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## Telomere length is associated with childhood trauma in patients with severe mental disorders

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**Background:** Reduced Telomere Length (TL) and structural brain abnormalities have been reported in patients with Schizophrenia (SZ) and Bipolar Disorder (BD). Childhood traumatic events are more frequent in SZ and BD than in Healthy individuals (HC), and based on recent findings in healthy individuals could represent one important factor for TL and brain aberrations in patients. **Methods:** The study comprised 1,024 individuals (SZ [n=373]; BD [n=249], and HC [n=402]). TL was measured by polymerase chain reaction, and childhood trauma was assessed using the Childhood Trauma Questionnaire (CTQ). Diagnosis was obtained by the Structured Clinical Interview (SCID) for the Diagnostic and Statistical Manual of Mental Disorders-IV (DSM-IV). FreeSurfer was used to obtain regional and global brain volumes from T1-weighted magnetic resonance imaging (MRI) brain scans. All analyses were adjusted for current age and sex. **Results:** Patients had on average shorter TL ( $F=7.87$ ,  $p=.005$ , Cohen's  $d=.17$ ) and reported more childhood trauma experiences than HC ( $\chi^2=148.9$ ,  $p<.001$ ). Patients with a history of childhood sexual, physical or emotional abuse had shorter TL relative to HC and to patients without a history of childhood abuse ( $F=6.24$ ,  $p=.01$ , Cohen's  $d=.16$ ). After adjusting for childhood abuse, no difference in TL was observed between patients and HC ( $p=.27$ ). Our analyses revealed no significant associations between TL and clinical characteristics or brain morphometry. **Conclusions:** We demonstrated shorter TL in SZ and BD compared to HC and showed that TL was sensitive to childhood trauma experiences. Further studies are needed to identify the biological mechanisms of this relationship.

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## Social dreaming matrix and dream icons

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This work represents a way to observe the imaginary in cancer patients using the principals of social dreaming matrix in psychotherapy and “dreams icons”. Social dreaming has the following characteristics: allows rapid access to the unconscious and the subliminal thinking of the system; it is easy to learn and apply; leads to unexpected discoveries; is based on the self-management of the participants; is oriented towards systems. In this sense, every dream is a metaphor and a communication used to connect the representation and the affects between the therapist and the patient. Dream icons are visual images of dreams, which represent and condense fundamental unconscious meanings. Peculiarity of the icon is to visually construct the object, or psychological theme, which represents and is its origin, since it has the same nature and substance. The Social Dreaming Matrix is used in specific settings to map the share matrix in with therapists and clients work. The principal idea is to map the dreams icons that are generated into the field of work of the therapy. Because the cancer is a double the hypothesis is to create through the therapeutic relationship a way to represent it using dreams and metallization process. As the SDM creates a semantic space that is linked with the mind and the body space of the dreamers, this work in psycho-oncology could be a way to find the possible connection of the psychosomatic point of view of the work.

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## No evidence for particular association between HLA-haploidentical hematopoietic stem cell transplantation and psychological distress

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**Background:** The psychological distress experienced by patients scheduled for hematopoietic stem cell transplantation (HSCT) is of clinical concern. However, that experienced by patients scheduled for HLA-haploidentical HSCT (haplo-HSCT) vs. that of patients scheduled for other types of matched HSCT is unknown. We conducted a retrospective

study to clarify whether the type of HSCT influences the appearance of psychological distress in patients anticipating HSCT. **Methods:** One hundred fifty-seven patients who had undergone any of four types of HSCT at Tokyo Metropolitan Komagome Hospital between October 2013 and September 2016 and had completed the Profile of Mood States (POMS) questionnaire within 2 weeks before the procedure were included. We computed T-scores for the tension-anxiety (TA) and depression (D) subscales, took scores  $\geq 60$  to represent mood disturbance of clinical concern, and examined scores and other clinical variables in relation to each procedure. **Results:** Twenty-two (14.0%) patients had a POMS-TA score  $\geq 60$ , and 26 (16.6%) had a POMS-D score  $\geq 60$ . The numbers of POMS-TA and POMS-D scores  $\geq 60$  did not differ significantly with respect to age, gender, leukemia type, the number of previous transplants, disease status, comorbidity index, or transplant type. Multivariate logistic regression analysis confirmed absence of an influence of the type of HSCT on the incidence of POMS-TA or POMS-D scores  $\geq 60$ . **Conclusions:** Attention should be paid to the matter of psychological distress in patients with leukemia who will be treated by HSCT, even haplo-HSCT. Such patients need psychological support, especially during the waiting period immediately prior to the transplantation procedure.

#### 4 Resistance to antidepressants in OCD patients

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**Background:** Evidence-based treatments for Obsessive-Compulsive Disorder (OCD) are serotonergic antidepressants (SSRIs and clomipramine) and Cognitive-Behavioral Treatment (CBT). Pharmacological treatment is often offered to patients given the poor availability of CBT in many countries. However, many patients initially given antidepressants fail to respond to this approach. Our aim is to provide an estimate of resistance rates to SRIs and examine evidence-based treatment strategies for resistant patients. **Methods:** We performed a systematic review of all randomized placebo-controlled trials (RCT) in individuals with OCD resistant to an adequate antidepressant trial (in terms of compound – SSRI or clomipramine, dosage – medium-to-high, and time –  $\geq 12$  weeks). **Results:** 40-60% of individuals fail to respond to a first drug trial. Five strategies are supported by RCTs: 1) antipsychotic addition to SRIs; according to evidence-based criteria ( $\geq 2$  positive RCTs), clinicians should prioritize adding risperidone or aripiprazole, leaving haloperidol and olanzapine as second-line compounds; 2) CBT addition to medication; 3) switch to intravenous clomipramine administration, although it is often observed that patients do not maintain the response once switched to the oral form during the maintenance phase; 4) switch to another SRI; 5) the addition of medications other than an antipsychotic (mainly acting on the glutamatergic system) to SRIs, although replication studies for several compounds are needed. **Conclusions:** A significant proportion of patients fail to respond to a first antidepressant trial. Evidence-based strategies are available, although there is a strong need to

determine which strategy is indicated for which resistant patient.

#### 5 New frontiers in the long-term management of atopic dermatitis: an interdisciplinary approach

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**Background:** The Genetic and physiologic data support the idea of AD as a lifelong condition. Choosing an optimal treatment strategy in the long-term management of dermatitis is an important challenge in dermatology. There is still uncertainty about the optimal treatment strategy in terms of choice of treatment, potency, duration and frequency. Proactive therapy that typically, is done by using an anti-inflammatory treatment aims to prevent recurrent flares once the disease has been brought under initial control. The new frontiers in the long-term management of atopic dermatitis (AD) bring together theories from different scientific fields. The present work aims to present and discuss recent methods in the management of atopic dermatitis that integrate knowledge from mathematics, physics, and psychology. The applications of chaos theories in management of the emotion regulation, and their integration with AD emotional course will be presented. **Methods:** A single case intervention design, in the care of an adolescent long-term dermatitis, that put together medical, psychological, and physical theories will be presented. The psychological intervention that accompanied the anti-inflammatory medication consisted in eight months, weekly, 60-min sessions. Specific measurements were applied before, and to the end of the therapeutic intervention. **Results:** Improvements were indicated in global outcome measures, with reductions of the maladaptive emotional mechanisms, and improvement of the adaptive emotional mechanisms. An important result was the reduction of the dermatitis symptomatology (pruritus), reduction of avoidant behaviour, and improving the patient life quality. **Conclusions:** These results indicate the importance of using a multidisciplinary approach in the management of AD as a systemic disease.

#### 6 Promotion of the mental health of doctors – one of the educational tasks in psychosomatics and psychotherapy

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**Background:** Psychosomatic approach demands certain knowledge and skills, including the ability to understand one's own and others' emotional state. The emotional state of patients usually is burdensome for doctors. Our aim was to analyze some aspects of doctors' emotional well-being (mental health). **Methods:** Cross-sectional study, data from questionnaires of 68 doctors was analyzed. **Results:** About 41% of doctors feel gladness and satisfaction at work. There is a potential tendency - the less joy, the less the other feelings – fear, guilt, shame, interest, unpleasant surprise, disgust, anger,

contempt, satisfaction. There is a tendency for correlation between the ability of doctors to feel compassion and their drive to give hopes to the patients. 36% of physicians believe that doctor – patient therapeutic relationship does not differ from everyday communication. **Conclusions:** The emotional well-being of physicians is crucial for their work. The mental health of medical doctors should be supported more.

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## The medically unexplained versus somatically unexplained

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**Background:** An ambiguity of concepts persists in the field of medicine. The concept of medically unexplained seems very useful for devaluation of medicine as such and physicians. The issue is that some complaints are not explainable somatically, however, quite explainable with the understanding of the pathophysiology of emotions as a part of common physiological processes. It means they are explainable somatically. **Methods:** The objective was to analyze two clinical case reports of patients of Rīga Stradiņš University Psychosomatic Medicine and Psychotherapy Clinic. **Results:** Clinical picture, symptoms, frequency of hospitalization before and after treatment process, treatment process itself were analyzed. Psychodynamic psychotherapy treatment helps the patients to recover. Details will be shown in the presentation. **Conclusions:** The concept medically unexplained should be changed to somatically unexplained.

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## Practice of evergreening on psychiatric medications and its impact to consumers and society

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**Background:** A significant contributor to the ever-rising cost of healthcare is prescription medications. Individuals with mental illnesses are adversely impacted by the high cost of prescription medications because many forego their medications due to the high cost, resulting in increased morbidity and mortality for this very vulnerable population. In turn, this adversely impacts society through increased comorbidity, homelessness, and so on. Exacerbating the situation is the common pharmaceutical practice called, evergreening, whereby older medications, typically generic ones, are somehow rebranded or combined, and sold as non-generic preparations at significantly higher costs. **Methods:** A literature review was conducted to examine specific instances of evergreening of psychiatric medications and their associated increased costs. **Results:** Two medications were found as prime examples: doxepin and combined dextromethorphan and quinidine. The approximate monthly retail price for doxepin was \$549.93 for 3mg and \$553.93 for 6mg, whereas the monthly cost of the generic equivalent was only \$4.17 for 3mg and \$8.33 for 6mg. The approximate monthly retail price

for dextromethorphan 20mg & quinidine 10mg was \$1,338.57, whereas the monthly costs of the ingredients for the generic equivalent was only \$15.61 for dextromethorphan and \$9.00 for quinidine. **Conclusions:** Evergreening is a costly practice to consumers and the healthcare system that results in adverse impacts to individuals with mental illness and to society. Simple generic substitutions doses can result in considerable savings of money and lives. Federal regulations, pharmaceutical actions, and physician prescription practices can greatly curb or eliminate evergreening.

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## Psychiatric indication for choice of birth route?

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**Background:** Approximately 50% of all women with psychiatric disorders will become pregnant at some point in their lives. Overall, mental disorders increase risk for unplanned pregnancy, poor prenatal care and obstetric complications. In addition, peripartum period represents a critical phase for the onset and course of mental disorders and many women experience relapses, both on and off medication. Thus, there is a high probability of worsening of psychiatric symptoms at moment of delivery. This might complicate obstetric and neonatal management and lead to a hard challenge: choosing the birth route. **Methods:** Case report of patient with severe mania in labor. Additionally, we have interviewed 46 obstetricians from high-risk obstetric unit inside a general hospital to assess whether an acute psychiatric crisis has ever influenced their choice of birth route. **Results:** Ms. S, a 40-year-old bipolar patient, became pregnant and stopped her medications. Consequently, she developed a severe mania episode and was admitted to the psychiatric ward of a general hospital. The patient went into labor at gestational age of 36 weeks and 5 days. Despite initial improvement of mania symptoms, she maintained psychomotor agitation and delusions. Initially, the obstetrics team decided for caesarean delivery due to her mental state. However, after intervention of the multidisciplinary team, it was possible to perform vaginal delivery without complications. Data collection from obstetrics is still ongoing. **Conclusions:** The psychiatric presentation may influence the choice of birth route. Adequate healthcare implies an interdisciplinary approach and well-structured services. More research is needed to set evidence-based guidelines.

## Effects of trauma and abuse in antisocial personality disorder and substance use disorders

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**Background:** The experience of trauma and/or physical, emotional or sexual abuse were associated to the development of mental health problems. Antisocial behavior and substance use disorders has been associated to a personal history of trauma and abuse. The offender population is composed of individuals with extreme antisocial behaviors, substance disorders and a history of trauma and abuse. We aim to describe the differences between offenders with and without a history of trauma and abuse. **Methods:** We studied a sample of 136 male inmates with a battery of clinical and psychometric standardized instruments: The Mini International Neuropsychiatric Interview, the Psychopathy Checklist-Revised, the Addiction Severity Index - European Version, the Barratt Impulsivity Scale 11. **Results:** Offenders with a personal history of trauma have a lower initiation age of drug use, higher score in social dimension of EuropASI, lower score in antisocial facet of PCL-R than offenders without personal history of trauma ( $p < 0.05$ ). Offenders with a personal history of trauma were more likely to be single, to have children, and to have family history of psychiatric disease, than offenders without a personal history of trauma and abuse ( $p < 0.05$ ). In our sample, trauma was not correlated to antisocial personality disorder. **Conclusions:** The occurrence of trauma and/or abuse was related to a family history of psychiatric disorders where parenting could be inconsistent and less protective. The experience of trauma and/or abuse may change personality development either by disruption in interpersonal relations and by changes in the expression of substance use disorders.

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### Suicide attempts are predicted by severity of substance use disorders

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**Background:** The personal history of suicidal acts is associated with diverse psychopathology, namely depressive disorders, substance use disorders and personality disorders. The relationship between substance use antisocial personality and suicide attempts is not fully understood, and some authors suggest that suicidal ideation and acts could be a form of manipulative behavior. We intend to know the predictive factors of suicide attempts in a sample of individuals with

extreme antisocial behavior. **Methods:** We studied a sample of 130 male inmates with a battery of clinical and psychometric standardized instruments: the Mini International Neuropsychiatric Interview, the Psychopathy Checklist-Revised, the Addiction Severity Index - European Version, the Barratt Impulsivity Scale eleven's version and the Impulsive Premeditated Aggression Scale. **Results:** Individuals with a history of suicidal acts had higher scores in EuropASI, higher scores in facet 2 and 4 of PCL-R, lower scholarship, lower premeditated aggression, higher prevalence of family history of drugs and criminality problems, than individuals without a history of suicidal acts. Suicidal attempts were predicted by EuropASI total score ( $\text{ExpB}=3.22$ ,  $\text{CI}=1.85$ ,  $5.61$ ,  $p < 0.01$ ). **Conclusions:** In our sample, individuals with a history of suicidal attempts were very different from those without a personal history of suicidal attempts. Suicidal attempts were predicted by severity of substance use disorders. Internal resources to deal with emotional suffering could be reduced by substance which turn these individuals more prone to suicidal attempts.

## 12

### How PTSD and complex PTSD affect the family system: interpersonal and intergenerational ramifications of war trauma

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**Background:** In the aftermath of trauma not only the primary traumatized survivors' mental health is affected but often also their significant others. Among the most debilitating ramifications of trauma are Posttraumatic Stress Disorder (PTSD) and, according to ICD-11, the novel disorder of complex PTSD (cPTSD). The current study explores the contributions of PTSD and cPTSD to interpersonal trauma transmission within families. **Methods:** Israeli veterans from the 1973 Yom Kippur War, their wives and their adult offspring were assessed 30 (parents) and 42 (offspring) years after the war (parental dyads:  $n=216$ ; father-child dyads:  $n=123$ ). Selected items from the PTSD Inventory and the Symptom Checklist-90 were used to represent PTSD and cPTSD, respectively. Structural equation modelling (SEM) and stepwise linear regression were conducted to evaluate interpersonal trauma transfer. **Results:** For the parental dyads the model fit the data well. Trauma transmission from husbands to wives occurred via husbands' cPTSD symptoms, whereas their PTSD symptoms did not significantly contribute to wives' PTSD/cPTSD. For the father-offspring dyads, model fit was good, although the individual paths did not reach significance. A regression analysis among father-mother-offspring triads revealed that mothers' negative self-concept, a symptom cluster of cPTSD, significantly predicted offspring's PTSD beyond the effect of classic PTSD of both parents. **Conclusions:** The results suggest that cPTSD symptoms are more central for interpersonal trauma transmission than classic PTSD symptoms, particularly among spouses. In families of survivors that suffer from cPTSD, dyadic and systemic interventions may be indicated.

## 13

## Bifactor analysis of the 20-item Toronto Alexithymia Scale: replication in a community sample

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**Background:** The 20-item Toronto Alexithymia Scale (TAS-20) is the most widely used measure to assess alexithymia. There is some debate, however, about the best approach for using the total and subscale scores. Reise et al. estimated a TAS-20 bifactor measurement model in a student sample, concluding that TAS-20 total scores are reflective of a single construct, and that subscale scores do not provide unique information beyond total scores. Similar findings were reported by Gignac et al. in a study with a small community sample. The aim of the present study was an attempt to replicate these findings in a Canadian community sample (n=1,933). **Methods:** The TAS-20 scores from the community sample were subjected to a confirmatory factor analysis. Different models were estimated using robust indices to assess the best fitting model. **Results:** Robust model fit indices from the confirmatory bifactor model indicated that all TAS-20 items loaded significantly on a general factor of alexithymia and in addition on three subscale factors. However, the general factor (or total alexithymia score) accounted for most of the reliable variance compared to the three subscale factors. **Conclusions:** We were able to replicate previous confirmatory bifactor modelling of the TAS-20. The results from these studies and the results from our current investigation suggest that the majority of variance in the TAS-20 total scores are reflective of variation of a single alexithymia construct. Therefore, clinicians would be best to report total scores without concern that the subscale factor scores are not represented.

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## The development and validation of an informant version of the 20-item Toronto Alexithymia Scale:

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**Background:** The alexithymia construct was derived from clinical observations of psychiatric and psychosomatic patients; one salient feature includes a difficulty identifying feelings. The Toronto Alexithymia Scale (TAS-20) is a frequently used self-report instrument used to assess alexithymia. An apparent paradox of the TAS-20 is “how can a person rate an inability to describe feelings when lacking that ability”? Lane et al. argued those with low degrees of alexithymia can rate themselves accurately but those with high degrees of alexithymia are unreliable as a lack of emotional awareness impairs their ability to rate lack of awareness. In this study we address this paradox by developing an informant version of the TAS-20: the (TAS-20-IF). **Methods:** A team of experts constructed the items for the TAS-20-IF. We then

examined its psychometric properties. The participants included both targets (i.e., those who completed the TAS-20) and informants (i.e., those who completed the TAS-20-IF with the target in mind). **Results:** The internal reliability for the self-report TAS-20 and TAS-20-IF total scale were similar,  $\alpha=.82$ ;  $\omega=.87$  and  $.82$ ;  $.86$ , respectively. Congruency between the standardized factor loadings between the TAS-20 and TAS-20-IF were excellent, ranging from  $.885$  to  $.993$  across the three factor scales. **Conclusions:** We were able to develop a reliable and valid informant version of the TAS-20 (the TAS-20-IF). Clinicians and researchers are encouraged to use both versions in the clinical practice and research laboratories.

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## The myth of alexithymia subtypes: a latent profile analysis

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**Background:** Four subtypes of the alexithymia construct have been proposed based on differential response patterns to the Cognitive and Affective dimensions of the Bermond-Vorst Alexithymia Questionnaire (BVAQ). Previous studies investigating whether alexithymia subtypes can be statistically estimated have not found complete support for these specific subtypes. These previous studies, however, contained a number of methodological limitations such as relatively small sample sizes, considerations of only a limited number of proposed subtypes, and a lack of clarification for the justification of percentile cut-off scores associated with these proposed subtypes. **Methods:** In the present investigation, we examine whether the four proposed subtypes could be statistically detected in a large sample of undergraduates (N = 612) who completed the BVAQ, using Latent Profile Analysis (LPA). **Results:** Based on observed responses to the five BVAQ subscales and the two-higher order BVAQ dimensions, consistent with previous studies, our results did not find support for the four proposed alexithymia subtypes; rather, our results suggest that LPA solutions corresponding to individuals with various degrees of alexithymia ‘severity’. **Conclusions:** Although further studies are needed, especially with clinical samples, these results challenge the notion of four alexithymia subtypes and suggest that the implementation of these subtypes into various research studies is a premature endeavour.

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## The Analogical Symptom Assessment: Italian validation in a non-clinical sample.

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**Background:** The Analogical Symptom Assessment (ASA) is a multidimensional self-report questionnaire that assesses the general state of health as perceived by the subject. The instrument consists of seven questions on an analogical basis (a ten-centimeter line) in a single A4 page. The main advantages lie in considering dimensions usually neglected by

conventional questionnaires, such as the quality of relationships and the use of dysfunctional behaviors to control emotional dysregulation and psychological suffering. The ASA is a state measure, which can vary significantly because of existential changes or significant therapeutic interventions. It can be considered a thermometer of the general health state of the person. **Methods:** The criterion-related validity of the ASA has been studied in a sample of 150 subjects, representative of the Italian general population, distributed equally for sex and age group (20-34; 35-49; >50). The selection was made by snowball sampling. The following tests were administered to all subjects: ASA, SQ, and SCL-90-R. **Results:** Pearson's *r* correlation was analyzed comparing subscales and scales. All the indexes of scales that assess the same dimensions were significant ( $p < .01$ ). Factor Analysis highlighted in the ASA two latent variables: Internalized and Externalized suffering. According to the test-retest reliability, further studies are necessary. **Conclusions:** The ASA revealed good psychometric properties and adequate concurrent validity. Due to its simplicity, cost effectiveness and speed of its delivery system, it turns out to be a useful instrument both in clinical and research contexts.

## 17 The role of perceived stress in prenatal affective disorders and couple adjustment: an interdependence model

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**Background:** During the prenatal period both mothers and fathers are exposed to an increased risk of Perinatal Depression (PND). Our study investigated the role of perceived stress in the expression of prenatal depression and couple adjustment assuming a dyadic perspective to consider expectant parents' mutual psychological influence. **Methods:** A total of 116 heterosexual couples (232 individuals), at the third trimester of gestation, enrolled during a gynaecological visit at the Infermi Hospital of Rimini, filled out self-report questionnaires on depressive symptoms (CES-D), perceived stress (PSS), and couple adjustment (DAS). A dyadic perspective was applied using the Actor-Partner Interdependence Model. **Results:** One partner's perceived stress had a positive effect, especially among women, on depressive symptoms ( $p < .05$ ), and negatively on dyadic consensus ( $p < .001$ ), satisfaction ( $p < .001$ ), affectional expression ( $p < .005$ ), and adjustment ( $p < .001$ ). One expectant parent's stress had a negative effect on the other partner's dyadic satisfaction ( $p < .05$ ), affectional expression ( $p < .001$ ), and adjustment ( $p < .05$ ). Mothers' stress had a positive effect on fathers' depression ( $p < .05$ ). Although maternal levels of clinical depression were higher (22.4% of women scored above the CES-D clinical cut-off,  $p < .05$ ), 12.1% of fathers were at risk of experiencing PND. **Conclusions:** Prenatal stress may be an important risk factor related to depression and lower couple satisfaction at a dyadic level. Maternal stress, in particular, resulted harmful for both

partners' expression of PND. Future studies based on dyadic statistical models are required to investigate the impact of prenatal stress on couples' mental wellbeing both at individual and dyadic level.

## 18 The Analogical Symptom Assessment: validation in a sample of new parents during the prenatal period

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**Background:** The Analogical Symptom Assessment test (ASA) is a symptomatologic self-report questionnaire that assesses the general state of health as perceived by the subject. It consists of seven questions evaluated on an analogical basis (a ten-centimeter line). The aim of this study is to measure the psychometric characteristics of ASA in a sample of parents during the prenatal period.

**Methods:** A sample of new fathers and mothers (200 couples, 400 parents) at the VII-VIII months prenatal was involved in the study. All participants completed the following questionnaires: ASA, PAPA, CES-D, SCL-90-R, PSS and DAS. **Results:** Statistical analysis reported acceptable values of Cronbach's alpha both in mothers ( $\alpha = 0,76$ ) and fathers ( $\alpha = .67$ ). Spearman's correlation coefficient between subscales and general scales of the different tests was analyzed to assess the criterion-related validity of ASA. Findings revealed significant ( $p < .05$ ) and strong ( $r > .5$ ) association between indicators of anxiety, depression, anger, stress and somatic symptoms both in mothers and fathers. Results showed higher scores ( $p < .05$ ) in depression, anxiety, anger and somatic symptoms in mothers. Fathers reported higher scores ( $p < .05$ ) only for addictions and risky behaviors. **Conclusions:** ASA revealed good concurrent validity and internal reliability in mothers and fathers. It also appears capable of capturing some gender differences in the manifestation of suffering. Due to its simplicity, cost effectiveness and administration speed, ASA turns out to be a useful screening tool in clinical and in research contexts.

## 19 Somatic symptoms, risky behaviors and addictions in fathers evaluated by the Perinatal Assessment of Paternal Affectivity

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**Background:** Affective alterations in fathers occur differently than in women during the perinatal period. Depressive and anxiety symptoms in fathers tend to appear in comorbidity with stress, alteration of illness behavior and behavioral acting outs like addictions or anger attacks. The Perinatal Assessment of Paternal Affectivity (PAPA) is a new questionnaire for the screening of high-risk fathers during the perinatal period. It is the first instrument that takes into account the specific way in which males manifest perinatal symptoms.

**Methods:** The study involved a sample of fathers and mothers (200 couples, 400 parents) at the VII-VIII months prenatal. All participants completed the following questionnaires: PAPA, CES-D, SCL-90-R, ASA, PSS and DAS. **Results:** Preliminary findings concerning the psychometric properties of PAPA showed good internal consistency ( $\alpha=.76$ ) and concurrent validity ( $p<.05$ ). Analysis on dimensions of PAPA showed that stress and illness behavior are significantly ( $p<.05$ ) and moderately ( $.3<r<.5$ ) associated with anxiety, depression and general psychological suffering in fathers. Addictions and risky behaviors are significantly ( $p<.05$ ) and strongly ( $r>.5$ ) associated with anger and general psychological suffering. Fathers reported significantly higher risky behaviors and addictions ( $p<.05$ ) compared to mothers during the prenatal period. **Conclusions:** PAPA appeared as an effective screening tool for the assessment of perinatal paternal symptoms. Findings also revealed that it is essential to consider fathers' typical affective manifestations such as abnormal illness behavior, addictions, stress and risky behavior.

## 20

### The Analogical Symptom Assessment: validation study in a sample of patients in psychotherapy

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**Background:** The aim of this study is to measure the concurrent validity of the Analogical Symptom Assessment test (ASA), a multidimensional symptomatologic self-report questionnaire that evaluates the general state of health as perceived by the subject. Previous researches in non-clinical populations evidenced the good psychometric characteristics of this questionnaire, but this is the first study that assesses the validity of ASA in a clinical sample. **Methods:** The concurrent validity of ASA has been studied in a sample of 60 Italian patients (30 female and 30 males, aged 21-60) affected by different psychopathologic disorders and in treatment with dynamic psychotherapy conducted by three different therapists. For the diagnosis, DSM-5 and PDM-2 criteria were used. All the patients were given the following questionnaires: ASA, SQ, SCL-90R, IBQ, PDI and the DSM-5 Self-Rated Level 1 Cross-Cutting.

**Results:** Spearman's correlation coefficient, calculated to assess the criterion-related validity of ASA, evidenced

significant and strong association ( $p<.05$ ,  $r>.5$ ) between ASA scales and other indicators of anxiety, depression, irritability, somatic symptoms, general hypochondria, obsessive compulsivity and psychoticism. Statistical analysis confirmed acceptable values of Cronbach's alpha in male ( $\alpha=.76$ ) and female ( $\alpha=.70$ ) patients and in the total sample ( $\alpha=.72$ ). **Conclusions:** This study confirmed the good concurrent validity and internal reliability of ASA. This questionnaire permits a state measure, which can vary significantly because therapeutic interventions, and can be used as a thermometer of the general health state of the patients in clinical settings.

## 21

### One-year changes in capacity and participation in patients with schizophrenia and bipolar I disorder treated in community-based mental health services in Italy

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**Background:** Limitations in psychosocial capacities are a relevant outcome in patients with severe mental illness. The Mini-ICF-APP, a validated rating scale derived from WHO International Classification of Functioning, Disability and Health (ICF), can be used to monitor changes in capacity and participation restrictions over time. **Methods:** We recruited 100 consecutive patients with schizophrenia or bipolar I disorder. The assessment instruments included the Mini-ICF-APP and the Clinical Global Impression Scale (CGI). **Results:** Capacity/participation restrictions and psychopathology levels were all significantly improved at one year in each diagnostic group. Moreover, changes in Mini-ICF-APP factors (proficiency, relational capacity, autonomy) were significantly higher in patients who were improved or much improved (CGI-Improvement = 1, 2) compared with the others. A lower duration of untreated illness, higher baseline functional impairment and a higher decrease in psychopathology predicted a higher improvement in total Mini-ICF-APP. After controlling for the effect of these predictors, no difference between diagnostic groups was found. **Conclusions:** When a community-based treatment is effective in reducing symptom severity, a concurrent improvement is obtained in capacity and participation functioning. The Mini-ICF-APP was sensitive to change in psychopathology and therefore can be used in routine clinical assessments.

## 22

### Effects of pre-sleep cognitive intrusions on subjective sleep and next-day executive performance in insomnia disorder

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**Background:** Pre-sleep cognitive intrusions on next-day activities, proprioceptive and environmental stimuli are thought to trigger insomnia in neurocognitive models. Research showed that intrusive cognitions at bedtime may interact with sleep in determining next-day emotional functioning; their effects on cognitive functioning, however, is largely unknown. In this study, we tested the effects of pre-sleep cognitive intrusions on subjective sleep and next-day cognitive performance in 80 participants either with chronic insomnia or good sleepers. **Methods:** During a laboratory session, eighty participants (24.03±3.88, 76.3% females) completed the Pre-Sleep Cognitive Intrusions Inventory (PCII) about previous night pre-sleep intrusions. Previous night's sleep was assessed with a sleep diary. Cognitive functioning was objectively measured using the accuracy rate of the task switching paradigm assessing executive functions. Two structural equation models (SEM) were carried out in order to examine the effects of PCII on sleep diary variables and task switching accuracy. **Results:** In a first SEM model tested on the whole sample ( $YB\chi^2_{(N=80, df=4)} = 3.34, p = .50$ ), PCII scores partialled from trait-like anxiety component significantly predicted poor sleep. In a second multigroup SEM model ( $g1=30$  good sleepers and  $g2=50$  subjects with clinically insomnia,  $YB\chi^2_{(ng1=30, ng2=50; df=57)} = 57.92, p = .33$ ), PCII scores (controlled for trait anxiety) significantly predicted accuracy in the task switching performance only in the clinical group. **Conclusions:** Results show detrimental effects of pre-sleep cognitive intrusions on subjective sleep and suggest the presence of links between pre-sleep repetitive thinking and executive performance on the next day in individuals with insomnia.

### 23 Emotion regulation moderates the relationship between insomnia and depression

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**Background:** Robust meta-analytic evidence shows that insomnia is a risk factor for developing major depression disorder. However, the cognitive-emotional factors underlying this relationship are largely unknown. The ability to cognitively and behaviourally regulate emotion has been hypothesised to be a crucial factor. In fact, emotion dysregulation is a common daytime symptom of insomnia and is a key feature in depression. Here, we tested whether emotion regulation may moderate the relationship between insomnia and depression symptoms. **Methods:** Unselected University students completed the Insomnia Severity Index (ISI), the Beck Depression Inventory (BDI-II) and the Emotion Regulation Questionnaire assessing Cognitive Reappraisal (CR, the ability to cognitively restructuring a negative event in a positive manner) and Behavioural Suppression (BS, the tendency to inhibit the behavioural consequence of emotion). Moderation analysis was computed with ISI as independent variable, CR and BS as moderators and scores on BDI-II as outcome. **Results:** Data was collected from 463 (25.65±5.25 years, 92% females) participants. Conditional process modelling shows that the model was significant ( $F_{(1,452)}=17.68, p<.01$ ). Specifically, depression was predicted by both ISI\*CR ( $t=-5.28, p<.01$ ) and ISI\*BS ( $t=2.01, p<.05$ ) interactions, with

a significant  $R^2$  increase due to both interactions ( $p<.01$ ). **Conclusions:** Results support the moderator role of emotion regulation in the link between insomnia and depression. That is, the magnitude of the strength of the relationship between insomnia and depression is shown to increase at lowering levels of cognitive reappraisal and increasing levels of behavioural suppression. Longitudinal clinical studies testing this model and including further emotion regulation strategies are warranted.

### 24 Use of benzodiazepines in the medically ill

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**Background:** Anxiety is a frequent symptom in the medically ill, either as a reaction to their illness or as a co-occurring anxiety disorder. Treatment of anxiety in this population is complicated by patient sensitivity to side effects of various medications (e.g., selective serotonin reuptake inhibitors), lack of immediate relief of anxiety, and possible interactions of psychotropic medications with medications used to treat the underlying medical illness. This presentation will review the evidence of usefulness of benzodiazepines in the medically ill. **Methods:** Review of literature on the use of benzodiazepines in the medically ill. **Results:** Benzodiazepines have been found clinically useful in management of anxiety in cardiovascular diseases in several studies, especially in patients with comorbid anxiety disorders. Interestingly, benzodiazepines have been found to decrease the risk of mortality in patients with congestive heart failure, decrease the risk of mortality after a new myocardial infarction, and useful as an adjunct treatment of hypertension in various studies. Similarly, several benzodiazepines have been found helpful in relieving anxiety in functional gastrointestinal distress. Benzodiazepines were usually well-tolerated. **Conclusion:** Benzodiazepines are effective in relieving anxiety in a variety of medical illnesses. They could also help with accompanying sleep problems. Benzodiazepines' versatility, rapid onset of action, wide spectrum of duration (depending on selected agent), relatively favorable side effect profile, and low degree of interactions with other medications makes them uniquely suitable for treating anxiety in the medically ill.

### 25 Inner dialogue, intensification of psychosomatic symptoms and acceptance of disease

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**Background:** People are increasingly struggling with psychosomatic disorder, that is those, whose causes are in the psyche. The body takes over these disturbing issues, which have their origin in the psyche. It is possible that people cannot



trust other people and do not talk about difficult experiences. That may be associated with low level of insight or other variables. Reports from research of inner dialogues suggest, that conversation with yourself is a healthy occurrence. The aim of the study was to answer the whether there is a relationship between the type of inner dialogue and the symptoms intensity of the psychosomatic disorder? **Methods:** The research took place in the lubelskie, świętokrzyskie, podkarpackie province. A total of 68 people participated in the clinical questionnaire. 32 participants were diagnosed with the disorder. Respondents were between 41 and 57 years old, M=50, 72; SD=4, 20. A total of 36 people who were a group without diagnosis were between 42 and 55 years old, M=48, 69; SD=3, 93. To measure variable were used: Scale of the Intensity of Psychosomatic Symptoms, Acceptance of Illness Scale, Dialogue, Integration-Confrontation Questionnaire, author's survey. **Results:** There was not relationship between the type of inner dialogue and the intensity of psychosomatic symptoms. It turned out that the higher level of insight is associated with weaker severity of psychosomatic symptoms. **Conclusions:** The way of communication wasn't associated with the symptoms. The insight into the disease is important because of the weaker symptoms of the disease and the knowledge about it can be helpful in psychotherapy.

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## 26 African rituals

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Archaic African rites take us back to the first steps of the primary symbols of an emerging humanity. Like any living form, the body, through biologic and environmental communication, gives rise to the first inner sense of the Self (proto-Self). The language will allow humans access to biographical self-consciousness, parallel to the development of parental/social/cultural awareness. Still unstable due to the pressure of survival, mankind gained a collective identity on the ancestor's experience transferred orally, condensing it into myths and cults. Strengthened in rituals through the cyclic repetition of sequential actions, methods and structures, retracing the story of origins. More in the ritual a mind-body connection is realized, plus a broad register of social recruitment calls activate deep stimuli that tune the group. Functional to the ritual celebration is the hypnotic trance (ASC) that, by slackening the cerebral control system, opens up to the lower systems (memory, perceptions, emotions, identity, etc.), highlighting the aberrative needs canalizing them. The psychic energy will be directed towards new spaces, shared by the group setting of the tribal trance, typically fluctuating, as a superorganism of collective roots. The trance can infect the observer attracted by an inexpressible inter-human emotion of fusion, bearer of meaning, which frees access to states of deep liberation. The analysis of the intrinsic communication system of the archaic nature of African rituals that makes extensive use of sub-symbolic and symbolic-non-verbal codes in rite recorded in April 2019 in Kenya I presented. African celebration video registration explored by Wilma Bucci's Multiple Code Theory on communication compared to Marius Schneider musicological approach and Claude Lévi Strauss anthropologic view will be presented, showing how group hypnotic process works in ancient practice.

