?’ Neopterin, a cellular immune parameter, and interleukin-6 (IL-6) were measured in urine applying HPLC and ELISA.

Results: Adjusted cross-correlational analyses showed that increases in FOR were followed by IL-6 decreases after 84 h (lag7: $r=-0.386$; $p<0.05$), neopterin increases after 96 h (lag9: $r=+0.348$; $p<0.05$), and fatigue increases after a total of 132 h (lag11: $r=+0.359$; $p<0.05$). Moreover, decreases in IL-6 were followed by increases in fatigue 48 h later (lag4: $r=-0.319$; $p<0.05$), whereas increases in neopterin were followed by increases in fatigue after 60 h (lag5: $r=+0.296$; $p<0.05$). Mood, irritation and mental activity did not interfere with these findings.

Conclusion: Our results suggest that in the patient under study FOR may have triggered fatigue via decreases in IL-6 levels after a temporal delay of five and a half days. Further patients have to be studied in order to strengthen these first findings on possible causes for CaRF.

151 – A comparison between patients diagnosed with somatoform pain disorder and other chronic pain diagnoses: Intermediate- to long-term differences in the effects of multimethodic treatment

Schubert C^a, Venkat S^b, Wolstein^c, Söllner W^d

^a Medizinisch-Psychosomatische Klinik Roseneck, Prien am Chiemsee, Germany

^b Schmerztagesklinik, Klinikum Nürnberg Nord, Germany

^c Lehrstuhl für Pathopsychologie der Universität Bamberg, Germany

^d Klinikum Nord Klinik für Psychosomatik und Psychotherapeutische Medizin, Nürnberg, Germany

The purpose of this study was to find out if there are any significant intermediate-to long-term differences in the effects of multimethodic treatment, regarding chronic pain patients who suffer from a somatoform pain disorder (F45.5) and those who do not. Therefore a sample of 210 patients from a day-hospital for chronic pain was examined.

During the interview 68 (32.4%) of the patients were diagnosed F45.5 or respectively F45.0, the rest

was assigned other (chronic pain) diagnosis. Using questionnaires the sample was surveyed before starting to participate in the 4-weeks lasting treatment and one year after they had completed (pre-post-comparison). Information collected was health-related quality of life (SF-36), sensed degree of disability in the cause of pain (PDI), level of depression (ADS) and intensity of pain (NRS).

As results reveal, patients who suffer from a somatoform pain disorder improve significantly less (t-test for unrelated samples, comparing differences in change) than other chronic pain patients, over the course of the year, regarding scores of depression ($p=.035$) and psychic health-related quality of life ($p=.045$). The results were controlled for sex, age and stage of chronicity (Gerbershagen II&III). Evaluated effect sizes show weaker effects for these group regarding depression (.23 vs .57), disability (.21 vs .51) and mental health-related quality of life (.20 vs .43).

These results imply that there is a need for further research and development to improve the fit between treatment concept and treated patients in order to augment the degree of benefit for this group of patients.

152 – Psychopathology after elective or emergency aortic arch replacement

Schurig S^b, Schäfers HJ^c, Schmied W^a, Köllner V^{a,b}

^a Fachklinik für Psychosomatische Medizin, Mediclin Bliestal Kliniken, Blieskastel, Germany

^b Medizinische Fakultät der Universität des Saarlandes, Homburg/Saar, Germany

^c Klinik für Thorax- und Herz-Gefäßchirurgie, Universitätsklinikum des Saarlandes, Homburg/Saar, Germany

Background and aims: Replacement of the aortic arch is performed electively for aneurysms as well as emergency intervention in acute aortic dissection. It is unclear, however, how quality of life and psychopathology develop after surgery and whether the dramatic circumstances of acute dissection leads to a higher level of psychopathology in long time course.

Methods: 80 patients (64% male, age 71.8 ± 9.85 years) were tested after elective and 70 (67% male, age 62.9 ± 15.01 years) after emergency intervention. Measurements were SF-36 (quality of life), HADS-D (anxiety and depression), Impact of Event-Scale (IES-R; PTSD) and ADNM (adjustment disorder).

Results: Quality of life was adequate to normal population in both groups. For anxiety and depression there were found no significant differences between emergency and elective intervention. The dissection-group had significantly higher scores on the IES-R scales avoidance and hyper arousal. Intrusion was higher

by trend. In the dissection group 14.3% were over the diagnostic score for PTSD and 22.2% for adjustment disorder. In the elective patients only 6.2% / 7.6% were beyond the cut off.

Conclusions: Patients who underwent emergency operation for acute dissection were more stressed than patients operated electively (aneurysm). This refers only to the symptoms of a stress-related disorder, not to anxiety or depression in general. The ADMN turns out to be an adequate tool to monitor stress reactions underneath the barrier of posttraumatic stress disorder. There should be a routine screening for adjustment disorder and PTSD in long term course after emergency, for these diagnoses lead to a considerable reduction in quality of life.

153 – Stressed and inflammatory state in stable angina pectoris patients

Serfőző G^a, Horváth T^b, Földesi I^c, Rafael B^d, Thury A^b, Ungi I^b, Keresztes M^a

^a Dept. of Biochemistry

^b Centre of Cardiology

^c Endocrinology Unit, 1st Dept. of Internal Medicine

^d Neuropsychiatry Rehabilitation Unit, Department of Psychiatry, Medical Faculty, University of Szeged, Hungary

Background and aims: There is increasing evidence that psychological stress could facilitate the development of coronary atherosclerosis. Our goal was to study cardiac patients with stable angina pectoris from psychoneuro-immunological aspect in comparison with healthy controls.

Methods: Control students with normal coronary circulation (n=22, mean age: 20) and stable angina pectoris patients with min. 50% stenosis in two main coronary arteries (n=16, mean age: 65.5) completed Rahe's stress and coping inventory. Lactoferrin (activation marker of neutrophils) and IL-6 were assayed by ELISA in blood plasma. Concentrations of ACTH and chromogranin A (marker of sympathetic activity) were determined by chemiluminescence and RIA, respectively. Routine lipid panel, hsCRP and hematology tests were also performed.

Results: Controls had considerably higher coping scores than patients (p<0.001), while the slight difference between their stress levels was not significant. In patients, substantially higher lactoferrin (p<0.001), IL-6 (p=0.007), ACTH, chromogranin A (p<0.001) and hsCRP (p=0.009) plasma levels were found than in controls; patient samples were characterized also by a lower HDL-cholesterol concentration (p<0.001). Leukocyte counts were in the normal range.

Conclusion: These results suggest that an inflammatory state existed in our coronary atherosclerosis patients

(with risky lipoprotein pattern), that was associated with their stressed psychological condition.

154 – Screening for psychiatric co-morbidity within consultation-liaison services

Söllner W^a, Maislinger S^b, Stein B^a, Schüssler G^b

^a Dpt. of Psychosomatic Medicine and Psychotherapy, General Hospital Nuremberg, Germany

^b Dpt. of Medical Psychology and Psychotherapy, University Hospital Innsbruck, Austria

Objective: Psychiatric co-morbidity is often not identified in medically ill patients and, consequently, psychosocial support is not provided. Therefore, methods of screening for psychiatric co-morbidity and elevated distress are discussed to improve psychiatric and psychological care for these patients.

Methods: Two consecutive samples of 100 cancer patients undergoing oncological treatment were investigated in the General Hospital Nuremberg and the University Hospital Innsbruck. Cancer-related distress was assessed with the Hospital Anxiety and Depression Scale and patients' interest in and acceptance of psychosocial support with the Questionnaire for Psychosocial Support and the European Consultation Liaison Workgroup documentation form.

Results: 31% (Innsbruck) and 44% (Nuremberg) of the patients suffered moderate to severe anxiety and/or depression and 42% (Innsbruck) resp. 43% (Nuremberg) expressed interest in supportive counselling from a C-L psychosomaticist. The wish for psychosocial support did not correlate with moderate or severe anxiety and/or depression (Kappa=0.06; P=0.560). Patients with elevated levels of distress and/or those expressing a wish for psychosocial support were offered counselling by a C-L psychosomaticist within the framework of a liaison service; 69% of the patients offered such support accepted it.

Conclusion: Screening instruments are helpful in identifying and consequently offering support to patients in need of counselling. Different methods of screening for distress and psychiatric co-morbidity are discussed.

155 – Running a psychosomatic consultation/liaison service under the german DRG-system: Experience of a 5 years period in Nuremberg Hospital, Germany

Stein B, Soellner W

Nuremberg Hospital, Clinic of Psychosomatic Medicine and Psychotherapy

Background: The Nuremberg Hospital, Germany, is a full-service non-university general hospital with nearly 2,200 beds. The Psychosomatic C/L Service of the Clinic of Psychosomatic Medicine currently responds to over 4,000 referrals p.y. The German Diagnoses Related

Groups (G-DRG) including an internal reimbursement system have been implemented. Within the G-DRG the costs for mental health care provided by C/L services can be documented. Only a few psychiatric diagnoses, however, are leading to an increased refunding. The paper describes the effects of G-DRGs on the utilization of C/L based on C/L referral data of a 5 years period (2005-2009).

Method: Since 2005 each consultation made by the Psychosomatic C/L Service is routinely documented in a standardized patient documentation form (CL-Bado). Referral data, anamneses, diagnoses and C/L intervention data are electronically recorded. Additionally all team related activities of CL service is documented.

Results: Within 5 years in Nuremberg Hospital, 16731 cases have been seen by psychosomatic CL service, performing 31189 contacts with patients. The number of patients seen have been growing up from 2369 (2005) to 4264 (2009). In contrast, the time spent for one patient was reduced each year (3.7 h to 2.8 h). Further data on patterns of referral and patterns of psychosomatic interventions are shown.

Discussion: The psychosomatic CL service is well implemented. Although most psychiatric diagnoses are not leading to an increased funding by increasing patient clinical complexity level the number of referrals has been nearly doubled. Recently in cancer centers, pain centers or other specialized treatment facilities psychosomatic expertise has to be offered due to certification reasons. This effects the profiles of psychosomatic interventions and has to be considered planning C/L service delivery.

156 – Sickness-behavior: Immunological correlates of nausea and related symptoms in cancer patients receiving chemotherapy and healthy humans experiencing rotation

Stockhorst U

Institut für Psychologie, Allgemeine Psychologie II und Biologische Psychologie, Universität Osnabrück, Seminarstr. 20, D-49074 Osnabrück

Background and aims: Proinflammatory cytokines (interleukin [IL]-1 β , tumor-necrosis-factor [TNF]-alpha, interferon-[IFN]-gamma) are afferent signals to the brain, able to induce sickness-behavior with symptoms of malaise, listlessness, weakness and depression. Sickness-behavior also shares features in common with nonspecific symptoms of cancer and cancer treatment side-effects: It is assumed that cytokines released from cancer cells or by stress resulting from chemotherapy act in the brain to induce nausea, cachexia, fatigue, sleep disorders and cognitive alterations.

Methods: Data presented were obtained in two settings, in both measuring nausea and related symptoms, cortisol

and selected cytokines: (A) In pediatric cancer patients, we sampled blood two days prior to chemotherapy at home and at the day of chemotherapy, but prior to the start of a new infusion-cycle in hospital. We examined whether natural killer cell activity (NKCA) and selected cytokines (among them IL-1 β , TNF-alpha, IFN-gamma) can become classically conditioned. Thus, levels in home vs. hospital were compared. Further we correlated IL-1 β and TNF-alpha with food aversion. (b) We used a rotation-paradigm to induce nausea in healthy humans, and measured TNF-alpha in saliva before and after rotation.

Results: (a) A conditioned increase in NKCA and IFN-gamma from home to hospital and a tendency of a decrease in IL-1 β was found. Food aversion was positively correlated with IL-1 β ($p < 0.01$) and TNF-alpha ($p < 0.10$). (b) Rotation induced an immediate increase in symptoms ($p < 0.001$) and TNF-alpha ($p < 0.10$).

Conclusion: Cytokines related to sickness-behavior are interesting immunological correlates of nausea and related symptoms in cancer patients receiving chemotherapy and after rotation-induced nausea.

157 – The role of naturally occurring and laboratory induced psychosocial stress in irritable bowel syndrome (IBS)

Suarez-Hitz KA, Ehlert U

Institute of Psychology, Clinical Psychology and Psychotherapy, University of Zurich, Zurich, Switzerland

Background and aims: Stress has been considered as an important etiological factor in IBS. However, the exact mechanisms between stress and gut physiology causing these complaints are insufficiently understood. Based on two empirical studies we investigated this relationship.

Methods: In a large number of students, the prevalence of gastrointestinal symptoms and perceived stress (chronic stress, coping strategies, stress reactivity) were assessed. Subsequently basal and stimulated HPA axis activity was measured in female IBS patients ($n=55$) and matched controls ($n=20$). IBS diagnosis was made according the Rome III criteria and psychiatric comorbidity was assessed using a clinical interview. Subjects were exposed to a standardized psychosocial stress test (TSST). Cortisol and ACTH were measured before and within one hour following the stressor.

Results: 60% of the student sample ($n=668$) in the online survey reported gastrointestinal symptoms which were significantly predicted by high levels of chronic stress, dispositional stress reactivity, maladaptive coping and female gender. The endocrinological data revealed that patients show intact diurnal rhythmicity of the HPA axis but subjects with diarrhea predominant IBS (IBS-D)

exhibited a dysregulated cortisol awakening response. Following the TSST significantly blunted cortisol ($p < 0.05$) and attenuated ACTH secretion was observed in IBS compared to healthy subjects.

Conclusions: Functional gastrointestinal syndromes including IBS seem to be common in apparently healthy students and the experience of stress was strongly associated with the presence of specific symptoms. The downregulated HPA axis reactivity in patients following laboratory stress may suggest an attenuated sensitivity of the hormonal system.

158 – Pathway to psychiatric services among migrants with first episode psychosis: Adverse route of care or lack of cultural competence within CLP activities?

Tarricone I, Mori E, Panigada S, Marcacci T, Colonna N, De Gregorio M, Marseglia M, Mimmi S, Salicido J, Stivanello E, Braca M, Minenna M, Caramanica R, Michetti R, Nolet N, Berardi D

Istituto di Psichiatria, Università di Bologna

Dipartimento di Salute Mentale, Ausl Bologna

Aims: As the immigration phenomenon burgeons, migrants are encountering huge health problems, difficulties in pathway to care and engaging with health services (Bhugra, 2004; Okie, 2007). In particular, the incidence of psychosis has been found to be higher among first and second generation migrants (Cantor-Grae & Selten, 2005). Our aim is to enlighten pathways to care among migrants with First Episode Psychosis (FEP) cared by the Bologna west Community Mental Health Centre (CMHC).

Method: All migrants who consecutively attended the Bo west CMHC between January 2002 and December 2009 were evaluated at their first contact. Psychiatric diagnoses were formulated by clinical psychiatrists according to ICD-10 (WHO, 1992) criteria.

Results: Among 160 FEP patients, 43 (26.8%) were migrants. All migrants were first generation and among them 15 (35.7%) came from North and Sub-Saharan Africa, 13 (30.9%) from East Europe, 9 (21.4%) from Asia, 3 (7.1%) from South America. We found a trend toward a more frequent referral to Bo-west CMHC after psychiatric admission or access to hospital emergency room among migrants compared to natives (21, 48.8% vs 41, 35.9%, $c\ sq = 2.2$, $p = 0.1$). This trend has been found to be more relevant among migrants younger than 36 years old (18, 51.4% vs 39, 34.5%; $c\ sq = 2.9$, $p = 0.08$).