## 27 The unnamed symptom: a psychosomatic approach

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**Background:** F. is a 43-year-old man living with his mother that suddenly has some invasive physical symptoms. This honest man, never missed his work, was very involved and focused on his work, but in 2017 he had a sick leave because strong and invasive medical symptoms, namely intestinal problems, diarrhea and fatigue. **Case description:** It was impossible for him to leave his house, he was in bed for almost 2 months. At that time, he went to the general practitioner, and underwent several analyses and exams. Nothing was found, although the symptoms never totally disappear. Since that time, he went to several medical specialists, as rheumatologists, gastroenterologist, neurologist, and underwent invasive exams and numerous analyses, and no medical diagnosis was found. The encounter with the physicians was very frustrating and humiliating, never felt understood or valued in his suffering. He did find comfort in a general practitioner that had a different approach, with some nutritional indications, and changes in lifestyle. F. has a psychiatric history, with depression in 2000, but at that time he never stopped working, and although he had some invasive symptoms, as sadness, loss of interest in most things, irritability, he was resilient and could handle the situation. F. has had some psychotherapeutic approaches, mainly Cognitive Behavioral Therapy, focusing on the behavior change. He felt heard and valued by the psychotherapist, but at some point, he felt that the psychotherapy reached an impasse. Thus, he left most of this emotional support. **Conclusions:** F. is considered a difficult patient by most doctors, who frequently become irritated by his complaints and problems. Usually there is an incompatibility with the doctors, and F. leaves the room very angry and frustrated. There is no straight answer to his medical condition, and he never stopped looking for answer, or an explanation, or a name. But this fight his very demanding, very intense and very lonely. He needs a companion, he needs someone there for him, and he needs a relationship where he is a Person with a suffering, but he maintains his identity. Faced with this frustrating situation, a psychosomatic approach, that values his suffering, expressed in the physical domain, but also in his emotional world, can provide a relationship that potentiates hope and wellbeing.

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## 28 Psychosocial patterns stability in SLE patients

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**Background:** Our aim is to study the stability of psychosocial factors in SLE patients and its relationship with the clinical variables. **Methods:** A total of 100 sequential SLE patients

(ACR criteria) were enrolled at a faculty ambulatory specialized consultation. They were assessed by means of clinical interview, a life events interview (LEDS) and by the following questionnaires: TAS-20, AAS -R, BSI, and SF-36. A second evaluation occurred after one year (55 patients), regarding the same psychosocial factors. All patients were diagnosed according to criteria adopted internationally, the clinical variables assessed were: length of disease, SLICC, SLEDAI and medication. All patients were not compromised cognitively. **Results:** We observe significant levels of stressful life events (with a mean of 1.311 event per patient). We found high prevalence of alexithymia (59%), depressive symptoms (49%), insecure attachment, and somatization. After one year, the same patients exhibit levels of stressful life events (mean of 0.67). We also found stability in insecure attachment, in alexithymia (58%), depressive symptoms (53%), and somatization. In the first moment we only found significant statically correlations between SLEDAI and stressful life events. But in the second moment we did find significant associations between SLEDAI and psychopathological symptoms as somatization, anxiety and depression; also, with stressful life events and alexithymia. **Conclusions:** The association between stressful life events and clinical variables it is very important, highlighting the importance of understating what happened to the life of the SLE patients, and how they are dealing with it. The present results are interesting but confounding as they underline the complexity of this disease, of its presentation, of its course, and strengthens the unpredictability of the disease, that potentiates significant psychic suffering.

## 29 Infants' physiological responses during the Face-to-Face Still-Face at 3 months according to the patterns of attachment at 12 months

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**Background:** Patterns of organized behavior employed by infants to manage interactive stressful situations have been described in both attachment and Face-to-Face Still-Face (FFSF) research. The current study examined the infants' heart rate responses during the FFSF at 3 months according to the patterns of attachment at 12 months. **Methods:** One hundred and eight full-term infants and their mothers participated in the FFSF paradigm at 3 months and in the Strange Situation procedure (SSP) at 12 months. Infants' heart rate during the FFSF was assessed. **Results:** The results indicate that the heart rate of infants in the three patterns of attachment was

statistically higher at the still-face episode compared to the baseline, showing the typical still-face effect in terms of physiological responses. However, only the heart rate of secure infants recovered to baseline levels. The heart rate of ambivalent infants tended to increase even more in the reunion episode, while there were no statistically significant differences between the heart rate of avoidant infants at baseline and reunion as well as at still-face and reunion. Infants later classified as secure recovered baseline levels suggesting that the dyads were effective in repairing the interactive disruption. Inversely infants later classified as insecure ambivalent and insecure avoidant maintained or increased the heart rate levels in the reunion, showing the inefficacy of the dyadic system to repair and reestablish the interaction. **Conclusions:** The results suggest that infants develop a regulatory strategy in response to parental unavailability as early as 3 months that appear to be developmental precursors of attachment styles.

## 30 Predicting patterns of regulatory behavior in the still-face paradigm at 3 months

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**Background:** The current study addressed two aims: to describe different patterns of infant regulatory behavior during the Face-to-Face Still-Face (FFSF) paradigm at 3 months of age; to identify specific, independent predictors of these patterns from an a priori set of demographic data, infant (e.g., temperament), and maternal (e.g., sensitivity) variables. **Methods:** Analyses were based on data collected for 121 mother-infant dyads assessed longitudinally in the newborn period and again at 3 months. In the newborn period, infants' neurobehavior was evaluated using the Neonatal Behavioral Assessment Scale (NBAS) and mothers reported on their caregiving confidence and their newborns' irritability and alertness. At 3 months, mothers reported on their infant's temperament, and mother-infant interactions were videotaped during free play and the FFSF. **Results:** Three patterns of infant regulatory behavior were observed. The most common was a Social-Positive Oriented Pattern, followed by a Distressed-Inconsolable Pattern, and a Self-Comfort Oriented Pattern. Results of multinomial logistic regression indicated that categorical assignment was not associated with demographic or infant characteristics, but rather with dyadic regulatory processes in which maternal reparatory sensitivity played a crucial role.

**Conclusions:** Maternal sensitivity during an independent free play context discriminated the Social-Positive Oriented Pattern from the other regulatory patterns, whereas infant compliance-compulsiveness during free play was the strongest predictor of the Self-Comfort Oriented Pattern.

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### **Robust stability and physiological correlates of infants' patterns of regulatory behavior in the still-face paradigm at 3 and 9 months**

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**Background:** Previous research has suggested the existence of three patterns of regulatory behavior in the Face-to-Face Still-Face (FFSF) paradigm: Social-Positive Oriented, Distressed-Inconsolable, and Self-Comfort Oriented. The current study examined the stability of these regulatory patterns from 3 to 9 months and investigated whether variations in infants' heart-rate activity in each episode of the FFSF paradigm were associated with the three infant regulatory patterns at 3 and 9 months. **Methods:** One hundred and twelve healthy full-term infants and their mothers participated in a free-play task and in the FFSF when infants were 3 and 9 months old. Infant and maternal interactive behaviors were coded during free play and infants' regulatory patterns in the FFSF were coded with the Coding System for Regulatory Patterns in the FFSF. Infants' heart rate during the FFSF was also assessed. **Results:** The results indicate a significant stability of the regulatory patterns from 3 to 9 months. The heart-rate level of infants with a social-positive-oriented pattern at 3 and 9 months showed recovery to baseline levels following the still-face. In contrast, the heart-rate level of infants with a distressed-inconsolable pattern at 9 months increased from the still-face to the reunion episode, whereas the heart-rate level of infants with a self-comfort-oriented pattern at 9 months did not change from the still-face to the reunion episodes. **Conclusions:** These results suggest that infants exhibit distinct organized regulatory patterns as early as 3 months that are stable over a 6-month interval and associated with variations in infants' physiological responses across FFSF episodes at both ages.

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### **Effectiveness of a brief training program in relational/communication skills for medical residents**

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**Background:** Relational and communication skills are a central component of clinical competence and a cornerstone of quality of care. To assess the effectiveness of a brief training program in Relational/Communication Skills (RCS) for medical residents. **Methods:** This longitudinal study enrolled 64 medical residents who participated in a RCS training program in small groups. Teaching was based on interviews with standardized patients and reflective practice. Video-recorded consultations were coded according to the Verona-Coding-Definitions-of-Emotional-Sequences (VR-CoDES) and a coding system developed to assess ten communication skills for breaking bad news. The outcome measures were: independent raters' score in RCS for breaking bad news and the percentage of providing space and empathic responses, by comparing baseline (T1) skills with those after three-days (T2) and three-months (T3). **Results:** After the training program residents provided more space for further disclosure of cues and concerns according to VR-CoDES definitions. There were significant improvements in seven of the ten communication skills for breaking bad news. All of these improvements were observed either at T2 or at T3. **Conclusions:** This study demonstrates the effectiveness of a brief RCS training program designed to improve medical residents' ability to respond appropriately to patients' cues and concerns and to conduct a breaking bad news encounter.

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### **Group hypnosis in the treatment of psychological and somatic symptoms in adjustment disorder with study abroad university students**

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**Background:** This study describes the group hypnosis that was a tool in the treatment of psychological and somatic symptoms that are manifested with Adjustment Disorder in international university students, during the first months of their program. The students usually study abroad for 3 to 12 months. Many of these students go through a period of transition or stress. During this period, several symptoms can occur such as anxiety and worry about academic performance, restlessness or feeling on edge, fatigue, difficulty concentrating, muscle tension, headaches, and sleep disturbance. Headaches and muscle tension can become severe in some cases and pain can become chronic. In the treatment of Adjustment Disorder for these students, group hypnosis can be useful as a tool to experience a state of trance to find ways of dealing with the symptoms, especially headaches and muscle tension. **Methods:** A total of 76 students participated to the study. They were assessed via the Mental Health Check List for International Students Revised (MHC-r). This is a

checklist of current symptoms and past history for international university students. The students were randomly assigned to group 1, which received a solution-oriented counselling with hypnosis, or to group 2, which received counselling without hypnosis. Both groups had for 4 sessions. **Results:** symptoms decreased in groups receiving hypnosis.

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### Comparing the contribution of psychological inflexibility and coping measures to explain adjustment to cancer

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**Background:** Psychological inflexibility (PI) is a core construct in Acceptance and Commitment Therapy. It refers to the inability to persist or change behavior in the service of chosen life values. PI is related to enhanced psychological distress (PD) and diminished psychological well-being (PWB) in patients with cancer. However, little is known about the predictive power of PI over well-established predictors of adjustment such as coping among patients with cancer. This study compared the relative utility of PI and coping in predicting PWB and PD. **Methods:** Participants were 128 patients with cancer (86.6% females; mean age = 50.6; SD = 9.8) recruited from the Oncology and Breast Cancer Centres of the Santa Chiara Hospital of Pisa (Italy). Participants completed self-report measures of PI (Action and Commitment Questionnaire-II, AAQ-II), coping (Brief COPE Inventory), PD (Hospital Anxiety and Depression scale), and PWB (Psychological Well-Being Scale). **Results:** The results from Hierarchical Regression Analyses indicated that PI significantly contributed to explain PD and PWB above and beyond measures of coping. Furthermore, while coping scores accounted for 9.2% to 23% of the variance in PD and PWB scores, PI accounted for 22% to 35% of the variance in outcome measures. **Conclusions:** Findings support the incremental validity of PI to explain adjustment to cancer above and beyond coping. Furthermore, findings suggest that PI (as measured by the AAQ-II) is a more useful construct than coping (as measured by the Brief COPE) to predict PD and PWB in patients with cancer.

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### Use of the Diagnostic Criteria for Psychosomatic Research in a sample of overweight or obese patients with type 2 diabetes

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**Background:** Psychosocial variables may impact the development and management of medical illnesses. The DCPR provide a conceptual framework for the assessment of psychosomatic variables, allowing identification of 14 psychosomatic syndromes. The aim of this study was to report the prevalence of DCPR syndromes in a sample of overweight or obese patients with type 2 diabetes, and to examine the relationship between these syndromes, distress, well-being and quality of life. **Methods:** A total of 55 eligible patients were administered: the SCID for the assessment of DSM-5 diagnoses and the exclusion of patients with severe and/or untreated mental disorders; the revised version of the semi-structured interview for DCPR; and self-rating scales for the assessment of lifestyle and levels of psychological distress, well-being and quality of life. Analysis of variance was implemented to evaluate differences between groups. **Results:** Minor depression and anxiety disorders were present in 10.9% and 9.1% of the sample, respectively. At least one DCPR syndrome was identified in 80% of the sample. Alexithymia (49.1%), allostatic overload (27.3%), illness denial (25.5%), demoralization (20%) and type A behavior (20%) were the most common DCPR syndromes. Worse lifestyle habits were associated with the presence of allostatic overload, alexithymia and type A behavior. Furthermore, patients who were diagnosed with allostatic overload, demoralization and alexithymia reported higher levels of distress and lower levels of well-being and quality of life when compared to those without these syndromes. **Conclusions:** The association between DCPR syndromes, poor lifestyle choices, and psychological distress may guide the identification of specific targets for behavioral interventions.

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### Well-Being Therapy and the promotion of lifestyle changes in metabolic syndrome: a case report

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**Background:** Psychological distress and well-being impairment are commonly observed among patients with chronic conditions and represent important obstacles to behavioral change. Well-Being Therapy (WBT), an innovative short-term psychotherapeutic strategy that emphasizes self-observation of psychological well-being and is aimed at achieving a state of euthymia, may help to improve medical outcomes by managing the limitations and challenges related to chronic medical conditions, and by promoting healthy attitudes and behaviors. This case report illustrates the potential role of WBT in promoting lifestyle changes in patients with metabolic syndrome. **Methods:** A middle-aged obese woman with type 2 diabetes, hypertriglyceridemia, borderline hypertension, displaying high psychological distress and low levels of well-being, received 4 weekly sessions focused on psychological well-being followed by 12 weekly sessions focused on lifestyle modifications, according to a structured protocol. The objective of the intervention was to promote psychological well-being in order to facilitate lifestyle changes, manage both psychological and somatic complaints, and improve health-related outcomes. **Results:**

After 4 months the patient achieved significant weight loss and reduction of hemoglobin A1c levels. Therapeutic gains were substantial, with a reduction in affective symptomatology, somatic complaints, and sleep problems. Notable improvements were observed in all dimensions of well-being, including those that were not specifically addressed by the intervention. **Conclusions:** WBT may have a role in promoting lifestyle changes. WBT may contribute to improved health attitudes and behaviors as a result of its effect on reducing stress and related psychological distress.

### 37 Sleep deprivation, neuroplasticity and psychopathology

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Sleep and sleep deprivation modify brain plasticity in opposite manner. The most advanced technologies (brain imaging and supermicroscopic images) have recently allowed to discover the morphological changes in different brain areas during sleep and sleep deprivation. These studies have also shown that cortisol and melatonin are the two most important hormones involved in these plastic changes of the brain. In the presentation will be discussed the functional relationship between the brain morphological changes and the vulnerability to psychopathology.

### 38 Inter-rater reliability of the DID-W1 clinical interview

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**Background:** It is known and widely recognized that the reduction or discontinuation of Selective Serotonin Reuptake Inhibitors (SSRIs) and selective serotonin and noradrenaline reuptake inhibitors (SNRIs) may induce withdrawal. In 2015, Chouinard and Chouinard proposed a new literature-based classification by formulating specific diagnostic criteria for three different SSRI/SNRI withdrawal syndromes: new withdrawal symptoms, rebound symptom withdrawal, persistent post-withdrawal disorders. A semi-structured clinical interview, the Diagnostic Clinical Interview for Drug Withdrawal 1 - New Symptoms of SSRI and SNRI (DID-W1), was developed for identifying and differentiating such syndromes. The present study was conducted to test the inter-rater reliability of the DID-W1 and the Discontinuation-Emergent Signs Checklist (DESS). **Methods:** A total of 47 subjects with a history of SSRI or SNRI reduction or discontinuation were enrolled through the web and assessed by two independent raters with the DID-W1 interview. The inter-rater reliability was measured by percent agreement, Cohen's kappa, and the squared correlation coefficient. **Results:** The percent agreement for the whole interview was 93.6%, the Cohen's kappa .871 (95%CI .73-1.00), the squared correlation coefficient .75. Similar results were found analysing each module of the DID-W1. **Conclusions:** Kappa values and the

squared coefficient showed excellent inter-rater agreement. The DID-W1 may help diagnosing the clinical conditions related to SSRI and SNRI discontinuation and differentiating withdrawal syndromes from relapse and recurrence of the original illness. Thus, it may be considered as a resource for clinical assessment and treatment optimization.

### 39 The relationship among the health-related quality of life, illness severity, personality and psychiatric symptoms in patients with psoriasis: an empirical investigation

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**Background:** Psoriasis is a complex and chronic inflammatory skin disorder. The mechanisms underlying this immune-mediated disease are not clear, but some evidence indicates that specific personality features and symptom patterns may play an important role in the development and clinical presentation of the disorder and influence the quality of patients' lives. This study aimed at evaluating the associations among the quality of life, illness severity, psychiatric symptoms and personality patterns in patients with psoriasis treated with biological or topical therapy. **Methods:** Fifty psoriatic patients were evaluated with self-report measures: the Symptom Checklist-90-R (SCL-90R) and the Psoriasis Index of Quality of Life (PSORIQoL). Their personality and psychological functioning were assessed by external raters using the Shedler-Westen Assessment Procedure (SWAP-200) applied to the Clinical Diagnostic Interviews (CDI). Finally, the severity and the area of psoriatic lesions were evaluated by dermatologists with the Psoriasis Area Severity Index (PASI). **Results:** Significant differences between the groups (biological vs topical therapy) were found in PASI scores: patients assigned to biological therapy showed lower levels of illness severity. No differences were found in PSORIQoL scores. The quality of life was negatively associated with various dimensions of SCL-90R and with borderline ( $r = .39$ ;  $p < .01$ ), dependent ( $r = .41$ ;  $p < .01$ ) and avoidant ( $r = .35$ ;  $p < .05$ ) personality styles/disorders; conversely, it did not relate to PASI. **Conclusions:** The results seem to suggest that the quality of life in psoriatic patients is more influenced by personality characteristics and psychiatric symptoms than by the severity of psoriatic lesions.

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## WBT as augmentation treatment after CBASP in 27-year old women with dysthymic disorder

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**Background:** A 27-year old female patient with an early onset dysthymic disorder was treated with the Cognitive Behavioural Analyses System of Psychotherapy (CBASP), which is an evidence-based treatment specially developed for the specific pathology of persistent depressive disorders. After a significant symptom reduction, Well-Being Therapy (WBT) was augmented. A total of 60 sessions (8 sessions WBT) were conducted. **Case description:** In the first 50 CBASP-sessions, the repetitive interpersonal avoidance patterns in the patient's life could be associated with negative interpersonal learning experiences derived from the Significant Other History (SOH). The use of contingent personal reactions and situation analyses helped her to better communicate her own needs. Starting at session 51, the wellbeing concept was introduced. In combination with the situational analyses from CBASP the observer perspective helped her to sustainably experience moments of wellbeing. The focused work on the dimensions of personal growth and environmental mastery enabled the patient to establish her first romantic relationship with a man in eight years. In a follow-up session (FU) after six months, she was still in this romantic relationship and maintained the significant symptom reduction (BDI-II score pre 13, post 4, FU 5). **Conclusions:** The augmentation of CBASP with WBT has been feasible and helped the patient to build on the CBASP-specific improvements by developing a more balanced level of personal wellbeing. There are some treatment elements in both approaches that can be easily combined, e.g. interrupting thoughts and the SOH. The approach described might be helpful for other patients with dysthymic disorders.

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#### Are experiences of childhood maltreatment in elderly patients with mental disorders connected with current interpersonal problems?

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**Background:** Experiences of Childhood Maltreatment (CM) are very common among people who suffer from mental illness in adulthood, especially in disorders defined by interpersonal problems such as personality disorders or chronic depression. However, the importance of CM for the development and maintenance of mental disorders in older patients seems unclear. Although some older patients report CM, there is evidence that older patients more often trivialize these experiences. The aim of this study is therefore to clarify the relationship between CM and current interpersonal problems in older people, considering trivialization

tendencies, social desirability, social support and sociodemographic variables. **Methods:** Elderly inpatients of gerontological psychiatric wards in various hospitals and healthy elderly people are asked to complete the Childhood Trauma Questionnaire (CTQ) and the Inventory of Interpersonal Problems (IIP-32). Moreover, participants complete questionnaires on sociodemographic variables, social desirability, and social support. Sufficient cognitive-mnemonic abilities (MMST>26) are considered in the inclusion criteria. Exclusion criteria are a dementia diagnosis or other organic mental disorders. MANOVA and regression analysis are conducted to answer the research question. **Results:** First interim statistical analyses of the current data collection show no significant differences in the reported CM between elderly patients (n=24) and healthy controls (n=33). Furthermore, no significant difference in tendencies of trivialization can be observed. Only in the healthy control group, social desirability is identified as a predictor for trivialization tendencies. **Conclusions:** The present results are only preliminary and show no statistically significant differences.

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#### Body Appearance (dis)Satisfaction Scale: psychometric properties

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**Background:** The self-perception of overall body appearance can affect in a positive or negative way the attitudes of an individual towards his or her lifestyle behaviors. Body appearance dissatisfaction is considered a risk factor for the development of eating disorders, body dysmorphic disorders, and depression. The aim of this study was to assess the psychometric properties of a self-rating scale developed to evaluate perception of body appearance among Brazilian university students. **Methods:** A sample of 1,000 participants responded to the Body Appearance (dis)Satisfaction Scale (BAS) (mean age: 20.9 years, body mass index: 23.2 SD=3.97kg/m<sup>2</sup>, females=64%). Exploratory Factor Analysis (EFA) was performed using principal component method. Confirmatory Factor Analysis (CFA) was performed using the chi-square to degrees of freedom ratio ( $\chi^2/df$ ), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and Root Mean Square Error of Approximation (RMSEA). Ordinal alpha coefficient ( $\alpha$ ) was calculated. All estimates were calculated for the total sample and for female and male subgroups. **Results:** The results of the EFA and CFA did not support the single-factor model (24-item) of the scale. A two-factor model (Facial Dissatisfaction and Body Appearance Dissatisfaction) with 19 items was found to have adequate validity ( $\chi^2/df=3.87-9.75$ ; CFI=.922-.958; TLI=.912-.952; RMSEA=.090-.096) and reliability ( $\alpha=.916-.948$ ) for the total sample and the for the two subgroups. The scale was renamed Body Appearance (dis)Satisfaction Scale Revised (BAS-R). **Conclusions:** BAS-R was validated and can be used in future studies to evaluate self-perceived body appearance among university students.

### Aspects related to negative affectivity in adults

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**Background:** Negative affectivity is an individual's predisposition to experience negative emotions, such as depression, anxiety, and stress conditions that might be associated with pain, chronic diseases, insomnia, and other conditions. The objective of this study was to estimate the contribution of these characteristics to negative affectivity in adults. **Methods:** A total of 1,167 individuals (78.9% women, age: 38.6 years) participated in this study. Negative affectivity was assessed using the Depression, Anxiety and Stress Scale that had been fitted to the sample (CFI and TLI=.98, RMSEA=.06,  $\alpha$ >.90). Information such as sex, age, presence of pain, insomnia, chronic illness, work activity, religion and economic level were collected. A multiple logistic regression model was developed to estimate the association of depression, anxiety, and stress with the characteristics of interest. Odds ratios (OR) and 95% confidence intervals were calculated. **Results:** The prevalence of depression (D), anxiety (A) and stress was 12.7%, 15.0% and 9.9%, respectively. Religion was a protective factor for depression (OR: 0.59, 95%CI 0.36-0.99) and anxiety (OR: 0.57, 95%CI 0.35-0.93). The presence of pain (D: OR: 2.43, 95%CI 1.44-4.11; A: OR: 1.90, 95%CI 1.19-3.03), chronic disease (D: OR: 1.58, 95%CI 1.08-2.30; A: OR: 1.65, 95%CI 1.15-2.36), insomnia (D: OR: 2.52, 95%CI 1.73-3.68; A: OR: 3.87, 95%CI 2.70-5.54), and high economic level (D: OR: 1.90, 95%CI 1.24-2.90; A: OR: 1.97, 95%CI 1.32-2.94) were risk factors. Only pain (OR: 1.95, 95%CI 1.13-3.37) and insomnia (OR: 2.63, 95%CI 1.74-3.96) were risk factors for stress. **Conclusions:** The presence of pain and individual factors were associated to negative affectivities and should be considered for a comprehensive assessment and management of these emotional conditions.

### Influence of negative affectivity and body mass index on eating behavior

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**Background:** Eating behavior is influenced by individual actions determined by biological, social, and emotional

characteristics. Investigating aspects related to this process can help guide policy makers and programs. The objective of this study was to estimate the impact of negative affectivity and body mass index (BMI) on aspects related to eating behavior of Brazilian university students. **Methods:** Nine hundred and sixty students (65.2% women) completed the Three-Factor Eating Questionnaire (TFEQ-18) and the Depression, Anxiety and Stress Scale (DASS-21), which measures negative affectivity. To estimate the impact of negative affectivity and BMI on eating behavior, a structural equation model was elaborated with cognitive restriction (CR), eating disorder (AD), and emotional eating (AE) as dependent variables. **Results:** TFEQ-18 and DASS-21 presented adequate fit to the sample. The mean BMI of the participants was 24.19 (SD = 3.94) kg/m<sup>2</sup> for men and 22.77 (SD = 3.88) kg/m<sup>2</sup> for women. A positive and significant ( $p < .05$ ) impact was found for negative affectivity in AD and AE for both sexes (women:  $\beta$  .16-.27; men:  $\beta$  .28-.42). This impact was significantly greater among men. BMI also had a significant impact on eating behavior (women:  $\beta$  .25-.35; men:  $\beta$  .13-.33;  $p < .05$ ) and individuals with higher BMI had a higher prevalence of CR, AD, and AE. **Conclusions:** The results suggest that negative affectivities and body composition are important factors in eating behavior and should be investigated for the elaboration of effective educational, preventive and treatment actions for health and well-being maintenance.

### Cultural adaptation and psychometric properties of Attention to Body Shape Scale to Portuguese language in adults

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**Background:** Body image is a multifactorial concept that has affective, cognitive, and behavioral components. Among cognitive components, the excessive attention towards one's body may favor the development of eating disorders and lead to dissatisfaction with body shape. The objective of this study was to perform a cultural adaptation and assess the psychometric properties of the Attention to Body Shape Scale (ABS) to Portuguese language. **Methods:** Face and content validity were measured. A pre-test was conducted to verify the appropriateness of the Portuguese version ( $n=58$ ). Then, 442 Brazilian adults (76% women, age: 26.2±6.0 years) were recruited and construct validity was evaluated using confirmatory analysis and the chi-square by degrees of freedom ratio ( $\chi^2/df$ ), comparative fit index (CFI), goodness of fit index (GFI), and root mean square error of approximation (RMSEA). Reliability was evaluated by Cronbach's alpha ( $\alpha$ ). **Results:** The Portuguese version was considered adequate by the specialists. In the pre-test, item 3 ("self-conscious") was found difficult to understand and was revised. The fit of ABS was adequate for the sample ( $\lambda=.28-.81$ ,  $\chi^2/df=2.93$ , CFI=.96, GFI=.97, RMSEA=.07). Item 3 had a low factorial weight ( $\lambda = .28$ ) and was excluded. The fit of the refined model ( $\lambda=.52-.80$ ;  $\chi^2/df=3.43$ ; CFI=.97; GFI = .97; RMSEA=.07) and the

scale reliability ( $\alpha=.83$ ) were adequate. **Conclusions:** The Portuguese version of the ABS is valid and reliable for assessing attention to body shape in adults in Portuguese-speaking populations.

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### Relationship between employment sector and cancer diagnoses

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**Background:** The purpose of this study was to investigate a potential relationship between employment sector and reported history of cancer diagnoses, and to understand potential mediating variables which may influence mental and physical health. **Methods:** Participants were selected from the Midlife in the United States (MIDUS) database. The sample ( $n=32,308$ ) consisted of primarily female (59.9%), older adults aged (age:  $74.15\pm 6.681$  years). Participants were partitioned into groups by employment sector: Private ( $n=23,989$ ), Federal ( $n=1,326$ ), State ( $n=2,264$ ), Local Government ( $n=2,077$ ), Self-Employed ( $n=2,534$ ), and Working Without Pay ( $n=118$ ). Covariates of sex ( $p=.014$ ), age ( $p<.001$ ), marital status, and region ( $p=.008$ ) were analyzed. **Results:** A Univariate analysis revealed a statistically significant omnibus effect of employment sector related to cancer diagnoses ( $F[5,32298]=5.361$ ,  $p<.001$ ). Further exploration of the pairwise comparisons revealed Federal Workers with statistically significant higher rates of cancer versus employees in a private company ( $MDifference=-.028$ ,  $p=.005$ ) and self-employed individuals working in their own business ( $MDifference=-.038$ ,  $p=.001$ ). **Conclusions:** Results from the current study revealed older adults employed in federal government positions, and those working without pay in family-owned businesses, may be at a statistically higher risk for a cancer diagnosis. With an estimated 2 million federal workers and nearly 2 million cases of cancer diagnosed each year, further research focused on well-being, and removing barriers for integrated healthcare, becomes imperative for a healthy and productive workforce.

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### The need of including partners into WBT – clinical case presentation of WBT as a second-line treatment in a patient with treatment-resistant persistent depressive disorder

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**Background:** Mrs. W. (59 years, married) previously has suffered from persistent depressive disorder (with severe childhood maltreatment) and somatic problems. Due to many unsuccessful psychotherapeutic and medication treatments, she was considered treatment-resistant. In 2015, she completed the Cognitive Behavioral Analysis System of Psychotherapy (CBASP) as an inpatient treatment, which led to remission for the first time since 1994. Afterwards, she visited a CBASP self-help group. However, as her condition was fluctuating due to residual symptoms, a 4-session outpatient Well-Being

Therapy (WBT) was conducted to prevent recurrence. **Case description:** Mrs. W. found the change in focus from distress to well-being helpful. Thus, she kept her structured WBT diary continuously and detailed. The entries underlined that she was in an ambivalence conflict, on the one hand to sacrifice her needs for those of others (WBT-domain Positive Relationships: excessive level) and on the other hand to want to resist to social pressures promoting autonomous areas in her life (WBT-domain Autonomy: impaired level). By cognitive restructuring of interfering thoughts and behaviours she learned to pay more attention to her needs and realized that the "give and take" in relationships is not balanced it is helpful to distance herself. Because she consequently pursues autonomous well-being moments and optimal experiences, conflicts with her husband occurred more frequently. **Conclusions:** As a second-line treatment, WBT complemented the previous CBASP very effectively (BDIpre 9, BDIpost 4). However, as her change had immediate systemic effects on her marriage, we are currently conducting a modified 8-session couple-WBT.

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### The role of Well-Being Therapy in treatment of couples

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Well Being Therapy (WBT) is an innovative approach that enriches the psychotherapy landscape by focusing on well-being instead of ill-being or distress. Through short-term and intensive self-therapy, the patient often very quickly changes habits as well as patterns of thought and behaviour in order to integrate Well-Being moments into everyday life according to their important well-being dimensions. This can of course have an impact on his or her social environment, especially on his or her partner. Therefore, it seems very helpful to modify the WBT approach in existing partnerships for a couple therapy - especially since the effectiveness of couple therapies is assured. Illustration of a clinical case exemplifies its application and the potential role of psychological well-being in a couple treatment. A previously chronic and treatment-resistant female patient (59 years) was treated with the sequential combination of Cognitive Behavioral Analysis System of Psychotherapy as a 12-week inpatient acute treatment followed by 6 sessions of WBT addressed to its residual phase. Subsequently, the partner is currently involved for a further 4 sessions of Couple WBT. Both partners are asked to use the structured diary, so that overlapping and individual areas of well-being are identified. The Kiesler Circle (strategy from CBASP) is also used to better understand and solve couple conflicts. Within the framework of homework, the couple works on integrating common moments of wellbeing into their everyday lives and on defining goals and values for the future that they would like to pursue together.

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### CBASP for the treatment of persistent depression: presentation of the approach as well as positive and negative effects



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**Background:** The Cognitive Behavioral Analysis System of Psychotherapy (CBASP) was developed by James McCullough especially for patients with persistent depressive disorders (PDD). CBASP integrates behavioural, cognitive, psychodynamic, and interpersonal strategies and can best be described as an integrative interpersonal learning therapy. **Methods:** The update lecture will elaborate on the specific psychopathology of persistent depression, which is mainly characterized by childhood maltreatment and interpersonal problems. Subsequently, CBASP cases and one video examples will be used to show how the specific CBASP strategies directly address this psychopathology aiming to enable corrective and healing relationship experiences. In addition, a summary of the current studies regarding the positive as well as the negative effects of CBASP is provided. **Results:** Seven published randomized controlled trials and two meta-analyses provide evidence that CBASP is effective in the treatment of PDD: CBASP appears to be more effective than treatment as usual, interpersonal psychotherapy or supportive therapy as well as - combined with pharmacotherapy - pharmacotherapy alone. However, there are initial findings that CBASP may cause side effects, most of which do not appear to have a negative impact on outcome. As exceptions, a transient deterioration of symptoms and a dependency on the therapist (both perceived by the patient) appear to have a negative effect on the treatment outcome. **Conclusions:** The studies suggest that CBASP is effective but can be optimized for specific patient groups and therapeutic problems to increase response. Thus, further developments such as CBASPersonalized and Internet- and Mobile-based CBASP-interventions will be discussed.

## 50 Denial of pregnancy

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**Background:** Denial of pregnancy is an important condition that is more common than expected, however little known to healthcare professionals. With an incidence at 20 weeks gestation of about 1:500, denial of pregnancy is a rather frequent incident in obstetrics. It was previously suggested that women who denied pregnancy were likely to be primiparous, young, with learning difficulties, poor social support, and a history of substance abuse or psychiatric disorder. However, it now appears that there is no clear-cut typology of a pregnancy denier. Denial of pregnancy is a difficult condition to diagnose and is most simply classified as psychotic or non-psychotic. Those with psychotic denial tend to be chronically mentally ill (e.g., schizophrenia, bipolar disorder) and remain psychotic throughout pregnancy. Those with non-psychotic denial have otherwise intact reality testing and often reconstitute after delivery. It is a 'red flag' that should trigger referral for psychiatric assessment. **Methods:** Case reports of a young woman with psychotic denial of pregnancy that gave birth to her daughter at home and committed neonaticide. **Results:** When pregnancy is denied throughout most of gestation,

significant risks to both mother and foetus may result. **Conclusions:** Denial of pregnancy is a condition requires emergency psychiatric management to avert the possibility of neonatal killing. Therefore, awareness is necessary for prevention of unwanted consequences for mothers and babies.

## 51 Ebb and flow of the "brown wave": history and psychopathology of right-wing extremism

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**Background:** The actual German as well as pan-European right-wing populist tendencies stimulate the focus on the historical precondition as well as on underlying psychopathological structures. **Methods:** Relevant literature has been analysed. **Results:** The conceptual understanding of political extremism should come from a bipolar understanding of extremism: the normative-legal as well as the intellectual-political guarantee of freedom against its enemies requires a terminological differentiation of radicalism and extremism. Psychodynamic approach to right-wing extremism focuses on the absent conflict of authority face to face with the father. Because of the symbiotic relation to the mother neo-Nazis develop a commensal contact to the group, to the party, to the nation. The actual increase of populist activities in Germany might be a late effect of the National Socialist dictatorship as well as the socialist regime in the GDR. The right-wing-violent criminal has a borderline-personality, acts out paranoid anxieties, sadism and uninhibited hate. The biographical explanation might be the missing possibility of identification with an intact, obviously non-contradictory parental Ego-ideal. The discrepancy of the dominant "rubble women" compared to the demoralized war- returned fathers of yore might now find its equivalence in patch-work-families. Non-biological parents and particularly homosexual couples complicate the maturing of the child, who ends up in wearing skin-head-haircut as an absurd form of virility. **Conclusions:** A multi-level-model can help in detecting risk factors for the developing of right-wing radicalism tendencies. More research is needed to develop and evaluate adequate psychotherapeutic methods to counterbalance these critical tendencies in young adolescents.

## 52 Martyrdom in different cultures: how to cope with traumatization?

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**Background:** The September 11 attacks have stimulated an extensive discussion on terrorism and its backgrounds. In this context, a new interest on the concept of martyrdom in different cultures as well as on psychopathological models of explanation has emerged. Our hypothesis therefore: Is martyrdom a way to cope with traumatisatation? **Methods:** Study of relevant literature. **Results:** The difference between Christian Martyrdom (willingness to suffering) and Arab Martyrdom (readiness to combat) has often been an object of anti-Islamic politics. These efforts must be classified as

polemics. The often-proclaimed lack of martyrdom in early Judaism can only be supported by a terminological justification. Martyrdom as a construct of modern science can include nearly all forms of noble death. As there is little known about biographical details of most of the martyrs of ancient times, it seems most suitable to focus on modern-times martyrs. We exemplarily point to life and death of Maximilian Kolbe (1894-1941), Edith Stein (1891-1942), Dietrich Bonhoeffer (1906-1945) and Martin Luther King (1929-1968). As far as sources speak, Kolbe and Stein could be victims of traumatisation, because potential traumatic life events are stateable in childhood, adolescence and early adulthood. In matters of Bonhoeffer and Luther King the well-known facts provide no significant hints on antecedent relevant traumatic experiences. **Conclusions:** The hypothesis of willingness to martyrdom to cope with trauma alternatively to the development of a PTBS could be a relevant approach to contribute to the psychological background of martyrism. More research on this topic is required.