Conclusion: Our findings demonstrate that, between FEP patients, migrants are at higher risk of adverse pathways to care. Cultural CLP activities to ameliorate this pathway are envisaged

159 – Prevalence of common mental disorders (CMD) among migrants in primary care: A systematic literature review

Tarricone I, Stivanello E, Poggi F, Braca M, Colonna N, De Gregorio M, Marseglia M, Berardi D

Istituto di Psichiatria, Università di Bologna

Background and aims: Various studies have emphasized the key role of primary care in the management and detection of common mental disorders (CMD) such as depression and anxiety. An emerging problem is represented by the management of CMD among migrants in primary care setting. Our aim was to compare the prevalence of CMD between migrants or ethnic minorities and native or ethnic majorities at primary care level.

Methods: A systematic review of studies comparing the prevalence of CMD in migrants or ethnic minorities and native or ethnic majority in primary care setting was conducted. Electronic search of studies was undertaken using MEDLINE, PsychINFO, EMBASE. The search was supplemented by additional papers identified through a manual search. Titles, abstract and full text of identified papers were screened independently for eligibility by two reviewers.

Results: We included 8 studies, 6 conducted in the US and 2 in UK. Two studies focused on women. Studies presented significant variations in prevalence of both anxiety and depressive disorders. Most studies did not point out significant differences between ethnic minorities and ethnic majorities. 2 out of 5 studies reporting prevalence data for women highlighted a significant higher risk for depression among ethnic minorities. Only one study used culturally adapted diagnostic tool and mostly had relatively small sample size.

Conclusions: More attention should be paid to develop further researches in this area, considering the small number of studies found comparing CMD prevalence among ethnic groups in primary care setting.

160 – Weight gain in antipsychotic naive patients and metabolic side effects

Tarricone I, Ferrari Gozzi B, Berardi D

Istituto di Psichiatria, Università di Bologna

Background and aims: It is known from the literature that patients treated with antipsychotic (AP) are at risk to develop metabolic side effects. Our aim was to investigate if weight gain observed in patients drug naïve that started a treatment with antipsychotic was associated with alterations in metabolic parameters like glycaemia, cholesterol and triglycerides.

Methods: We reviewed the studies included in our systematic review and meta-analysis (Tarricone et al, 2009) and we selected studies that reported information on changes in weight and in other metabolic parameters.

Results: We found only three studies. Zhang et al. (2004) reported a significantly more BMI gain in the treated group compared to control group (1.69 ± 1.2) $p < 0.01$. Authors founded significant increase in non-fasting plasma glucose, total and LDL cholesterol and triglycerides. Wu et al. (2006) found a mean increase in BMI with all treatment groups (clozapine, olanzapine, risperidone and sulpiride). They reported a significant increase in cholesterol and triglycerides levels in the olanzapine and clozapine groups. Finally Tarricone et al. (2008) found a mean increase in BMI and a slight mean increase in the other metabolic parameters.

Conclusion: We found few studies that investigate the correlation between weight gain and alterations of other metabolic parameters in drug naïve patients that started a new treatment with antipsychotic. All studies found a correlation between weight gain and worsening in lipid profile. More attention should be paid on general health of patients treated with AP. Considering the importance of this issue, further investigations are needed.

161 – Determinants of mental health and quality of life after liver transplantation

Telles-Correia D, Barbosa A, Mega I, Monteiro E
Liver transplantation Center-Hospital Curry Cabral/
Lisbon School of Medicine

Background: Survival is no longer the unique target of transplantation and assessing impact of transplantation in quality of life and mental health is now considered essential. In this work we sought to verify which psychiatric and psychosocial factors assessed before transplantation predicted mental health and quality of life after transplantation.

Methods: 150 consecutive transplant candidates, attending the out-patient clinics of the transplantation unit of a general hospital were studied: 84 were transplanted. From these 62 were assessed 12 months after being transplanted. We used the following questionnaires: NEO Five-Factor Inventory (NEO-FFI); HADS (Hospital Anxiety and Depression Scale); Brief COPE; SF-36; TAS (Toronto Alexithymia Scale); Psychiatric diagnosis and psychiatric history based on DSM-IV-TR classification

Results: We found that anxiety, depression and quality of life (12 months after transplantation) were predicted by coping mechanisms and personality traits (neuroticism) assessed in pre-transplantation period. Based in these conclusions a quality of life and mental health model was proposed. We also found that coping mechanisms belonging to pre-transplantation period were correlated with those from the post-transplantation period. This might explain why pre-transplantation CM influence outcome after transplantation.

Conclusions: According to our conclusions it might be important to detect patients with non-adaptive coping mechanisms and non-adaptive personality traits in pre-transplantation period in order to follow them with special attention, improving mental health and quality of life after liver transplantation.

162 – Clinical diagnosis adjustment disorder: What does a structured interview reveal?

Terber S^{a,b}, Bernardy K^{a,c}, Philippe J^{a,b}, Untersinger I^{a,b}, Köllner V^{a,b}

^a Fachklinik für Psychosomatische Medizin, Mediclin Bliestal Kliniken, Blieskastel

^b Medizinische Fakultät der Universität des Saarlandes, Homburg/Saar

^c Klinik für Anästhesiologie, Intensivmedizin und Schmerztherapie, Universitätskliniken des Saarlandes, Homburg/Saar

Background and aims: Adjustment disorder (AD) is one of the most frequent diagnoses both in out- and inpatient psychotherapy. The amount of research in this field does not correlate with clinical significance of AD. The aim of this study is to compare the frequency of an AD-diagnose in clinical routine by experienced psychotherapists versus using a structured interview.

Methods: 240 patients (female 77%; age 48.68 ± 8.61 years) in a psychosomatic rehabilitation centre were interviewed using CIDI within one week after admission. As CIDI does not include AD, the relevant module from SKID was added. Diagnoses from structured interview were compared to clinical diagnoses, which were based on a 90-120-minute interview including biographical history and psychometric tests (e. g. SCL-90).

Results: While only 15.8% of patients met the criteria for an AD using structured interview, 38.3% were diagnosed with AD clinically. Most of these patients showed affective disorders in CIDI (Dysthymia 55.4%, severe 32.4% and moderate 21.6% depressive episode), followed by somatoform) and anxiety disorders.

Conclusion: The discrepancy between the frequency of AD using both methods can be explained considering the C-criterion of DSM-IV, which states that an AD should not be diagnosed if the relevant diagnostic criteria for another disorder are met. This could show that experienced psychotherapists attach more importance to etiology when diagnosing than current diagnostic systems plan. One approach to a solution can lie in a revised definition of the diagnostic category AD as suggested by Maercker et al. (2007).

163 – Screening for depression in cardiac patients

Thombs BD

McGill University

Background and aims: Several practice guidelines recommend screening of depression in cardiac patients. A 2008 systematic review concluded that there was no evidence that depression screening would benefit cardiac patients. The objective of this presentation was to update the systematic review of depression screening in cardiovascular care, including assessments of (1) the accuracy of depression screening instruments, (2) the effect of depression treatment on depression and cardiac outcomes, and (3) the effect of screening on depression and cardiac outcomes in cardiovascular care settings.

Methods: Search of MEDLINE, PsycINFO, CINAHL, EMBASE, ISI, SCOPUS, and Cochrane databases from May 1, 2008 to present. manual journal searches, reference list reviews, and citation tracking of included articles. Studies were included if they (1) compared a screening instrument to a valid major depression criterion standard, (2) compared depression treatment with placebo or usual care in a randomized controlled trial, or (3) assessed the effect of screening on depression identification and treatment rates, depression, or cardiac outcomes.

Results: Results did not change substantively compared to the 2008 systematic review. Depression screening tools were reasonably accurate, but there were no studies that evaluated the effects of screening on depression or cardiovascular outcomes. Depression treatment with medication or cognitive-behavioral therapy resulted in modest reductions in depressive symptoms, although one recent study found larger effects using CBT. There was no evidence that depression treatments improved cardiac outcomes.

Conclusion: Depression treatment results in modest improvement in depressive symptoms, but no improvement in cardiac outcomes. No clinical trials have assessed whether screening for depression improves outcomes for patients.

164 – Can we diagnose somatoform disorders using all bodily symptoms rather than “medically unexplained” symptoms?