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### Fear of birth and tokophobia

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**Background:** Most women are able to manage childbirth fear and related body anxieties. However, these concerns may assume a pathological dimension, affecting woman's mental and physical health during pregnancy. This may lead to requests for caesarean section, impact on delivery outcomes and post-partum period, influence the bonding with the baby or cause the avoidance of motherhood. Described for the first time as Fear of Parturition by Louis Victor Marcé in 1858, labelled as Fear of childbirth during the following century and classified as Tokophobia in 2000 by K. Hofberg and I. Brockington, this specific type of phobia has not standard criteria inside official diagnostic manuals (DSM 5 or ICD 10), but it is mentioned by the NICE Antenatal and Postnatal Mental Health guidelines (n°192, 2014). It is classified as primary when the fear predates pregnancy, with its onset in adolescence for example, as secondary when it develops after a previous traumatic birth or it may coexist with prenatal depression because of a failure of the bonding with the foetus. **Methods:** Single case report of a 32-year old woman with a diagnosis of major depressive disorder and a not detected and not treated primary tokophobia. **Results:** Addressing tokophobic issues in the psychotherapy of this patient has had a central role in the improvement of her depressive symptoms. **Conclusions:** Primary tokophobia is a condition whose early detection and treatment gives the occasion to improve maternal mental health but requires close cooperation between gynaecologists and mental health workers.

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### Complex posttraumatic stress disorder in the context of working life: work-related experience- and behavioural patterns, working ability and capacity

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**Background:** The 11<sup>th</sup> revision of the International Classification of Diseases includes a new chapter of stress-related disorders and presents two distinct sibling conditions: Posttraumatic Stress Disorder (PTSD) and complex PTSD (cPTSD). Studies show that PTSD and cPTSD are associated with different levels of functional impairment but have not yet addressed the differences in work-related impairment between the two diagnoses. The aim of this study was to provide initial findings into the impact of cPTSD on working life. **Methods:** Participants were 662 patients (mean age 50.99±8.99 years; 70.1% female) of a psychosomatic rehabilitation clinic. Self-reported screening instruments were administered to participants at the beginning of their inpatient psychotherapy. Multivariate analysis of variance and Chi Square tests were utilized to assess group differences in work-related impairment. **Results:** In all dimensions of capacity, cPTSD patients were significantly more impaired than PTSD patients and no-PTSD patients. Patients suffering from cPTSD were more often unable to work compared to those with PTSD or no PTSD. cPTSD patients received lowest working capacity rating (< 3 hours) more than twice as often as PTSD patients and more than three times as often as no-PTSD patients. **Conclusions:** From an occupational-medical point of view the subgroup of cPTSD patients represents a high-risk population that should be identified at an early stage of the treatment process in order to support them in maintaining earning capacity by targeted, perhaps long-term interventions. The results highlight the need for developing and evaluating new interventions in rehabilitation that address the complexity of the new disorder.

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### Treating parental burnout: Comparative efficiency of two psychological interventions

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**Background:** Parental Burnout (PB) is a syndrome resulting from a chronic imbalance of parental demands over resources, and leading to several detrimental consequences, such as health deterioration, suicidal ideations, neglectful and violent behaviors towards one's children. Its prevalence (5% in the general population) and the severity of its consequences stress the urgent need for effective treatment. **Methods:** In this randomized control trial, we tested and compared the effectiveness of two group interventions for burned out parents: a directive and highly standardized intervention aimed

at rebalancing the balance between risks and resources, and a non-directive and flexible intervention focused on sharing and active listening. Both interventions lasted 8 weeks (2h/week). Participants (n=136 burned out parents) were assessed at three times (before the intervention, after the intervention and three-month after the end of the intervention) and compared to a Wait List Control group. **Results:** Whereas parental burnout does not improve much spontaneously (as shown in the waiting list), it can nevertheless be efficiently treated: results showed a significant reduction of PB symptoms ( $\eta^2=.41$ ), parental neglect ( $\eta^2=.15$ ) and parental violence ( $\eta^2=.21$ ) after the intervention in both conditions. The effects were maintained at follow-up, and symptoms even continued to decrease in the directive condition. **Conclusions:** Our findings show that parental burnout can be efficiently treated via group psychological interventions, and that treating the parent benefits both parent and children. Future studies will need to go deeper into these findings in order to determine who benefits the most/the least from each intervention.

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### Tarantism

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Tarantism is a hysterical-type cultural syndrome born in southern Italy. In the popular tradition it was labelled like disease caused by the bite of spiders. Such condition was very typical of the period of wheat and typical symptoms were: weakness, depression, melancholy, neuropsychological conditions such as catatonia or delusions, abdominal pains, muscles or fatigue, and most of the subjects who reported their symptoms were women. Moreover, common symptoms such as emotional disorders and obscuration of the state of consciousness were described. The traditional cure was a dance-type musical therapy, during which the subject is brought to a state of trance during frenetic dance sessions, giving rise to a phenomenon called musical exorcism.

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### Neurophysiological changes in depressed patients with unresolved attachment during long-term psychotherapy

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**Background:** Neurophysiological studies on depression confirm that successful psychotherapy leads to changes in

specific neural circuits involved in emotional processing. Previous findings of increased sustained gamma-band responses to negative stimuli were found in depressed individuals, who elaborated specifically on negative stimuli. Several studies report that insecure, especially unresolved attachment is overrepresented in depression. The present EEG study focused on electrophysiological responses to attachment-related emotional information in depressed patients with unresolved attachment and their potential change during long-term psychotherapy. **Methods:** The study included unmedicated depressed patients (n=17) and healthy participants (n=13). Attachment representations were measured using the Adult Attachment Interview (AAI). Participants' electrophysiological responses to pictures of the Adult Attachment Projective Picture System combined with personalized attachment related sentences were contrasted with neutral descriptions at the beginning (t1) and after 15 months of psychodynamic psychotherapy (t2). **Results:** At baseline, patients showed significantly more unresolved trauma than controls (p=.005). After treatment, patients' unresolved classifications improved to organized patterns (p=.016). Effects of attachment pattern were sought in the difference in gamma-band activity between time 2 and time 1. As expected, the contrast personalized vs. neutral description trials revealed a significant effect of unresolved attachment (t=-2.28, p=.04) in a model including sex and age as confounding covariates. **Conclusions:** Normalization of gamma band activity associated with improved attachment status may be interpreted as a remission from a state of sustained and prolonged elaboration of emotional material. Our data may provide further evidence on the effectiveness of long-term psychodynamic psychotherapy in depression.

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### Catharsis and hypnosis

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Catharsi in Greek means purification or liberation from a contamination that damages the nature of man. Indirect hypnotic inductive techniques such as dances, songs, sounds were used by primitive peoples to desensitize men from fear, through trance-like states that allowed them to face dangers and pain with the purification of evils Inner. The inductions were related to the magic and almighty thought, to religion and to the contact with the transcendent and, in the last centuries, to the science that allowed us to deepen the increasingly refined knowledge of man, until the discovery of the mirror neurons. Giving a different view of psychotherapeutic dynamics, according to which the states of consciousness that are generated within the therapeutic setting, are shared between therapist and patient. The Catharsi, therefore, in hypnotherapy, according to this optic, consists in a procedure aimed at ejecting feelings and diseased sensations through emotional discharges (abreactions), intense emotional reactions induced, guided and shared by the therapist. Bringing the patient back intensely to the "conflict", traumatic situations at a time after their appearance, in order to facilitate their integration in the personological context, acting on the procedural memory and intervening, albeit initially, on the limiting beliefs that these people are forced to structure

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### Clinical use of the Diagnostic Criteria for Psychosomatic Research - revised

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The Diagnostic Criteria for Psychosomatic Research (DCPR) were introduced in 1995 by an international group of researchers in order to investigate medical disorders through the biopsychosocial perspective. They constitute a set of psychosomatic syndromes that provide operational tools for psychosocial variables with prognostic and therapeutic implications in clinical settings. Indeed, DCPR system showed its clinical utility regarding several clinical issues, such as the subtyping of medical patients, the identification of subthreshold or undetected syndromes, the evaluation of the burden of somatic syndromes, the prediction of treatment outcomes and the identification of risk factors. The DCPR may help clinicians during the assessment process to recognize clinical conditions underlying symptoms presentation, with important therapeutic and prognostic implications. DCPR will be presented in an updated version including diagnostic criteria for two additional syndromes, allostatic overload and hypochondriasis, and revised criteria for the remaining 12 syndromes (type A behavior, alexithymia, the spectrum of maladaptive illness behavior, demoralization, irritable mood, and somatic symptoms secondary to a psychiatric disorder), based on insights derived from studies carried out so far. The workshop is aimed at illustrating 1) the theoretical background and development of DCPR, 2) experiences of clinical applications in psychiatric and medical settings, and 3) DCPR broad potential in medical setting in terms of functional disorders treatment, management and rehabilitation of chronic medical diseases in different specialties.

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### Converting a physical health consultation into a psychological based consultation

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**Background:** Universally, the culture has been of mind-body duality. In reality, we are today much more aware that mind and body are inseparable. Many patients present with physical symptoms due to psychological distress. The latter has had many tags assigned to it, e.g. conversion disorders, somatoform disorders, medically unexplained symptoms, bodily distress syndrome, persisting physical symptoms. These patients initially present believing these symptoms to be of physical origin. Before they can engage with and receive good psychological help, patients need to be open to the concept that there is a psychological basis to their physical

symptoms. It is the physical health care clinicians, who are best placed to have the initial discussion with the patient regarding the true nature of the symptoms. And yet the same healthcare physicians may only have had limited training in psychological medicine. Physicians need to be able to have a satisfactory conversation with these patients so that the patient feels their symptoms are better attributed within a psychosocial framework than a physical one. **Methods:** 34 years of experiential observation, reflection and learning within the setting of a family medicine practice. **Results:** There is an outline strategy on approaching these patients. The principle is to work backwards from the symptom, its physiological manifestation and how this reflects the psychological expression. **Conclusions:** Presented is a simple model of mind-body interaction. It aims to bring a level of understanding that will assist clinicians to transform the consultation based on physical health parameters into one of psychological health.

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### Psychosomatic Dysregulation Inventory: Italian validation in a clinical sample

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**Background:** Assessment tool for the study of emotional dysregulation and illness abnormal behavior (somatization, medical functional syndromes, hypochondria) should be reliable, easy to use, and able to detect the specificity topic. The Psychosomatic Dysregulation Inventory (PDI) is a new self-report questionnaire based on recent psychosomatic research for the assessment of somatic symptoms suggesting emotional dysregulation. The questionnaire is composed of 101 items (3 different for male and female) with 4-point Likert based answers (ever – sometimes – often – always). **Methods:** The concurrent validity of PDI has been studied in a sample of 60 Italian patients subjected to dynamic psychotherapy due to different psychopathological disorders. Diagnoses were made using DSM-5 and PDM-2 criteria. All the subjects were given the following questionnaires: PDI, ASA, SQ, SCL-90R, IBQ and the DSM-5 Self-Rated Level 1 Cross-Cutting. **Results:** The PDI has shown good criterion validity, with patients in psychotherapy producing significantly higher scores in PDI scales than non-clinical subjects. The internal consistency of PDI scales ranged from .71 to .93. **Conclusions:** Concurrent validity, tested by comparing PDI scale scores with other tests, was generally good and PDI seems to be a good psychometrically founded self-report tool, it may be useful for the screening of individuals at high risk for emotional dysregulation and abnormal illness behavior.

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### Insomnia and cardiovascular disorders

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**Background:** Short sleep duration can affect cognitive function and immune responses, increase the risk of metabolic disorders (diabetes mellitus, obesity, and metabolic syndrome), and affect cardiovascular function, with accelerated atherosclerosis, increased blood pressure, and increased risk of cardiovascular events. **Methods:** A systematic review of the literature and clinical observations summarize what is currently known about sleep disorders in major cardiovascular diseases. Sleeping disorders and features are explored. Repercussions on arterial hypertension are taken into consideration. **Results:** People with chronic insomnia reported more of the following than did people without insomnia: heart disease (21.9% vs 9.5%); high blood pressure (43.1% vs 18.7%). Short sleepers ( $\geq 4$ h) and long sleepers ( $\leq 10$ h) are more likely to develop hypertension. **Conclusions:** Insomnia and hypertension are comorbidities and interlinked. Quality sleep which preserves the natural architecture of sleep is essential for proper BP regulation. Insomnia and nocturnal hypertension are linked to circadian rhythms and low melatonin production. New ESC Guideline suggest monitoring sleep history in hypertensive patients. Some substance improves both the quality of sleep and the circadian blood pressure control resulting in significantly better clinical global health to patients with hypertension (including with OSA). Clinical practice needs to consider new insights for proper interventions. What we expect from an effective treatment of insomnia in hypertensive patients is: restore physiological sleep; adjust the sleep/wake cycle; restore circadian rhythm in blood pressure regulation.

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### 63 The clinimetric approach to the assessment of psychological distress: a validation analysis of the Hopkins Symptom Checklist (SCL-90-R)

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**Background:** The Revised version of the Hopkins Symptom Checklist (SCL-90-R) is one of the most widely used self-rating scales for the assessment of psychological distress. Using traditional psychometric analyses, some authors concluded that a clinimetric approach, an innovative clinically based measurement method, is needed particularly to test the clinical validity of the SCL-90-R. Recently, Bech and his research group conducted three research studies for evaluating the clinical validity of the SCL-90-R. **Methods:** The non-parametric version of the item response theory (IRT) models, the Mokken analysis, was used to assess the scalability or unidimensionality of the SCL-90-R. **Results:** The first study included a large sample of 3.209 participants recruited from the Danish, Norwegian, and Italian general populations. The other two studies also included a clinical sample of 472 patients with a diagnosis of Parkinson's disease (PD). In all of the three studies, the SCL-90-R and its subscales have been found to reach a Loevinger's coefficient of scalability  $\geq 0.30$ . **Conclusions:** The total score of the SCL-90-R is a clinically valid measure of psychological distress, while its subscales are particularly valid for assessing the severity of symptoms of somatization, phobic anxiety, and neurasthenia. Future studies are needed to evaluate the clinical validity of this rating scale also at a macro-analytic level by using the clinical judgment of the experienced clinician as the main index of validity.

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### 64 The clinical validity of the Hopkins Symptom Checklist: a systematic review

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**Background:** The Hopkins Symptom Checklist (HSCL) has been widely studied using psychometrics. The clinimetric approach, an innovative clinically based evaluation method, has been introduced by Alvan R. Feinstein to supplement the limitations of the traditional psychometric model. The inadequacy of the psychometric theory particularly applies to the assessment of the clinical validity of rating scales. The aim of this systematic review is to identify studies, which have used a clinimetric approach for testing the clinical validity of the HSCL. **Methods:** The systematic search was conducted on Web of Science, Scopus, and PubMed following the Preferred Reporting Items for Systematic and Meta-Analyses (PRISMA) guidelines. **Results:** Only a limited number of studies focused on a clinimetric approach for evaluating the clinical validity of the HSCL. Such studies showed that this rating scale is a multidimensional measure, containing clinically valid subscales for the assessment of symptoms of depression, anxiety, somatization, interpersonal sensitivity, obsession-compulsion, hostility and paranoid ideation. **Conclusions:** As pointed out by Bech, the HSCL should be considered as an item bank for the assessment of the severity of self-reported symptoms of negative mental health. In the daily clinical practice, as well as in experiments in therapeutics such as drug trials, the HSCL is a clinically valid rating scale to be used for a comprehensive evaluation of patient-reported outcomes.

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### 65 Clinimetric approach to rating scales for the assessment of somatization in gastroenterology: a systematic review

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**Background:** Somatization has been widely investigated in gastroenterology, particularly in patients with Irritable Bowel Syndrome (IBS) and in those with Inflammatory Bowel Disease (IBD). Several rating scales have been developed and psychometrically tested, but it is actually unknown whether such measures are also clinically valid. Clinical validity is an emerging concept in clinimetrics, an innovative clinically based measurement approach for specifically evaluating the clinical properties of rating scales. The aim of this systematic review was to identify rating scales which display clinical validity for the assessment of somatization in gastroenterology. **Methods:** The systematic search of the literature was conducted on Web of Science and Scopus following the

Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) recommendations. **Results:** The revised version of the Hopkins Symptom Checklist (SCL-90-R) was one of the most widely used self-rating scales. Most studies found that the SCL-90-R somatization subscale sensitively discriminated between different groups of patients (e.g., IBD from IBS individuals) and significantly differentiated gastroenterology patients from healthy controls. Studies also demonstrated the incremental validity of the SCL-90-R somatization subscale in predicting the risk to develop symptoms of either IBD or IBS. **Conclusions:** The SCL-90-R was found to be clinically valid. Further studies are, however, strongly encouraged, particularly to examine the scalability of this rating scale, i.e. the extent to which the SCL-90-R is a statistically sufficient measure of the severity of somatization. The item response theory models and the global judgment of the experienced clinician are needed in this regard.

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### Application of the Italian managing cancer and living meaningfully intervention: preliminary data of a randomized controlled trial

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**Background:** Psychosocial distress is common in people with advanced cancer. We describe an RCT testing the efficacy of CALM, a novel psychotherapeutic intervention developed in Canada, aimed at reducing psychosocial distress in advanced cancer patients. **Methods:** The study is a single-blinded phase III Randomized Controlled Trial (RCT) with assessment at baseline, 3 and 6 months and 2 trial conditions: CALM versus nonspecific supportive intervention (SPI) and assessments at baseline, 3 and 6 months. Eligibility criteria include:  $\geq 18$  years of age; Italian fluency; no cognitive deficit; and diagnosis of advanced or metastatic cancer. The Italian adaptation of CALM includes 12 sessions (instead of the original 6), delivered over 6 months and covers 4 domains: symptom management and communication with health care providers; changes in self and relations with close others; sense of meaning and purpose; and the future and mortality. The primary outcome is depression symptoms change at 6 months, while changes in generalized and death anxiety, demoralization, spiritual well-being, attachment security, posttraumatic growth, communication with partners, quality of life, and satisfaction with clinical care are secondary outcomes. **Results:** The CALM intervention is well accepted by participants. Preliminary results suggest its efficacy in reducing psychosocial distress while supporting and encouraging sense of meaning in Italian advanced cancer patients. **Conclusions:** If shown to be effective, this intervention has the potential to be disseminated as a new approach in oncology to relieve distress and promote psychological well-being in patients with advanced cancer cross-nationally.

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### The relationship between spirituality and psychosocial dimensions in cancer patients.

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**Background:** Spirituality is a dimension intrinsic to the human being, connected to an intimate and personal sense of transcendence and to an instance of universal belonging to the others and the world. Spirituality is not necessarily identified with religion, as it is related to a search of meaning. Several studies are recently aiming at finding out how spirituality may influence existential components of quality of life, adherence to treatment and psychosocial issues in patients affected by cancer. The aim of our multicentre study was to explore the condition of spirituality and its associated variables in a sample of Italian cancer patients. **Methods:** A total of 339 cancer patients completed: the FACIT- Spiritual well-being questionnaire; the Patient Dignity Inventory (PDI); the EURO-QOL to assess QOL; the Edmonton System Assessment System (ESAS) and the Demoralization Scale (DS). **Results:** Statistically significant associations were found between spirituality (and spirituality dimensions) and dignity dimension, demoralization and psychological well-being. Also, QoL, in terms of the dimensions of good personal care, high performance status, low pain and low emotional symptoms were related to high spirituality and psychological well-being. **Conclusions:** Existential burden faced by cancer patients can be extremely challenging for patients and spirituality is a significant dimension to be taken into consideration in order to both implement a person-centred approach that include spirituality and to possibly early intervene to reduce demoralization, avoid loss of dignity and improve quality of life.

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### The quality of the psychotherapy relationship is correlated to outcome, but how helpful is this finding?

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That the quality of the psychotherapeutic relationship is significantly related to the outcome we know since the days of Carl Rogers. In the meantime, a wealth of research has solidly shown that such a relation can be found for all forms of therapy – including internet therapy! – and for all diagnoses. The contribution is at least as strong as the contribution of the right technique, yet it is limited, as with all factors related to outcome. In addition, there are also authors like Kazdin who question the causality of the link between relationship and outcome, explaining much of it by third variables. And not enough with that: a good relationship can also be seen as a micro-outcome, an intermediary result of good therapy, so no wonder we find correlations with macro-outcome, whatever the mechanism below the surface. To know about the positive correlation is reason enough for the practitioner to pay attention to the relationship but does not tell how to bring about a good relationship. We need thus prescriptive concepts for the therapeutic relationship, and there should be evidence for effects of such concepts. After a brief report about the state of research related to the importance of the therapeutic relationship, the concept of the Motive Oriented Therapeutic

Relationship will be introduced along with evidence for its effects.

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### **“Maybe the food, maybe my head”: psychosomatic experience, a paradigmatic clinical case**

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**Background:** Clinical conditions characterized by somatic symptoms that cause psychological distress and/or significant dysfunction in daily life are continuously reported throughout the history of Medicine. Somatic Symptom Disorder (SSD) is often underdiagnosed and inadequately treated. In addition, patients have difficulty accepting their problem as emotional and not as organic. The aim of the oral communication is to correlate clinical aspects of the SSD with an illustrative clinical case. **Case description:** We report a clinical case of a 22-year old woman referred to Psychiatric Consultation by Immunoallergology, a specialty in which she was followed for two years by angioedema of unknown aetiology. Physical examination and complementary diagnostic tests performed did not show any changes. On the other hand, the clinical characteristics found by Psychiatry besides the good response to psychopharmacological therapy and cognitive behavioural therapy reinforce the diagnosis of SSD. **Conclusions:** SSD has a varied clinical presentation and represents an obscure region between Psychiatry and other medical specialties. The symptoms are usually disproportionately exacerbated in relation to the findings in the physical examination. Due to its dynamic and multidimensional nature, clinical manifestations may be more subtle, reflecting the difficulty in performing a correct nosological diagnosis. Clinical history, pre-morbid personality and emotional factors strengthen the diagnosis. In addition, good communication between the various specialties and with the patient allows a diagnostic clarification, an appropriate treatment and a better prognosis. Therefore, a multidisciplinary and integrated vision is fundamental, which includes an approximation between medical specialties and care improvement of patients with somatic complaints.

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### **Illness anxiety disorder and anorexia nervosa comorbidity: is it an atypical form of eating disorder?**

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**Background:** The Diagnostic and Statistical Manual of Mental Disorders 5th Edition (DSM-5) has removed hypochondriasis and introduced Somatic Symptom Disorder (SSD) and Illness Anxiety Disorder (IAD). SSD is the diagnosis given to patients who have excessive somatic

symptoms, and IAD is the diagnosis given to patients who may have no symptoms but are preoccupied with having or getting a disease. The aim is to present an illustrative clinical case of IAD and Anorexia Nervosa (AN) comorbidity and to do a review about the theme. **Methods:** MEDLINE-indexed databases were searched using search terms "hypochondriasis", "somatic symptom disorder", "illness anxiety disorder" and "anorexia nervosa". The clinical case (CC) data was obtained through clinical interview and clinical process consultation. **Results:** We report a CC of 39-year-old women referred to Eating Disorders Consultation (EDC) by Rheumatology, a specialty in which she was followed by musculoskeletal symptoms. Physical examination and the multiple complementary diagnostic tests performed did not show any changes. The clinical characteristics found by Psychiatry (low weight due to self-imposed food restriction and marked concern with the possibility of having a severe rheumatologic disease) reinforce the AN and IAD comorbidity. At the time of the first EDC, the patient weighed 31Kg with a body mass index of 11.8mg/Kg<sup>2</sup>. She was hospitalized and medicated with clomipramine and olanzapine. Although she regained weight, she is still concerned about the possible harmful consequences of some types of food, which may contribute to the emergence of a serious illness. **Conclusions:** There are no reported cases about IAD and AN comorbidity.

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### **Perceived barriers, benefits and correlates to physical activity in outpatients with major depressive disorder**

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**Background:** To evaluate the barriers, benefits and correlates to physical activity (PA) in outpatients with Major Depressive Disorder (MDD), and to explore the demographical and clinical factors that are associated with these potential barriers and benefits. **Methods:** Data were collected from MDD outpatients under treatment at Hospital de Clínicas de Porto Alegre. Barriers and benefits were assessed with the Exercise Barriers/Benefits Scale. Pedometer and the International Physical Activity Questionnaire were used to assess objective and self-reported PA. **Results:** The sample consisted of 65 depressed outpatients (82% female); mean age: 50.9±10.1 years; The most perceived benefit from exercise were Physical Performance (mean: 3.00±.3) and the most perceived barrier were Physical Exertion (mean: 2.95±.4). The benefits present a mean 2.82±.1 and the barriers a mean 2.47±.2. In sub-scales, Life Enhancement (r=-.337; p=.009), Physical Performance (r=-.348; p=.007), Psychological Outlook (r=-.364; p=.005), Social Interaction (r=-.317; p=.015) and Preventive Health (r=-.352; p=.007) were inversely correlated with BDI scores. Steps per Week and Physical Exertion were inversely

correlated ( $r=-0.351$ ;  $p=.031$ ) and Steps per Day and Time Expenditure were positively correlated ( $r=.321$ ;  $p=.049$ ). **Conclusions:** The evaluation of clinical and demographical correlates is relevant for development of strategies to increase PA levels in depressed subjects. Identify barriers and benefits to PA practice might be useful for future interventions.

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### Correlates of exercise and sport participation in Brazilians outpatients with major depressive disorder

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**Background:** To evaluate correlates of sport and exercise participation in Major Depressive Disorder (MDD) outpatients. **Methods:** Data were collected from MDD outpatients in treatment at Hospital de Clínicas de Porto Alegre. Sport and exercise participation were assessed using a question on frequency of participation in the previous month. Clinical, demographical factors and quality of life were investigated as potential correlates of physical activity. **Results:** The sample consisted of 268 depressed outpatients (83.51% females); mean age=50.74 (SD=10.39). Participants with fewer somatic symptoms on the HAM-D (OR: 3.69; 95%CI 1.39-9.78;  $p=.008$ ), with less performance impairment in BDI (OR:3.61; 95%CI 1.47-8.85;  $p=.005$ ) are more likely to engage in sport and exercise. Patients with mild depression according to HAM-D (OR: 2.42; 95%CI 1.00-5.88;  $p=.04$ ) or mild to moderate according to the BDI (OR: 3.96; 95%CI 1.41-11.15;  $p=.009$ ) are more likely to engage regularly in sport and exercise. Smoking (OR: 0.23; 95% .80-.67;  $p=.007$ ) and being divorced (OR: .22; 95%CI .57-.86;  $p=.03$ ) are linked to lower engagement in sports and exercise. **Conclusion:** Our findings indicate a significant association between clinical, demographical factors and sport and exercise participation among MDD outpatients.

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### Using protection orders to help reduce health burden for victims of violence

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**Background:** The University of Rochester created the first-known Medical Law Partnership (MLP) within a hospital setting to provide biopsychosocial services for victims of violence. Our MLP provides patients the opportunity to link their physical health, mental health, legal and social service providers as needed, as these issues often intersect and unaddressed can lead to depression and post-traumatic stress disorder. We also offer Protection Order (POs) filing remotely and facilitate skype PO hearings with judges bedside for inpatients. A key MLP Partner Willow Domestic Violence Center allows for continued emotional support post-MLP services. Willow provides a 24-hour hotline, emergency shelter, counselling, support groups and transitional housing. We hypothesize POs improve patients mental and physical health. Here, we explored how PO applications compare to Willow court filings, understanding how psychiatric department patients seek legal care as part of their health. **Methods:** Data: 2017-2018 MLP PO applications filed compared to Willow's court-based program. We examined whether our MLP patients return to court at the same rate for POs. **Results:** MLP and Willow POs findings look similar (MLP bolded): **42%** v 33% of POs dismissed, **11%** v. 16 denied; **12%** v. 30% issued; **9%** v 5% withdrawn; and **19%** v 5% transferred. We also examine whether mental health burden relates to seeking safety. **Conclusions:** Research suggests victims may gain a window to secure safe housing and connect to care after securing POs. We will discuss how POs may impact our patients' mental health as well as the policy implications for MLPs.

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### Spiritual screening in palliative care settings- what questions can clinicians ask?

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**Background:** Medical training often ignores the spiritual needs of patients in palliative care. Health professionals may not have the time for a detailed spiritual assessment or may perceive that they are inadequately trained. Patients may often be too ill to respond to a long spiritual history. The concept of Spiritual Screening has therefore emerged, similar to the 'One Item' screening question for depression. **Methods:** Published literature was searched regarding spiritual screening in palliative care from PubMed and Google Scholar. Key questions were compiled and their suitability to different cultural and religious groups considered. **Results:** Screening questions were often embedded in other psychosocial or quality of life screening tools and included a straight forward- do you have spiritual or religious concerns to others such as- do you feel purpose and meaning in life, how much strength do you derive from faith or spirituality, do you feel a sense of connectedness or alienation; were there issues of forgiveness and guilt; were there unresolved spiritual or religious questions? Other questions used for screening included single items such as- Do you have Spiritual Pain? And are you experiencing a Spiritual struggle? A single question that asked patients - Are you at Peace? (with God, with yourself, with others) strongly correlated with spiritual needs elicited from a



longer spiritual history and the FACIT subscales. **Conclusions:** We need to further identify what a good gateway question/s might be to decide if spiritual distress should be probed. The questions may differ based on culture, beliefs, religion and language.

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### The womb and the wheelchair- dissociation in the postpartum period

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**Background:** Dissociative Disorders in the postpartum maybe related to difficult pregnancy, difficulty in bonding with the infant or ongoing marital stress. Early childhood and sexual trauma may also lead to dissociative symptoms. **Case description:** We describe a 26-year old lady with a 5-month old baby who was brought to us in a wheelchair for 3 months and was completely dependent for all her daily activities on her husband. She was found to have no neurological problem or deficit. In addition to her inability to walk, she could only speak in a whisper. She had *la belle indifférence* and did not report sadness or anxiety. We did a detailed assessment of her childhood and family circumstances and a socio-cultural formulation was attempted in addition to a psychological formulation. Several cultural and gender issues emerged including the fact that their marriage was not approved of by both families, she had been isolated and the husband did not want this pregnancy. There was childhood trauma and the marital bond had worsened after the birth of the baby. Treatment was both psychotherapy, marital therapy, and physical therapy including yoga and massage. The lady was discharged after a month when she was able to do all her daily activities, but speech was still low in volume though better than before. **Conclusions:** A good psychodynamic and socio-cultural formulation is key to understanding the various etiological and maintaining factors. Treatment has to be multidisciplinary and focus on rapid symptom resolution. A combination of physical and psychological therapies is recommended.

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### Cultural factors in alexithymia

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**Background:** Alexithymia, a personality construct of inability to experience and express emotions, has been linked with many psychosomatic disorders, chronic pain, depression and medical disorders. Assessment of alexithymia has been predominantly by subjective measures and cultural factors are known to influence it. However, assessment of alexithymia is still not a routine clinical evaluation. This will be followed by presentation on cultural factors in alexithymia based on Indian research on alexithymia and its comparison with those from other parts of the world. **Methods:** This includes the review of cultural factors related to alexithymia, mainly from the Indian context. It also looked at common measures of alexithymia. **Results:** Common measures of alexithymia have been the Beth Israel Questionnaire, Toronto Alexithymia Scale,

Diagnostic Criteria for Psychosomatic Research and Illness behaviour questionnaire [subscale of affective inhibition] Factor analysis of TAS 26 in Indian pain subjects showed that ability to describe feelings did not emerge as a separate factor. Instead ability to identify bodily sensations has emerged as a separate factor. Also, the day dream factor turned out to be bipolar. Likely reason is the different nature of responding due to a different cultural set up. Affective inhibition has emerged as the closest construct to alexithymia. The alexithymia scales need cultural adaptation for use in different cultures. **Conclusions:** Cultural factors contribute to the manifestation of alexithymia and somatisation. Locally culturally sensitive measures of alexithymia would be useful.

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### Spiritual concerns and coping in palliative care in India

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**Background:** Individuals receiving palliative care and facing end of life often encounter spiritual questions and concerns. In some cultures, religion has a major role to play in the understanding of one's illness while in others spirituality is seen as a coping method. **Methods:** A search in published literature on spirituality in palliative care, focusing on spiritual concerns, coping and distress was conducted. These focused on the Indian Journal of Palliative Care, Indian Journal of Cancer and other books and articles on spirituality in palliative care and dissertations. **Results:** Spiritual concerns, problems and challenges noted were - belief in god, importance in doing pooja [religious ceremonies], belief in karma and rebirth. One study reported the absence of religious struggle in India in comparison with the western culture. Common spiritual questions such as 'why me?' and 'was god angry with me?' were usually answered by believing that reality was a result of one's own karma. Negative religious coping (i.e., statements regarding punishment or abandonment by God) were noted to be positively associated with distress, confusion, depression, and negatively associated with physical and emotional well-being, as well as quality of life. **Conclusions:** Palliative care clinicians should be alert to symptoms of spiritual distress and intervene accordingly. Palliative care setting should promote spiritual advancements and not cause spiritual distress. Complementary and Alternative Medicine with spiritual elements – various practices such as yoga, reiki, pranic healing, which focus on the whole person and not on any particular symptom can be encouraged.

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### The Modena Consultation-Liaison Psychiatry Service in the General Hospital: a cross-sectional study

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\*On behalf of the research group of the "Società Italiana di Psichiatria di Consultazione" (SIPC)

**Background:** Consultation-Liaison Psychiatry (CLP) deals with the psychiatric care of medically ill. The Modena CLP Service (M-CLPS) provides routine and urgent psychiatric referrals to all the wards of the local General Hospital (GH). Aim of this study was to report data about the M-CLPS consultation activity (psychiatric first assessments). **Methods:** Cross-sectional study. All consecutive patients evaluated in May-October 2018 for psychiatric referrals at the Modena GH were included. For each patient providing informed consent, socio-demographic and clinical variables were collected. The Edmonton Symptom Assessment Scale, the Canadian Problem List and the P4 suicidality screener were administered. Statistical analysis was performed with STATA 13.0. The study is part of a national Multicentric Research project conducted by the Italian Society of Consultation-Liaison Psychiatry. **Results:** Of the 546 psychiatric first assessments performed, 50.55% were for male patients; mean age was 59.87±18 years. The majority of referrals arrived from Internal (General) Medicine (18.5%), Accident & Emergency (9.71%), Gastroenterology (9.52%), Haematology and Oncology (8.06%), and General Surgery (7.14%). The most common reason for referral was clinical suspicion of depression (24.91%) or anxiety (9.52%), psychomotor agitation (11.90%), support in management of medications (10.07%). Most patients were found to suffer from a psychiatric condition (88.83%): adjustment disorder (24.36%), depression (10.99%), delirium (10.44%), anxiety disorders (6.59%), alcohol and/or substance abuse (6.41%) were the largest diagnostic groups. **Conclusions:** Measurement of CLP activity is a powerful source of information, supporting continuous improvements in service delivery. Further and stronger details will emerge from pooled data of the national Multicentric Study.

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### Urgent vs routine psychiatric referrals in the General Hospital: what makes the difference? A cross-sectional study at the Modena Consultation-Liaison Psychiatry Service

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**Background:** Consultation-Liaison Psychiatry (CLP) deals with the psychiatric care of medically ill, both in urgent and "routine" (not urgent) settings. The aim of the present study was to investigate the most common features associated with urgent referrals, in comparison to routine referrals, at the Modena Consultation-Liaison Psychiatry CLP Service (M-CLPS) in the Modena General Hospital (GH). **Methods:** Cross-sectional study. All consecutive patients evaluated in May-October 2018 for psychiatric referrals in Modena GH were included. For each patient providing informed consent, socio-demographic and clinical variables were collected. Fisher's exact test and multiple logistic regression were performed with STATA 13.0. The study is part of a national Multicentric Research project conducted by the Italian Society of Consultation-Liaison Psychiatry. **Results:** In the considered period, 546 psychiatric consultations were performed: 83.3% (N=455) were routine referrals, and 16.67% (n=91) were urgent referrals. 51.65% of urgent referrals were delivered for female patients. Features statistically associated with urgent referrals were: referrals from hospital wards (vs. day hospital); patients with an on-going community-based psychiatric care; medical comorbidities; delivery of liaison interventions. At the multiple regression analysis, requests from hospital wards (vs. day hospitals) (OR=14.28, p=.000) and medical comorbidities (OR=0.318, p=.002) were associated with urgent referrals. **Conclusions:** Urgent referrals represent a significant part of the M-CLPS activity: a better understanding of recurring features supports improvements in service delivery and a more proactive approach to care.

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### Narrative skills in medical training: experiences of general practitioners

Grazia Chiarini, Maria Pia Urbani

**Background:** A great challenge for General Practitioners (GPs) is treating chronic patients with pain and suffering. Over the years, several programmes have been developed to make GPs suited for the task. **Methods:** Eighteen GPs (8 males, 9 females, mean age 54 years; average practice 28 years) were evaluated via the questionnaire The chronic patient in daily practice of a GPs. The Narrative Medicine course consisted of 4 meetings (i.e., 16 hours), supervised. The concept of Narrative Medicine was introduced and methods useful in treatment of chronic patients were presented. **Results:** Thirty percent of 1,500 patients suffered from chronic pain; 83% were 60 to 80 years, home visits' average frequency was 1 to 4 per month, although for complex cases it was 2-5 times a week, multi-pathologies, monitoring of drugs, treatment of pain, and suffering and general need for care prevailed. Fifty-three percent of doctors considered biopsychosocial approach

to be preferred. The family and social network was also considered very important for the improvement of the management of these patients. **Conclusions:** After the course the participants asked to continue with an in-depth course partly because they found that the gained knowledge gave them useful tools in treating chronic patients but also in order to create an *ad hoc* space.

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### **The self-dialogue for being mindful: The dyadic process of emotion regulation**

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**Background:** Being mindful has been considered crucial for adaptive emotion regulation. Yet, conceptual accounts vary in the mechanisms of mindfulness, especially for the role of the self, in this process. In the current study, we postulated that emotion regulation may reflect a dialogue that involves the conflicting self-aspects between the observing self (I) and an objectified undesirable self-representation (me). We verified whether the link between being mindful and stress resilience can be accounted by self-relating manners between the two self-aspects. **Methods:** The hypothesis was examined in a behavioral experiment in which participants revisited a shameful moment pertinent to a personal secret. State-dependent emotions, stress reactions, and self-relating manners were assessed together with dispositions pertinent to mindfulness (e.g., decentering and self-compassion). Structural equation modeling was adopted to compare several models derived from the literature. **Results:** Our results indicated that decentering from reactive self-defeating acts and reassuring the self were two distinct pathways that linked dispositional mindfulness to stress resilience. More importantly, an independent pathway that has newly unfolded in our laboratory, bringing the undesirable self into connection, was evident. **Conclusions:** The results are in alignment with an emerging view from clinical social psychological science that claims self-reassurance and self-criticism are not two opposing ends of the same dimension. More importantly, self-connectedness by approaching emotional feelings is implicated in the third pathway. The findings lend empirical support for the relational frameworks that are popular in the psychotherapy literature to conceptualize adaptive and maladaptive emotion regulation.

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### **Psychosomatic education in unified field**

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**Background:** Psychosomatic disease has been often defined as only symptomatic manifestation without visible pathology associated with stress. Unless pathology is identified by imaging device or visible pathology, it has been stigmatized as irrational behaviour, or supratentorial disease. It was rather an anecdotal interpretation rather than based on rationality. We used Stress Induced Cardiomyopathy (SIC) as a model to introduce the concept whether disease could manifest by psychological stress or patient may have coexisting

comorbidities causing disease manifestation as left ventricular apical dilatation. **Methods:** We analysed 50 patients admitted to the hospital with SIC in relation to co-morbidities. A total of 36 patient had coronary angiography. Other co-morbidities were analysed to relate with existing pathology for manifestation of the syndrome. The level of stress was further assessed whether only psychological stress might be causing apical dilatation. **Results:** Only 14 patient had normal coronary artery (Group A) and 22 patients had diverse pathology ranging from minimal luminal irregularities to coronary stenosis. (Group B). Group B showed more pathology in relation to Age ( $40\pm 9$  vs.  $64\pm 12$ ;  $p=.01$ ), and incidence of hypertension (22% vs. 72%;  $p=.001$ ). Otherwise, gender (11 F vs. 17 M), incidences of diabetes mellitus (64% vs. 50%), smoking (57% vs. 45%), psychotropic drug use (21% vs. 22%), stress events (71% vs. 50%) showed no significant differences. **Conclusions:** Majority of patients had CAD, albeit hemodynamically insignificant, in older patients with hypertension, suggesting they have underlying coronary pathology, i.e. atherosclerosis, or endothelial dysfunction. Therefore, SIC is the manifestation of existing coronary pathology which need to be further addressed to functional components.

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### **Yoga Therapy for autism**

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**Background:** Autism is simply the abnormal response to everyday stimuli like eye contact, response to vocal commands. But autism has unexpected comorbid conditions causing multiple secondary disorders: allergies, reflux, constipation, diarrhea, seizures, sleep disturbance and high level of anxiety. In many cases autistic children grow the illiterate, incommunicable adults with uneasiness of body and mind. Yoga therapy based on body-mind structures and functions of five sheaths, Isometric yoga and communication gives good methods to approach the autism for physical and cognitive changes. **Case description:** Two autistic adults are here described. A. is an illiterate male with severe autistic state and B. is a partially literate female with mild autistic state; both of them are 20s. This yoga therapy program has been supported by S Public Health Center since 2010, therefore the program has developed the assessment tool based on Yoga Therapy and the development of the subjects' conditions physically and cognitively. **Conclusions:** The techniques of yogic breathing and relaxing turned out to be more effective than any other movements for the autistic to alleviate their comorbid conditions. The repetitive yogic movements modified friendly for their physical conditions functioned in physical conditions including immune system as well as mental and cognitive conditions. Yoga therapy showed more potency as integrative medicine.

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### **Diagnosing depression in primary care: a Rasch analysis of the Major Depression Inventory (MDI).**

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**Background:** The Major Depression Inventory (MDI) is widely used for screening, diagnosis and monitoring of depression in general practice. **Methods:** Thirty-seven general practices in the Central Denmark Region participated in the study. General practitioners handed out the MDI to patients aged 18–65 years on clinical suspicion of depression. The overall fit to the Rasch model, individual item and person fit, and adequacy of response categories were tested. Statistical tests for local dependency, unidimensionality, differential item functioning, and correct targeting of the scale were performed. The person separation reliability index was calculated. All analyses were performed using RUMM2030 software. **Results:** Items 9 and 10 demonstrated misfit to the Rasch model, and all items demonstrated disordered response categories. After modifying the original six-point to a five-point scoring system, ordered response categories were achieved for all 10 items. The MDI items seemed well targeted to the population approached. Model fit was also achieved for core symptoms of depression (items 1–3) and after dichotomization of items according to diagnostic procedure. **Conclusions:** Despite some minor problems with its measurement structure, the MDI seems to be a valid instrument for identification of depression among adults in primary care. The results support screening for depression based on core symptoms and dichotomization of items according to diagnostic procedure.

## 85 The Patient Health Questionnaire compared to the Major Depression Inventory

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**Background:** The Patient Health Questionnaire (PHQ-9) and the Major depression Inventory (MDI) are two widely used instruments for diagnosing and monitoring of depression. In this presentation, the construct validity of the two instruments will be presented. **Methods:** We assessed the construct validity of the PHQ-9 and the MDI in two different studies using Rasch analysis. All analyses were performed using RUMM2030 software. **Results:** PHQ-9: Item 2 demonstrated misfit to the Rasch model, and six items showed disordered response categories. Ordered response categories were achieved for all nine items after modifying the original four-point scoring system into a three-point system. Person separation reliability was acceptable (0.80) for discriminating between groups of patients. Dimensionality testing supported combining the nine items into a total score. No significant differential item functioning was observed for sex and age group. MDI: Items 9 and 10 demonstrated misfit to the Rasch model, and all items demonstrated disordered response categories. After modifying the original six-point to a five-point scoring system, ordered response categories were achieved for all 10 items. Person separation reliability was acceptable (0.88) for discriminating between groups of patients. Dimensionality testing supported the exclusion of item 9 and combining the remaining 9 items into a total score. No significant differential item functioning was observed for

sex and age group. **Conclusions:** Both instruments demonstrated minor problems with their measurement structures. Future revisions of the PHQ-9 and MDI should address these problems. A head to head comparison of the two instruments could be useful.

## 86 Somatosensory amplification in fibromyalgia: a comparison with other forms of chronic pain, psychiatric disorders and healthy subjects

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**Background:** SomatoSensory Amplification (SSA) is defined as the tendency to experience somatic sensation as intense, noxious, and disturbing, and plays a critical role in the pathophysiology of somatisation. In turn, dysfunctional sensory modulatory processing seems to be involved in the pathophysiology of SSA. Although fibromyalgia (FM) has long been thought a somatoform disorder, as these share a deficit in the endogenous pain inhibitory system, as well as reduced pain threshold (Pth) and increased pain sensitivity, as observed in FM, evidence suggests that there is an overlap, but the two are not synonymous. The aim of this study was to compare the SSA in FM with that in other forms of chronic pain (CP), as well as in psychiatric patients (Psy) and healthy (H) subjects. **Methods:** The SSA scale, the MINI international Interview for DSM-IV psychiatric disorders, cold (Pth) and tolerance (Ptol) tests were administered to 115 FM, 641 CP, 122 Psy, and 155 H subjects in a retrospective observational study. **Results:** FM subjects displayed greater mean SSA ( $xM=18.95$ ) than CP ( $xM=15.63$ ) (ANOVA Bonferroni correction:  $p=.008$ ) but this was not confirmed when both were associated with somatisation disorder (SD) (mean diff: 1.80). FM (15.41), but not CP (21.05), showed lower Pth (sec) than H (28.11) and Psy (28.82) subjects (ANOVA  $F=4.77$   $p=.0001$ ), especially if associated with SD (12.18). **Conclusion:** Intrinsically, FM is associated with high SSA and reduced Pth. In other CP conditions, this only occurs if pain is associated with an SD.

## 87 Chaos analysis of emotional patterns in patients with chronic diseases: implications in the disease management

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**Background:** Our goal was to apply a concept of chaos theory (Butterfly effect) in analysing the specific mechanisms of emotional regulation (suppression, and reappraisal) highlighting the differences between the healthy and clinical individuals. The butterfly effect represents the sensitive dependence on initial conditions, that is, a very small change in one state of a deterministic nonlinear system is associated with large differences in a later state. **Methods:** A specific test assessing emotional regulation was applied in a sample of 150 individuals divided into three groups (psoriasis, hypertension, and healthy group). We measure the instability on perturbations (butterfly effect) in answering to the similar items of a cluster. As initial perturbation the distance between the similar items, and their characteristics were considered. We started from the idea that the effort of answering to the test itself may be considered a perturbation in evaluating the own emotional mechanisms, resulting in slightly different answers to equivalent questions. The difference between the three groups regarding the presence of the perturbations in answering to the emotional items was analysed. **Results:** There were significant differences between the three groups regarding the presence of perturbations in answering to the emotional items for the cluster suppression. Psoriasis patients present higher difficulties during the completion of the test, to maintain the coherence in the evaluation of emotional suppression behaviour. There were no significant differences between the three groups in answers coherence to reappraisal items. **Conclusions:** The results suggest that emotional vulnerability can produce important later effects in the psychosomatic disease evolution.

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## 88 Pathophysiology of IBS, including microbiota

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IBS is the most frequent functional bowel disorders. The diagnosis is based on clinical criteria according to Rome IV criteria. According to stool consistency and frequency different subtypes of IBS can be defined: constipation or diarrhoea predominant and alternating. Traditionally, IBS is defined by the absence of structural or biochemical abnormalities that cause these symptoms. This concept is now considered to be outdated; if appropriate tests are applied, structural or biochemical abnormalities that explain or cause the symptoms may be found in many patients. Another feature of IBS are the highly prevalent psychiatric comorbidities, such as depression and anxiety. It is implied that mood disorders "cause" gastrointestinal symptoms. In fact, epidemiological data now provide strong evidence that in subsets of cases, gastrointestinal symptoms arise first and mood disorders occur later, while in other patients the reverse appears to happen. Possible mechanisms for gut-brain dysfunction have been identified, with systemic minimal inflammation as a causal factor in at least some subjects. Other mechanisms that play a role in IBS include low-grade mucosal inflammation or altered intestinal permeability, in diarrhea predominant IBS altered bile salt metabolism. Recent studies have demonstrated that an imbalance in gut bacterial communities, dysbiosis, may be a contributor to the pathophysiology of IBS. There is evidence to suggest that gut dysbiosis may lead to activation of the gut immune system with downstream effects on a variety of other factors of potential relevance to the pathophysiology of IBS.

All these factors might be modulated by environmental factors such as diet.

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## 89 Using experiential group work to promote self-care and health behavior

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Self-care is an important set of skills that help therapists to prevent fatigue and professional burnout. An innovative model based on experiential group intervention, that was designed for therapists, will be presented with the intention of demonstrating ways to foster therapist's self-care. Discussing the importance of the therapist's self-care and its relevance to the therapy process and outcome; presenting some emotional, mental and contribute factors that contribute to self-care perceptions and patterns; outlining some regulating technique that enhances therapeutic presence and promotes self-care will be proposed. The importance of self-care will be presented alongside insights from 4 session group interventions delivered to a group of therapists. Domains that effect self-care patterns such as: self-nourishment, acknowledging values, setting boundaries, acceptance and self-compassion, will be explored. Moreover, some helpful techniques that enhanced self-care will be discussed.

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## 90 Sciamanic fusion

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There are similarities between hypnotic psychotherapy and different shamanic practices, starting from the vision of illness and healing. Both access the inner world through a dissociative experience of trance in search of causes and possible solutions to a disease, using symbolic languages. What substantially differentiates them is the sharing or non-sharing of underlying beliefs between patient and therapist. The catharsis, understood as purification from the contamination that damages the healthy nature of man, occurs when hypnotic therapy and shamanism intervene to correct the imbalance that has led to the symptoms of the declared discomfort. The psychotherapist will explore the patient's Unconscious for this purpose, while the shaman will enter the World of Spirits, both in an attempt to re-establish the link between the patient and their inner resources or personal energy. In fact, it is hypothesized that this decompensation causes the disorder and all its symptoms. In shamanic practice an important role in maintaining balance in the human being is played by the figure of the Animal of Power and the particular moment of the Fusion with it appears as a real cathartic experience, with abreactions, emotions, and insights. In this historical period of maximum materialism, we witness the flowering of a new interest in the shamanic approach, which links individual health to the concepts of completeness and sacredness. A connection between hypnotic psychotherapy and shamanic tradition also emerges in Milton Erickson who bases his therapeutic project on inter-individual rapport and within the balance between patients and their personal world.

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### Self-other distinction: The role of the oxytocinergic system

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Though the malleability of self-other distinction is one of the main aspects explored and elaborated throughout the therapeutic process, the mechanisms underlying self-other boundary expression and perception are still unclear. The affective neuroscience perspective provides a potentially fruitful way to unravel the nature of self-other distinction by investigating the role of ancient, evolutionarily preserved neuropeptides, such as oxytocin, that act as modulators within subcortical primary emotional operating systems. Oxytocin studies have led to a better understanding of the facets and malleability of self-other distinction. The present contribution reviews empirical studies on the oxytocinergic system's role in modulating the blurring and sharpening of self-other distinction and discusses possible implications for clinical research and practice.

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### DCPR-R and somatic symptom disorder in patients with severe irritable bowel syndrome

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**Background:** Doubts have been expressed in literature whether the new revised DSM-5 category of Somatic Symptom Disorder (SSD) may meet the basic requirements of clinical utility in the identification of the psychological factors influencing the course of medical disorders. The aim was to investigate the ability of SSD and DCPR-R criteria to identify patients with more severe manifestations of Irritable Bowel Syndrome (IBS) symptoms who are often seen by clinicians as difficult patients. To our knowledge this is the first study investigating SSD and DCPR-R in severe IBS and therefore no *a priori* expectation could be stated. **Methods:** Consecutive 203 IBS patients were recruited. They were evaluated for SSD by the combined use of PHQ-15 and WI-7, DCPR-R syndromes with the related semi-structured interview, severity of IBS with the IBS-SSS scale, psychological distress with the HADS, and psychosocial functioning with the SF-12. **Results:** Twenty-seven percent of patients fulfilled criteria for SSD, 90% for at least one DCPR-R (mainly alexithymia, persistent somatization, demoralization, and allostatic load), and 20% for both DCPR-R and SSD. The presence of DCPR-R alexithymia and persistent somatization were associated with IBS severity with large effect size ( $d=1.18$ ) that was even more than with the joint presence of SSD ( $d=1.07$ ). **Conclusions:** Between-group comparison and multivariate regression showed DCPR-R alexithymia and persistent somatization, but not SSD, predicted more severe forms of IBS, after controlling for psychological distress and psychosocial functioning.

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### Is alexithymia a CV risk factor in healthy adults?

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**Background:** We investigated whether alexithymia is associated with cardiometabolic risk factors (RF) and increased CVD risk. **Methods:** 1,170 adult blood donors (74.8% males, aged 46.1±10.0) were recruited and assessed for traditional, biochemical and lifestyle RF. Psychological factors, including alexithymia (TAS-20) and depressive symptoms (BDI-II) were concurrently assessed. We evaluated CVD risk according to Framingham risk score (FRS) and Italian NIH (National Institute of Health) CUORE risk score (CRS). Estimated 10-year CVD risk was calculated with both scores. **Results:** The prevalence of moderate-to-high risk was 13% (FRS) and 21% (CRS). The alexithymic group (23.6%) had significantly a lower education and occupational status, as well as higher BMI, higher total and LDL cholesterol, higher lipoprotein-a, and depression score than the non-alexithymic group. Consistently, the percentage of subjects at moderate-to-high CVD risk was significantly higher in the alexithymic group for both FRS and CRS. A stepwise forward multivariate logistic regression was used to select predictors of moderate-to-high CVD risk. The results showed that alexithymia was a strong independent predictor of increased estimated CVD risk at 10 years for both FRS (OR: 2.40; 95% CI: 1.38-4.14;  $p=0.002$ ) and CRS (OR: 2.11; 95% CI: 1.32-3.38;  $p=0.002$ ), after adjustment for sociodemographic and lifestyle factors, BMI, diastolic blood pressure, metabolic RF (fasting blood glucose, LDL and triglycerides), and biochemical RF. **Conclusions:** This large cohort study suggests that alexithymia may be considered a major psychological factor for CVD risk in healthy population. Longitudinal studies are needed for investigating the role of alexithymia in clinical outcomes (morbidity and mortality).

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### Determinants of well-being and life satisfaction among individuals with severe mental illness: an integrated investigation

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**Background:** The focus on positive outcomes is on the rise in psychiatry and has been shown to be linked to better prognosis. Although it is unlikely that such outcomes (i.e. well-being and life satisfaction) in people with Severe Mental Illness (SMI) could be explained by any single factor. This paper aims to study the determinants of well-being and satisfaction in life among people with SMI in order to develop an integrated model of understanding and intervening in mental health. **Methods:** To exploring the impact of demographic and clinical variables on well-being and life satisfaction, we incorporated to the study environmental variables such as social support or perceived stress, measures of positive and negative affect as well as attitudinal (e.g., optimism) and coping measures (e.g., self-kindness and attitude towards medication). A total of 150 people with SMI were recruited from rehabilitation services in Madrid and were evaluated with different measures of well-being and satisfaction with life as well as measures of the different contextual, personal and coping factors under study. **Results:** Hierarchical multiple regression showed a differential pattern for well-being and satisfaction with life. However, in line with other studies, optimism was found to be a central variable for both well-being and satisfaction with life. Other variables that had an important predictive weight were social support and positive affect. **Conclusions:** This work suggests areas for an integrated approach to the well-being of people with SMI.

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### Current perspectives in psychosomatic medicine

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Psychosomatic Medicine is a comprehensive, interdisciplinary framework for assessment of psychological factors affecting individual vulnerability as well as course and outcome of illness; biopsychosocial consideration of patient care in clinical practice; specialist interventions to integrate psychological therapies in the prevention, treatment, and rehabilitation of medical disease. Psychosomatic research has advanced over the past decades in dealing with complex biopsychosocial phenomena and may provide new effective modalities of patient care. An overview of psychosocial variables which might affect individual vulnerability, course, and outcome of any medical disease, and which considers the role of chronic stress is illustrated. Assessment strategies, including the Diagnostic Criteria for Psychosomatic Research revised, are reported. The personalized and holistic approach to the patient includes integration of medical and psychological therapies in all phases of illness. In this respect, the development of new psychotherapeutic modalities, for instance the Well-Being Therapy, seems promising and the growth of subspecialties, such as psycho-oncology and psycho-dermatology, drives towards the multidisciplinary organization of health care to overcome artificial boundaries.

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### The phenomenon of withdrawal after discontinuation of SSRI

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**Background:** Since 1980s Selective Serotonin Reuptake Inhibitors (SSRIs) became the first-line treatment of anxiety disorders, replacing benzodiazepines (BZDs). It was claimed that BZDs were not safe due to their addictive power. However, increasing evidence suggested that SSRIs can induce addiction and their reduction or discontinuation may trigger withdrawal. Withdrawal after reduction or discontinuation of SSRs was documented and diagnostic criteria to definite three different withdrawal syndromes (i.e., new symptoms, rebound, persistent post-withdrawal disorder) were proposed. A semi-structured interview (the Diagnostic clinical Interview for Drug Withdrawal 1 (DID-W1) – New Symptoms of Selective Serotonin Reuptake Inhibitors or Serotonin Norepinephrine Reuptake Inhibitors) was also proposed as a tool to assess withdrawal after reduction or discontinuation of SSRIs according to the above diagnostic criteria. **Methods:** We here illustrate clinical cases presenting withdrawal syndromes after reduction or discontinuation of SSRIs as well as the results of the inter-rater reliability study of the DID-W1. Finally, the Clinical Pharmacopsychology Service is described as an example of innovative care paths of withdrawal after reduction or discontinuation of SSRIs in the medical settings. **Results:** Withdrawal after discontinuation of SSRIs is a clinical phenomenon more common than hypothesized and in need of being clearly diagnosed. The DID-W1 showed excellent inter-rater reliability, thus can be used as a clinician-administered tool for assessment. The Clinical Pharmacopsychology Service, operating since 2018 at the University of Florence (Italy), addresses to patients who are looking for treatment programmes allowing to rationalize, reduce, discontinue psychotropic medications. **Conclusions:** Time has come to revise current guidelines suggesting SSRIs as first-line treatment of anxiety disorders since they can addict patients and induce withdrawal at reduction or discontinuation. Time has also come to assess withdrawal and treat it with tailored programmes.

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### Emotion regulation and brain correlates

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A growing body of literature has highlighted the crucial role of emotion regulation for healthy affective and social adaptation. Individuals may regulate their emotional states in different ways. The present contribution first reviews behavioral and neuroimaging findings on two commonly used emotion regulation strategies: cognitive reappraisal (changing the way one thinks about potentially emotion-eliciting events) and expressive suppression (changing the way one behaviorally responds to emotion-eliciting events). Compared to expressive suppression, cognitive reappraisal is associated with healthier patterns of affect, social functioning, and well-being. Then, the contribution focuses on the literature that has explored the emotion regulation mechanisms associated with mindfulness. Mindfulness is an inherent mental capacity that allows regulating attention intentionally upon consciousness

and its contents in a moment-by-moment, non-discursive, receptive manner, and that can be fostered by training. It has been reported to be beneficial in many different clinical conditions. Though the debate on its therapeutic mechanisms of action is still open, several studies indicate that mindfulness moderates the impact of potentially distressing psychological contents through decentering or re-perceiving (a stepping back from mental experience that results in the realization that thoughts are not facts and thus leads to a disidentification from mental contents), with important implications for adaptive coping strategies as well as for cognitive, emotional, and behavioral flexibility.

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### Posttraumatic stress disorder in medical populations: Systematic literature review

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**Background:** Posttraumatic Stress Disorder (PTSD) has been widely studied in patients who survived war or physical aggression, but far less in patients who endured medical trauma, which is described as a sudden, catastrophic medical event in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition. **Methods:** MEDLINE, Embase, Global Health, ALL EBM Reviews – Cochrane DSR, ACP Journal Club, DARE, CCA, CCTR, CMR, HTA, NHSEED, PsycINFO, CINAHL, guidelines, government reports, TRIP database and NICE Evidence were surveyed. Medical traumas studied were anaphylaxis, burns, delirium, epilepsy, implantable cardioverter defibrillator, intensive care unit stay, intraoperative awareness, myocardial infarction, organ transplant and stroke. **Results:** An exploratory review of the literature carried out beforehand allowed us to collect the following preliminary results. PTSD prevalence ranged from 0% (delirium) to 31% (intensive care unit stay) when patients were diagnosed through a psychiatric interview and from 5% to 30% when a questionnaire was used. **Conclusions:** Medical conditions with the highest PTSD prevalence were a stay in the intensive care unit, epileptic seizure and burns. Awareness of this condition in medical settings could encourage physicians to open the discussion with their patients on possible PTSD symptoms and refer those at risk or actively experiencing symptoms to qualified specialists.

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### Description of trajectories and episodes of hospital emergency care for high blood pressure values: an anxiety-driven process?

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**Background:** A Canadian study reported a 64% increase in emergency room visits due to high blood pressure between 2002 and 2012. At the Montreal Heart Institute (MHI), a cardiology tertiary centre care, 2565 visits to the emergency department resulted in a primary diagnosis of non-malignant hypertension over the last five years. Auto-measure and fear of potentially major consequences of chronic high blood pressure might explain high rate of emergency visit for this reason. This study *aims* to: 1. examine trajectories leading to emergency room consultation for high blood pressure values; 2. describe principal reasons for patients to come at the emergency room for high blood pressure; 3. characterise medical advices (retained by the patient) about high blood pressure; 4. measure the proportion of patients which intend to follow those advices. **Methods:** A descriptive study is currently underway targeting patients whose primary reason for emergency consultation was high blood pressure. Each of the target 100 participants responds to a semi-structured interview 1-4 weeks after the consultation. Interviews and medical files are then analysed to highlight trajectories leading to the emergency room (patient; patient-tierce advice; patients-nurse, patient-pharmacist, patient-physician), and main elements, including fear of medical complications, that may have driven the consultation. **Conclusions:** This study will give a better idea of the actors and reasons involved in the decision-making that led to the emergency department consultation for high blood pressure values. Knowing what patients remember and intend to follow from physician advices will give input about communication efficacy.

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### Implementing evidence-based psychological treatments for eating disorders and obesity in a real-world clinical service

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In the real world, the treatment options offered to patients with eating disorders and obesity largely depend on the judgment and training of the examining clinicians, and the local availability of treatments. Even when evidence-based psychological treatments, such as enhanced cognitive behavior therapy (CBT-E) or personalized cognitive behavior therapy for obesity (CBT-OB), are available, these are rarely or not well delivered. CBT-E and CBT-OB, being designed to treat all forms of eating disorders and all the classes of obesity at three levels of care (i.e., outpatient, day-patient, and inpatient) offer the concrete possibility of implementing evidence-based psychological treatments in standard clinical services. The most distinctive and unique feature of this approach, also termed “multistep CBT-E and CBT-OB”, is that the same theory and procedures are applied at each level of care. This approach was first developed in Garda, Verona (Italy), but similar services are also being set up in the other European countries and in Japan. A cross-level clinical service based on CBT-E and CBT-OB has two main advantages. First, patients are treated with a single, well-delivered, evidence-based



treatment, rather than the evidence-free eclectic approach common elsewhere. Second, it minimizes the problems associated with transitions from outpatient to intensive treatment, as it avoids subjecting patients to the confusing and counterproductive changes in therapeutic approach that commonly accompany such transitions.

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### **PREPARE: PREOperative Anxiety REDuction. Pre-operative psychological intervention to increase patients' self-efficacy in managing anxiety before major pancreatic surgery: preliminary results of a randomized clinical trial**

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**Background:** Patients who must undergo surgical procedures experience high levels of distress. The literature reports various psychological interventions to help patients, but they are heterogeneous in terms of outcome and setting. The study reports a short individual psychological intervention to improve patients' self-efficacy in managing anxiety and their confidence in coping with pancreatic surgery (main outcome). Secondary outcomes are the lowering of "state" anxiety and the reduction of the number of hospitalization days, pain perception, and the number of complications after surgery. **Methods:** 318 patients, listed for pancreatic major surgery (July 2017- June 2018), were included for the study and assigned randomly to the psychological intervention or to the control group. The preoperative psychological intervention provided the patient the opportunity to talk with a psychologist about personal concerns and to learn simple techniques to cope with stress. **Results:** 92 patients completed the follow-up: 56 in control and 36 in experimental group. The psychological intervention showed to be effective, contributing to increase perceived self-efficacy (mean=8.4 vs 7.1;  $t=3.4$   $p<.01$ ) and to reduce state anxiety (STAI-Y1: 28.4 vs 42.6;  $t=6.7$   $p<.01$ ). No difference was found for the number of hospitalization days and the number of complications after surgery, whereas preliminary analyses showed that surgery pain perception (BPI) was lower in the experimental group. **Conclusions:** This is the first RCT on pancreatic patients listed for pancreatic major surgery that adopts a manualized psychological preoperative intervention devoted to increase perceived self-efficacy in managing anxiety. Preliminary results show that it might be effective.

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### **Catastrophizing in individuals with different pain characteristics**

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**Background:** Catastrophic thinking is having excessive negative thoughts, which can be related to having an exaggerated threat value of pain, difficulty in distracting attention from a condition, and difficulty dealing with a painful situation. Therefore, catastrophizing can affect the individual's well-being. The objective of this study was to compare the score of pain catastrophizing factors (Helplessness, Magnification, and Rumination) between groups with different pain characteristics. **Methods:** A total of 1,151 adults (78.9% female; 38.6 (SD=10.8) years of age) were divided into four groups: no pain (G0, n=335); pain for less than 3 months (G1, n=390); recurring pain for more than 3 months (G2, n=250); and continuous pain for more than 3 months (G3, n=176). The Pain Catastrophizing Scale (PCS) was used. Global scores for the Magnification, Rumination, and Helplessness factors were calculated using the matrix of regression weights obtained in the confirmatory factorial analysis. ANOVA-Welch ( $\alpha=5\%$ ) was used to compare the mean global scores between the groups with different pain characteristics. **Results:** Individuals experiencing pain (G1, G2, and G3) showed higher scores for pain catastrophizing factors compared to individuals without pain (G0). Individuals with pain for less than 3 months (G1) showed the highest scores for Rumination ( $p<.001$ ). No significant difference was observed in the mean scores of Helplessness and Magnification factors among groups with different pain characteristics (G1, G2, and G3). **Conclusions:** The PCS adequately discriminated individuals with and without pain. Among individuals in pain, Rumination was the only discriminating factor.

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### **Contribution of orofacial aesthetics to satisfaction with life**

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**Background:** The orofacial aesthetics is an important component that may interfere with the individual's social insertion and this may affect his/her general well-being. The satisfaction with life is considered a cognitive aspect of the subjective well-being. Despite the impact that orofacial aesthetics may have on the satisfaction with life, this relationship is poorly explored. Thus, the objective of the present study was to verify the influence of orofacial aesthetics on satisfaction with life in Brazilian adults. **Methods:** A total of 457 individuals responded to the Orofacial Esthetic Scale (OES) and Satisfaction with Life Scale (SWLS) (75.5%

female; 26.3±6.2 years). Factorial validity of OES and SWLS was evaluated by confirmatory analysis. The goodness-of-fit indexes used were  $\chi^2/df$ , CFI, TLI, and SRMR. The reliability was estimated using the Cronbach's alpha coefficient ( $\alpha$ ). A structural model was elaborated to estimate the impact of orofacial aesthetic on satisfaction with life. **Results:** The factorial models of the OES ( $\chi^2/df=9.833$ , CFI=.957; TLI=.931; SRMR=.046) and the SWLS ( $\chi^2/df=7.469$ , CFI=.970; TLI=.940; SRMR=.039) presented adequate fit to the sample. The reliability was adequate ( $\alpha \geq .86$ ). The fit of the structural model was adequate ( $\chi^2/df=4.402$ , CFI=.959; TLI=.948; SRMR=.039). The orofacial aesthetics presented 19% of contribution to satisfaction with life ( $\beta=.43$ ;  $p<.001$ ). **Conclusions:** The orofacial aesthetics contributes significantly to the satisfaction with life in adults. Aesthetic components such as face, face profile, mouth, rows of teeth, tooth shape/form, tooth colour, and gum should be considered for a more comprehensive assessment of subjective well-being.

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##### Exercise Motivations Inventory: a new factorial model

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**Background:** Physical exercise is a protective factor for psychological and physical diseases and depends on the motivation of individuals. The level of motivation is relevant for individual guidance and the elaboration of disease prevention protocols. The objective of this study was obtained a factorial model of the Exercise Motivations Inventory (EMI-2) and to assess its psychometric properties in Brazilian university students. **Methods:** One thousand university students (67.4% female; 21.1±3.0 years) were randomly divided into Test (n=498) and Validation (n=502) groups. The motivational aspects related to the practice of physical exercise were evaluated by EMI-2. A factorial model was obtained through Exploratory Factor Analysis (EFA) using the Test sample. The validity of the model was evaluated using Confirmatory Factor Analysis (CFA) with the Validation sample. The goodness-of-fit indexes used were  $\chi^2/df$ , CFI, TLI, and RMSEA. Convergent and discriminant validities were assessed by the Average Variance Extracted (AVE) and correlation analysis. The reliability was estimated using the ordinal alpha coefficient ( $\alpha$ ). **Results:** The factorial model obtained through EFA was composed of 40 items divided into 5 factors (Psychological, Interpersonal, Health, Corporal, Physical Condition). CFA indicated that three items presented factor loading  $<.50$  and were thus excluded. The refined model presented adequate fit to the sample ( $\chi^2/df=3.159$ ; CFI=.946; TLI=.955; RMSEA=.066). Convergent (AVE $\geq .50$ ) and discriminant (AVE<sub>i</sub> and AVE<sub>j</sub> $\geq r_{ij}^2$ ) validities and reliability ( $\alpha \geq .87$ ) were adequate. **Conclusions:** The EMI-2 was found valid and reliable for the assessment of physical exercise motivation in Brazilian university students.

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##### Locus of control between individuals with pain

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**Background:** Locus of control refers to the beliefs of individuals regarding who is in control of the situations they experience. The evaluation of health locus of control (HLC) can provide valuable information for pain treatment. The objective of this study was to compare the Multidimensional Health Locus of Control (MHCL-C) scores among groups with different pain characteristics and to identify the locus of control profile. **Methods:** A total of 1,149 adults (78.8% female; 38.6±10.8 years old) were divided into four groups: G0 (no pain, n=334); G1 (pain for less than 3 months, n=386); G2 (recurring pain for more than 3 months, n=250); and G3 (continuous pain for more than 3 months, n=179). The scores of the Internal, Chance, Health professionals, and Other people subscales were calculated. ANOVA was used to compare the mean scores between groups and individuals were classified according to the eight HLC profiles. **Results:** G1 showed the highest scores for the Health Professionals HLC. No significant difference was observed in the mean scores of the other groups. The "believer in control" profile was the most prevalent among the groups, while the least prevalent was the pure chance profile. **Conclusions:** The higher score of Health Professionals HLC for G1 may indicate that G1 participants were currently under treatment or had received treatment more recently than those in the other groups. The "believer in control" profile is the most favourable for patients' adaptation to medical advice and treatment.

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##### Demoralization in Parkinson disease

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**Background:** Demoralization occurs in a number of medical illnesses but has not yet been studied in detail in Parkinson disease (PD) and other movement disorders. **Methods:** Participants with PD and controls were recruited from outpatient movement disorder clinics and the community. Demoralization was defined as scoring positively on the DCPR, Demoralization questionnaire or Kissane Demoralization Scale score  $\geq 24$ . Depression was defined as PHQ-9 score  $\geq 10$ . Forward stepwise logistic regression was used to determine the odds of having demoralization in the overall, control, and PD cohorts. **Results:** Demoralization occurred in 18.1% of 94 participants with PD and 8.1% of 86 control participants ( $p=.05$ ). These 2 groups were otherwise comparable in age, sex, education, economics, race, and marital status. Among participants with PD, 7 of 19 (36.8%) depressed individuals were not demoralized, and 5 of 17

(29.4%) demoralized individuals were not depressed. In the overall cohort, having PD (odds ratio 2.60, 95% confidence interval 1.00-6.80,  $p=.051$ ) was associated with demoralization, along with younger age and not currently being married. In the PD cohort, younger age and Unified PD Rating Scale, part III score (per score 1) were associated with demoralization (odds ratio 1.06, 95% confidence interval 1.01-1.12,  $p=.02$ ). **Conclusions:** Demoralization is common in PD, distinct from depression (though sometimes co-occurring with depression) and associated with inability to cope. Findings from this study will be contrasted with results of another study of patients with essential tremor.

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### Association of Chronic pain and Alexithymia

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**Background:** Alexithymia, described as inability to experience and communicate feelings/ has been associated with many conditions like somatoform disorders, chronic pain and depression. Its presence can influence the clinical manifestations and impact on course and treatment outcomes. The current study aimed to assess alexithymia in subjects with chronic non organic pain and its correlates.

**Methods:** This study was conducted in an outpatient setting of tertiary neuroscience hospital. Subjects fulfilling the study inclusion criteria of having persistent pain for six months of either gender, age range of 18-45 years, without an organic cause for their pain were recruited after obtaining written informed consent. Alexithymia was assessed using the Diagnostic Criteria for Psychosomatic Research (DCPR). The subscale, Affective Inhibition of Illness Behaviour Questionnaire was also considered for assessment. **Results:** Of the 301 patients with chronic non organic pain, 82 (27%) had Alexithymia (DCPR). The mean scores on Affective Inhibition (AI) subscale of IBQ was  $2.64 \pm 1.80$ . Patients with Alexithymia had significantly higher scores on AI. Men who were married had higher mean scores on AI ( $2.45 \pm 1.78$ ;  $3.06 \pm 1.79$ ;  $U=7692.0$   $p=.004$ ). Education, background, socioeconomic status did not have any association with Affective Inhibition and Alexithymia. Pain related variables, like intensity, sites and duration did not correlate with Alexithymia. **Conclusions:** Alexithymia is present in sizeable number of patients with chronic non organic pain and needs assessment as part of routine assessment of chronic pain. Future studies need to assess the course of patients with alexithymia and chronic pain.

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### Somatic symptoms in pregnancy

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**Background:** Bodily symptoms can be multifactorial during pregnancy. The current study aimed to describe the bodily symptoms in a cohort of pregnant women attending antenatal clinics across all trimesters and to assess the association between the bodily symptoms and perinatal depression.

**Methods:** Pregnant women attending a community antenatal center, in the first trimester of pregnancy fulfilling the study criteria were included after obtaining written informed consent. The assessments included sociodemographic and anthropometric details, Scale for Assessment of Somatic Symptoms (SASS) for somatic symptoms and Edinburgh Postnatal Depression Scale for perinatal depression. The assessments were conducted across three trimesters of Pregnancy. **Results:** Six hundred and fifty women were recruited in the study during the first trimester. Mean age of the women in years was  $23.02 \pm 3.401$ . Nearly half of the women (46.5%) were primiparous and 48.3% belonged to lower socio-economic status. The most common symptoms during the first trimester included, nausea (40%), weakness (physical and mental fatigue) (35.8%) and headache (24%); during second trimester weakness (physical and mental fatigue) (26%), headache (26%), urinary frequency (25.3%), and in third trimester, urinary frequency (39%), weakness (physical and mental fatigue) (29%), pelvic pain (26%), and backache (23%). The total severity score of SASS correlated positively with the total score of EPDS across all trimesters.