Tomenson B and Creed F on behalf of the DSM-V population based studies project group

University of Manchester, UK and other sites around the world

Background: The somatoform disorders have been largely excluded from recent large psychiatric epidemiological studies partly because of the difficulty of measuring “medically unexplained” symptoms. The latter are required to diagnose DSM-IV somatisation

disorders but their measurement is unreliable. Clinical studies suggest that a simple measure of all bodily symptoms predicts outcome satisfactorily. We assessed whether all bodily symptoms is a useful measure.

Method: Data were analyses from population-based samples in Germany, Netherlands, Norway & UK which used both self-administered questionnaires and CIDI interviews (total n=7,599). We compared the correlates of medically explained and unexplained symptoms (both lifetime & current).

Results: In all surveys the number of all reported bodily symptoms was greater than the number of medically unexplained symptoms. The distribution by sex was similar. In one study the correlation between medically unexplained and unexplained symptoms was high ($r=0.72$). The higher number of bodily symptoms reported by women compared to men ($p<0.001$) was observed whether explained or unexplained symptoms were assessed. In one study reported childhood abuse, recent stressful life events, attachment style and anxiety and depression were all associated with number all bodily symptoms in a pattern similar to that previously recorded with medically unexplained symptoms.

Conclusion: These data suggest strongly that total number of bodily symptoms is a measure with clinical utility and research potential. If incorporated into DSM-V somatic symptom disorders definition (instead of medically unexplained symptoms) this may facilitate further epidemiological studies of somatoform disorders and better clinical use of these diagnoses.

165 – Do women report more bodily symptoms than men because they have more anxiety and depressive disorders?

Tomenson B and Creed F on behalf of the DSM-V population based studies project group

University of Manchester, UK

Background: It is not clear why women report more bodily symptoms than men. As part of the preparation of DSM-V, this study, funded by American Psychiatric Association, examined whether the presence of anxiety and depression could explain this finding after adjustment for confounders.

Method: Data were analyses from population-based samples in Germany, Netherlands, Norway, Sri Lanka and UK (total n=14,078); 4 studies used self-administered questionnaires (PHQ, SSI, Zerssen) 2 studies used CIDI interview). Where necessary, gender-specific items were removed from questionnaires before analysis.

Results: In all 6 surveys the total number of reported bodily symptoms was greater in women than in men ($p<0.001$). The prevalence of anxiety and depression was also greater in women. After adjustment for age,

the presence of general medical illnesses, anxiety and depression this difference between men and women remained highly significant in all 6 studies ($p < 0.001$). In one study only ($n=913$) additional variables associated with number of bodily symptoms included: psychological abuse as a child, recent marital separation and items concerning health anxiety and sensitivity of the body to external stimuli. The difference between the sexes remained when these variables were added to a multiple regression equation.

Conclusion: Women report more bodily symptoms than men and this cannot be explained by the greater prevalence of anxiety and depression in women.

166 – Prevalence and risk factors of postpartum depression among maternity population of camposampiero general hospital (Padua province, Italy) – a observational pilot study

Turella E, Donolato A, Ciulli B, Riolo R

Mental Health Department, Camposampiero Hospital, Padua province, Italy

Background: Postpartum depression, affecting 10–15% of mothers, has been extensively studied but is still underrecognized and underdiagnosed. The causes of postpartum depression are not well known but a wide range of risk factors have been researched.

Aim: This is a 9 month pilot study to assess the impact of introducing screening for postpartum depression for all (1800/year) inpatients at Maternity Department of Camposampiero Hospital in order to establish the prevalence of mood disorders in our population and to early recognize and treat affected women. A further aim was the evaluation of risk factors related to personal-family history and psychosocial support.

Method: All 1299 postnatal women (28.25% migrant) of the investigated period were asked by letter 6 weeks after delivery to have a psychological interview including 3 self-administered scales (EPDS, CBA-D, PSI-SF). Results 132 women (40 migrant) took part to the screening (10.16% of the maternity population). 33 women (25% of the sample) were positive for subclinical emotional problems and further investigated: 16 were sent to psychiatric evaluation, 11 accepted the visit, 4 were found affected by depression (3%) and properly treated. 4 were found affected by subclinical depression (3%) and monitored with 3 further clinical interviews, 3 were discharged; 10 were sent to psychological supportive interviews; 9 were included in psychotherapy focus groups.

Conclusion: The total number of postnatal women with emotional-affective problems was high in our sample, although a minority of the maternity population participated to evaluation; on the contrary the prevalence

of postpartum depression was lower compared to international studies.

167 – Eating disorders in a Roumanian university sample in 1995 and 2008

Túry F, Antal I

Semmelweis University, Institute of Behavioural Sciences, Budapest, Hungary

Babes-Bolyai University, Faculty of Sociology and Social Work, Cluj-Napoca, Romania

Aim: Eating disorders are often considered culture-bound syndromes, occurring mainly in industrialized Western countries. However, several epidemiological studies were published from Central-East European countries, which show that eating disorders are common in this region. The present paper analyzes the prevalence of eating disorders and some pathological eating behaviours in a Romanian university sample, with special regard to the changes in a 13-year span.

Method: A questionnaire screening was made containing general and demographic data and the Eating Disorders Inventory in a university sample in Cluj-Napoca. The first screening was performed in 1995, and the same test battery was used in the repeated study in 2008.

Results: No subjects meeting the criteria of anorexia or bulimia nervosa were found in the population ($n=553$, 28.9% males, 71.1% females) in 1995. The prevalence of subclinical disorders was relatively high, subclinical anorexia nervosa occurred in 2.5% of females and in 0.6% of males, and subclinical bulimia nervosa was found in 3.8% of females and 2.5% of males.

In 2008 741 students were screened (28.3% males, 71.7% females). The dissatisfaction with the body weight increased in 2008 among males as compared to the data from 1995 (19.4% versus 43.3%). The “Drive for Thinness” subscale of the EDI showed that there were no significant difference among the two female population, but this score increased among men in 2008 (mean in 1995: 1.01; mean in 2008: 2.66). The scores of the “Body Dissatisfaction” increased among males (0.86 versus 5.81). This score increased also among females (1.4 versus 6.62). In the “Bulimia” subscale both males and females scored lower in 2008 than in 1995.

Conclusion: In spite of methodological limitations, the results stress the importance of eating disorders also in Romania, and the West-East dichotomy is an oversimplification as for the eating disorder morbidity. The newer results demonstrate an increasing significance of the eating pathology among males.

168 – Brain serotonin levels and crying in healthy women

Van der Veen FM^a, Jorritsma J^b, Krijger C^b, Vingerhoets AJ^b

^a Department of Psychiatry, Erasmus MC, Rotterdam, The Netherlands

^b Clinical Psychology Section, Tilburg University, Tilburg, The Netherlands

Background and aims: Crying (with emotional tears) is a uniquely human emotional response. Until now, little research has been devoted to its antecedents, functions and the involved neurobiological mechanisms. It has been speculated that both the opioid system and the serotonergic system may be involved. This study was designed to evaluate the effects a low dose of paroxetine on crying behavior in healthy volunteers.

Methods: Twenty-five healthy female volunteers participated in a double-blind randomized placebo-controlled single-dose cross-over design. Placebo or paroxetine (20 mg) were orally administered on two days, separated by a one-week interval. On both days, participants watched an emotional movie (either 'Brian's Song' or 'Once Were Warriors') five hours after medication administration. After the movie, the crying of the participants in response to specific scenes was measured with a validated questionnaire.

Results: Analysis of variance showed that paroxetine strongly affected self-reported crying behavior (three-way interaction treatment x movie x order, $F_{1,21}=16.9$, $P<0.0005$, $\eta^2=.446$). A follow-up analysis showed that crying was reduced in the paroxetine condition ($T=3.97$, $P<.005$). Paroxetine did not affect mood and appraisal of emotional photographs.