**Conclusions:** Physical symptoms are commonly experienced during pregnancy across all trimesters and may contribute to the psychological distress. Physical symptoms that are not typical of pregnancy or excessive preoccupation with physiological symptoms might be an indicator of underlying psychological distress.

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### Association between tissue factor, other indicators of the coagulation cascade and depression scales in patients with Coronary Artery Disease (CAD)

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**Introduction:** Depression predicts new events and mortality in Coronary Artery Disease (CAD) as an independent risk factor. Different coagulation parameters (fibrinogen, D-dimer, v.Willebrand-factor (vWF), factor VII (FVII), PAI-1), which correlated with acute or chronic stress, could also be responsible for acute cardiovascular events. Although it starts the coagulation cascade the Tissue Factor (TF) was not analysed related to behavioral factors until now. Therefore, in the present study we wanted to examine, if TF is associated (a) with other procoagulant markers and (b) with the level of depression as an important psychosocial parameter. **Methods:** In this multi-centre psychotherapy trial, 450 men (78.94%) and 120 women (age 18-75 y) with Hospital Anxiety Depression Scale (HADS) depression scores  $>7$  and any manifestation of CAD, were randomized into the intervention or control group. 253 CAD patients (age  $58.9$  sd  $8.3$  y.; 59 w, 194 m) were analyzed within the study at baseline and at follow-up 18

months later. TF, fibrinogen, D-dimer, vWF, FVII and PAI-1 and their correlations with three depression scales (HAMD, PHQ-9, HADS-D) and with vital exhaustion (VE) were analyzed. **Results:** TF correlated significantly (a) with D-dimer negatively (-.20;  $p < .05$ ) and with PAI-1 thrombolysis positively (.42;  $p < .0001$ ) and (b) with HAMD positively (.21;  $p < .002$ ), PHQ (-.21;  $p < .003$ ) and VE (-.18;  $p < .02$ ) negatively. There were no significant correlations of any other examined coagulation factors with depression scales at baseline. In a regression analysis age, family history of MI, HAMD, VE and diabetes predicted TF at baseline (corr  $R^2$ .30;  $F$  15.3,  $p < .0001$ ). Not TF but fibrinogen decreased in the course of time (time effect  $p = .02$ ) as well as v.WF (time effect  $p = .04$ ). In line with our expectations, fibrinogen (.15;  $p = .03$ ) and D-dimer change (.16;  $p < .06$ ) correlated with VE change. This was not seen in other examined coagulation parameters and depression scales. Interestingly TF change correlated with FVII change (.20;  $p < .02$ ) and fibrinogen change with vWF change (.38;  $p < .0001$ ). **Conclusions:** TF correlated with D-dimer and PAI-1. Correlations between TF and age, disease history and depression scales were shown. Coagulation parameters as possible mediators for CAD progression may be influenced by level of VE, HAMD and PHQ. A more sophisticated analysis of all coagulation and disease factors seems necessary to evaluate the psychosocial findings.

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### Interstitial cystitis/bladder pain syndrome and quality of life: cross-sectional study on Italian women

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**Background:** Interstitial Cystitis/Bladder Pain Syndrome (IC/BPS) is a chronic condition well studied in the urology and gynaecology fields, but its psychological impact on patients' quality of life has been neglected. Our study prioritised the psychological impact of IC/BPS on the quality of life and wellness of patients in an effort to identify the emotional impact of this pathology on the sex lives of women. **Methods:** A cross-sectional study was conducted on sample composed of 132 women (aged 20-75 years). **Results:** Statistical analysis evidenced significant differences in diagnosis time ( $p < .02$ ) associated with sexual distress and characterised by significant metacognitions, such as negative beliefs ( $p < .01$ ), cognitive confidence ( $p < .08$ ), stress ( $p < .00$ ), anxiety ( $p < .001$ ), and depression ( $p < .001$ ). This finding highlighted that women suffer significant psychological distress related to IC/BPS. **Conclusions:** Personalised treatments using an integrated clinical approach should be the innovative solution for comorbid psychological distress in IC/BPS pathology.

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### Assessing Alexithymia: the first application of TSIA on obese patients

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**Background:** Alexithymia is associated to physical and psychological diseases including obesity. The most widely used instrument to assess the alexithymia construct is the TAS-20, which shows the limitations of a self-report test. To overcome these limitations, the Toronto Structured Interview for Alexithymia (TSIA) was developed as an interview-based method. The aim of the study is to assess alexithymia levels in obese patients using a multimethod measurement to evaluate both possible differences between the two instruments and their relationship with the obesity condition and psychophysical symptomatology. **Methods:** A total of 54 obese patients (12 women; mean BMI:  $42.56 \pm 6.16$ ), seeking surgical treatment, were enrolled in a Centre of Excellence in Bariatric Surgery in Latina. The subjects completed: TSIA, TAS-20, SCL-90-R and a sociodemographic questionnaire. Weight was measured on-site.

**Results:** Data analysis showed a positive association between TAS-20 and TSIA ( $r = .289$ ;  $p = .034$ ). However, only TSIA scores were positively related to body weight ( $r = .393$ ;  $p = .003$ ) whereas TAS-20 was positively related to global severity index (GSI, SCL-90-R) ( $r = .438$ ;  $p = .001$ ). The set of linear regression models performed showed that only TSIA total score was a significant predictor of body weight ( $B = .944$ ,  $p = .012$ ) whereas using the TAS-20 total score a predictive effect on body weight did not emerge. **Conclusions:** The findings showed a different association between body weight and alexithymia according to instrument employed to evaluate alexithymia. This finding supports the importance of a multimethod assessment in some clinical conditions.

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### Promoting mental health and well-being in early adolescence through a resilience-based programme

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**Background:** Early adolescence is a time of biological, psychological and social changes and mental health at this stage of life is a key area of health concern. Resilience consists of resources and dynamic processes, meant to re-establish equilibrium and positively adapt to stressful, challenges and traumatic events. The school system provides a nurturing environment to build adolescents' resilience, promote their mental health and well-being and prevent mental health disorders. However, unmet needs in the field of resilience-based programmes targeting early adolescents still exist. **Methods:** The universal programme UPRIGHT has been co-created during the first 9 months of the EU H2020 UPRIGHT Project\*, through a holistic approach involving the active

collaboration among international researchers with mental health and well-being expertise, early adolescents, families and schools. Between October 2018 and June 2019, the first wave of the UPRIGHT intervention is implemented across 5 pilot regions (in Spain, Italy, Poland, Denmark, Iceland). **Results:** The UPRIGHT programme fosters the development of a broad range of core protective factors, entailing coping strategies and stress management skills, efficacy and socio-emotional learning components. To promote awareness and connection, mindfulness activities have been integrated within all the 14 programme skills. The theoretical framework of the programme and some preliminary results of the project will be presented. **Conclusions:** The UPRIGHT Project participatory approach allows to maximise the acceptability of the programme in each local context. As a result of the UPRIGHT programme implementation, early adolescents' wellbeing is expected to be fostered, by strengthening individual, relational and contextual resilience resources.

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### Psychological advice and therapy in irritable bowel syndrome

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**Background:** Irritable Bowel Syndrome (IBS) is a common functional gastrointestinal disorder. If diagnostic is quite easy based on Rome criteria, the therapy is difficult and should be addressed to personalized cases. This presentation represents a literature survey on new trials in therapy of IBS and show personal data. **Methods:** A comprehensive literature search on main data bases allowed us to identify RCTs dedicated to psychotherapeutic approach in IBS. Beside this we present our single centre experience in using counselling by a CBT trained physician in the approach of IBS sever patients. **Results:** The literature search brings convincing data on the role of psychotherapy in IBS. Beside the standard psychotherapeutic interventions, we show that using counselling by gastroenterologists trained in CBT and interested in functional gastrointestinal disorders bring added value to the management of the IBS patients. A retrospective survey of IBS severe patients addressed to a gastroenterological centre with experience in IBS research and management showed that using psychotherapeutic advice beside life-style and pharmacological recommendations are more frequently successful than standard of care without psychotherapeutic advice. **Conclusions:** Beside psychotherapy, psychological advice and therapy improve the outcome of IBS patients.

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### Psychosomatic aspects of irritable bowel syndrome

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**Background:** Irritable Bowel Syndrome (IBS) is the prototype for the application of the biopsychosocial model in the management of chronic pathological conditions. This presentation will review new trends in the psychosomatic approach of IBS including personal data. **Methods:** A comprehensive literature search on psychosomatic medicine in IBS was undertaken in main data bases. We also performed a meta-analysis on outcomes of CBT in IBS. **Results:** The recent original papers found on PubMed, Clarivate and Scopus confirm the need of a biopsychosocial approach in the management of IBS. Our meta-analysis showed that CBT interventions have a greater effect on alleviating IBS symptoms severity rather than on reducing psychological distress. Behavior, emotions, and cognitions seem to have a small to moderate effect in mediating the reduction of IBS symptom and of psychological distress. **Conclusions:** While looking to the effect on microbioma in the pathogenesis of IBS symptoms one should also address our interventions to psychosocial factors.

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### The foundational principles of rehabilitation psychology

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The Foundational Principles (FPs) of rehabilitation psychology represent basic and essential concepts drawn from the work of the late Beatrice A. Wright and other founders of rehabilitation psychology that guide theory, practice, and research. The FPs provide a humanistic side to the science and practice of rehabilitation psychology, emphasizing that the experience and well-being of the person with a disability matters above all else. As rehabilitation psychology continues to advance, the importance, utility, and history of the FPs should not be overlooked; indeed, these often-implicit beliefs should be made more explicit, particularly due to the research-practice heritage they represent. Finally, new FPs may be identified and added to the current list. I will the current FPs, including Lewin's person-environment relation; the insider-outsider distinction, which clarifies the influence perspectives have on disabled and nondisabled persons; adjustment to disability; the role of psychosocial assets; the self-perception of bodily states; and the importance of human dignity, where a person is a person and not an object.

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### Reflective functioning in patients with irritable bowel syndrome

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**Background:** Irritable Bowel Syndrome (IBS), as part of the functional somatic syndromes, is a very frequent functional bowel disease with the prevalence of 11.2%. The economic costs of diagnostic procedures, psychological and somatic

strain of patients are very high. Patients often feel misunderstood and stigmatized and lack adequately developed coping strategies. The aetiology of IBS includes biological factors like disorders on the Hypothalamic-Pituitary-Adrenal axis (HPA-axis), immune system and neurotransmitters, as well as psychological factors like pathological personality traits, mentalization and early attachment strategies (attachment deactivating and hyperactivating). Literature reports data on the connection between adverse early life events, early traumata and IBS, but data on reflective functioning of these patients is rare. **Methods:** In this study we explored reflective functioning of IBS patients (N=30). IBS diagnosis has been established according to ROME IV criteria. The patients were unfamiliar with any kind of psychotherapy and psychiatric medication. Mentalization was scored on the Brief Reflective Functioning Interview (BRFI) using the Reflective Functioning Scale (RFS). **Results:** The results revealed severe impairment in patients with IBS concerning their ability to mentalize (RF overall score (mean) = 2.73). The results confirm the hypothesis of authors that the patients with functional somatic syndromes have reduced capacity of reflective functioning. **Conclusions:** Currently, there is no standardised psychotherapeutic treatment for functional somatic syndromes. Beside the medical treatment as usual, it is to consider the usefulness of mentalization based therapy (MBT) as a parallel option to the medical treatment. Further studies are needed.

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### Is parental solicitousness correlated with bowel symptoms in adolescent?

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**Background:** The factors relating to the development of adolescent irritable bowel syndrome (IBS) are largely unknown. We hypothesized that parental solicitousnesses are correlated with abdominal symptoms of their children. **Methods:** Fourteen-years-old students selected randomly from Miyagi prefecture, Japan and their parents participated in this study. Students fulfilled Rome II Modular Questionnaire (RIIMQ), Self-reported IBS Questionnaire (SIBSQ), Toronto Alexithymia Scale-20 (TAS-20) and Illness Behavior Encouragement Scale for Child (IBES-C). Their parents fulfilled IBES for Parent (IBES-P). IBES-C evaluates children's feeling to the behaviors of their parents, while IBES-P evaluates how parents think their behavior by themselves. **Results:** In 561 students (boys 244, girls 317), 60 boys (24.6%) and 108 girls (34.1%) had symptoms of functional bowel disorder (FBD) as an allied condition of IBS by RIIMQ. The solicitous scores in IBES-C were lower than that in IBES-P ( $p < .001$ ). The difference in the IBES scores between FBD students and their parents was larger than that between non-FBD students (184 boys and 209 girls) and their parents ( $p < .05$ ). Low solicitous students reported significantly severer abdominal pain than high solicitous students ( $p < .01$ ). Students with FBD showed higher TAS-20 score than non-FBD students ( $p < .0001$ ). In the whole sample, the solicitous scores in IBES-C were negatively correlated with TAS-20

scores ( $p < .001$ ). The scores of TAS-20 were independently and significantly associated with the solicitous scores in IBES-C ( $\beta = -0.23$ ,  $p < .001$ ). **Conclusions:** The results suggested that early life perception of parental solicitousness have effect on the development of functional bowel symptoms.

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### Psychosocial characteristics of chronic pain outpatients

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**Background:** Approximately 10% of the European population experience chronic pain, the majority of which are treated by their primary care physicians in the long term. We aimed to explore the psychosocial background of chronic pain utilizing the Diagnostic Criteria for Psychosomatic Research Revised (DCPR-R) and the Psychosocial Index (PSI) to facilitate holistic care of individual patients. **Methods:** Doctors invited chronic pain patients to participate in a DCPR-R interview by trained personnel and to complete self-reported questionnaires on the psychosocial factors (PSI), stress, depression and anxiety symptoms (PSI, DASS), well-being levels (PSI, PHS-WB, Fava WB-check), and bodily worries (Whiteley-7). **Results:** A total of 49 patients (34 female) with a mean age of 57 years participated in the study. The median length of living with chronic pain was 9 years (range: 0.5-60). 7 out of 30 multimorbid patients (two or more chronic conditions) had a DSM-5 psychiatric comorbidity. The median number of DCPR syndromes was 1 (range: 0-5) with higher proportion in those with psychiatric comorbidity (Mdn: 4, range: 3-5;  $p < .0001$ ). Allostatic overload, persistent somatization, demoralization, irritable mood and somatic symptoms secondary to a psychiatric disorder were found more frequently in patients with comorbid psychiatric illness. These patients also scored higher on the PSI psychological distress ( $p < .0001$ ) and stress factor ( $p = .003$ ) and lower on PSI global well-being and psychological well-being ( $p < .0001$  respectively). **Conclusions:** Our data indicates that psychiatric comorbidity has a high impact on the burden of chronic pain. Stress reducing interventions and enhancing well-being might be beneficial in relieving symptoms of this vulnerable population.

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### Maternal unpredictable signals are related to infant's emotional attention at 8 months

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**Background:** Recent studies have shown that unpredictable sequences of maternal caregiving behaviors influence the developing brain. Little is known about the association between the predictability of maternal sensory signals and the infant's attention to emotional faces. Infants have a strong tendency to orient to emotional faces, and variation in in this "face bias" has been related to mother-infant interaction, i.e. infant's attachment security. **Methods:** This study belongs to FinnBrain Birth Cohort Study. Our sample comprised 142 infants, who participated in a study visit including mother-infant free play situation and eye-tracking of infant attention using face-distractor competition paradigm. Entropy rate was calculated as a measure of the predictability of the transitions between maternal auditory, visual and tactile signals. Face bias measures infants' tendency to disengage attention from non-face stimuli contrasted to neutral and happy face stimuli. **Results:** The disengagements were modelled using mixed effects (binary) logistic regression. We found that higher entropy rate was associated with lower face bias ( $p=.013$ ), i.e. there were less differences between attention to face and non-face stimuli if maternal care was less predictable. **Conclusions:** According to our preliminary results, more predictable maternal caregiving behavior is associated with the infants' increased attention to faces. More detailed results will be presented, and the implications of the findings will be discussed in the symposium.

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### Improving well-being and acceptance in people with paranoid tendencies; a study of the effectiveness of a group intervention with ESM data

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**Background:** Despite a traditional pessimistic view of prognosis in psychiatry, the promotion of well-being and acceptance are essential elements in the recovery process of

any mental health problem, beyond focusing on reducing symptoms. The aim of this experience sampling study is to provide data on the effectiveness and feasibility of a manualized group intervention protocol to improve well-being. **Methods:** A total of 50 patients with paranoid tendencies who participated in a positive psychology group intervention to direct the participant's attention towards generating positive emotions and actions. The pre-post evaluation entailed an ESM protocol that included 10 randomized times assessments per day during one week before and after the intervention. The manualized protocol included exercises of Positive Psychological Therapy for psychosis and of Acceptance and Commitment therapy for psychosis. **Results:** Multilevel analysis showed that the protocol was feasible and highly acceptable for participants, showing significant improvement on well-being in the daily life context. Also, we explored the interactions between negative affect and experiential avoidance (EA) on paranoia levels before and after treatment in the daily life, finding a positive relationship between negative affect and paranoia before treatment, but not after the intervention. Participants with high (vs. low) levels of EA grew more paranoid as time went by after treatment. **Conclusions:** This pilot study indicates that group therapy might be helpful in increasing well-being and reducing distress among people with paranoid tendencies by the effects of increased acceptance.

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### Childhood maltreatment and the physical burden of patients with bipolar disorders.

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**Background:** Childhood maltreatment, including emotional, physical or sexual abuse, is frequent and severe in patients with Bipolar Disorders (BD). It has been previously demonstrated that childhood maltreatment influences the clinical expression of BD, leading to a more severe and unstable course of the disorder. However, little is known about the potential influence of childhood maltreatment on the physical health of patients with BD. **Methods:** We studied the association between the number of associated physical conditions and childhood maltreatment in a sample of 1465 individuals with BD. **Results:** The median number of medical disorders was 3 (IQR=1-4). Only 8.4% of individuals with BD presented with no medical disorder, 38.7% had only one medical comorbidity and 53% had at least two medical comorbidities. The most prevalent medical comorbidities were hypercholesterolemia (49%), hypertriglyceridemia (22%), migraine (20%), hypertension (19%), allergies (other than asthma) (19.7%) and head injury (13.6%). The higher the severity of childhood maltreatment was, the higher the number of associated medical disorders. After adjusting for potential confounders, childhood maltreatment (measured using the Childhood Trauma Questionnaire total score) was significantly associated with a higher number of medical disorders. This association was more particularly observed for emotional abuse and sexual abuse or with the sum of childhood abuse (emotional, physical and sexual abuse). **Conclusions:** we suggested that childhood

maltreatment may contribute to the physical burden of patients with BD.

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## 122 Interactive brains

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Today's neuroscience has something to say on the discussion about what makes us humans and how as humans, we do we interact with others. We consider ourselves as humans and thus as moral beings likely because of our capability to represent the future. This capability to make long-distance predictions could be the result of the evolution of a linguistic and symbolic brain, from sensorimotor regions of our phylogenetic ancestors, predictive in nature, originally implicated in action programming and others' actions understanding, dealing with grammars and syntaxes and computationally trained by the interaction with the others. Evidence in favor of the hypothesis that interactive, communicative, linguistic and symbolic capabilities may have evolved from such a sensorimotor brain will be provided. A sensorimotor brain still surviving under the conscious one and which, differently to the latter, always says the truth.

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## 123 Too low or too high psychological well-being as risk factor for binge drinking in 14 years old students: a multivariate logistic regression study

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**Background:** Binge Drinking (BD) represents an important psychosocial problem especially in people with an age ranging from 15 to 29 years old. Limited research regards the predictive role of psychosocial factors on BD, such as depression and anxiety, and mainly among middle/late adolescents and young adults. No studies investigated the influence of impaired (both too high and too low) levels of psychological well-being on BD among young adolescents. **Methods:** A total of 1,687 adolescents (53.2% males) attending the first year of high school (mean age=14.24±0.624 years old) completed an anonymous self-report questionnaire including ad hoc questions and validated measures on BD, cannabis use, lifestyle, allostatic overload (PsychoSocial Index), subclinical psychological distress (Symptom Questionnaire), psychological well-being (Psychological Well-being Scales) and problem-solving (Problem Solving Inventory, Form B). **Results:** Binge drinkers represented 16.7% of the sample. Some indexes related to stress and distress (higher number of stressful life events, absence of allostatic overload, higher somatization, hostility and lower anxiety), well-being (higher autonomy and positive relations, lower personal growth, purpose in life and self-acceptance) and problem-solving (avoidant problem-solving style) were associated to a greater risk of BD. **Conclusions:** BD represents

a relevant problem already in early adolescence. These new findings on impairments in well-being could represent the potential target of longitudinal studies aimed to implement specific preventive intervention among young adolescents. Well-being therapy might be suitable for improving well-being in this population, as indicated in pilot studies with other specific targets and carried on different populations.

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## 124 Risky levels of biomarkers associated with minor depression and demoralization among patients with a first episode of acute coronary syndrome

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**Background:** Little is known about the relationship between cardiac-risk related blood parameters (e.g. Hb, lipid profile, homocysteine, D-dimer), stress related hormones (cortisol, epinephrine, norepinephrine), inflammation biomarkers (fibrinogen, C-reactive protein) and subclinical depressive syndromes (minor depression and demoralization) among patients with Acute Coronary Syndrome (ACS). **Methods:** A total of 100 patients (69% males; 40-84 years old) with a first episode of acute myocardial infarction or unstable angina and at least a psychiatric (i.e. major/minor depression, dysthymia) and/or a psychosomatic diagnosis (i.e., demoralization) were enrolled.  $\chi^2$  test was carried out to evaluate the associations between risky levels of blood parameters, stress and inflammation biomarkers, and psychiatric (based on Structured Clinical Interview for DSM-IV) and psychosomatic diagnoses (based on Diagnostic Criteria for Psychosomatic Research) considering their presence/absence before the hospitalization. **Results:** Demoralization, minor depression and major depression were diagnosed in 90%, 56% and 18% of the sample, respectively. Risky levels of homocysteine and d-dimer were associated with current minor depression. Risky values of HDL cholesterol were mainly found in demoralized patients with a positive anamnesis of demoralization as well, whereas those of urinary cortisol in patients with both demoralization and/or minor depression with a positive history of minor depression. Finally, risky levels of epinephrine were associated with current major depression. **Conclusions:** This study highlights the usefulness of a clinimetric approach considering the longitudinal course of subclinical depression. In addition, not only clinical but also subclinical depressive conditions are associated with biological changes that allow the identification of subgroups of patients at greater risk.

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## 125 The neuroplasticity of the self in the psychotherapeutic relationship

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**Background:** The self is a complex concept that has long been discussed in philosophy, psychology and psychoanalysis.



Historically it has been associated with mental features and psychological structures and functions. Recent studies in the field of neuroscience and psychosomatics showed that the Self results from complex interactions among brain neural activity, body and relational environment. How does the Self change during a therapeutic process? **Methods:** A review of the literature defining the specific neuropsychodynamic approach to the Self and its contextualization in psychotherapy is illustrated. Furthermore, clinical observations and sketches are presented to highlight and follow the therapeutic processes, including persons with brain damage. Operationalized Psychodynamic Diagnosis (OPD-2) and self-report questionnaires are presented as examples of systematic evaluation of the change during a therapeutic intervention. **Results:** The Self is not a fixed entity, but it changes over time in dependence on age and the respective relational/environmental context: thus, it shows a high degree of plasticity. Such plasticity is crucial for psychotherapy. Furthermore, it is evident how plasticity of the Self in the psychotherapeutic relationship is rooted in the intersubjective matrix, comprehensive of basic aspects of sensorimotor integration and emotional/neurobiological factors. **Conclusions:** Through specific operationalized psychodynamic instruments (e.g., OPD), self-report questionnaires, experimental tasks and specific neuroimaging evaluations it is possible to systematically evaluate the neuropsychodynamics of the change.

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### Insomnia and sleep disorders in neurological illness

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**Background:** Sleep has been described by Hobs "as being of the brain, by the brain and for the brain." It is possible to understand how insomnia and sleep disorders and disturbances are very frequent in several neurological diseases. Research in neuroscience gives new insights for a comprehensive understanding including subjective meanings. **Methods:** A systematic review and clinical observations in psychosomatic rehabilitation practice, summarize what is currently known about sleep disorder in main neurological illness. Dreaming disturbances and features are explored. Main cerebrovascular, neurodegenerative and demyelinating diseases are considered. **Results:** Neurological diseases have patterns of associated sleep disorders (following the ICSD). They can be predisposing, prodromal or consequent in the illness onset. Interesting features and little studied dreaming disturbance and features, anyway transversal aspects are evident in association with brain damage and environmental and relational aspects. **Conclusions:** Sleep and dreaming features and disorders in neurological diseases deserve a systematic attention and diagnosis in clinical practice. In fact, often they hamper the recovery process in rehabilitation practice and is associated with subjective distress of patients and burden of their caregiver. Psychosomatic and affective neuroscientific perspectives are helpful to understand specific or transversal phenomena related to brain damage, personality features, relational and environmental context and their interactions. Concerning brain damage, it is peculiar and crucial the role of subcortical regions to explain the overlapping of sleep and dreaming disturbance with other behavior alterations. Clinical

practice needs to consider new insights for proper interventions.

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### The strength of psychosomatic medicine

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The failure of evidence-based medicine (EBM) to actually improve patient care is getting increasing attention. The clinician has been convinced to adhere to guidelines to practice the best medicine, while he/she is simply guided to see problems in a certain way, often deeply influenced by financial conflicts of interest, and to treat the average instead of the individual patient. EBM certainly gave an important contribution to questioning unsubstantiated therapeutic claims, yet it only represents a restrictive interpretation of the scientific approach to medicine. EBM drives the prescribing clinician to overestimate potential benefits, paying little attention to the likelihood of responsiveness and to potential vulnerabilities in relation to the adverse effects of treatment. It leads to medication overload and to proliferation of iatrogenic disorders. An alternative model for a better use of the scientific model can be found in the roots and developments of psychosomatic medicine. Major strengths of the psychosomatic model are re-evaluation of clinical judgment for assessing benefits, responsiveness, and vulnerabilities at the level of the individual patient; observation, introspection, and dialogue as the basic methodological triad for clinical assessment and shared decision; substitution of the obsolete model of disease with the biopsychosocial consideration of variables that are targets of intervention; practice of multidisciplinary and lifestyle medicine with integration of medical and psychological approaches in all phases of illness; pursuit of the multiple determinants of treatment outcome, encompassing illness behavior, treatment setting, self-management, and psychological well-being.

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### Specialisation in psychosomatic medicine within and across disciplines

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Guidelines across medical disciplines recommend addressing biological and psychosocial factors concurrently, e. g. in cardiovascular or musculoskeletal diseases. Yet, particularly in highly specialised hospital settings, such integrative care is scarcely provided. Therefore, under guidance of the Austrian Medical Chamber and the Ministry of Health, we set out to develop a training curriculum in psychosomatic medicine for medical specialists to improve specialised integrative care in the hospital across disciplines. In the national board of medical education representatives of all medical specialties were invited to curriculum planning. The novel curriculum should provide an equivalent alternative to an already existing extra-occupational psychosomatic curriculum. A first draft version was developed by an interdisciplinary scientific board for quality assurance in psychosomatic medicine. Representatives of both boards gave written comments on this preliminary version. It was further modified in an iterative process to achieve full multidisciplinary support. Representatives of seventeen medical societies contributed to different versions of the curriculum until unanimous assent was achieved in both boards. The general assembly of the Medical Chamber concordantly decided to introduce this specialisation in December 2017. Graduation requires training in psychosomatic medicine within one's own specialty for eighteen months. Training includes patient-centred diagnostic and therapeutic procedures in patients with lifestyle-related chronic diseases, comorbid mental/somatic health problems, and functional symptoms. Training encompasses cultural, age- and gender-related aspects and is accompanied by Balint-work and supervision. All clinical disciplines participated in curriculum planning in order to jointly promote specialised integrative psychosomatic care and multidisciplinary cooperation in hospitals.

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### Irritable bowel syndrome: can it be put to sleep with hypnosis?

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**Background:** The term hypnosis comes from the ancient Greek word  $\acute{\upsilon}\pi\nu\omicron\varsigma$  hypnos, sleep, or from  $\acute{\upsilon}\pi\nu\acute{\omicron}\omega$  hypnoō, put to sleep. Hypnotherapy is considered as a promising intervention for Irritable Bowel Syndrome (IBS). Gut-focused hypnotherapy improves the symptoms of irritable bowel syndrome with benefits being sustained for many years. **Methods:** A literature search was performed using PubMed, PsycINFO and the Cochrane Central Register of Controlled Trials (CENTRAL database). Keywords used were: "irritable bowel syndrome", "hypnotherapy", "hypnotherapy for irritable bowel syndrome". **Results:** The mechanism of action of hypnosis remains unclear but it is suggested that hypnosis may

affect IBS by altering perceptions (for instance, of rectal distension and discomfort, and of external or internal threats to the sufferers), by improving visceral sensory perception, normalizing rectal sensitivity or quieting colonic motility. Hypnosis also appears to enhance the effect of placebo analgesia. The key word may be "altering perception" rather than permanently altering the actual functioning of the organ system involved. **Conclusions:** Hypnosis consistently produces significant results and improves the cardinal symptoms of IBS in the majority of patients. Studies also show that hypnosis positively affects non-colonic symptoms, emotional well being, ability to work, and quality of life of IBS patients. A potential criticism for the use of hypnotherapy as a treatment for IBS has been that it is costly to provide because of the demands on therapists' time. However, costs of treatment could be rapidly offset by the ensuing reduction in cost of medication and other healthcare demands. More high-quality RCTs are needed for evaluating the long-term efficacy of hypnotherapy.

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### Burnout, suicidal ideation and depressive symptoms among nurse students in Modena

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**Background:** Burnout (BO) syndrome typically affects helping professions, combining stress and idealism. Students of the health professions, as well, have been found to be at risk of developing BO, depressive symptoms and, in most severe cases, suicidal ideation. The aim of the study was to measure indicators of these conditions among students of the Nursing School of the University of Modena & Reggio Emilia, and to single out possible predictive factors. **Methods:** An anonymous survey was administered to 319 consenting students, in April 2018. The questionnaire included questions on socio-demographic features, personal and academic information and 5 validated psychometric tools: Maslach Burnout Inventory-GS, Suicide Ideation Behaviour Questionnaire, Patient Health Questionnaire-9, Areas of Worklife Survey, Big Five Inventory-10. **Results:** Mean levels of emotional exhaustion (EE) ( $20.3 \pm 10.09$ ) and low professional accomplishment (PA) ( $39.01 \pm 6.4$ ) were found to be intermediate, whereas that of cynicism (C) was low ( $5.43 \pm 5.28$ ). EE tended to increase through the three years of training, while PA and C did not change in a relevant way. Depressive symptoms were complained by 76 students (23.8%), most of whom ( $n=30$ ) at the third and final year of training. The workload was described as generally high, but students also expressed positive remarks on control over their work, rewards, perception of teamwork, fairness and values. The most commonly reported personality features were extraversion, openness and conscientiousness. **Conclusions:** Nurse students described their training as interesting but also hard as to both theoretical study and clinical training rotations. Adequate support to students in their cultural and human growth should be provided.

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**The role of hair cortisol concentration in the association between parent and child psychopathology: a sex-based analysis**

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**Background:** Parent and child mental health are strongly associated, and this association may be mediated by disruption to the Hypothalamic-Pituitary-Adrenal (HPA) axis in children. Cortisol extracted from hair accounts for the chronicity of psychopathology compared to other methods of extraction. This study examined the mediating role of hair cortisol concentration (HCC) in the association between parent psychopathology and child mental disorder. **Methods:** Data come from a clinical sample of 99 children diagnosed with a mental disorder [major depression (66%), generalized anxiety (58%), attention-deficit (33%), oppositional defiant/conduct (35%)] and their parents. Parent psychopathology was measured using the Centre for Epidemiological Studies Depression Scale and State-Trait Anxiety Inventory. Child mental disorder was measured using the Mini International Neuropsychiatric Interview and hair samples were assayed using ELISA. Path models were specified separately for males and females. The product of coefficients method quantified potential mediating effects. **Results:** Children were, on average, 14.4 (2.3) years of age and 70% were female. Adjusting for child age, parent sex and marital status, and family income, HCC mediated the association between symptoms of parent depression [ $\alpha\beta=.33$  (.01, .64)] and anxiety [ $\alpha\beta=.29$  (.01, .59)] and major depression in male children. There was no effect for female children. Likewise, there was no mediating effect of HCC for the other mental disorders among males or females. **Conclusions:** Evidence suggests the mediating role of HCC on the association between parent psychopathology and child mental disorder is specific to male children with major depression. Research to understand sex and disorder-specific associations is warranted.

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**The oft-overlooked risk of suicide in somatization disorders**

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**Background:** Somatoform disorders pose a considerable challenge to clinicians across medical settings. Given the immediate clinical challenge, much attention has been paid to communication, clinical management, and treatment for those with various medically unexplained symptoms. Less attention has been played to long-term outcomes and mortality, such as due to risk for suicide. **Methods:** We conducted a systematic

review of PubMed and Embase to identify data papers from samples with somatoform disorders looking at suicide or suicide-related outcomes. We utilized the following PubMed search terms: (suicide) AND ((somatoform disorders [meSH] OR (conversion disorder) OR (hypochondriasis) OR (Munchausen Syndrome) OR (functional disorder)). A total of 672 unique articles were identified from this search and were screened for inclusion. **Results:** Somatoform disorders are associated with an increased risk for suicide and suicidal behaviors. Hopelessness is identified as a critical risk factor for suicidal behavior. The contribution of comorbid psychiatric and other medical conditions in suicide risk is also discussed. **Conclusions:** While acutely managing the complex patient with somatoform and functional disorders, clinicians are encouraged to concurrently assess and manage risk for suicide. Hopelessness, a well-established risk factor in general, may be especially relevant for those struggling with disabling symptoms without the benefit of a medical explanation. Those with training in psychosomatic medicine can play a crucial role given the need to integrate such varied clinical information.

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**Functional Somatic Disorders – a new common classification for research and clinical use**

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\*on behalf of the EURONET-SOMA working group

This paper relates to the classification of Functional Somatic Disorders (FSD) and is based on discussions in a working group of the EURONET-SOMA group, which is an informal European research network. The purpose was to create a common framework for the classification of FSD, including the various functional somatic syndromes, for research and clinical use. The current separation of syndromes into physical or mental sections of classifications means that there is no overall category for FSD. This is particularly a problem when patients experience multiple symptoms from multiple organ systems but do not demonstrate the psychological features that are necessary for a diagnosis in the mental health sections of the ICD-11 or DSM-5. We suggest that FSD should occupy a neutral space within disease classifications favoring neither a physical disease etiology, nor a psychiatric disorder. Within the umbrella category of FSD, we propose three categories based on the pattern of physical symptoms and organ or physiological systems involved; (a) multi system, (b) single system, or (c) single symptom. The single system category can further be divided into a musculoskeletal, gastrointestinal, cardio-respiratory, genitourinary, nervous system and a fatigue-related type, which closely map to some of the existing functional somatic syndromes. The single symptom type presents an isolated persistent and troublesome symptom (headache, tinnitus).

In addition to the three categories, we propose two specifiers; (a) presence of psychological or behavioural features or (b) occurrence in interaction with symptom-congruent medical condition (e.g. fibromyalgia in a person with rheumatoid arthritis).

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### Contribution of Per Bech to measurement-based care

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**Background:** Measurement-Based Care (MBC) is the systematic evaluation of patient symptoms (and other relevant clinical dimensions) before or during an encounter to support a decision in care. In Measured-Based Care (MBC), it is essential to use simple, valid and short instruments. Per Bech had many original contributions to Measurement-Based Care (MBC) in Mental Disorders developed throughout his life. **Methods:** Revision of Bech's papers and books to summarize his main contributions to the field. **Results:** Four axis summarize Bech's main contributions to MBC: 1. development of new original measures (e.g. Bech-Raphaelsen Melancholia Rating Scale); 2. development of shorter and valid versions of traditional longer scales to measure symptoms and other constructs in Mental Health using item response theory (e.g., Hamilton Depression Rating Scale – 6 items); 3. proposition of a MBC model named “The pharmacopsychometric triangle for measurement-based care” to measure clinical effect, side-effects and well-being; 4. theoretical discussions about psychometric methods (e.g. clinimetrics x psychometric approach). **Conclusions:** Since the beginning and even before the concept of MBC emerged, we can find Bech's focus on the importance of measurement to improve clinical practice. With shorter and easy-to-use instruments, clinicians would be able to both spend more time with an empathic human contact and measure the care provided.