Conclusion: The results of this study unambiguously demonstrated the involvement of the serotonergic system in the regulation of human crying. The increase of central serotonin levels resulted in a major reduction in crying, while general mood was not affected. This raises the question whether crying might be helpful to distinct between different kinds of depression, possibly marking different degrees of involvement of the serotonergic system.

169 – Depression, access to cardiac aftercare and drop-out in rehabilitation programs

Van Riesen J^a, Burger H^{a,b}, van Melle JP^c, Slaets JP^d, de Jonge P^{a,e}

^a Interdisciplinary Center for Psychiatric Epidemiology, University Medical Center Groningen, University of Groningen, The Netherlands.

^b Department of Epidemiology, University Medical Center Groningen, University of Groningen, The Netherlands

^c Department of Cardiology, Thoraxcenter, University Medical Center Groningen, Groningen, the Netherlands

^d Department of Internal Medicine, University Medical Center Groningen, University of Groningen, The Netherlands

^e Center of Research on Psychology and Somatic Disease, Department of Medical Psychology, Tilburg University, The Netherlands

Background and aims: Depression is a prevalent disorder after myocardial infarction (MI) and is associated with reduced adherence to self-care and cardiac treatment. This study investigated whether depressed MI patients receive the same level of cardiac rehabilitation as non-depressed MI patients. The level of cardiac rehabilitation was assessed as: 1) the frequency of cardiac rehabilitation offered by the cardiologist, 2) patient participation in cardiac rehabilitation, and 3) completion of cardiac rehabilitation.

Methods: This study used a subsample of 1253 post-MI patients from the Myocardial Infarction and Depression Intervention Trial (MIND-IT) study. Depressive disorder was assessed according to ICD-10 criteria with the Composite International Diagnostic Interview during the first year post-MI. Information about cardiac rehabilitation was obtained with a self-questionnaire at 12 months.

Results: Prevalence rate of post-MI depression was 18.6%. After controlling for potential confounders, there was no significant association between post-MI depression and cardiac rehabilitation offered by the cardiologist (OR=1.30, 95% CI=0.93-1.82, $p=0.132$). Post-MI depression was associated with higher participation in cardiac rehabilitation (OR=1.62, 95% CI=1.17-2.24, $p=0.003$). Once started, depressed MI patients had a reduced completion rate of cardiac rehabilitation compared to non-depressed MI patients (OR=0.57, 95% CI=0.32-1.00, $p=0.049$).

Conclusion: This study showed that depressed MI patients had a higher consumption of cardiac rehabilitation than non-depressed MI patients but also a higher non-completion rate. In summary, depressed MI patients consume more cardiac rehabilitation than do non-depressed MI patients, but they appear to use this type of care less efficiently.

170 – Eating disturbances in orthorexia nervosa

Varga M, Máté G

Semmelweis University, Institute of Behavioural Sciences, Budapest

University of Pécs, Faculty of Health Sciences

Background and aims: The recently appeared eating disorder, orthorexia nervosa (ON) can be defined as healthy food dependence. Its symptomatology contains several harmful behaviours, obsessionality and pathological eating attitudes. The consequences are similar as in other eating disorders: health problems

and social isolation. The present study investigates the relationship between ON and other eating disorders in a Hungarian sample.

Methods: 126 university students (63 persons of dietetics faculty, 63 of faculty of social sciences) filled in a questionnaire including sociodemographic data, the ORTO-15 (ON scale; Donini et al, 2005) and the short version of Eating Attitudes Test (EAT-26; Garner, Garfinkel, 1979).

Results: The mean age of the sample was 23.9 (sd=2.02). The ON features show significant positive correlation with eating and body image disturbances (EAT-26) ($r=0.46$, $p<0.01$). The subjects with ON tendency (mean: 9.4; sd=0.7) have higher scores on EAT-26 than subjects without ON tendency (mean: 5.34; sd=0.5; $t=4.171$; $p<0.01$).

The dietiticians (mean=25, sd=2.315) and the control group (mean=24, sd=1.729) were age matched. The dieticians had higher scores on ORTO-15 ($p<0.01$). There were significant differences between the two groups of ON tendency (cut-off point: 40) ($p<0.01$), the dieticians were characterized by ON tendency in higher extent ($p<0.01$). The extent of ON features went hand in hand with the eating disturbances both in the group of dieticians ($r=0.284$, $p<0.05$) and in the control group ($r=0.289$, $p<0.05$). The group of dieticians had significantly more eating and body image disturbances compared with the control group ($p<0.01$). These results were independent of BMI scores in both groups.

Conclusion: The population of university students shows not only high tendency to ED but to ON, as well. The dieticians are especially high risk group for disordered eating and body image disturbances, and for ON tendency. This pilot study shows close relationship between ON tendency and other features and symptoms of eating and body image disorders, and takes attention to the higher risk of health care professions. It is a question whether ON is an independent eating disorder or a syndrome which can be related to other eating disorders. Further studies can help to find the right place of the recently appeared eating disorders among the diagnostic categories of the eating disorder spectrum.

171 – Crying and health: An introduction

Vingerhoets A

Clinical Psychology Section, Tilburg University, The Netherlands

Background: In the popular media and even among clinicians the view prevails that crying is healthy and that the inhibition of tears may increase the risk of psychosomatic disorders. However, the relationship between crying and health can also be considered from other perspectives. For example, crying as a symptom of disease, crying as a sign of disease, crying as the

consequence of a diagnosis or as the result of treatment, crying as a treatment. This contribution presents an overview of the literature on the connection between health and crying.

Method: I have reviewed the pertinent literature, searching scientific databases as Pubmed, PsychInfo, and Google Scholar and have carefully checked the references of the identified publications. Search terms were tears, weeping, crying, health, depression, disorder, illness and disease.

Results: The popular conception that the inhibition of crying endangers one's mental and/or somatic health status has not been examined adequately until now. The qualitative best research literature was found for crying and neurological disorders and – in babies – crying and health status. In addition, there was some attention for crying and depression and crying due to treatment (depression, prostate cancer).

Conclusion: The major claim that crying is healthy is not supported, nor disconfirmed by the research literature. In terms of research most effort has been given to neurological disorders and pathological crying and less to depression and crying. Crying is an understudied and poorly understood behavior that nevertheless may have the potentially useful and clinically relevant information.

172 – Psychosomatic and psychotherapeutic aspects in renal transplantation – a systematic review

Vitinius F, Berg M, Albus C

Department of Psychosomatic Medicine, University Hospital of Cologne, Germany

Background and aims: Within the context of the current development of the S3-Guideline “Consultation-liaison care for hospital patients with mental/psychosomatic disorders and emotional stress” and in the framework of a dissertation there has been conducted a systematic literature research to examine the prevalence of mental disorders in renal transplant patients and donors as well as possible interventions.

Methods: The databases Medline, Current Contents Medicine, Cochrane Database of Systematic Reviews, Cochrane Database of Abstracts of Reviews of Effectiveness, PsychInfo and Psynex were used in this research.

Results: Organ recipients show with 12-32% a high, above-average prevalence of depression in the postoperative time period, which is still less than those in patients undergoing hemodialysis treatment. The prevalence of anxiety in patients after renal transplant surgery is stated as of 15%. Though still under-average in comparison to healthy individuals a significant improvement of quality of life of patients after transplant surgery is reported by most of the clinical trials. Sleep

disorders were experienced by 30–62% of the patients and are associated with higher comorbidity, but with less negative impact on the quality of life than depression. The prevalence of sexual dysfunction after surgery is reportedly higher than average in both sexes. 45–56% of male patients suffer from erectile dysfunction although with little influence on quality of life. Half of the patients report pain in the postoperative time period, which leads to a decrease in quality of life and is associated with more severe depression. Non-compliance with oral drug-taking as a result of side effects of the immunosuppressive medication affects 15–28% of patients. This is associated with a highly elevated risk of loss of graft function. Compliance can be enhanced by motivation and fault analysis. Only few trials investigated apt psychosocial interventions for patients after renal transplant surgery. Those which did report the effectiveness of psychotherapy and mindfulness based stress reduction (MBSR) to reduce depression, anxiety and sleep disorders. Organ donors on the other hand report above-average quality of life after surgery, less mental distress and high acceptance of the decision to donate. Up to 99% of donors do not regret their decision, although 10–25% experience negative consequences such as of financial, health associated or familial character.