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### The use of measurement-based care in mental health

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**Background:** Measurement-Based Care (MBC) is the systematic evaluation of patient symptoms (and other relevant clinical dimensions) before or during an encounter to support a decision in care. There is consistent evidence in the literature that MBC improves usual care. Nevertheless, it remains underused in mental health. The objectives of this presentation are the following:

a) Describe what MBC is; b) presents data supporting MBC as an essential strategy to improve mental health care; c) discuss come barriers to implement MBC. **Methods:** The literature was reviewed focusing in the last five years based on review articles of MBC in mental health and on original articles that compare MBC with usual care. The literature was also reviewed to understand and raised hypothesis about possible reasons for the underuse of MBC in mental health and also to detect barriers for implementation. **Results:** There is compelling evidence in the literature that MBC is more effective than usual care in Mental Health. Barriers for implementation occurs at multiple levels but could be grouped in barriers based on patients, practitioners, organizations, and systems. **Conclusions:** MBC is an essential strategy of care

that improves usual care, but it is still underused. It can be implemented in many forms and adapted to multiples settings from public health to an individual office. The implementation can be in different levels of complexity varying from sophisticated digitalized systems to a traditional and simple “pen and paper” format.

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### Impact of stress and gut microbiota on brain-gut interactions in irritable bowel syndrome

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The scientific importance of Irritable Bowel Syndrome (IBS) is increasing. Not only psychosomatic specialists but also many clinicians/basic scientists are recently interested in this syndrome. The genetic predisposition and influence of environment especially gut microbiota may underlie in the pathogenesis and/or pathophysiology of IBS. How microbiota play a role in pathophysiology of IBS via dysregulated brain-gut interactions is still unknown. However, growing evidence indicated that altered microbiota are present in IBS patients. Earlier studies suggest that psychosocial stress changes immune response in the gut mucosa, mucosal permeability, and composition of the gut microbiota and that visceral hypersensitivity is induced by this entire process. Gut microbiota and products of gut microbiota especially short chain fatty acid relate to quantified symptoms of healthy controls and IBS patients. Brain imaging using positron emission tomography (PET), functional magnetic resonance imaging (fMRI), and viscerosensory evoked potential (VEP) with electroencephalography (EEG) with or without combination of barostat stimulation or electrical stimulation of the colorectum enables us to depict the detailed information of brain-gut interactions. In IBS patients, thalamus, insula, anterior cingulate cortex, amygdala, and brainstem are more activated in response to visceral stimulation than controls. IBS patients also have more desynchronized patterns of EEG and shorter latency of VEP. Dysfunction of the prefrontal cortex is also present in IBS patients. It is now possible to predict system physiological mechanism of IBS via gut microbiota and brain function. Further investigation how stress and gut microbiota influence on brain-gut interactions in IBS patients is warranted.

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### Positive social effects of Tapping Touch

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Tapping touch (TT) is a holistic care technique based on alternately touching the left and right parts of the body, gently, tenderly, and slowly. TT is considered to have social effects of improving human relations in addition to positive psychological and physiological effects. However, compared to research on the psychological and physiological effects of TT, there have been only a few studies on its social effects. Therefore, Fukui (2016) conducted tapping touch on university students and measured variables for assessing the

social effects before and after tapping touch. Results indicated positive social effects of tapping touch on all the variables. Next, Fukui et al. examined the social effects of self-TT, which was a modification of TT to perform it alone. Results indicated the positive social effects of self-TT on nearly all the variables with some exceptions, which was comparable to mutually performing TT with a partner. Subsequently, Fukui et al. reported that the enhancement of subjective empathy by TT was seen in the background to the social effects of TT. Furthermore, Fukui et al. objectively measured empathy before and after tapping touch in experiments, which suggested that objective, as well as subjective empathy, might be enhanced by TT. It is concluded that TT has social effects regardless of whether it is conducted in pairs or alone. Moreover, these findings indicated the enhancement of subjective and objective empathy behind the effects of TT.

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### Effects of Tapping Touch on changes in oxytocin concentration in saliva part 1

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**Background:** Tapping Touch (TT) is a holistic care technique that is conducted mutually in pairs. In TT, the left and right parts of the body are touched gently, tenderly and slowly. TT has psychological, physiological and social effects. Moreover, it is known to have similar effects on the receiver and the giver. Fukui et al. suggested possible changes in subjective and objective empathy behind the social effects of TT. However, the physiological mechanisms of these social effects have not been investigated. Therefore, the effects of TT on changes of oxytocin in the saliva were examined in relation to the order of implementing TT. **Methods:** The participants in this study were 18 adults (6 men and 12 women, age: 45.50±12.23 years). Saliva was collected from the participants, and a questionnaire survey was conducted with them before and after conducting TT. **Results:** A two-factor analysis of variance was performed with salivary oxytocin concentration as the dependent variable and the timing of assessment (pre/post), as well as the sequence of executing TT (received TT first, received TT later) as the independent variables. Results indicated that the main effect and the interaction were not significant. However, an increase in the concentration of oxytocin was observed in the group that received TT later. **Conclusions:** These results suggest that the increase in oxytocin might partially contribute to the social effects of TT.

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### A Bio-Psycho-Social model of Resilience in young Adults newly diagnosed with Multiple Sclerosis (BPS-ARMS study)

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**Background:** Being the most common neurological disease causing disability in young adults, Multiple Sclerosis (MS) is considered as serious stress factor negatively affecting patients' psychological wellbeing, Quality of Life (QoL), and social functioning. The literature has demonstrated that the first years after the diagnosis are particularly distressing in terms of adjustment to the disease. Given the paucity of research on the links among disease-specific variables, resilience, and psychological adjustment of MS patients, especially in young adults, we aim to fill this gap of knowledge by investigating the relationship among these variables and to develop a biopsychosocial model of resilience. **Methods:** Biological and clinical characteristics of young adults newly diagnosed with MS will be examined by collecting clinical information, conducting neurological examinations, magnet resonance imaging, and analyzing cerebrospinal fluid and blood biomarkers, body composition, gut microbiota, and movement/perceptual markers. Psychosocial characteristics (e.g., psychopathology, stressful life events, illness perception, coping strategies, social support), QoL, and resilience will be assessed by self-report questionnaires. Comparative statistics, such as ANOVA and regression analyses, will be used to explore the relationship among biological, psychological, and social factors, considering resilience as primary outcome. **Results:** The results are expected to offer a thorough understanding of the various determinants of resilience in young MS patients. **Conclusions:** The developed biopsychosocial model of resilience will inform therapeutic interventions in clinical practice, tailored to the specific needs of this particularly vulnerable group of patients and aiming to lower the risk of maladaptive reactions to MS and to enhance psychological well-being and QoL.

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### Novel psychotherapeutic approach in the treatment of takotsubo syndrome

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**Background:** Takotsubo Syndrome (TTS) is an acute coronary syndrome, resembling acute myocardial infarction, due to reversible microvascular constriction producing myocardial dysfunction. It mainly affects women after stress, trauma or mourning. TTS may be lethal and recurrent despite full medical therapy. For the first time, we propose a psychotherapeutic approach in the prevention of recurrences of TTS. **Methods:** Two patients with recurrent TTS, underwent psychotherapy according to Psychotherapeutic Mutational Process (PMP), a novel psychotherapeutic intervention aiming to induce an evolutionary change in the mental processes of the patient.

**Results:** In this TTS patients treated by PMP, the model allowed an early identification of the personality structure, as neurotic character, with consequent representation in the therapist mind of the distress and defensive mechanisms of the patients. The therapist eluded patient's trial to establish a model of relationship well known to them, thus producing an effective evolutionary change in patient's mind. Both patients

concluded a successful cycle of psychotherapeutic treatments and remained free of cardiac symptoms since. **Conclusions:** This initial psychotherapeutic experience of TTS patients confirms the psychic genesis of cardiac pathology and opens a new frontier to the studies in this area. Which is the personality profile more likely associated to TTS, if it is the personality structure to predispose to such cardiac syndrome, and if PMP is the ideal treatment for these patients remains to be demonstrated in larger study population.

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### Medication overuse headache, addiction and personality pathology: a controlled study by SWAP-200

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**Background:** Medication Overuse Headache (MOH) is a type of chronic headache, whose mechanisms are still unknown. Some empirical investigations examining the addiction-like behaviors and processes, as well as personality characteristics underlying MOH development, reached contrasting findings. This study aimed at detecting personality and its disorders (PDs) in MOH patients, with a specific attention to the features of addiction. **Methods:** Eighty-eight MOH patients have been compared with two clinical populations including 99 patients with Substance Use Disorder (SUD) and 91 with PDs using the Shedler-Westen Assessment Procedure-200 (SWAP-200). MANCOVAs were performed to evaluate personality differences among MOH, SUD and PD groups, controlling for age and gender. **Results:** MOH patients showed lower traits of the SWAP-200's clusters A and B disorders than SUD and PD patients, whom presented more severe levels of personality impairment. No differences in the SWAP-200's cluster C have been found, indicating common personality features in these populations. At levels of specific PDs, MOH patients presented higher obsessive and dysphoric traits, as well as better overall psychological functioning than SUD and PD patients. **Conclusions:** The study supported the presence of a specific pattern of personality in MOH patients including obsessive (perfectionist) and dysphoric characteristics, as well as good enough psychological resources. No similarities with drug addicted and personality-disordered patients were found. Practitioners' careful understanding of the personality of MOH patients may be useful to provide more effective treatment strategies and patient-tailored intervention programs.

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### Psychological and functional recovery in rehabilitative practice

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**Background:** Stroke survivors often show depressive and anxious symptoms, along with neurological disorders and functional deficits that often hamper the recovery of the rehabilitation process. This study highlights how psychological distress in stroke patients is related with functional independence and its gain after rehabilitation including psychological support to patients and their caregivers. **Methods:** A total of 236 stroke inpatients and 381 orthopedic as a control group were assessed by the following scales: Mini-Mental State Examination (MMSE), Hamilton Anxiety and Depression Scales (HADS) self-report questionnaire and Functional Independence Measure (FIM). To evaluate the change inpatients were evaluated by HADS and FIM at admission and discharge. Data were analyzed through descriptive statistics and parametric tests. **Results:** 36% of stroke patients show HADS anxiety and 56.8% HADS depression, while 24.9% of orthopedic patients show HADS anxiety and 38% HADS depression. Furthermore, stroke group evidences higher anxiety ( $p \leq .05$ ) and depression ( $p \leq .00$ ) scores than orthopedic one. For both groups the psychological distress decreases significantly at discharge ( $p \leq .00$ ). The extent of FIM gain is correlated with depression gain ( $r = .144^*$ ) for stroke patients and anxiety gain ( $r = .085^*$ ) for orthopedic patients. In both groups, patients with psychological distress show higher scores in functional independence scores ( $p \leq .05$ ). **Conclusions:** In rehabilitative practice it is important to promptly diagnose the patients' psychological distress. It is evident the possible crucial role of anxiety and depression in functional recovery. Specific psychological support to patients and their caregivers must be included in order to implement therapeutic strategies of intervention in the integrated psychosomatic rehabilitation approach.

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### Insomnia

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A distinction is made between sleeping, behaviour that involves the whole person, and sleep, the product of a set of specific mechanisms, that mainly involves the brain. Biological rhythms, environmental factors, and socio-cultural factors influence sleep. Walch et al. describe the world map of sleep and a widespread sleep debt illustrated as a serious global health problem. Insomnia is associated with many psychiatric and somatic diseases, but it can also be primary. The perception of sleep quantity and quality can often be altered to define a paradoxical insomnia. Transient insomnia can affect up to 40% of the adult population, while for chronic insomnia

the percentage is around 15%. As the age increases, insomnia can affect around 50% of the people over 65. The effect of these days typical behaviours that increase insomnia, such as light pollution, excessive intake of caffeine, exposure to TV, smartphone and computer screens, and lifestyles, including eating styles, unfavourable to a good sleep, should be pointed out. Insomnia and insufficient sleep are risk factors for cardiovascular diseases, metabolic diseases, and mental illnesses as well as responsible for problems in work activities and in all those activities that require good vigilance. A chrono biological approach and an awareness of the problem extent together with the availability of effective treatments (see the use of prolonged release melatonin drug) requires a more incisive training on this problem in the health professions and a better culture on the quality of sleep.

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### Development of a Spiritual Distress Scale for palliative care patients in India

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**Background:** Although Spiritual Distress (SD) is identifiable across cultures, its expression and causes are context dependent. Western tools and scales regarding SD may not be applicable to patients of non-Western origin. The goal of this study was the development of a culturally specific SD scale for palliative care (PC) patients in India. **Methods:** The process towards the scale aimed at understanding and operationalizing SD in the target population. This included an ethnographic study on the experience of spirituality by patients on a PC unit in India, a systematic review of the literature on spirituality in PC in India, the involvement of expert groups, and an expansive survey among patients attending a pain and PC clinic in New Delhi. That survey contained 36 spirituality items that would serve as the basis for the items in the SD scale. The scale was piloted among 40 chronic cancer pain patients attending the same pain and PC clinic. These patients were, also, requested to complete FACIT-Sp12 (Hindi), a frequently used spirituality scale and WHOQOL-BREF (Hindi). **Results:** The scale contained general existential issues (e.g., wondering why, fear of the future, loneliness, forgiveness) besides items of spiritual importance to PC patients in India (e.g., pain as punishment for sin, karma, puja). Cronbach's Alpha (.816) suggests very good internal consistency. Significant associations with FACIT-Sp12 ( $p < .001$ ) and WHOQOL-BREF ( $p = .002$ ) are indicative of convergent validity. **Conclusions:** The scale is a promising culture-specific tool to evaluate SD among Hindi speaking PC patients in India. More extensive validation is still required.

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### Body dysmorphic disorders

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**Background:** Body Dysmorphic Disorder (BDD) ICD F 45.2 patients come to the psychosomatic and dermatologists with very mild or nearly no visible skin symptoms with high demanding and complaints about their symptoms and attractiveness. BDD is a well-known psychosomatic-psychiatric disorder classified as obsessive-compulsive disorder in the DSM-5 and as somatoform disorder in the ICD-10. **Case presentation:** A 23-year old young male with migration background from Turkey living in Germany. He came accompanied by his father. Immediately after arriving, he presented laptop pictures from his face demonstrating a micrognathia which is hardly visible, but he insists in the 'precious diameters' measurement. Asking how he copes with the dysmorphic concerns he reported staying at home why he felt not able to present himself to other especially friends. He mentioned also suicidal ideation quite frequent without acute ideas to go into suicide. He wants a plastic surgery and cannot accept to speak in the psychosomatic unit about his symptoms. The father reported that his impression is a fight of his son with his own body, he daily discusses some dysmorphic aspect about some parts of this body. He stood hours in front of the mirror and he was upset with the behaviour of the son. The father himself reported traumatic experiences as political refugee from his home country and the son did not know anything about. **Conclusions:** This case is a clear example of typical clinical symptoms of Body Dysmorphic Disorder with an unusual possible psychosomatic explanation coming from the family.

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### The psychoimmunological pathways of chronic skin diseases

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**Background:** The knowledge of this basic psychoimmunological pathways leads directly to the psychosomatic treatment options which correlate with these aspects. Therefore, the knowledge of molecular psychosomatics helps to improve clinical treatment possibilities. **Case presentation:** A case of a 53-year-old male patient with a life time history of atopic dermatitis will be presented. His depression arises after losing his job as tradesman. The backgrounds of his difficulties were an anankastic personality which starts after many difficulties with his father who ignored him mostly. His marriage with a dominant wife and 2 sons who are no more living in the family house leads to repeated thoughts about his experiences in childhood. The chronic stress of seeking for recognition destabilized the personality. The exacerbation of the severe atopic dermatitis follows clearly this stress situation with alexithymia reaction. The inpatient treatment in the psychodermatology clinic was established with a multimodal concept of dermatological treatment, relaxation, behaviour treatment and psychoeducation together with a psychodynamic psychotherapy and body work. The case will point out the current psychosomatic aspects about how the emotions coming into the skin. Analysis of neuro-immune

plasticity together with expression-analysis of these peptides in patients with AD and their alteration after stressful stimuli could contribute to our understanding of psychoneuroimmunological mechanisms at the interface between psychosocial and somatic reactions to stress employing AD as an instructive disease model. **Conclusions:** This example shows the correlation between stress and atopic dermatitis demonstrating the psychoimmunological pathway.

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### **Psychosocial treatment for chronic pain and PTSD: evidence of mediation and clinically significant change following interdisciplinary pain rehabilitation**

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**Background:** Patients with chronic pain and Posttraumatic Stress Disorder (PTSD) report greater pain, distress, and disability when compared to those with either chronic pain or PTSD alone. This study sought to examine the effectiveness of a 3-week, CBT-based interdisciplinary pain rehabilitation program (IPRP) on the functioning 83 treated patients with chronic pain and a provisional PTSD diagnosis. **Methods:** A detailed examination of treatment outcomes, including tests of statistical significance, effect size and reliable change were utilized to evaluate treatment effectiveness. Formal tests of mediation were also utilized to explore potential treatment mechanisms. **Results:** Statistically significant pre- to post-treatment improvements were detected for all outcome measures ( $F$ 's > 42.51,  $p$ 's < .001) with an average effect size magnitude (Cohen's  $d$ ) of 1.25 (range .71-1.62). Reliable change analyses revealed that 97.6% of participants improved on at least one pain outcome while 73.4% of participants showed reliable improvements in PTSD symptomatology. Of those, 73.8% no longer met criteria for provisional PTSD. Lastly, mediational analyses revealed that improvements in pain catastrophizing fully mediated treatment effect on pain and PTSD outcome. **Conclusions:** Results suggest that IPRPs that effectively reduce tendency to catastrophize in response to pain may not only enhance patients' functional status and reduce depressive symptoms, but also produce salutary effects on PTSD symptomatology. Interventions that assist patients in modifying catastrophic appraisals of pain may be critical to facilitating improvements in functional capacity and reducing PTSD symptom severity for individuals with comorbid chronic pain and PTSD.

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### **Sleep and stress-resilience dimension in psychopathology**

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The experience of stressful life events is a common occurrence and includes traumatic experiences stressors in the aftermath of trauma and personal and network events. A wealth of

literature demonstrates a relationship between these events and psychopathology. However, many individuals cope well, and are generally termed "resilient." Sleep disturbances as a reflection but also a cause of allostatic over-load may impair the of stress-comprised regulatory processes contributing to psychopathology across the life span. Sleep disturbances may impair resilience and the ability to cope contributing to psychopathology. Addressing sleep disturbances may contribute to reduce the stress allostatic over-load and support resilience.

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### **The effects of integrated hospital treatment for anorexia nervosa: a longitudinal resting-state functional MRI study**

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**Background:** The key hypothesis about the psychopathology of patients with Anorexia Nervosa (AN) is the inappropriate self-referential processing, such as excessive self-concern and worry about their own bodily images. We hypothesized that the resting-state brain network, including the Default Mode Network (DMN), might be altered in AN. Therefore, a treatment on them could normalize their neural activity, as their inappropriate self-reference is improved. **Methods:** We assessed the body mass index (BMI), resting-state functional magnetic resonance images (rsfMRI), T1 images, eating disorder inventory (EDI), and 20-item Toronto alexithymia scale (TAS-20). These data were collected from 18 patients with AN and 18 healthy controls (HC). After a series of integrated hospital treatments (nourishment, behavioral, and psychological therapy, including emotional expression), the AN were measured again. The DMN and salience network (SN) were evaluated using an independent component analysis. **Results:** BMI, the EDI, and TAS-20 were significantly improved after the treatment. In the AN, the contribution of the retrosplenial cortex (RC) to the DMN and anterior cingulate cortex (ACC) and anterior insula to the SN were decreased compared to the HC. A comparison of the pre and posttreatment images from the AN showed increase in the contribution of the RC to DMN and the ACC to SN in posttreatment. **Conclusions:** The treatment increased the contribution to the DMN centered on the RC and to the SN centered on the ACC among the AN. These alterations of neural function might be associated with improvements in self-referential processing in the treatment of AN.



### A survey on lifestyle and awareness of the use of statins in a sample of cardiopathic patients

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**Background:** Current guidelines highlight the importance of lifestyle modification in the treatment of hypercholesterolemia, in addition to lipid-lowering drugs. However, patients taking statins do not always follow physician's prescriptions on lifestyle change. No studies investigated which psychological aspect could be involved. The present research aims to understand psychological characteristics associated with unhealthy lifestyle change/maintenance among patients treated with statins. **Methods:** A total of 58 cardiopathic patients taking statins were enrolled. They were administered both observer- (interviews on clinical distress and psychosomatic syndromes) and self-rated (questionnaires on lifestyle, subclinical distress and well-being) measures. Ad-hoc items were included to evaluate self-perceived lifestyle changes and awareness about statins' effect. **Results:** Among patients, 55.4% had not changed their unhealthy lifestyle since taking statins and felt less contented ( $p < .05$ ), whereas 10.7% were unaware of the effects of these drugs. Minor depression was the most frequent diagnosis (8.9%). It was significantly associated with the absence of lifestyle modification ( $p < .05$ ), although all the patients with minor depression were aware of statins' effect. On the contrary, those who were unaware, showed significantly lower well-being (positive relations ( $p < .05$ ); purpose in life ( $p < .001$ )). **Conclusions:** A high percentage of cardiopathic patients did not report a modification of their unhealthy lifestyle. Minor depression appears as a potential risk factor for this failure. Moreover, low psychological well-being was related to a lack of awareness about the effect of pharmacological therapy. A psychosomatic assessment including both distress and psychological well-being impairments should be implemented in patients taking statins in order to recognize potential psychological risk factors for unhealthy behaviors maintenance.

### Subclinical distress and psychological well-being among patients with different chronic cardiac conditions

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**Background:** It has been found that a number of psychological factors are capable to modulate individual vulnerability to disease. In cardiac setting, although a frequent comorbidity between cardiovascular conditions and depressive disorders has been shown, depression does not represent the only appropriate target for interventions. Previous research focusing on depressive disorders might have

overlooked other important psychological factors, such as subthreshold symptomatology, psychosomatic syndromes, allostatic overload and impaired levels of psychological well-being, which are frequently observed in cardiac populations and likely to affect cardiac course. **Methods:** This presentation will summarize studies conducted by the Authors' research group on patients with different chronic cardiac conditions (i.e., acute coronary syndrome, congestive heart failure, atrial fibrillation, hypertension) during the last decade. Assessment included both observer- and self-rated measures on clinical/subclinical psychological distress, and Carol Ryff's questionnaire on psychological well-being. **Results:** Findings on the association of psychological distress - both clinical and subclinical - with 1) drop-out and worse prognosis after secondary prevention programs for acute coronary syndrome, 2) lack of unhealthy lifestyle modification among patients taking statins and those attending cardiac rehabilitation, 3) worse survival in patients with implantable cardioverter defibrillator and congestive heart failure, will be presented. In addition, results of research on psychological well-being as a potential risk factor - when too elevated or impaired - for refusal of psychological/cardiac support and worse cardiac course, will be shown. **Conclusions:** These findings suggest the importance of considering subclinical distress and psychological well-being as new targets of interventions for patients with chronic cardiac conditions.

### Childhood trauma, 5-HTTLPR and vitamin D

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**Background:** The serotonin transporter gene harbours an insertion/deletion polymorphism (5-HTTLPR) which has been associated to various mental disorders especially in gene-environment interaction paradigms. However, many modifying factors are yet not known today and often studies have not been able to replicate previous findings. Vitamin D (Vit D) is a potent inducer of the tryptophan hydroxylase gene 2 (TPH2) and thus, impacts on the rate limiting enzyme for serotonin synthesis in the brain. Here we test the hypothesis, that Vit D impacts on mood in interaction with childhood trauma and in interaction with the 5-HTTLPR. **Methods:** The interaction between the 5-HTTLPR, childhood trauma and vitamin D was analysed in two samples from the German general population (SHIP-LEGEND:  $n = 2,029$  and SHIP-TREND-0:  $n = 2,475$ ). **Results:** Hypothesis-confirming 2-way and 3-way interactions were found demonstrating a substantial impact of Vit D plasma levels and childhood trauma on depression as well as an interaction among the 5-HTTLPR, Vit D and childhood trauma on mood. **Conclusions:** We conclude that Vit D impacts on mood and depressive symptoms especially in subjects carrying the s-allele of the 5-HTTLPR and who have been exposed to childhood trauma. Vit D substitution could be beneficial in this specific subgroup of affected subjects.

### The role of positivity on quality of life outcomes in patients with chronic diseases

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**Background:** Positivity is a general tendency to react to life experiences in a positive way, a pervasive optimistic view of oneself, one's life, and one's future, associated with greater positive affection and lower functional impairments. The aim of the study was to examine the role of positivity in predicting the length of hospitalization in patients operated of thoracic surgery and physical and mental health in patients born with Anorectal Malformations (ARM). **Methods:** Patients born with ARM were enrolled from the Italian Association for Anorectal Malformations and patients scheduled for thoracic surgery were recruited during pre-hospitalization at Sant'Andrea Hospital. All participants completed measures of positivity, and physical and mental health (SF-36). Patients born with ARM completed also a faecal incontinence measure. Data were analyzed by means of structural equation modeling. **Results:** Study 1 included 66 adult patients born with ARM. The hypothesized model exhibited good fit. Positivity significantly influences Mental ( $\beta=.49$ ,  $p<.01$ ) and Physical health ( $\beta=.32$ ,  $p<.01$ ). The indirect effect of fecal continence on health was significant for the Mental component ( $\beta=.186$ ,  $p<.05$ ). Study 2 included 54 patients who underwent thoracic surgery. The hypothesized model exhibited good fit. Positivity assessed after surgery was positively associated with physical and mental health after 1-month ( $\beta=.21$ ,  $p<.05$ ). **Conclusions:** Positivity contributes in explaining the effects of functional impairments on quality of life and in predicting physical and mental health after surgery.

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## 154 Dignity in care

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**Background:** In medical settings several dimensions of dignity (e.g., feelings of being a burden to others, anxiety and depression, uncertainty, feeling of not having control over one's own life) were reported by the patients as conditions undermining quality of life. We studied this area in a multicenter Southern European psycho-Oncology Study. **Methods:** A total of 195 patients were enrolled in the study: 102 Portuguese outpatients and 93 Italian patients. They were assessed by the Patient Dignity Inventory, the PHQ-9, the Demoralization scale, the Hospital Anxiety and Depression scale and, FACIT-SWB. The sample of the study met the criteria: age 18-70, absence of cognitive disorders, Karnofsky Performance Score >50, any site and stage of solid tumours. **Results:** The PDI-Total was 24.74 ( $\pm 13.38$ ), with no difference between the IT and PT cohorts ( $t=0.3$ ). Some concerns were more frequently reported as a mayor or overwhelming problems than others, such as uncertainty about the illness and treatment (17.9%), worrying about the future (23.6%), feeling to be no longer who one was (25.1%), not being able to carry out important roles (e.g. spouse, parent) (14.9%), feeling that life no longer has meaning or purpose (14.8%), feeling to be a burden to others (14.9%), feeling not have control over one's own life (14.9%). There were significant correlations between loss of dignity, demoralization, anxiety and depression and low spirituality. **Conclusions:** An adequate assessment to investigate dignity and personal dimensions, such as spirituality and psychological distress symptoms, is necessary among cancer patients as well as all those with medical disorders

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## 155 Demoralization in non-psychotic affective disorders

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**Background:** Demoralization has been found to affect 25-30% of patients with medical disorders, while very few studies have been done in patients with psychiatric disorders. The aim of this study was to explore the characteristics of demoralization in patients with non-psychotic mental disorders. **Methods:** A convenience sample of 377 patients with ICD-10 diagnoses of mood, anxiety, stress-related disorders or other non-psychotic disorders was recruited from two Italian university psychiatry centers. The Diagnostic Criteria for Psychosomatic Research-Demoralization (DCPR/D) interview and the Demoralization Scale-Italian (DS-IT) were used to assess demoralization and the Patient Health Questionnaire-9 (PHQ-9) was used to assess depression. **Results:** Demoralization was diagnosable in more than 50% of the patients. Factor analysis of the DS-IT confirmed four main factors, Meaninglessness / Helplessness, Disheartenment, Dysphoria and Sense of Failure, that explained 62% of the variance of the DS. Patients with bipolar or unipolar major depression and personality disorders had the highest prevalence of demoralization and the highest scores on all the DS factors in comparison with patients with adjustment and anxiety disorders. About 50% of patients with moderate demoralization were not clinically depressed (PHQ-9 <10), while almost all with severe demoralization were depressed. **Conclusions:** Demoralization is a significant clinical construct

among patients with non-psychotic, mainly affective, disorders. The findings enrich the research on the dimensions related to demoralization (e.g., meaninglessness, hopelessness, disheartenment, sense of failure) as partly, but not coincident, with depression and evident, although in a moderate grade, in patients with anxiety and adjustment disorders.

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### Cancer prevention and care among people with severe mental illness

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**Background:** Interest in cancer diagnosis and management in patients with severe mental illness (SMI) has been growing. The accumulated results of studies of overall mortality among these patients indicate that they are 2e2.5 times more likely to die of their cancer than the general population. **Methods:** A review of the problem of cancer screening, assessment, care and evaluation of impact on the quality of Life of people with SMI has been conducted. **Results:** Studies indicate that patients with SMI are less likely to receive cancer screening (e.g. breast and cervical screening in women) than comparable people without SMI. Mortality for cancer result to be higher in patients with SMI (particularly women from breast cancer and for men from lung cancer) due to several possible factors (e.g. higher likelihood for not being allocated to cancer guideline treatment). In terms of palliative care at the end- of life, patient with SMI result to be are at risk of receiving poorer end of life care than other patients. **Conclusions:** There in emergency in examining cancer-related psychosocial as well as general health needs in patients with SMI who result underserved and undertreated in comparison with the general population. Future directions in implementation of the guidelines, and evaluation of the efficacy of screening assessment and treatments are urgently needed, and multidisciplinary psychiatry-oncology services are mandatory.

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### C.'s dreams. A dyadic process as a co-creative experience

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**Background:** Based on the theoretical positions of Trevarthen, Meltzoff, Tronik and Stern on the birth of intersubjectivity in the regulation of the dyadic exchanges, the therapeutic exchange with a patient suffering from mild mental retardation resulting from neonatal hypoxia are described. **Case description:** The patient, a 50-year-old lady, was suggested psychotherapy by the general practitioner for atypical neurological symptoms, such as involuntary,

uncontrollable and afinalistic movements of the head, the arms and the legs without any evidence of organic pathology. C. relies increasingly on the therapist to share her very rich world of nocturnal dreams, which become the object of the exchange after few months of therapy and reveal a very lively dream life, as opposed to a day life that on the contrary appears itself poor of stimulations and of relationships. The therapist listens the dreams with an empathic attitude and, by sharing them, helps to name the emotions and value of this experience. Later, she agrees with the patient the daily transcription of dreams on notebooks that, once completed, C. decides to bring to her. Over time this gift becomes a precious collection of 6 notebooks and simultaneously the symptoms decrease until complete remission. The first symptom to disappear were the movements of the arms then of the legs and finally, more slowly the afinalistic movements of the head. **Conclusions:** The intersubjective experience strongly contributed to the development in C. of the sense of self as relational subject.

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### The Balint group as a resource in psychosomatic medicine training for health professionals

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Many Italian and foreign authors underlined and recommended Balint Groups as essential for physicians in training for the doctor-patient relationship. Balint Group of 12-15 participants including physicians, psychologists, and psychiatrists with a leader and co-leader will be proposed. Participants become particularly aware of their emotions during the diagnostic and therapeutic process and they experiment the form of global biopsychosocial diagnosis within the Group which offers an important resource. Balint Groups are strategic for developing the culture of psychosomatic medicine centered on the relationship between physicians, or health staff, and their patients.

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### The mind-body relation in a group of adolescents at-risk for psychotic onset

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**Background:** Basic Symptoms (BS) are self-experienced subclinical disturbances. Generally, they have been associated with several mental disorders, but two criteria seem to be more predictive of a psychotic onset. They are the cognitive-perceptive basic symptoms (COPER) and the cognitive disturbances (COGDIS). On the other hand, psychosomatic dysregulation seems to be frequently in adolescence and the presence of somatic symptoms could predict several mental illnesses in adulthood. This study investigates the relationship between basic and somatic symptoms, that it is still unclear. **Methods:** The study was carried out on 57 adolescents (n=57,

age: 19.5±3.5 years) treated within ASL Roma 1 adolescent center. We investigated the correlation between basic symptoms, as assessed by means of the Schizophrenia Proneness Instrument (SPI) and psychological and somatic symptoms, measured administering the Symptom Checklist-90 Revised (SCL-90R), the Toronto Alexithymia Scale (TAS-20), the Dissociative Experience Scale (DES), the Psychosomatic Dysregulation Inventory (PDI), the Autism Questionnaire (AQ) and the State-Trait Anxiety Inventory (STAI). **Results:** Results show that SPI total score, as well as COPER and CODGIS scores positively correlated with all of SCL-90R subscales ( $p \leq .01$ ), alexithymia ( $p \leq .01$ ), dissociative experiences ( $p \leq .01$ ), autism leanings ( $p \leq .01$ ) and trait anxiety ( $p \leq .01$ ). Specifically, a significant correlation emerged between all basic symptoms and psychosomatic symptoms (SPI and PDI:  $r = .400$ ,  $p \leq .01$ ; COPER and PDI:  $r = .370$ ,  $p \leq .05$ ; CODGIS and PDI:  $r = .417$ ,  $p \leq .01$ ). **Conclusions:** This evidence seems to suggest that it might be useful to consider the mind-body relation in a clinical protocol for the assessment of an imminent psychotic onset.

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### Innovative strategies for the assessment of euthymia

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**Background:** Euthymia is a trans-diagnostic construct that refers to the presence of positive affects and psychological well-being, i.e., balance and integration of psychic forces (flexibility), a unifying outlook on life which guides actions and feelings for shaping future accordingly (consistency), and resistance to stress (resilience and anxiety- or frustration-tolerance). The aim of this presentation is to outline the assessment strategies that, within clinical interviewing, may allow determination of a state of euthymia. **Methods:** Self-rating and observer-rated instruments for the assessment of positive affects and psychological well-being will be presented using a clinimetric perspective encompassing macro-analysis and staging. **Results:** Assessment of psychological well-being generally relies on self-rating scales that address positive emotions (e.g., WHO-5, Symptom Questionnaire, Euthymia Scale), dimensions of psychological well-being (e.g., Psychological Well Being scales, PsychoSocial Index), or flexibility (e.g., Acceptance and Action Questionnaire), providing assessment of the impaired and optimal levels. The Clinical Interview for Euthymia yields information also about excessive levels, thus including both polarities of psychological well-being dimensions. The interview also allows to collect information about flexibility and consistency. **Conclusions:** Clinical attention to psychological well-being requires an integrative framework, which may be subsumed under the concept of euthymia, as well as specific assessment strategies, based on clinimetric principles, that facilitate the integration with psychiatric symptomatology.

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### Clinimetric assessment of allostatic overload in patients with essential hypertension

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**Background:** The role of psychosocial stress in the development of essential hypertension has attracted increasing attention in the last decades, even though research findings have been often inconclusive. We specifically investigated Allostatic Overload (AO) in hypertensive patients using a clinimetric approach, and its associations with psychological distress and health variables. **Methods:** Allostatic overload was assessed by a semi-structured interview based on clinimetric criteria in 80 consecutive outpatients with essential hypertension and 80 normotensive matched controls. Three clinical interviews for assessing psychiatric diagnoses, psychosomatic syndromes and affective symptoms, as well as two self-rating questionnaires for psychological distress, were administered. Cardiac variables were also collected. **Results:** Allostatic overload was present in 26 (32.5%) of the hypertensive patients based on clinical interviewing, and in only 6 normotensive controls. Hypertensive patients with AO had significantly higher levels of psychological distress than those without, by either self-rating or observer-rated methods. Further, patients with AO displayed significantly lower levels of well-being and quality of life. A significantly greater prevalence of psychosomatic syndromes was found to be associated with the presence of AO, whereas no significant association was detected as to psychiatric diagnoses. Significantly greater cardiovascular risk was found among hypertensive patients reporting AO compared to those without. **Conclusions:** The results of this study highlight the importance to include allostatic overload in the clinical assessment of patients with essential hypertension, with important implications for the non-pharmacological management of hypertension. A clinimetric approach based on clinical grounds can offer new opportunities for evaluating psychosocial stress in hypertension.

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### Mitochondrial energy metabolism disorder in depression and the regulation mechanism of XingPiJieYu decoction

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**Background:** Depression is a complex disease mentally and physically. XingPiJieYu (XPJY) decoction is a kind of TCM compound for treating mild and moderate depression based on long-term clinical experiences. And our previous studies found

it had more remarkable antidepressant action than placebo mentally and physically, which took less than two weeks to work and had fewer side effects. **Methods:** The rat model of depression was established by chronic unpredictable mild stress (CUMS) method for 6 weeks. Rats were randomly divided into six groups: control group, CUMS group, CUMS+XPJY (3.6g/kg/d, 7.2g/kg/d, 14.4g/kg/d) groups, and CUMS + Sertraline (4.5mg/kg/d) group. The sucrose preference test and the forced swimming test were performed to assess the rats' depression behaviors. Mitochondrial ultrastructure was measured by transmission electron microscope and ATP content, Na/K-ATPase activity, mitochondrial respiratory chain complexes activities and SIRT1/ PGC-1 pathway related protein expression in hippocampus and gastrocnemius muscle at the 14th and 42<sup>nd</sup> day. **Results:** Rats subjected to six weeks of CUMS exhibited decreased sucrose preference ratio and prolonged immobility time. CUMS damaged mitochondrial ultrastructure of both hippocampus and gastrocnemius muscle, reduced the content of ATP in hippocampus, decreased the activities of Na/K-ATPase and respiratory chain complex I, III and IV as well as the expression of SIRT1 and PGC-1 in hippocampus and gastrocnemius muscle. And those changes were more obvious in 6<sup>th</sup> week than in 2<sup>nd</sup> week. **Conclusions:** Energy deficiency and damaged mitochondrial ultrastructure were found in hippocampus and gastrocnemius muscle of depressed rats established by CUMS, which had a 6-week time window. XPJY could protect mitochondria from ultrastructural damage. This could provide another experimental evidence for the new pathogenesis and treatment of depression.