Conclusion: There is demand for more randomised controlled clinical intervention trials.

173 – Associations between depressive and anxiety disorders and characteristics with inflammatory markers

Vogelzangs N^a, Hester E Duivis HE^b, Zitman FG^c, Nolen WA^d, Beekman ATF^a, Smit JH^a, de Jonge P^{b,d}, Penninx BWJH^{a,d,e}

^a Department of Psychiatry & EMGO Institute for Health and Care Research, VU University Medical Center, Amsterdam, The Netherlands

^b Center of Research on Psychology in Somatic Diseases, Tilburg University, The Netherlands

^c Department of Psychiatry, Leiden University Medical Center, Leiden, The Netherlands

^d Department of Psychiatry, University Medical Center Groningen, Groningen, The Netherlands

Background and aims: Inflammatory markers have been linked to depression and to a lesser extent anxiety disorders, although appropriate confounder adjustment usually results in smaller effects. Role of clinical characteristics is still unclear. We examined whether depressive and anxiety disorders and characteristics were associated with inflammatory markers, controlling for a large set of possibly confounding factors.

Methods: Baseline data from the Netherlands Study of Depression and Anxiety included persons with current

(i.e. past 6-month) or remitted DSM-IV depressive or anxiety disorders (N=2290) and healthy controls (N=489). Assessments included clinical characteristics (type of disorder, age of onset, duration, severity, psychoactive medication) and inflammatory markers (interleukin-6 [IL-6], C-reactive protein [CRP]).

Results: Current depressive, but not remitted nor anxiety disorders, were associated with higher CRP after adjustment for sociodemographics (depression only: $\beta=.046$, $p=.05$; comorbid depression/anxiety: $\beta=.054$, $p=.04$). These associations disappeared after additional adjustment for lifestyle and somatic diseases (depression only: $\beta=.020$, $p=.34$; comorbid depression/anxiety: $\beta=.010$, $p=.68$). No associations were found with IL-6. Within currently depressed and/or anxious persons (N=1676), older age of onset was associated with higher CRP ($\beta=.056$, $p=.02$) and use of serotonin/norepinephrine-acting antidepressants was associated with higher IL-6 ($\beta=.052$, $p=.03$) and CRP ($\beta=.045$, $p=.04$) after full adjustment. Compared to other anxiety disorders, social phobia was associated with lower IL-6 ($\beta=-.063$, $p=.02$) and CRP ($\beta=-.067$, $p=.008$).

Conclusion: Within a psychopathology-based sample, no overall associations between depressive and anxiety disorders with inflammatory markers were found after full adjustment. However, persons with late-onset disorders and serotonin/norepinephrine-acting antidepressant users showed significantly elevated inflammatory marker levels.

174 – Cardiovascular disease in persons with depressive and anxiety disorders

Vogelzangs N^{a,b}, Adrie Seldenrijk A^{a,b}, Beekman ATF^{a,b}, van Hout HPJ^{b,c}, de Jonge P^d, Penninx BWJH^{a,b,d,e}

^a Department of Psychiatry

^b EMGO Institute for Health and Care Research

^c Department of General Practice, VU University Medical Center, Amsterdam, The Netherlands

^d Department of Psychiatry, University Medical Center Groningen, Groningen, The Netherlands

^e Department of Psychiatry, Leiden University Medical Center, Leiden, The Netherlands

Background and aims: Associations between depression, and possibly anxiety, with cardiovascular disease have been established in the general population and among heart patients. This study examined whether cardiovascular disease was more prevalent among a large cohort of depressed and/or anxious persons. In addition, the role of specific clinical characteristics of depressive and anxiety disorders in the association with cardiovascular disease was explored.

Methods: Baseline data from the Netherlands Study of Depression and Anxiety were used, including persons

with a current (i.e. past year) or remitted DSM-IV depressive or anxiety disorder (N=2315) and healthy controls (N=492). Additional clinical characteristics (subtype, chronicity, severity, psychoactive medication) were assessed. Cardiovascular disease (stroke and coronary heart disease) was assessed using algorithms based on self-report and medication use.

Results: Persons with current anxiety disorders showed an about three-fold increased prevalence of coronary heart disease (OR anxiety only = 2.70, 95% CI=1.31-5.56; OR comorbid anxiety/depression = 3.54, 95% CI=1.79-6.98). No associations were found for persons with depressive disorders only or remitted disorders, nor for stroke. Severity of depressive and anxiety symptoms - but no other clinical characteristics - most strongly indicated increased prevalence of coronary heart disease.

Conclusion: Within this large psychopathology-based cohort study, prevalence of coronary heart disease was especially increased among persons with anxiety disorders. Increased prevalence of coronary heart disease among depressed persons was largely owing to comorbid anxiety. Anxiety as risk indicator of coronary heart disease deserves more attention in both research and clinical practice.

175 – Posttraumatic stress disorder baseline measurement at Latvian contingent of international operations

Voicehovskis VV^a, Ancane G^a, Ivascenko T^a, Micans J^c, Skesters A^b, Vaivads N^c

^a *Psychosomatic Medicine and Psychotherapy dept., Riga Stradins University, Riga, Latvia*

^b *Biochemical Laboratory, Riga Stradins University, Riga, Latvia*

^c *Medical Support Centre, National Armed Forces, Latvia*

Background and aims: Contingent of International Operations (CIO) being on duty in Latvia, and during Peace Support Mission (PSM) suffers from stressors; sometimes Posttraumatic Stress Disorder (PTSD) develops. To measure the level of stressors and PTSD during PSM, it's necessary to know both PTSD level after returning from PSM and before PSM-Baseline (BL). PTSD BL is reported from 1.0 to 2.4% in deployed CIO of various countries. According to literature, there are difficulties in rating and interpreting because of inhomogeneous on a gender, race and age. The goal of the study is to measure PTSD BL in Latvian CIO.

Methods: Retrospective research of Latvian CIO before deployment in PSM. Totally 143 participants (males, Europeans, average age of 27.4) were examined. Worldwide-recognized questionnaires PCL-M were

used for PTSD evaluation. The questionnaire includes 17 questions, corresponding to DSM-IV. Respondents are asked about certain troubles during last month; the answers are evaluated by 5-point scale. PCL were worked out at PTSD National Centre, USA in 1993, "M" is military version. PCL-M has high correlations with Mississippi scale for Combat-related PTSD (0.93), PK Scale of the MMPI (0.77), Impact of Event Scale (0.90), has high Internal consequence coefficient (0.92-0.93).

Results: Answers of 2 respondents achieved necessary for PTSD diagnosis points amount, constituent 1.43% from valid questionnaires amount (n=140).

Conclusion: PTSD BL of Latvian CIO is lower than PTSD BL USA CIO (2.3-2.4%) and is close to PTSD BL UK CIO (1.5%). It means that Latvian CIO PTSD predisposition level is rather low.

176 – Posttraumatic stress and cardiovascular risk: Insight into psychobiological mechanisms

Von Känel R

Department of General Internal Medicine, Division of Psychosomatic Medicine, Inselspital, University Hospital Bern, Switzerland, and University of Bern, Switzerland

Background and aims: Posttraumatic Stress Disorder (PTSD) is a debilitating form of chronic psychological stress, which develops after exposure to a traumatic event. PTSD increases the risk of incident coronary heart disease (incl. myocardial infarction) and cardiac mortality. In addition, posttraumatic stress attributable to the traumatic experience of a heart attack occurs in up to 20% of post-myocardial infarction patients and worsens cardiac prognosis. The aim of this symposium contribution is to present the psychobiological mechanisms which might possibly link PTSD with cardiovascular risk.