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### Two components in body image disturbance are associated with differential neural basis

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**Background:** Body Image Disturbance (BID) is a core psychopathology of eating disorders. The concept of two components in BID is widely accepted. One is a disturbance of perception: Perceptual body-size Distortion (PD) that is calculated as a discrepancy between one's real-body and one's estimated self-body. The other is a disturbance in cognitive-affective aspects: Cognitive-affective Dissatisfaction (CD) that is calculated as the discrepancy between one's estimated self-image and one's ideal-body-image. However, it remained unclear whether each BID has the same neural basis. **Methods:** We recruited 36 healthy right-handed young

females. Stimuli were each subject's silhouette images distorted in width. Subjects underwent two tasks, the task for estimating one's real-body (perception task) and the task for estimating one's ideal-body (ideal task) in the MRI scanner to measure the strength of each BID. We extracted the brain activity correlated with silhouette width while subjects were looking at their silhouette images. Then we performed a correlation analysis between the brain activity regarding silhouette width and the strength of each BID. **Results:** We found that right anterior insula and left anterior cingulate cortex were positively correlated with PD only during perception task, while temporoparietal junction was positively correlated with CD only during ideal task. **Conclusions:** We found there were two differences between each BID: correlated brain regions and the task showing the neural correlation. This result suggested that each BID has a different neural basis, and thus effective treatment for each BID might also be different. We expected our result provides new insight into the development of treatment.

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### Medical hypnosis as an effective intervention against test anxiety in first year medical students

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**Background:** The purpose of this study was to characterize test anxiety among first year medical students and to test medical hypnosis as a possible intervention. **Methods:** The PAF questionnaire, a shortened and revised German version of the Test Anxiety Inventory, was used to estimate prevalence, severity, appearance and development of test anxiety among the participants of a first-year functional anatomy course at the Department of Anatomy, Erlangen, Germany. The PAF was administered three times: at the commencement of winter term 2017/18 and two days prior to each of two mandatory oral exams. The different dimensions of test anxiety were evaluated via the four subscales of the PAF: emotionality, worry, interference and lack of confidence. The severest 46 cases (out of 196 study participants) were selected after the first assessment and organized into an intervention group receiving medical hypnosis prior to the first exam and a matched control group. The effect of hypnosis on test anxiety was estimated by comparison of the group-specific survey outcomes. **Results:** More than half of the study participants showed pronounced test anxiety in at least one subscale during the semester. Emotionality, interference and lack of confidence were reduced significantly ( $p < 0.05$ ) in the intervention group, but not in the control group. The same was true for the total test anxiety score. **Conclusions:** Test anxiety was highly prevalent among the medical students investigated. Medical hypnosis should be considered a rewarding intervention to help test-anxious students.

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## Using experiential group work to promote self-care and health behavior

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An innovative model based on experiential group intervention will be presented with the intention of demonstrating the importance of skill building, identification of stuck points and emotional group processing to the promotion of self-care and health behaviours. The notion of promoting health, in a holistic meaning, will be discussed. In order to look at our subjective standing towards making changes in the way we take care of ourselves, a writing exercise will be offered, demonstrating one of the sessions of the presented workshop. Then, we will continue to an exercise in pairs, looking into the issue of happiness. Finally, a check in round and a summary of this way of contributing to health promotion will re-proposed. The workshop will show and discuss what was done in the Israeli group on ways of identifying and overcoming inner blocks and obstacles to health maintenance and health promotion: how working on one's subjective and personal blocks in a group setting is an effective way to create change.

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### Play experiences promote resilience and stress tolerance

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**Background:** Play has been studied as a facilitator of child development. However, the consequences of play experiences in childhood have not been clarified to date. Furthermore, it has been suggested that playfulness contributes to promoting resilience in later life. It has also been suggested that greater playfulness is associated with lower levels of perceived stress. **Methods:** The Japanese Adult Playfulness Scale (JPS) was developed by adding two new factors (play experiences and optimism) to the Adult Playfulness Scale (APS) designed to assess responses to related adjectives. Participants were University students (n=122) who filled in the JPS, The State-Trait Anxiety Inventory (STAI) and the Resilience Scale (RS). **Results:** Factor analysis of JPS yielded a four-factor structure: Fun-Orientated (FO), Play Experience (PE), Optimism (OP), and Curiosity (CU). A causal model in which PE promotes FO, and RS, which mitigated stressful states was developed. Path analysis to confirm this model yielded four paths between FO, PE, RS, and STAI. The first path indicated a correlation between FO and PE. The second path suggested that PE facilitates RS. The third and fourth paths indicated that the predisposition for FO was developed through stress tolerance, which was promoted by PE. **Conclusions:** There is a positive relationship between PE, FO, and RS. This relationship supports the conclusion that play experiences with funny activities develop resilience and stress tolerance in adults because the enjoyment of play promotes skills for arousing positive emotions in stressful situations.

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### My accepting the patient and the change of the symptom

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The Moving Seminar (MOSE) makes us seek an answer to the question: How would I treat the patient when I receive him/her individually in all his/her sensing. MOSE makes us seek an answer to this question by viewing the four key words: moving, weighting, signifying, reflecting as a subject of contemplation. What happens to an idea of e.g. heart pain when I accept the patient? A Japanese colleague may offer his point of view to this issue in connection to the Next Small Step (NSS). He/she would apply elements of Morita therapy to his symptom, in this case heart ache. It is suited to dealing with fears of various characters. Being one of the presenters I'll try to see the symptom as part of the present life situation the patient tries to live in, i.e., to dwell. He tries to accept it within his/her Japanese, British, Chinese etc., i.e., cultural background.

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### Possible role of gut microbiota in pathology of anorexia nervosa

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It is becoming clear that gut microbiota can play a critical role in the regulation of weight gain and host adiposity. In Anorexia Nervosa (AN) patients, the energy requirement for body-weight gain is higher than would be expected because of the cost of energy storage. Factors such as increased physical activity or diet-induced thermogenesis are potentially involved in the poor weight gain response; however, the precise mechanism explaining this discrepancy remains to be clarified. We hypothesized that gut microbes might contribute to some of the major features including poor weight gain and neuropsychiatric abnormalities in AN patients. Indeed, several groups, including us, reported that gut microbes from anorexia nervosa patients differ from those of control subjects. To further clarify the contribution of gut dysbiosis to AN pathology, we established gnotobiotic mice that were transplanted with gut microbes derived from AN patients and are now investigating body weight gain and behavioral characteristics using these mice.

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### The effect of pain and fatigue perception on depression in Japanese cancer survivors: the mediating effect of activity restriction

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**Background:** There are several studies exploring factors which cause depression in cancer survivors, and perception of physical symptoms, such as pain and fatigue, is one of them. Although, the directional relationship between perception of physical symptoms and depression is unclear. Another factor important to depression symptomatology in cancer survivors is activity restriction (AR). AR is to restrict daily activities after cancer diagnosis. We conducted to test how AR mediate the effect of pain and fatigue perception on depression in cancer survivors. **Methods:** Participants were recruited through cancer support groups in Japan. Participants completed a battery of questionnaires consisting the following: demographic and clinical information, Pain Catastrophizing Scale, Cancer Fatigue Scale, Activity Restriction Scale for Cancer Patients, and Hospital Anxiety and Depression Scale. **Results:** Sixty-one cancer survivors (male: female; 6: 4, mean age: 56.39 years) participated in this study. Mediation analysis showed AR partially mediates the effect of pain on depression. Direct paths from pain to AR, AR to depression, pain to depression were significant ( $p < .005$ ) and the indirect effect was significant at 95% CI 0.04 - 0.13. On the other hand, AR did not mediate the effect of fatigue on depression. Fatigue had a significant direct path to both AR and depression ( $p < .005$ ). **Conclusions:** These results show when treating depression in cancer survivors, it is necessary to improve activity restriction, not only controlling pain. Moreover, fatigue is a common difficulty in cancer survivorship and early detection and treatment may be needed to prevent severe depression.

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### Investigation on preventing stressed teachers to leave their jobs in preschool in Japan

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**Background:** One of the most important factors in children's environment is a teacher. Teachers have matured from their experiences at schools. However, in Japan, many new preschool teachers tend to resign within few years before experiencing much. Therefore, we investigated new teachers' psychological processes and how they recognize leaders and senior ones who are dealing with them. We interviewed five new teachers (women, mean age is 25.2) who were able to continue working despite the difficulty they are facing. **Methods:** We used the method of M-GTA to analyze their psychological states and other members' responses on them. **Results:** New teachers' psychological process was divided into two stages: on their first few years their main stress is

caused by dealing with children and parents. Moreover, they have the tendency to concentrate on the negative aspects of their total behaviors. It was demonstrated that the tendency was caused by the self-centered viewing which is specific to new teachers and it prevented them from seeking help. After three years, they begin to have new difficulties from a viewpoint of group. In such situation, leaders' and senior teachers' way of communicating with them is important. We have discovered some effective strategies to support new teachers with coping difficulties: How to reflect their thought from a long-term perspective and how to use positive expressions about their situation, etc. **Conclusions:** In showing effective ways of expressing, we will explain the importance of leaders' and senior teachers' communication skills in a psychological point of view.

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### The art of predicting treatment outcome in obsessive-compulsive disorder: Effectiveness and its predictors in routine clinical care

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**Background:** Despite high effect sizes in RCTs on average, in favor of exposure therapy with response prevention, not all patients with Obsessive-Compulsive Disorder (OCD) benefit from these psychotherapies (e.g., substantial residual symptoms, treatment discontinuation, relapse). The results of studies on predictors of treatment outcomes in OCD are inconsistent. Therefore, the aims of this study are to investigate the naturalistic effectiveness and to identify predictors of treatment outcomes in OCD patients in routine clinical care. **Methods:** The pre-post effect sizes are calculated for various outcome variables in the overall sample ( $n=1,595$ ). In a sub-sample ( $n=514$ ), predictor analyses are performed by a combination of factor-analytical and regression-analytical approaches. Various self-reporting instruments are used as measures of treatment outcome. **Results:** The effect sizes in different outcome variables can be classified as large. Baseline symptom severity, psychopathological distress and a low level of social support were identified as negative predictors of symptom change, while the presence of washing behavior was a positive predictor of symptom change. The sub-analyses revealed a distinct predictor profile between changes in obsessions compared to compulsions. **Conclusions:** The results suggest that evidence-based psychotherapy for OCD can be effectively implemented in routine clinical care. In addition to known predictors of outcome (symptom severity, psychopathological distress), social support could be identified as an important predictor. The identification of such prognostic variables within the context of patient-oriented research holds the chance to tailor interventions to the specific patients' needs already at an early treatment stage in order to increase treatment outcome.

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### Effectiveness of Behavioral Activation Therapy for anxiety in Japanese cancer patients: a retrospective study

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**Background:** Behavioral Activation Therapy (BAT) directly addresses activities that individuals value most highly, and may be readily applicable to cancer patients. Anxiety is the major challenge faced by cancer patients, but it is unknown whether BAT is effective in this population. In this exploratory study, we evaluated the efficacy of BAT for anxiety in Japanese cancer patients. **Methods:** We retrospectively reviewed the medical records of cancer patients with the following characteristics: 1) were outpatients or inpatients visiting the psycho-oncology division of the National Cancer Center Hospital in Japan; 2) met criteria for Major Depressive Disorder or Adjustment Disorder; and 3) participated in a BAT program from October 2016 to April 2019. The BAT program consisted of 7–8 sessions. The primary outcome was self-reported anxiety disorder status (Generalized Anxiety Disorder-7 (GAD-7) score). We analyzed anxiety by the matched paired t-test. **Results:** Twenty-two patients participated in the program, and 17 (mean age, 61.4±8.7 years) completed it. There were 13 females and 4 males. Cancer types were breast cancer in 7 patients, lung cancer in 3 patients, and colon cancer, melanoma, sarcoma, laryngeal cancer, endometrial cancer, ovarian cancer, and renal pelvic cancer in 1 patient each. The psychiatric diagnosis was major depression in 14 patients and adjustment disorder in 3 patients. The GAD-7 scores (pre: 11.9±23.3; post: 5.1±21.1) significantly improved after the program (GAD-7:  $p < .001$ ). **Conclusions:** This exploratory study provided preliminary evidence that BAT is effective for anxiety in Japanese cancer patients.

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#### Development of a screening form for Japanese adolescent and young adult patients with cancer: a work in progress

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**Background:** Adolescent and Young Adult (AYA) patients with cancer have different unmet needs because they not only experience various life events during their disease trajectory, but many of their diseases are rare cancers about which only limited information is available. Screening forms (SFs) have been found to be useful to identify their needs. We conducted this study to develop a SF specifically for Japanese AYA patients with cancer. **Methods:** Since February 2019 we have conducted semi-structured interviews about the SF with 40 Japanese AYA patients with cancer aged 15–39 in our hospital. The subjects were recruited evenly according to age, sex, and social background (working or student/non-working). The SF comprises two components, a Distress Thermometer

and a Problem List, both of which were reverse translated into Japanese based on the form of the National Comprehensive Cancer Network. We plan to qualitatively analyze the data obtained from the interviews and to develop the SF for Japanese AYA patients with cancer. **Results:** This study is now underway, with 24 registered patients. We plan to register an additional 16 patients during the next two months. **Conclusions:** Subject registration is proceeding well. After we develop the SF, we will use it to screen the unmet needs of Japanese AYA patients and determine whether it can adequately determine treatment approaches. The goal of our project is to disseminate the SF in Japan and provide quality care to all Japanese AYA patients with cancer.

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#### Stability of maternal behavioral entropy rate between 8 and 30 months of child's age

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**Background:** Maternal behavioral entropy in mother-child interaction has recently been shown to associate with child neurodevelopment. To date, there is a sparse knowledge about the methodological aspects of this novel measurement of mother-child interaction and there are no studies of the stability of the maternal behavioral entropy rate. **Methods:** Participants ( $n = 103$  mother-child dyads) were drawn from the FinnBrain Birth Cohort study. Mother-child play was video-recorded when the child was 8 months old and the procedure was repeated when the child was 30 months old. Maternal behavioral entropy rate was calculated based on the predictability of the transitions between maternal auditory, visual and tactile signals. **Results:** According to the preliminary analysis, maternal behavioral entropy rate showed moderate level of stability ( $r = .319$ ,  $p = .001$ ) between 8- and 30-month measurement points. Mean value of the entropy rate was significantly lower at 30 months  $M(SD) = .79 (.13)$  compared to 8 months  $M(SD) = .87(.16)$  measurement point  $t(102) = 4.721$ ,  $p = .000$ . **Conclusions:** Based on these preliminary analyses the novel measurement of mother-child interaction based on maternal behavioral entropy rate shows moderate levels of stability between 8 and 30 months of child age. More research is needed on the normative level of stability of the maternal behavioral entropy rate across child development. More detailed results and implications will be discussed.

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## Autism tendency of patients with symptoms of hypersomnia

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**Background:** Some people with developmental disorders have problems in sleep-wake rhythm. Not a few young people visit sleep clinic because of excessive daytime sleepiness or school absenteeism due to difficulty of waking-up. Medical interviews and examination sometimes show that some of them have developmental disorders. This cross-sectional study aimed to clarify how many patients with suspected hypersomnia have autism tendency. **Methods:** The subjects with difficulty of waking-up or excessive daytime sleepiness answered self-completed questionnaires including Autism-Spectrum Quotient (AQ), Epworth sleepiness scale (ESS), Pittsburgh sleep quality index (PSQI) and the Self-rating depression scale (SDS) and they underwent diagnostic overnight polysomnography (PSG) and the multiple sleep latency test (MSLT). We analyzed the relationship between these questionnaires and the findings of PSG and MSLT among the subjects (54 men and 53 women, 12-29 years), excluding cases with sleep apnea, bipolar disorder, major depressive disorder and schizophrenia spectrum disorder. **Results:** Among the subjects, 15 (8%) patients showed 33 or more AQ score (AQ+). Arousal index of the subjects with 33 or more AQ score was higher than those with less 33 AQ score (AQ-) (24.0, 14.9, respectively,  $p < .05$ ). Although PSQI and ESS scores were not different between AQ+ and AQ-, SDS score was higher in AQ+ than AQ-. In SF36, social functioning and mental health scores were less in AQ+ than AQ-. **Conclusions:** Eight percent of subjects with difficulty of waking-up or excessive daytime sleepiness undergoing PSG and MSLT had autism tendency. The possibility of the patients having autism should be considered in medical practice.

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## Heart rate variability in individuals with somatization diagnoses: the effects of somatic symptom disorder and persistent somatization

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**Background:** Medically unexplained symptoms were found to be related autonomic activity, which can be measured with heart rate variability (HRV). However, the different somatization constructs might cause heterogeneous results. The present study was aimed to compare the associations between HRV and distinct somatization constructs, including somatic symptom disorder (SSD) in DSM-5 and somatization diagnoses in Diagnostic Criteria for Psychosomatic Research (DCPR). **Methods:** One hundred and thirty-eight SSD patients and 136 healthy controls were recruited into this study. All subjects received DSM-5 and DCPR based diagnostic interviews, and resting state HRV measurements. HRV in individuals with and without SSD, with and without DCPR somatization diagnoses (functional somatic symptoms secondary to a psychiatric diagnosis, persistent somatization, conversion symptoms and anniversary reaction), with and without DCPR persistent somatization were compared using independent t-test. Multiple linear regression analyses were used to investigate the associations between HRV, the three types of somatization constructs, and potentially confounding demographics/comorbidities. **Results:** For the parasympathetic-predominant indexes total power (TP), low-frequency power (LF) and high-frequency power (HF), which in subjects with/without DCPR somatization diagnoses and with/without DCPR persistent somatization had significant difference. In multiple linear regression analyses, TP, LF and HF were significantly associated with DCPR persistent somatization but not with SSD. **Conclusions:** Comparing with SSD, DCPR somatization diagnoses, especially persistent somatization, have a stronger association with parasympathetic activity.

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## Alexithymia in fibromyalgia syndrome: associations with ongoing pain, experimental pain sensitivity and illness behavior

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**Background:** Alexithymia, a lack of emotional awareness for one's own emotions and those of others, is common in chronic pain patients. The aim of the study was to investigate the relationship of alexithymia to ongoing pain, experimental pain sensitivity, and illness behavior in patients with chronic musculoskeletal pain. **Methods:** Sixty-eight women with fibromyalgia (age average 43.4 years; range 19-72 years) filled in self-report measures of alexithymia (TAS-20), ongoing pain (Visual Analogic Scale), Questionario Italiano del Dolore (QUID) for psychological distress, Depression (CESD), Anxiety (STAI-Y Form), and Illness behavior (IBQ). Psychophysical tests were performed to assess experimental pain sensitivity, including pain thresholds for mechanical (von Frey, number of tender points) and thermal stimuli, and cold pressor pain threshold and tolerance. **Results:** Alexithymia, that is the Difficulty Identifying Feelings (DIF), was related to higher ratings of the affective-but not the sensory-dimensions of ongoing pain (QUID) and to a lower cold pressor pain tolerance, while alexithymia scores were independent of all pain thresholds. Multiple regression demonstrated that alexithymia DIF ceased to uniquely predict affective ongoing pain when psychological distress or illness behavior was

separately controlled for. Higher alexithymia DIF scores were predictive of hypochondriacal illness behavior, over and above what was explained by psychological distress and affective pain. **Conclusions:** Alexithymia is associated with increased affective pain and hypochondriacal illness behavior. The former relationship is better explained, and possibly mediated, by psychological distress and illness behavior. The hypothesis of a generally increased sensitivity to unpleasant stimuli in alexithymia chronic pain patients is not supported by the data.

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### 12-Month follow-up of the U-CARE Heart Trial: Using internet-based Cognitive Behavioural Therapy to treat patients experiencing depression and anxiety after myocardial infarction

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**Background:** The U-CARE Heart trial was the first RCT to evaluate internet-based cognitive behavioural therapy (iCBT) for reduction of symptoms of depression and anxiety (SoDA) in patients shortly after myocardial infarction (MI). Whilst no short-term treatment effect was found, the present investigation examined possible long-term effects. **Methods:** 6-10 weeks after MI, patients experiencing SoDA were randomised to 14-weeks of iCBT treatment (n=117) or standard care (n=122). Group differences 1-year post-MI in the primary outcome Hospital Anxiety and Depression Scale (HADS) and secondary outcomes, including Cardiac Anxiety Questionnaire (CAQ), and cardiac-related hospital readmission rates, were analysed. Following multiple imputation, an intention-to-treat analysis was performed using linear regression, controlling for baseline covariates. Between-group effect size was estimated through baseline-corrected Cohen's d. **Results:** Both groups had lower HADS-total and CAQ scores at 1-year follow-up compared to baseline. The difference between groups was neither statistically significant for HADS-total (p=.12) nor for the depression (p=.07) or anxiety (p=.17) subscales. CAQ measuring heart-related anxiety, was the only secondary outcome measure that showed a statistically significant difference between groups (p=.02) before adjusting for multiple comparisons, with a small effect size (d=0.3). 1-year readmission rates for cardiovascular disease were not different between groups (p=.53). **Conclusions:** Although iCBT treatment did not produce a significant reduction in SoDA at short-term follow-up, results at 1-year indicate a slight, continued improvement in the treatment group and possibly a reduction in heart-related anxiety. Low treatment adherence and the small between-group effect size must be considered when interpreting these results.

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### The effect of sense of coherence and positivity on spiritual well-being and distress in individuals with skin diseases.

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**Background:** The aim of this study was to investigate whether positive (sense of coherence-SOC, positivity) and negative (skin-related quality of life-QoL, illness perception) functioning were associated with Spiritual Well-Being (SpWB) and psychological distress in individuals with psoriasis and scleroderma. We expected that: 1) SOC and positivity would influence SpWB and psychological distress after controlling for different aspects of negative functioning; 2) skin-related QoL and illness perception would influence psychological distress, but not SpWB, after controlling for SOC and positivity. **Methods:** A total of 80 consecutive individuals (56 women, 24 men;  $M_{age}=51.1$  years,  $SD=16.8$ ) attending the IDI-IRCCS were enrolled in the study. **Results:** Hierarchical multiple regressions showed that positivity was the most important contributor to better SpWB, whereas SOC tended to correlate with it. QoL was associated with worse psychological distress, whereas sense of coherence and positivity correlated with better psychological distress. **Conclusions:** This study is the first to examine the extent to which inner resources contribute to SpWB in individuals with skin diseases over and above skin-related QoL and illness perception. As such, it has implications for the promotion of SpWB as well as the treatment of psychological distress in these individuals. The ability to have a comprehensive understanding of the illness, achieve a restoration of meaning in the experience of skin disease by providing an explanation for one's suffering and illness, keep a positive outlook, and maintain self-worth might help individuals with skin diseases to adjust to illness, and clinicians to give better care to these individuals.

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### ICU delirium can be a predictor of nighttime emergencies on general wards after ICU discharge

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**Background:** Night-shift doctors are often called from general ward for emergencies of patients who survived from ICU with delirium, but few studies showed the outcome of patients in general ward after ICU discharge. **Methods:** Adult patients who were screened by CAM-ICU between 2013-2015 in St. Luke's International Hospital were enrolled. Primary outcome was nighttime emergencies (confirmed by medical records of night-shift doctors). We identified the relation between ICU delirium and nighttime emergencies after ICU

discharge using multivariate analysis. **Results:** A total of 1281 patients (486 female, age: 67.4±17.9 years), hospital stays 25.0±33.9 days, ICU stays 188.2±320.9 hours) were included. There were 314 patients whose CAM-ICU had been positive at least once. The details of nighttime emergencies of them were body temperature change (26%), arrhythmia (16%), decreased oxygen saturation (13%), blood pressure or sugar level change (6% each) and so on. Multivariate analysis showed that ICU delirium is significantly associated with nighttime emergencies (OR: 1.68, 95%CI 1.27-2.22) after controlling for potential confounders. Patients in general ward who had history of ICU delirium were associated with higher incident occurrence, higher mortality within one month after ICU discharge, higher rates of ICU readmission, longer ICU stays, and longer hospital stays compared with ICU survivors without delirium. **Conclusions:** ICU delirium is associated with not only negative medical outcome but also increased burden of medical staffs and threat of medical safety. Careful observation is needed for the ICU survivors who experienced ICU delirium considering the possibility of nighttime emergency.

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### Exploratory research on post-traumatic growth observed in group psychotherapy for advanced cancer patients

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**Background:** The psychological stress associated with "incurable" progression/recurrence for cancer patients is greater than that experienced at onset. In our hospital, we conduct group psychotherapy in response to the psychological needs of patients with advanced cancer. In this study, we focused on the post-traumatic growth observed in group psychotherapy and conducted an exploratory research on the common themes in their stories and their post-traumatic growth. **Methods:** We based this study on verbatim transcripts from our structured group psychotherapy program that we have held once a month since 2007 for patients with advanced cancer (n=48). By use of qualitative analysis, we extracted remarks dealing with common themes in their stories. **Results:** Themes from what was said in group psychotherapy were categorized, with not only the themes of "anxiety" and "suffering from death," but also "cancer and meaning", "identity and who I am", "identity and cancer", "living legacy" and so on, included. Further, the group members also mentioned their own post-traumatic growth, not only looking backwards, but also talking about dreams they'd like to fulfil in the future. **Conclusions:** The content of the group psychotherapy program for advanced cancer patients we are working on shares some of the concepts used in Meaning-Centered Group Psychotherapy, and it is conceivable that it contributes to the improvement of the psychological state of advanced cancer patients. In addition, focusing on the meaning and identity of life, and verbalizing and sharing it within the group can promote post-traumatic growth.

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### Short-term mindfulness based psycho-education and practice improves posttraumatic stress reaction and mental health in Japanese

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**Background:** Recently, the influence of mindfulness on health has been attracting attention. However, its effects on the health of those experiencing trauma have not been adequately considered. The study aimed to investigate the effects of a short-term mindfulness-based psycho-education program and practice in Japanese students with Posttraumatic Stress Reaction (PTSR). **Methods:** Of the 111 high school students screened, 49 (37 females, 12 males; male age: 17.61±.70 years) had PTSR, were selected to receive a session of mindfulness-based psycho-education and practice. The participants completed the Cognitive Fusion Questionnaire (CFQ), Mindful Attention Awareness Scale (MAAS), Impact of Event Scale-Revised (IES-R), and Kessler-6 (K6) before and after the intervention. The consent of the ethics committee was obtained. **Results:** Results of the paired t-test indicated that cognitive defusion (CFQ) as a process variable showed a significant tendency to improve (p=.08) and mindful attention awareness (MAAS) significantly improved (p<.001). Furthermore, PTSR (IES-R) as effect variable showed a significant tendency to improve (p=.07) and mental health (K6) significantly improved (p=.01). The effect sizes were small to medium (Cohen's d=.23 to .45). **Conclusions:** It was suggested that short-term mindfulness-based psycho-education and practice improves mental health and be effective for PTSR. However, there was no control group, and therefore, strong conclusions cannot be drawn about the effectiveness of the intervention. Future studies should examine the effectiveness of the program using controlled designs and other samples.

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### Factors associated with anxiety of patients in palliative care unit

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**Background:** Patients with advanced cancer are adversely affected by psychosomatic difficulties. Because anxiety, which is observed frequently, strongly influences patient QOL, it is important to investigate associated factors to relieve

them of the difficulty. **Methods:** Medical records of patients admitted to the Palliative Care Unit at our facility (August–December 2018) were assessed retrospectively. Symptom control, anxiety, insight of prognosis, and communication level of the patients were evaluated with STAS-J: Support Team Assessment Schedule Japanese version on admission and after 2 weeks. Symptom control, prognosis insight, communication level, Palliative Prognostic Index scores (PPI), and inflammatory markers were compared between groups of the patients with or without anxiety causing physical or behavioral symptoms. **Results:** Of 98 patients admitted during the study period, 86 were evaluated with STAS-J on admission. Loss of honest communication between patients and their families, and precise insight of prognosis tend to influence anxiety (risk ratio – 2.50, 1.17; odds ratio – 3.33, 1.25). No significant difference was found for other factors. We evaluated 29 patients after 2 weeks of palliative care intervention. Symptoms requiring control were improved in 50%. However, no significant change was found in its number. Patient anxiety improved in 15% but worsened in 38%. **Conclusions:** Patient anxiety was moderated in a communicative environment with the family, probably mitigating spiritual pain and existential suffering. Emerging symptoms can contribute to the progress of anxiety. Results suggest that palliative care specialists should secure meaningful time with patient families through symptom control.

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### Understanding psychocutaneous disease: psychosocial perspectives

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**Background:** The study of psychocutaneous disease involves a comprehensive understanding of the complex and often neglected psychoneuroimmunological components and pathways. Patients suffering from the many disorders that blur the interface between the fields of psychiatry and dermatology are often misdiagnosed and mistreated from the lack of knowledge and awareness of the underlying disease-causing mechanisms. **Methods:** Review of literature on psychodermatology with key words of skin and psych, psychodermatology, psychocutaneous medicine, and quality of life were performed. **Results:** Factors like early-life interactions, body-image dissatisfaction, and societal stigma play a crucial role in the development of psychosocial stress experienced by individuals with visible skin conditions. This heightened level of stress serves as a trigger in the activation of the Hypothalamic-Pituitary-Axis (HPA), mediating immune responses that influence cutaneous disease severity and exacerbation. **Conclusions:** In order to improve the quality of life and treatment outcomes of the patient population impacted by psychodermatologic disease, it is essential to better understand the complex interplay between the various psychosocial factors and pathophysiological pathways involved.

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### Adjustment disorder and posttraumatic stress symptoms among organ transplant patients and their relatives: a systematic approach

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**Background:** Transplant patients are seriously affected by stress due to their illness, long-term medical treatment and lifestyle changes. Psychological burden on family members and partners, however, is so far little studied. Aim of this study is to investigate the psychological and social burden on transplant patients and their relatives. Furthermore, it pursues a systematic approach in order to examine support needs and other factors related to the perception of the disease. **Methods:** The questionnaire was sent to 600 members of a transplant patients self-help association (BDO e.V.) and their relatives. It was additionally published as an online survey on their homepage. Standardized and established scales were used for examining somatic symptoms, depression, anxiety and adjustment disorders (ICD-11), PTSD, stress levels, burden on family caregivers, partnership satisfaction and personal environment. These scales were supplemented with qualitative questions about experiencing the transplantation period and items about support needs.

**Results:** Twenty-nine percent of the relatives and 37% of the transplant patients responded. The most prevalent stress symptoms among the relatives were adjustment disorders (17%), followed by severe depression (10%), anxiety (7%) and PTSD (6%). Among the transplant patients, severe depression symptoms (16%) were most pronounced, followed by adjustment disorder (12%) and anxiety symptoms (7%). Further results regarding burden on family caregivers and support needs will be presented at the congress. **Conclusions:** The findings show high psychological burden and high need for support among the respondents. Interventions should include psychological support, in- our outpatient rehabilitation and support group as well as couple and family discussions.

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### Experience in treating psychosomatic diseases with Wuling capsule

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**Background:** Psychosomatic diseases refers to physical symptoms or illness that results from the negative emotions induced by acute or chronic stress. In foreign countries, more than 50% of patients attending primary care clinics have somatic symptoms. Psychosomatic patients with neurological symptoms as the main manifestations are very common in neurology clinics.

**Methods:** The clinical manifestations of somatic symptoms in nervous system are: dizziness, headache, insomnia, fatigue, tinnitus, etc. Wuling Capsule is a kind of powder obtained by isolating the fungus Wuling. It has the effect of strengthening

brain and nourishing nerves. This medicine is used to treat insomnia, forgetfulness, palpitations, fatigue, dizziness, tinnitus, and neurasthenia. Wuling capsule is used to assist the treatment of patients with mental and physical diseases mainly manifested by neurological symptoms. **Results:** Wuling Capsule can regulate the diversity of species composition and the abundance of intestinal microbes. The metabolites of these microorganisms regulate the content of monoamine transmitters such as 5-HT in colon, serum and brain through enteric nervous system acting on vagus nerve, immune system and endocrine system. This phenomenon forms a two-way communication pathway between intestinal flora and central nervous system-- intestinal microorganisms-gut-brain axis. By improving the content of monoamine transmitters in brain, it can affect the development of nervous system diseases, mood, appetite, biological rhythm and psychosomatic diseases. **Conclusions:** Therefore, Wuling Capsule adjuvant therapy can treat psychosomatic diseases by regulating intestinal microorganisms-gut-brain axis.

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### Assessing parental motivation for change in childhood obesity: the PURICA-short Scale

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**Background:** High prevalence rates of overweight and obesity in childhood and adolescence call for effective and sustainable intervention strategies. Parental motivation for change can be a key factor of sustained behavioral improvement towards a healthy weight status of their offspring. In this study a new short instrument was developed to assess the parental motivation for change to facilitate motivation-tailored family interventions that promise improved effectiveness. **Methods:** The pre-existing gold standard instrument to assess motivational stages for change was adapted from the self- to the parental perspective in a structured multi-step Delphi procedure. The new instrument to

assess parental motivation for change related to a health problem of their children was psychometrically evaluated in a sample (n = 193) of parents of children or adolescents with overweight or obesity. Confirmatory factor analysis, internal consistency, construct and criteria validity were analyzed to test psychometric properties of the new instrument. **Results:** As a result of the Delphi procedures, all 16-items were successfully transferred to the parental perspective. The hypothesized four factorial structure of the new instrument was approved, internal consistency and criteria validity were good to very good (albeit with inconsistent findings for the sub-scale Pre-contemplation). **Conclusions:** In the here investigated target group of parents with children with overweight or obesity, the new instrument to assess parental motivation for change has proven to be a practicable, valid and time-efficient short measure. The new instrument will enable more specific motivational stage directed interventions that promise higher effectiveness of family-based interventions to fight childhood obesity.

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### Genetic, HPA axis activity and early life stress impact in affective disorders

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**Background:** There are few studies evaluating biomarkers for differentiation of Major Depressive Disorder (MDD) and Bipolar Disorder (BD), related to the activity of the HPA axis and the glucocorticoid receptors. The aim of the present study was finding genetic and hormonal biomarkers and to observe their association with Early Life Stress (ELS). **Methods:** The diagnostic screening of all subjects unipolar and bipolar was performed through the MINI PLUS, the history of childhood trauma was evaluated by the CTQ scale, the depressive symptoms by the GRID-HAM-D21 scale, and other comorbidities by Beck's scales: BAI, BHS and BSI. The genotypic and allelic frequencies of GR and MR polymorphisms were assessed. Polymorphisms, hormone levels and ELS exposure were compared between the groups.

**Results:** We observed that cortisol and aldosterone levels were higher in unipolar and lower in bipolar in the most severe depressive episodes. Bipolar patients exposed to ELS, physical and emotional abuse showed lower levels of aldosterone than did bipolar who were not exposed. Combining the genetic and hormonal biomarkers, unipolar had lower levels of cortisol and aldosterone when carrying GG variant genotype of MR-2G/C, while bipolar showed a tendency to reduce cortisol when they carried the wild-type G allele of MR M1180V. Bipolar tends to be more susceptible than unipolar to aldosterone changes when exposed to ELS and physical abuse. **Conclusions:** Considering MR polymorphisms and their influence on aldosterone and cortisol levels, we suggest the key role of MR receptor function within the etiology of MDD and BD; and the different functioning of MR among MDD and BD.

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### Clonazepam treatment of atrial fibrillation in panic anxiety patients: an eleven-case series

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**Background:** Atrial Fibrillation (AF) is a common cardiac arrhythmia that predicts stroke and death. Current treatments have risk, and insufficient benefits for rhythm control, stroke and mortality. Panic Disorder (PD) epidemiologically predicts AF and stroke. **Methods:** On incidental observation, one clonazepam treated PD patient also had cessation of paroxysmal AF. Consequent review of other patients with DSM-5 PD, fixed-dose clonazepam PD treatment, and cardiologist confirmed AF thus allowed examination of AF response, and of non-responder characteristics. **Results:** Seven of the eleven patients were clonazepam responders, with apparent major or full reduction of both PD and AF. All had paroxysmal lone (idiopathic) AF without antiarrhythmic medication. Of four AF non-responders, three had only modest PD control, two had structural heart disease, and three were on procainamide. None of the seven responders had any of these characteristics. AF onset age never preceded PD onset age. Clonazepam doses were 1-5 mg daily (divided doses q8h or q12h). **Conclusions:** This case series suggests the novel and potentially significant observation that clonazepam might produce AF improvement in some patients with PD and lone AF.

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### Distinguishing the impact of different early-life adversities on adult attachment, alexithymia, and psychopathology

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**Background:** Early-life Adversity (EA) such as parental loss, economic hardship or Childhood Maltreatment (CM) have long-lasting harmful consequences for socioemotional development and mental health. However, as different types of EA are highly co-occurring in families, little is known about the specific impact of EA types. This study aimed to uncover associations of different types of EA with adult attachment, alexithymia and psychopathology, and clarify the connection between alexithymia and depression. **Methods:** In the FinnBrain birth cohort study, a sample of 2,595 adults was analyzed. The specific impact of different types of self-reported EA on adult attachment styles, alexithymia, as well as depressive and anxiety symptoms was studied. To differentiate the impact of CM types, we compared individuals reporting only one CM type, to those without history of CM. **Results:** High alexithymia was specifically associated with childhood emotional neglect (OR 3.8,  $p < .001$ ). Depressive and anxiety symptoms, current depression, as well as attachment anxiety were more broadly associated with several types of EA. The association between emotional neglect and alexithymia was partially mediated by attachment insecurity. **Conclusions:** Alexithymia showed different associations with EA types compared to depressive and anxiety symptoms, with

alexithymia being more specifically related to childhood experiences of emotional neglect. Our results illuminate possible etiological pathways to attachment insecurity, alexithymia and depression.