Methods: We examined several psychophysiologic alterations pertinent to the development of atherosclerosis and acute coronary syndromes in plasma in two groups of patients with an interviewer-rated diagnosis of DSM-IV PTSD using the Clinician-Administered PTSD Scale (CAPS): i) otherwise healthy individuals with PTSD following an accident; ii) patients with PTSD caused by myocardial infarction. Appropriate non-PTSD control groups were also interviewed and assessed in terms of cardiovascular biology.

Results: Compared to non-PTSD controls, we found in patients with PTSD altered hypothalamic-pituitary-adrenal axis function (i.e., hypocortisolemia), chronic low-grade inflammation (e.g., increase in the pro-inflammatory cytokine interleukin-6 and decrease in the anti-inflammatory cytokine interleukin-4), endothelial dysfunction (e.g., increased soluble cellular adhesion molecules), dyslipidemia (e.g., reduced high-density lipoprotein cholesterol), and enhanced procoagulant

reactivity to a trauma-specific interview. Moreover, severity of posttraumatic stress was associated with coagulation activity at rest and prospectively with elevated liver enzyme levels indicating mild hepatic damage.

Conclusion: These data provide emerging evidence for psychobiological pathways linking posttraumatic stress and clinical PTSD with atherosclerotic cardiovascular diseases.

177 – Measurement of patient reported outcomes in psychotherapy research

Wahl I, Meyer B, Löwe B, Rose M

Institut und Poliklinik für Psychosomatische Medizin und Psychotherapie Universitätsklinikum Hamburg-Eppendorf & Schön Klinik Hamburg-Eilbek

Background and aims: Within the last decade, patient-reported outcomes (PRO) have become established outcome parameters in most medical disciplines internationally. In psychotherapy research PRO even serve as primary outcomes. The aim of this study was to get an overview on psychometric instruments, which are predominantly used in psychotherapy outcome research. **Methods:** We conducted a systematic literature review for randomized controlled trials that evaluated cognitive-behavioural therapies or psychodynamically orientated psychotherapies, published in English or German within the last year and listed in PubMed.

Results: 42 of 82 studies fulfilled our search criteria. Overall more than 100 different patient self-assessment tools and more than 20 expert-rating tools have been used. Around 10% of the studies assessed generic “higher-level” parameters as e.g. Health Related Quality of Life (HRQL), the majority focussed on the assessment of particular symptoms. Half of the 42 studies used the “Beck Depression Inventory” (BDI-I/-II, Beck, 1961/1966/1996), 6 studies assessed the “Hamilton Rating Scale for Depression” (HAM-D/HRSD, Hamilton, 1960), 7 studies used the “Symptom Checklist-90” (SCL-90/SCL-90-R/GSI, Derogatis, 1983), 7 studies used the expert-rated “Clinical Global Impression Scale” (CGI, Guy, 1976). 3 studies included HRQL measures for their outcome assessment.

Conclusion: Our search results show that generic “higher-level” parameters are rarely assessed in psychotherapy research, whereas outcome measurement primarily focuses on the assessment of symptoms. Hereby the BDI seems to play a major role. Overall, considerable heterogeneity of the instruments used in psychotherapy research significantly impedes a comparative interpretation of study results.

178 – Mental health status and quality of life of patients with autoimmune hepatitis

Wahl I, Weiler-Norman C, Schramm C, Rose M

*Institut und Poliklinik für Psychosomatische Medizin und Psychotherapie Universitätsklinikum Hamburg-Eppendorf & Schön Klinik Hamburg-Eilbek
I.Medizinische Klinik und Poliklinik, Universitätsklinikum Hamburg-Eppendorf*

Background and aims: Evidence about the mental status of patients with autoimmune hepatitis (AIH) is scarce. Our study aimed to assess the impact of AIH on the mental health status and the quality of life of those patients.

Methods: Consecutive patients with a diagnosis of AIH, treated in an outpatient clinic for liver diseases were asked to fill out a battery of validated self-assessment questionnaires, including the Patient Health Questionnaire (PHQ) and the SF-12. Clinical data were drawn from the electronic medical records.

Results: 114 patients with AIH participated, comprising 83% of all AIH-patients treated during the recruitment period of 15 months (age 50±18, 71% female). AIH-patients had significantly higher depression (PHQ-9: 6.2±5.7) and anxiety scores (GAD-7: 4.3±4.6) than the German general population (3.6±4.1 and 2.9±3.4, respectively). 12% of participants reported rather severe anxiety symptoms (GAD-7≥10), 11.3% fulfilled the criteria for a major depressive disorder in the PHQ. Overall, the mental health status of the patients was significantly reduced compared to the general population (MCS of SF-12: 46.9±10.2 vs. 49.9±10.1), not significantly differing from cancer-patients (47.7±10.7). Depressive symptoms were related to steroid medication (Prednisolon) (Spearman’s Rho=.22), but unrelated to all other laboratory findings (e.g. IgG, GOT) or biopsy.

Results: 29.3% of participants believed to be stigmatized as alcohol addicted, 54.3% expected to live shorter than others.

Conclusions: AIH significantly impacts the mental health of the patients, independent from their present medical condition. Dysfunctional health attributions may play a role to explain this finding and could be a target for psychotherapy.

179 – Body image in children with diabetes and children with bronchial asthma

Was M, Schier K

Faculty of Psychology, University of Warsaw

Background and aims: Diabetes and bronchial asthma are chronic diseases, sometimes classified as psychosomatic. They require permanent body control and are connected with physical ailments and pain. The aim of this study was to assess the body image in children

with diabetes and children with asthma, particularly – the satisfaction with the body and its parts and the differentiation of the body image.

Methods: The study on children with diabetes was carried out in a sample of 62 children aged 8–12: 31 children with diabetes and 31 healthy children. In the study on children with asthma 105 children took part: 29 with asthma and 76 healthy children. Participants were asked to fill in the semi-projective test KMBT-K.

Results: The results show that there are no differences in all aspects of body image in children with diabetes and in children with asthma in comparison to their healthy peers. If we take the gender into consideration, the analysis demonstrates that gender is a kind of mediator, which diversifies results in the group of children with chronic illnesses in comparison to healthy children.

Conclusion: Body image of children suffering from diabetes and children suffering from bronchial asthma are much alike. Inter-gender differences in body image may indicate a different way of coping with the disease by girls and boys. Possibly girls are more aware of their illness and have better access to emotions concerning their body. The boys could more often use the mechanism of denial to cope with their disease.

180 – Peer groups on history taking (Anamnesegruppen): Are they suitable for teaching doctor-patient-communication in the preclinical part of medical education?

Weil E, Willms LM, Brosch J, Hayer L, Koletzko L, Köllner V

Institut für Psychoanalyse, Psychotherapie und Psychosomatische Medizin, Medizinische Fakultät der Universität des Saarlandes, Homburg/Saar, Germany

Background and aims: Anamnesegruppen are a teaching format self-organized by students. They focus on teaching and reflecting doctor-patient-relationship and -communication. This study aims to address the question whether they are suitable for teaching doctor-patient-communication in the preclinical part of medical education.

Methods: Over a period of two semesters 5 groups with 50 students met for two hours a week. They were supervised by specially trained elder students (tutors). Experienced physicians carried out the final exam with standardized patients. In order to ensure objectivity and comparability to other courses the evaluation was carried out with a standardized questionnaire.

Results: 43 students (25f/18m, Age 19–30 years) attended the exam and completed the evaluation. Except for the expertise of the teachers the groups were rated at least half a grade higher than the average of the other preclinical courses. Differences of a whole grade

occurred at the learning success, the overall evaluation and the evaluation of the exam. In qualitative evaluation participants stated, that constant interaction with patients and the possibility for free discussion enhanced their motivation to continue medical education even during the excessively theoretical preclinical years.

Conclusion: Anamnesegruppen were well accepted, references to clinical cases as well as competence and dedication of the tutors were positively evaluated. In the exam students demonstrated very high interview competences. To prove that they support a change of mind towards a bio-psycho-social concept of medicine it would make sense to realize a longitudinal study with a control group.

181 – Social communication difficulties in survivors of childhood brain tumours

Weisblatt E, Beider J, Soo A, Smit J

*Department of Child and Adolescent Psychological Medicine, University College Hospital, London, UK
University College London Medical School, UK*

Background and aims: Children and adolescents who have been treated for brain tumours frequently display social difficulties, particularly with peer relationships. This is usually attributed to disrupted social networks and emotional sequelae of illness. Clinical referrals to the paediatric oncology liaison team at UCLH suggested however that some patients show long-standing social communication deficits of an autistic spectrum disorder (ASD) type. This has not previously been studied. An audit and pilot study was undertaken with two aims: 1) to screen brain tumour survivors for social communication difficulties suggestive of ASD; 2) to estimate their potential contribution to reported functional social difficulties.

Methods: The Strength and Difficulties Questionnaire (SDQ) (parents and patients over 11 years) and Social Communication Questionnaire (SCQ) (parents) were completed for patients in remission and attending out-patient oncology follow-up. SCQ is a validated screening tool for detecting symptoms suggestive of ASD.

Results: 61 patients participated. Mean SCQ score was 7.52, significantly greater than the highest normal population estimate of 4.5 ($p < .0005$). 5/61 scored above 15, (ASD strong possibility), and 11/61 scored ≥ 12 , (ASD assessment probably indicated). Only one patient had already been diagnosed with ASD. Total SCQ score was highly correlated with both parental and teenage SDQ social domain score (real-life functioning) ($p < 0.0001$).

Conclusion: ASD symptoms were common but not routinely detected in paediatric brain tumour survivors. They correlated highly with reported “real-life” social difficulties, so neuropsychiatric aetiology may be more

important than previously thought. Routine screening would improve prompt assessment and management of possible ASDs in this population.

182 – The C-L psychosomaticist as a teacher: Communication skills training for hospital physicians

Wentzlaff E, Gutberlet S, Stein B, Faulstich C, Zenkert B, Söllner W

Dept. of Psychosomatic Medicine and Psychotherapy, General Hospital Nuremberg

Purpose: Physicians often fail to identify patients with psychiatric co-morbidity and in need of psychiatric or psychotherapeutic intervention and therefore do not request CL-services. Moreover, poor communication skills of physicians often result in inadequate referrals of patients who should rather receive basic emotional support from their attending physicians. For these reasons, there is need for educating non-psychiatric physicians in order to enhance their communication skills.

Methods: Since 2004 the psychosomatic C-L service at the Nuremberg General Hospital offers 30-hour training courses to enhance physicians' communication skills. In each course, 8-12 physicians were trained using video analyses of real doctor-patient interactions and role-pays. The courses were evaluated by means of self-assessment questionnaires by the participants and feedback discussions.

Results: 16 courses were held and 8 courses with 78 participants were evaluated, so far. At the end of the course, 94% of the participants felt more competent to communicate with patients and their relatives and to handle difficult interactions. Three months later 70% of the participants felt that these effects could be maintained. C-L psychosomaticists made the experience that physicians who had attended the course performed more adequate referrals.

Conclusion: Communication skills trainings led by C-L psychosomaticists are feasible, well attended, and effective to enhance physicians' communication skills and cooperation with MH specialists.

183 – Application of the INTERMED for the elderly in epidemiologic settings for an integrative assessment of health care needs

Wild B, Herzog W, Lechner S, Maatouk I, Brenner H, Raum E, Müller H, Huyse F, Slaets J, Söllner W

^a Department of General Internal Medicine and Psychosomatics, University Hospital, Heidelberg, Germany

^b Division of Clinical Epidemiology and Aging Research, German Cancer Research Center, Heidelberg, Germany

^c Department of Internal Medicine and Geriatrics,

University Hospital, Groningen, Netherlands.

^d Hospital of the Free University, Amsterdam, Netherlands

^e Department of Psychosomatics and Psychotherapy, General Hospital, Nürnberg, Germany

Background and aims: The ESTHER study is a large German population-based epidemiological cohort study that investigates chronic diseases in the elderly population. Currently, a third follow-up is being carried out that includes home visits for 3 000 elderly persons. The aim of the study is was the development and evaluation of the INTERMED for the Elderly (IM-E) – an interview based on the original INTERMED - in assessing health care needs specifically in the elderly population; the IM-E should be easily applicable in the home visits of the ESTHER study

Methods: Variables and anchor points of the original INTERMED that had to be adjusted to the needs and situation of the elderly and to the demands of a population-based study were discussed and altered. Two trained raters conducted the final version of the IM-E with 42 elderly persons. Interrater-reliability (ICC(2,1)) was calculated. Interview acceptance was evaluated.

Results: ICCs for the various domains of the IM-E ranged between .87-.95. ICC for the sum score was .95. The IM-E was well accepted by the elderly persons interviewed. Study doctors of the ESTHER study have also reported that they increasingly appreciated the IM-E for its integrative assessment approach.

Conclusion: The IM-E is a reliable tool for the assessment of integrative health care needs in the elderly population. The alterations made led to a highly structured interview and scoring guide. The high acceptance of the interview reflects that the original INTERMED was developed to enhance communication between patients and health providers.

184 – SSRI use as risk factor for complications after breast reconstruction

Whitworth AB, Gruber S, Kemmler G, Papp C
Private Medical University Salzburg, Austria

Background and aims: Latissimus dorsi flap breast reconstruction is associated with a high incidence of donor site seromas. The aim of this study was to evaluate the effect of various risk factors related to incidence, volume and frequency of seroma aspiration.

Methods: A retrospective review of 87 breast reconstructions was carried out. Associations between potential risk factors and outcome (total drainage volume, number of aspirations, total seroma volume) were investigated on a descriptive level by means of correlational analysis and on an analytical level by multiple linear regression analysis.

Results: Correlation analysis showed an association of co-morbidity and higher BMI with larger seroma volumes ($p < 0.001$, linear regression). Patients receiving SSRIs also presented with significantly higher seroma volumes ($p = 0.047$, linear regression) - as was the case - at a trend level ($p < 0.1$) for postoperative hypertension, lower Ca-levels and a reduction in haemoglobin levels (before vs. after operation).

Conclusion: This study, besides observing the effects of well-established risk factors such as age, BMI and surgical operation techniques, identified new risk factors-in particular the perioperative use of SSRIs and the Calcium balance, which should be considered in patients' pre- and postoperative care.

185 – Anxiety and depression are related to severity of liver disease

Zamparutti G, Baccarani U, Basaldella E, Brambilla P, Cozzi MT, Ciano R, Lorenzin D, Balestrieri M

Department of Psychiatry, DPMSC, University of Udine
Department of General Surgery, DSC, University of Udine

Background and aims: Personality and affective dimensions have been detected as determinants of a poor therapeutic adherence in liver transplantation (OLT). Thus, it is pivotal to identify patients suffering from anxiety or depression in pre-transplant periods and, in particular, to determinate how physical pathology may

influence psychological features in order to develop good strategies for multidisciplinary intervention.

Child-Pugh classification is a measure that is routinely used to classify the severity of liver disease. The Child-Pugh grading of liver cirrhosis (grades A, B and C) includes clinical and laboratory parameters. The aim of this study is to investigate the correlation between dimensions of anxiety, depression and personality and Child-Pugh scores in OLT candidates.

Methods: We selected all consecutive candidates for OLT admitted to the Liver Transplantation Unit of the Teaching Hospital of Udine, Italy, from 2000 to 2004. Psychological evaluation was performed with the Cognitive Behaviour Assessment (CBA), version 2.0.

Results: One way Anova analysis revealed a significant relation between Child-Pugh scores and both depression (QD) and psycho-physiologic (QPF-R) scores. Post-hoc analysis revealed differences in depression scores between classes, with B and C having higher scores than A; no differences were found between B and C classes. There was a difference between B and A classes on the QPF-R scores, but no differences between C and B or A classes.

Conclusion: We found a relationship between Child-Pugh classification and both depression and psycho-physiological symptoms. Most of these relationships were due to differences between Child-Pugh A and B classes.