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### Refeeding syndrome after paleodiet and psychosomatic background

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**Background:** Enormous changes of the diet may have many consequences. The aim was to describe a case of refeeding syndrome in a patient after paleodiet. **Case description:** We report a case of a 44-year patient who decided to be on "paleodiet" for two months without avoidance of her regular significant physical activities - body-building and several km runs. The diet was prepared by herself based on various recommendations and meant severe restriction or even absence of saccharides. Subsequent uncontrolled intake of saccharides caused refeeding syndrome which required hospitalization due to severe metabolic changes (hypophosphatemia, hypokalaemia, elevation of transaminases and creatin kinase) with clinical consequences. In further follow-up, apart from the focus on regular dietary regimen and return to common activities it was necessary to discuss more the whole situation, mainly motivation to the diet and the means of the reaction of the patient to certain stimuli to avoid future repetition of a similar situation. The patient thinks more of her surroundings than of herself. The decision to go on the diet was because of one of her friends and she wanted to prove that she is capable to manage it. **Conclusions:** This case report demonstrates that even in an outpatient department of clinical biochemistry and/or internal medicine more profound focus on psychosocial situation and a psychosomatic intervention is of high importance as it can provide a more complex view, point out further possible risks and prevent further needless complications.

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### A case of dramatic improvement in a patient with eating disorder, alcohol addiction, panic disorder and breast cancer through correction of the buddhi (intellect) through Yoga Therapy

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This is a case of a 39-year-old woman who had shown tendencies of juvenile delinquency. Bulimia nervosa began at age 17 and went without therapy. After that, alcohol dependence, major depression, and panic disorder occurred. When she came to our clinic at the age of 30, she complained of those symptoms and her medical doctor started

pharmacotherapy. At the age of 31, she overdosed and was admitted to a mental hospital. After being discharged, she received treatment at our clinic. At the age of 39, she began yoga therapy lessons of her own volition. The psychotherapeutic approach of yoga therapy showed a great effect and her symptoms almost disappeared. At the age of 43, she began studying to be a yoga therapist. At the age of 45, she was diagnosed with breast cancer. After an operation, she continued radiation therapy and pharmacotherapy. While continuing treatment, she completed her yoga therapist certification, found meaning in spiritual life, and accomplished significant personal growth. In this case, yogic poses and yogic breathing exercises facilitated physical regulation. Mindful observation and meditation facilitated emotional regulation. Yogic counseling, called darshana, and psycho-education led to mental stability. She also learned to take detached action through karma yoga. These experiences of harmony between body and mind, social harmony, and spiritual experiences in meditation facilitated great personal growth. The psychotherapeutic yoga therapy addressing both mind and body conceivably led to her great transformation.

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### Paternal early life stress and newborn brain development

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**Background:** There is considerable evidence that exposure to Early Life Stress (ELS) can have health consequences that may persist over the lifetime. ELS sets in motion irreversible developmental trajectories by influencing the psychobiological programming of the developing brain with negative health consequences persisting to adulthood. Not only the stress the child experiences, but also exposure to maternal stress during pregnancy reportedly influences offspring development and health. Our aim was to test whether paternal transgenerational transmission might be present in humans. We studied if paternal early life stress (ELS) would associate with neonate brain development.

**Methods:** The material was 72 trios (infant, father, mother) from the FinnBrain Birth Cohort study. Paternal and maternal exposure to ELS was measured using Trauma and Distress Scale (TADS). The outcome was Fractional anisotropy (FA) values in the major white-matter tracts of the newborn brain. **Results:** Increasing levels of paternal ELS is associated with higher FA values in the newborn brain. This association persisted after controlling for maternal ELS, maternal socioeconomic status (SES), maternal body mass index (BMI), maternal depressive symptoms during pregnancy, as well as

child sex, age from birth and gestation corrected age when imaged. **Conclusions:** This is the first human study showing that paternal ELS may affect offspring brain development. This finding may have far reaching implications in science as the possibility of a novel route of transgenerational inheritance of ELS on next generation brain development is suggested.

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### Prenatal psychological distress and the risk of pre-eclampsia - the FinnBrain Birth Cohort Study

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**Background:** Prenatal Psychological Distress (PPD) is reportedly related to the risk of Pre-Eclampsia (PE). However, current data is contradictory as to which types of PPD would contribute to this relation and prospective study designs in the general population have been scarce. We aimed at investigating if maternal PPD at gestational week (gwk) 14 is related to later risk of PE. **Methods:** The study population (n=3,026) was drawn from a pregnancy cohort recruited in gwk 12 and delivering at Turku University Hospital. PPD was assessed with standardized self-report questionnaires on symptoms of anxiety (SCL-90), depression (EPDS), and daily hassles related to work, social relations and financial situation at gwk 14. PE, defined as increased blood pressure ( $\geq 140$  mmHg and/or  $\geq 90$  mmHg) together with proteinuria, increased ALAT ( $>90$  IU/l) or decreased platelets ( $<100 \times 10^9/l$ ) after 20 gwks, was identified by combining information from national registers ([www.thl.fi](http://www.thl.fi)) and hospital records. **Results:** Maternal EPDS score when applied as continuous variable was positively associated with the risk of developing PE (odds ratio (OR) 1.05; 95%CI 1.001-1.11) after adjusting for maternal parity, body mass index, and twin pregnancy. Continuous symptom scores of anxiety and daily hassles did not associate with later PE.

**Conclusions:** Of the domains of PPD tested in this study, only the level of maternal depressive symptoms in early second trimester was associated with risk of developing PE. Future studies should elaborate on mechanisms underlying the role of depression vs other types of PPD in PE.

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### Effectiveness of yoga as mental training

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Yoga has widely spread as a stress management method in the field of education and in offices, it has been also suggested to increase health and prevent diseases using psychosomatic methods for ordinal healthy people to people with disabilities. From the above, it can be inferred that research on mental training aimed at improving spiritual skills can be a help to utilize in many social fields. Yoga is an application of cognitive behavioural therapy typified by mindfulness and advanced research as an integrated approach method that is valid and allows for the possibility of psychological skill acquisition and improvement as mental training by scientific investigation. This study aims to verify the possibility of yoga as a mental training method. Furthermore, it is thinking that we can raise the QOL of the subject's student life and expect to improve future stress management skills. Subjects are students over 18 years old study population is thirty. The questionnaire survey will be conducted before and after the yoga practice, that will compare and correlate the correlation between the mood scale with the POMS 2 abbreviated version and the mindfulness skill test (mindfulness skill self-efficacy scales) and analyse and examine the psychological effects diversely. This study would like to comprehensively examine the effective method as a research that leads to the improvement of the long-term mental health, and we want to examine the physical. Furthermore, it is psychological approaches by Yoga comprehensively as an overall health promotion approach and to examine the target group.

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### Portal hypertension in prolonged anorexia nervosa with laxative abuse

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**Background:** There has been no report about portal hypertension related to anorexia nervosa (AN). We describe three cases of portal hypertension manifesting with collateral circulations represented by gastroesophageal varices in prolonged AN with laxative abuse and self-vomiting. **Methods:** These women, in their 20s to 50s, were diagnosed as having AN bingeing and purging type (AN-BP) that included self-induced vomiting and abuse of irritating laxatives of more than 100 tablets daily. Case 1 showed prominent ascites and a gastro-renal shunt on the computed tomography scan. Case 2 showed gastroesophageal varices on endoscopic examination. Case 3 had gastroesophageal varices on the computed tomography scan and endoscopic examination. **Results:** We performed liver biopsies in all patients and found only slight pericellular fibrosis. Our patients showed typical symptoms of portal hypertension, although liver cirrhosis was not present. We speculated that abnormal eating and purging behaviors were involved in the development of portal hypertension. We hypothesized that long-term laxative abuse, dehydration, and abnormal eating behavior are involved in the development of portal hypertension, considering these were common features

in our patients. **Conclusions:** Portal hypertension and gastroesophageal varices should be considered as one of the potentially existing complications in prolonged AN-BP with self-induced vomiting and abuse of irritating laxatives.

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### A case study using yoga for athletes' mental training - The case of baseball players

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**Background:** Recently the number of athletes doing yoga has increased. Whether athletes perform at their highest level of skill depends not only on how hard they practice and their natural talent, but also on psychological aspects. In recent years, increasing numbers of athletes are adopting mental training to reduce the influence of negative psychological aspects and improve performance. Yoga is one form of such mental training. **Methods:** We asked participants to fill in mental skill check tables, POMS 2, and DIPCA.3 as a means to check the psychological states of subjects before yoga instruction. Evaluation before training was individually tabulated as a psychological analysis table. After yoga, all the participants were interviewed for their impressions of the practice. All yoga practice was video- and audio-recorded.

**Results:** POMS, measuring mood changes, showed a significant difference between AH and TA. Text mining results showed that the words "possible" and "can" were used most frequently, 38 times overall. Relax was used 24 times, to relax 17 times, and can relax 11 times. **Conclusions:** Yoga may provide the added value of increased flexibility, which is not found in other mental training. According to Soma, an athlete's acceptance of his/her current condition releases tension and alleviates the degree to which performance deteriorates during games due to excessive tension. POMS results showed that AH and TA can be relieved through yoga practice, suggesting that yoga is suitable for mental training to address performance deterioration due to excessive tension during games.

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### Correlation between neurotransmitter marker and oxidative stress marker in urine organic acid test

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**Background:** Quantitative organic acid testing can give information about potential problems and p-hydroxyphenyllactate (HPLA) and 8-hydroxy-2-deoxyguanosine(8-OHdG) are known as oxidative stress marker. This study shows about Correlation between neurotransmitter marker and oxidative stress marker in urine organic acid test. **Methods:** From July 1, 2013 to August 31, 2016, data of two hundred thirty subjects were analyzed to compare the urinary VMA, 5-HIAA and HVA according to the HPLA quartiles and calculated partial correlation coefficient after adjustment with age, sex, BMI, alcohol, smoking and



exercise. **Results:** Mean age of male was 53.3 years and of female was 53.8 years. Mean BMI of male was 25.0 kg/m<sup>2</sup> and female was 22.7 kg/m<sup>2</sup> and the number of men was 130 (56.5%), and women was 100 (43.5%). HPLA quartile shows statistically significant relationship between VMA and 5-HIAA ( $p=.01, .00$ ). VMA ( $r=0.19, p=.02$ ), 5-HIAA ( $r=0.23, p=.01$ ) and HVA ( $r=0.17, p=.05$ ) correlated with HPLA, after adjustment with age, sex, BMI, alcohol, smoking and exercise. **Conclusions:** Urinary vanillylmandelate, homovanillate and 5-hydroxyindolacetate of the neurotransmitter marker positively correlated with p-hydroxyphenyllactate of the oxidative stress marker.

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### The association between somatic symptoms and brain connectivity within default mode network in children with attention deficit hyperactivity disorder

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**Background:** To assess the correlation between somatic symptoms and brain connectivity within default mode network (DMN) in children with Attention Deficit Hyperactivity Disorder (ADHD). **Methods:** 20 ADHD adolescents with somatic symptoms, 20 ADHD adolescents without somatic symptoms and age and sex matched 20 healthy adolescents were recruited. At baseline and after 6-month methylphenidate treatment, all adolescents underwent resting-state functional magnetic resonance imaging. **Results:** Both ADHD children with somatic symptoms and ADHD children without somatic symptoms showed greater Functional Connectivity (FC) from Posterior Cingulate Cortex (PCC) seed to right insular (salience network), compared to healthy control ( $T=4.65, FDRq=.03$ ). ADHD children with somatic symptoms showed increased FC from PCC to right parahippocampal gyrus (posterior DMN) ( $T=3.58, uncorrected p<.001$ ) but decreased FC from PCC to right medial frontal gyrus (anterior DMN) ( $T=3.19, uncorrected p<.001$ ), compared to ADHD children without somatic symptoms. After 6-month methylphenidate treatment, the FC from PCC seed to right medial frontal cortex increased in ADHD children with somatic symptoms ( $T=4.01, uncorrected p<.001$ ). In addition, somatic symptoms also showed improvement. During the treatment, the changes in the severity of somatic symptoms was negatively correlated with the changes in the FC between PCC and right medial frontal cortex in ADHD children with somatic symptoms ( $r=-0.49, p<.01$ ). **Conclusions:** Six months methylphenidate treatment of ADHD would increase the FC of anterior and posterior DMN as well as improve somatic symptoms. The somatic symptoms of ADHD children were not associated with somatosensory network but associated with the FC of DMN.

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### Brain functional connectivity in patients with somatic symptom disorder: a pilot study

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**Background:** To evaluate whether individuals with somatic symptom disorder (SSD) display increased resting-state functional connectivity (FC) within and between the sensorimotor network (SMN), default mode network (DMN), salience network, and dorsal attention network (DAN). **Methods:** Eighteen patients with SSD and 20 healthy control participants underwent resting-state functional magnetic resonance imaging. We used a seed-based correlation approach for the four aforementioned brain networks. **Results:** Patients with SSD had higher scores on the Somato-Sensory Amplification Scale (SSAS;  $z=5.22, p<.001$ ) and Symptom Checklist-90-Revised-Somatization ( $z=4.94, p<.001$ ) than healthy controls. Patients with SSD had greater FC within the SMN, DMN, and salience network than healthy controls. Patients with SSD also had increased FC between the SMN and DMN, SMN and salience network, SMN and DAN, and salience network and DAN ( $t=5.10 - 7.47, all false discovery rate q<.05$ ). In addition, the SSAS scores correlated with FC between the SMN and salience network, as well as that between the SMN and DAN ( $r=.61 - .82, all p <.003$ ). **Conclusions:** Based on the FC between the SMN and salience network, we suggest that SSD may be associated with alterations of sensory-discriminative processing of pain and other somatic symptoms, which is influenced by affective processing. Based on the FC of the SMN and DAN, we suggest that patients with SSD have a deficit of attention, which cause misperception of external stimuli and failure to regulate bodily functions aimed at interactions with external stimuli.

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### Integrative medicine and Yoga Therapy - the need for psychotherapeutic Yoga Therapy

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The number of yoga therapy research papers is increasing on PubMed. From the clinical integrative medical perspective, we need more analysis of the causes of illnesses as they relate to the mind-body relationship of each patient who suffers from psychosomatic disorders. In traditional yogic philosophy, there are theories of human structure, such as the Five Sheath Theory found in the Taittiriya Upanishad, that encompasses dimensions from the physical to spiritual. There are also theories of the functions performed by different parts of human structure, and these theories are found in various yogic scriptures such as the Yoga Sutras of Patanjali. We have developed Yoga Therapy Assessment methods and instruction methods. The mental and cognitive assessment of psychosomatic patients is especially complex, so we need an integrative medicine approach using both Western psychotherapy and traditional methods from Asian and other traditions. We also need statistical analyses to develop more tangible and effective assessment methods using traditional yogic philosophy. This assessment-treatment method, that is based on traditional yogic philosophy and used in yoga therapy for psychosomatic patients, is in its beginning stage. At this symposium, we will introduce some case studies of this assessment-treatment method and would like to discuss about the effectiveness of yoga therapy in the fields of psychosomatic medicine and psychiatry.

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### Experiences of aged parents supporting their long-term Hikikomori child

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**Background:** It becomes important for parents to maintain good mental and physical conditions in supporting their child Hikikomori (social withdrawal) from the society for a long term. However, those parents are facing various difficulties of their own as they get old. In this context, the experiences of such parents are revealed for suggesting the directions of their support. **Methods:** Semi-structured interview survey is conducted with the three parents aged 65 or older who have a child Hikikomori from the society for 10+ years (Child). Then, the theoretical structure of the experiences of those parents is clarified through a qualitative integration method (KJ method). **Results:** The parents have a baseless optimism as response to Hikikomori. But the parents have Incomprehensible Experiences with Child from Child's Day-Night Reversal Lifestyle and Aggressive Behaviors. They experience an Impatient Feeling toward Their Hikikomori Child and also the Depletion of Energy as Parent with the Loneliness Feeling That They Cannot Gain Cooperation from Others. Thereafter, they have a Family Rebuilding Experience of Living Anew as Comfortable Family through a Family Class as Place Where Parents Find Peace of Mind. On the other hand, the parents and Child have entered into Co-dependent Relationships from their Anxiety over Future Plan and the idea that the parents Cannot Abandon Child. **Conclusions:** A support system is needed which pays attention to the ideal form of a co-dependent family and the future hardships that the family will go through in their life.

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### Medication nonadherence after kidney transplantation in Japan

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**Background:** Nonadherence to immunosuppressive medications after kidney transplantation is a major risk factor for allograft rejection and graft loss. Transplant recipients tend to conceal nonadherence in clinical settings. We conducted an internet-based cross-sectional survey aimed to clarify the prevalence and risk factors of patient nonadherence after kidney transplantation in Japan. **Methods:** This internet-based survey was conducted in Japanese for two weeks. Participants accessed the research website and participated in the survey after reading an explanation of the survey and providing their

consent to participate in the study. The inclusion criteria were Japanese-speaking kidney transplantation recipients aged 20 years or older at the time of the survey. The Basel Assessment of Adherence to Immunosuppressive Medication Scale (BAASIS©) was used to detect nonadherence. In this survey, patients were asked about their relationship with medical staff and their satisfaction for medical information, along with other questions. **Results:** A total of 219 kidney transplant recipients were included in the analysis. Ninety-four demonstrated nonadherence (42.7%). The following factors were associated with nonadherence: short dialysis period prior to transplantation; undergoing transplantation at least twice; male sex; lack of satisfaction with the explanation of immunosuppressive medication; and absence of medical staff to consult upon forgetting to take drugs. **Conclusions:** This anonymous survey provides valuable insight into the actual nonadherence rate and factors associated with nonadherence.

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### What factors are associated with the time patients with somatic symptom disorder devote to their physical ailments? A multiple regression analysis

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**Background:** Psychological factors associated with somatic symptoms are core criteria of the Somatic Symptom Disorder (SSD). Yet, psychological criteria lack an empirical foundation. Therefore, the present study investigated what factors are associated with the time patients with SSD devote to their physical ailments. **Methods:** In total, 280 outpatients of a psychosomatic clinic underwent a semi-structured clinical interview according to DSM-5 to assess the diagnosis of SSD. Patients indicated how much time they devote to their physical ailments. Additionally, psychological burden related to physical ailments (Somatic Symptom Disorder-12) and somatic symptom severity (Patient Health Questionnaire-15) were assessed. **Results:** Patients with SSD devote more time to their physical ailments compared to patients without this diagnosis (5.56±0.46 hours vs. 4.00±0.39 hours,  $p=.01$ ). The amount of time that was devoted to physical ailments ( $R^2=.284$ ;  $F=14.2$ ,  $p<.001$ ) was associated with age ( $\beta = 0.12$ ,  $p = 0.026$ ) and psychological burden related to physical ailments ( $\beta=.45$ ,  $p<.001$ ). Interestingly, there was not association with somatic symptom severity ( $\beta=.05$ ,  $p<.439$ ). **Conclusions:** The results underpin that patients with SSD devote a large amount of time to their physical ailments. Whereas the psychological burden related to somatic symptoms and higher age are directly associated with the amount of time that is devoted to physical ailments, there was no association with somatic symptom burden. It needs to be determined, whether there is a clinically meaningful cut-off with respect to time that differentiates between a normal and pathological psychological reaction.

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### Demoralization in a population anticipating removal from the Gaza strip

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**Background:** The Israeli government decided in March 2005 to remove the settlers of the Gaza Strip, a process known as disengagement. Although population displacements are not rare, the mental health literature on the subject of an impending removal is limited. The objective of this study was to assess demoralization among adult Gaza settlers two months before their removal, but after beginning preparation for disengagement. **Methods:** One person per household residing in 13 settlements was randomly selected for a telephone interview that included the Demoralization Scale of the Psychiatric Epidemiology Research Interview (D-PERI), satisfaction with life, scales that measured several aspects related to the disengagement process, and sociodemographic variables. Regression This population, as others in transitional states (e.g. immigrants), may be at higher risk for demoralization but not for psychiatric disorder than stable Israeli groups (e.g. cohort of young adults) was used to determine the best predictive model for demoralization and current satisfaction with life. D-PERI scores were compared with other Israeli population groups. **Results:** Women respondents; those with less years of education; higher risk perception; greater alienation from government; poorer perceived health; without social support outside the West Bank or Gaza; worse religious coping; and residence in a secular settlement enhanced the risk for higher demoralization. Positive current satisfaction with life was associated with greater place attachment; less risk perception; stronger ideological stand; less feeling of alienation from the government; a more positive view of the future; and plans to return to Gaza. **Conclusions:** This population, as others in transitional states (e.g. immigrants), may be at higher risk for demoralization but not for psychiatric disorder than stable Israeli groups (e.g. cohort of young adults).

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### Clinical validation of ratings on the 6-item Positive and Negative Syndrome Scale obtained using the Simplified Negative and Positive Symptoms interview

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**Background:** Monitoring the severity of schizophrenia is essential for a successful treatment outcome. In schizophrenia research, the most commonly used rating scale is the 30-item Positive and Negative Syndrome Scale (PANSS-30), which takes approximately 45-60 minutes to administer. This is too time-consuming for routine clinical use. Recently, our group has extracted a 6-item scale (PANSS-6), which has demonstrated good psychometric properties. Subsequently, we produced a brief semi-structured interview, the Simplified Negative and Positive Symptoms Interview (SNAPSI), which can be used to collect specific information for rating of PANSS-6. The aim of this study was to test whether valid PANSS-6 ratings could be obtained via SNAPSI. **Methods:** A total of 75 patients with a diagnosis of schizophrenia will be

recruited for the study. The SNAPSI and the structured clinical interview for PANSS (SCI-PANSS) will be conducted by independent interviewers - followed by independent PANSS-6 and PANSS-30 ratings, respectively. The extent with which PANSS-6 scores correspond to PANSS-6 scores extracted from PANSS-30 will be tested by means of intra-class correlation. The scalability of PANSS-6 will be tested via item response theory analysis. **Results:** At present (April 2019), 60 patients have been included in the study. We expect to have included all 75 patients by the end of June, such that the results of the study can be presented at the meeting. **Conclusions:** If valid PANSS-6 ratings can be obtained using SNAPSI, the "SNAPSI-PANSS-6 combination" will ease implementation of measurement-based care in schizophrenia.

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### The state of psychological distress in Japanese narcolepsy patients

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**Background:** Narcolepsy (NA) is a chronic neurological disorder which affects the brain's ability to control sleep-wake cycles and a typical symptom is excessive daytime sleepiness. The prevalence of NA in Japan (592/100,000) is higher than any other country. There is no known cure, and a need for lifelong treatment. NA is also characterized by cataplexy which is a sudden loss of muscle tone triggered by intense emotions. Little is known about NA and its impact on the state of mental health. The aim of this study was to clarify the actual state of psychological distress in those suffering from NA. **Methods:** A total of 97 individuals aged between 18–87 years participated. A self-administered questionnaire was conducted that included their demographics, medical history, Kessler Psychological Distress Scale (K6), and worries/stress. The K6 is a quantifier of non-specific psychological distress rated on a 5-point Likert-type scale. For data analysis, this study used descriptive statistics and the Mann-Whitney U test. **Results:** The K6 score in NA was significantly higher than Japanese people in general (M=6.0 vs M=3.3) ( $p<.01$ ). There was a significant difference in the age group of 20-49 ( $p<.05$ ). Eighty percent of NA patients had been suffering from worries/stress. The rates of worries/stress in those who took part in the survey were notably higher than Japanese people in general, in all generations. **Conclusions:** Patients with NA are at higher risk of suffering for mental illnesses. A further study to determine the factors of mental health needs be conducted in the future.

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### The frequency of SOC by age which is the concept of healthy

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**Background:** The objects of this study were female university students. Accordingly, we examined the effect of the nurture environment on SOC even females of 30s and up. **Methods:** The objects of this study were 205 females that were from 30s to 70s. The 30s females were 47 persons (22.93%), the 40s females were 61 persons (29.76%), the 50s females were 54 persons (26.34%), the 60s females were 31 persons (15.12%), the 70s females were 12 persons (5.85%). Then, we divided the objects into 30s-40s females and 50s and up females. The 30s-40s females were 108 persons (52.68%), the 50s and up females were 97 persons (47.32%). **Results:** We classified subjects into 2 groups using Parental Bonding Instrument (PBI). The one group was the PBI good group, the other one was the PBI not-good group. Calculation of  $\chi^2$  test confirmed that there was not significant bias of distribution of PBI good group and PBI not-good group for each age. Furthermore, 103 participants had a full-time job, 80 participants were part-time workers, and 22 participants were full-time housewives. Then, PBI not-good group included more part-time workers than PBI good group significantly ( $p<.05$ ). The 205 subjects were also stratified using PBI. In terms of the SOC scores, the average score of the PBI good group on Comprehensibility, Manageability, and Sense of meaningfulness were higher than that of PBI not-good group significantly ( $p<.01$ ). And, the average score of the PBI good group in 30s-40s and in 50s and up on Comprehensibility, Manageability, and Sense of meaningfulness were higher than that of PBI not-good group significantly ( $p<.01$ ). Finally, we studied SOC score of 30s and up females. PBI good group included about 40% participants in 30s-40s and 50s and up, and PBI not-good group included about 60% participants in 30s-40s and 50s and up. These were same ratio as 20s females. **Conclusions:** PBI is same as all age. And, in terms of SOC, the average score of the PBI good group was higher than that of the PBI not-good group significantly in 30s-40s and 50s and up. Then, PBI not-good group included more part-time worker than PBI good group. Thus, part-time workers' children will have part-time job.

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### The effects of maternal unpredictable signals at 8 months on child's self-regulation and socio-emotional problems during toddlerhood

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**Background:** Predictability of maternal signals during infancy is assumed to be one important protective factor in the development of child's emotional regulation. The aim of this study is to assess whether the predictability of maternal caretaking behavior at 8 months predicts child's self-regulation capacity at 12 and 24 months and the symptoms of socio-emotional problems at 24 months. **Methods:** Study participants included 126 mother-infant dyads that are drawn from the larger FinnBrain Birth Cohort Study. The degree of predictability of maternal sensory signals was measured using entropy rate derived from behavioral coding of mother-child interaction at the child age of 8 months. Child's self-regulation was assessed using mother-reported IBQ-R and ECBQ-R questionnaires at the child ages of 12 and 24 months, respectively. Child's socio-emotional problems were assessed using the BITSEA questionnaire. **Results:** Findings showed that lower maternal predictability associated with lower child's regulation and orientation at 12 months ( $B=-2.23$ ,  $p<.05$ ) and with lower child's effortful control at 24 months ( $OR=1.81$ ,  $p<.05$ , 95% CI 1.04-3.19) after controlling the effects of maternal distress and the selected covariates. In addition, lower predictability was associated with lower amount of social competence and joint attention ( $F=4.97$ ,  $p=.028$ ) assessed by BITSEA at 24 months. **Conclusions:** Our findings suggest that unpredictability of maternal care influences child development and especially the regulation of emotions and social behavior. More detailed analyses will be presented in the symposium.

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### Long-term transition of PTSD and depression symptoms on high school students in the affected area of the Great East Japan earthquake

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**Background:** On March 11, 2011, the Tohoku district of Japan experienced a massive earthquake, the Great East Japan Earthquake, and more than 18,000 people died or remain missing, and more than 400,000 people had to be evacuated. Therefore, the objectives of this research were to analyze long-term data, from 2013 to 2018, of high school students affected by the Great East Japan Earthquake. **Methods:** Participants were senior school who had experienced the Great East Japan Earthquake. We conducted the measures, IES-R and CES-D, every June during the study period. A total of 1,370 adolescents (958 females, 412 males) were the participants of this study. Participants provided written informed consent prior to the screening and the protocol was approved by the

ethics committee from the authors' affiliated institution. No participant had ever experienced psychotherapy. **Results:** The results of ANOVA (year x sex) showed that the interaction of the CES-D was significant, but the IES-R was not. According to the simple main effects of CES-D, the 2016 score was significantly higher than that for 2015 for females and the 2016 score was significantly higher than those for 2013 and 2017 for males. **Conclusions:** Results of this study revealed that the participants' depressed tendencies were still high, even several years after the Great East Japan Earthquake. As mentioned above, it was suggested that continuous psychological supports are necessary for large scale disasters.

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### **Origin, aims and progress of the Asian College of Psychosomatic Medicine**

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The Asian College of Psychosomatic Medicine (ACPM) was founded as the Asian Chapter of the International College of Psychosomatic Medicine (ICPM-AC) in Tokyo on April 12, 1982. Five years previously, preparation for creation of the ICPM-AC was started at the 4th World Congress of the International College of Psychosomatic Medicine (ICPM) held in Kyoto, Japan, September 5-9, 1977. The First Congress of the ICPM-AC was held by in Tokyo on May 19-20, 1984. Thereafter, academic congresses of the ICPM-AC, the 2nd to the 9th, were held every two years, in Japan, India, Malaysia, Taiwan, Korea, and China. The name was changed to the Asian College of Psychosomatic Medicine (ACPM), and the 10th to 17th congresses were held in Taiwan, Okinawa (Japan), Australia, Korea, China, Mongolia, Indonesia and Fukuoka (Japan). The main themes of the congresses have focused on such themes as psychosomatic disorders, culture - bound syndromes, and oriental medicine. The ACPM has actively promoted "Health promotion" by raising the level of mental health based on psycho-neuro-endocrine-immunomodulation. We have a strong focus on prevention, which is also important in the Asia - Oceania area, from the viewpoints of both psychosomatics and culture.

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### **Beyond internalized and externalized behaviors: the unique role of dissociation in relational difficulties among children in residential care service**

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**Background:** Children placed in out-of-home residential care service are often presented with difficulties in negotiating social interactions. One prevalent clinical account is that childhood trauma disrupts attachment process, leading to difficulty in building stable relationship with closed others. Alternatively, early chaotic family environment may contribute to children's externalizing and internalizing behaviors, leading to more conflicts or less positive affective reciprocity in dyadic exchange. In the current study, we would

like to disentangle trauma-specific sequelae from behavioral problems and verify whether the assessment of trauma-related psychopathology can provide an exclusive predictiveness for relational function in institutionalized children. **Methods:** The data of 89 children in our 12 small group homes were retrieved from our assessment record. Relational functioning, internalizing and externalizing behaviors, and trauma-related psychopathology, i.e. dissociation, were measured. **Results:** Hierarchical regression models demonstrated that dissociation predicted relationship quality with house parents above and beyond problematic behaviors. More intriguingly, problematic behaviors had no additional account for the variance of relationship quality if dissociation was entered the model first. **Conclusions:** Hence, trauma-specific factors appear to play a crucial role in relational functioning among institutionalized children. Assessing trauma-related psychopathology is crucial for practitioners to evaluate the potential relational difficulties of children with a chaotic familial background.

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### **The Vital Parenting Tasks: parent-child psychotherapy for children and adolescents presenting with psychosomatic symptoms**

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**Background:** The Vital Parenting Tasks (VPT) model was originally developed for psychotherapists as a result of a study where a need was identified to support Child and Adolescent Psychotherapists (CAPs) in their clinical work with parents. The aim of the VPT is to demystify parenting, highlight strengths and minimise weaknesses in parental capacity, and enrich the parent-child relationship. A framework for assessment and/or integration into multidisciplinary treatment packages was produced. Observation, therapeutic letter-writing, home visits, and cross-modal creative tasks support the complexity of dyadic work. The research did not set out to identify the VPT's perceived effectiveness in any presentation or group, however unexpected findings implied that the model may be beneficial in psychosomatic illness. **Methods:** A proto-model first devised by Jäderberg & Sarankin was refined using action research. Methods included focus groups, an uncontrolled clinical trial, and reflexivity with creative artefacts. **Results:** 20 vital parenting tasks were identified (e.g., attunement, reflectivity). A significant number of clinicians described unprompted that the VPT assessment was especially advantageous in forming treatment plans for psychotherapeutic work and maintaining focus in the therapeutic process. A second unexpected finding suggested CAPs found the model beneficial where children presented with medically unexplained somatic symptoms including abdominal pain and headaches. **Conclusions:** Although the study did not focus on unexplained somatic symptoms there were significant improvements in such symptoms after an average of fourteen weeks VPT psychotherapy. More research is required focusing specifically on the use of the model with children presenting with psychosomatic symptoms.

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### **Insomnia and metabolic diseases**

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Insomnia is a subjective feeling of difficulty initiating sleep, difficulty maintaining sleep, waking up too early, non-restorative sleep or poor quality of sleep. Insomnia is a serious public health issue. The worldwide prevalence of insomnia in the general population ranges from 8% to 40%. The pathophysiological mechanisms responsible for insomnia have yet to be fully elucidated. One aspect is the presence of somatic arousal in insomnia patients; insomnia is characterized by persistent and increased somatic, cognitive, and cortical stimulation. Several studies have shown increased cognitive and physiological activation in insomnia patients compared to good-sleeping controls. Patients with insomnia have shown an increase in body temperature, heart rate, cortisol, and catecholamines. Metabolic Syndrome (MS) is a complex of interrelated risk factors for cardiovascular disease and diabetes. The factors include obesity, hypertension, glycemia alterations, elevated LDL cholesterol levels. The prevalence of MS is approximately 30% in the world. Some studies have shown that insomnia is associated with MS. A 1-year follow-up study reported that insomnia was a significant predictor of MS. The risk of MS incidence was 2.17 for those with insomnia compared to those without insomnia.

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### Diagnostic Criteria for Psychosomatic Research and psychosocial functioning in tinnitus

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**Background:** Tinnitus is a phantom perception in absence of an external sound source that affects about 278 million people worldwide. This study aimed at investigating for the first time the prevalence of Diagnostic Criteria for Psychosomatic Research (DCPR) in patients with tinnitus and whether DCPR syndromes were able to predict the degree of impairment associated with tinnitus. **Methods:** A total of 60 consecutive outpatients (51.3% female; mean age 53.8) with Tinnitus were recruited from the Otorhinolaryngology Unit - University of Bari General Hospital. We assessed psychological distress and handicap associated with tinnitus (THI), psychopathological symptoms (SCL-90-R), anxiety (STAI), depression (BDI), cognitive impairment (MMSE), frontal lobe functions (FAB). Psychosomatic syndromes were investigated with the Structured Interview for DCPR. **Results:** A total of 45 patients (75%) met criteria for at least one DCPR and 40 patients (70%) had more than one DCPR. Total number of DCPR diagnoses was 90 (mean = 1.5 per patient). Higher prevalence of DCPR syndromes were found for Illness denial (n=18, 30%), Demoralization (n=12, 20%), Type A behavior (n=10, 17%), Irritable mood (n=9, 15%). Patients meeting DCPR criteria scored higher on THI (57.8±23.6, p<.05) and BDI (13.1±8,

p<.05). A hierarchical regression model was used with THI as dependent variable. THI was significantly predicted by cognitive impairment (12%), depression (13%) and DCPR Somatization (10%). **Conclusions:** DCPR classification can provide otorhinolaryngology professionals with a set of sensitive diagnostic criteria for a comprehensive assessment of the tinnitus patient.

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### Course and predictors of DSM-5 somatic symptom disorder in patients with vertigo and dizziness symptoms

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**Background:** Although the diagnostic entity of the Somatic Symptom Disorder (SSD) has proven itself well in clinical practice and research, data on long-term development are still scarce. The present study aimed to evaluate the natural course of SSD according to DSM-5-criteria in a one-year follow-up study in patients with vertigo and dizziness (VD) symptoms. **Methods:** We investigated 239 outpatients presenting in a tertiary care neurological setting over a one-year period. Patients had a medical examination at baseline and completed self-report questionnaires, which were reassessed after 12 months. We evaluated the prevalence of SSD at baseline and 12-month follow-up and investigated predictors of the persistence of SSD during the study period. **Results:** The prevalence rate of SSD was 36% at baseline and 62% at 12-months follow-up. The persistence rate of SSD was 82% and the incidence rate was high, leading to a markedly increased prevalence rate at follow-up. Risk factors for persistent SSD were a self-concept of bodily weakness (OR: 1.52, 95% CI: 1.30-1.78) and an increase of depression during the study period (OR: 1.11, 95% CI: 1.02-1.22). Further, the diagnosis of an anxiety disorder (OR: 7.52, 95% CI: 1.17-48.23) or both anxiety and depressive disorder (OR: 23.14, 95% CI: 2.14-249.91) at baseline were significant predictors. **Conclusions:** Our findings point out that SSD is highly prevalent in patients with VD symptoms, the incidence of the disorder widely outweighs its remission. Potential predictors of a persistence of SSD are discussed and can be chosen as a focus in therapy.

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### Psychiatric liaison consultation in dermatology

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**Background:** Consultation-liaison (CLP) is a psychiatric subspecialty addressing the psychological care of medically ill patients as well as the relationship between medical and

psychiatric disorders. We report a female patient who picks at her face and arms on a daily basis, causing self-inflicted skin lesions. Skin Picking disorder (SPD) is the recurrent and compulsive excoriation of one's own skin, leading to skin damage. **Case presentation:** We describe the case of a 21-year-old woman with cutaneous self-inflicted injuries at her face and arms and recurrent major depressive disorder. She has been at psychiatric hospitals for several times and I visited her at a dermatological station where she tried to improve her skin conditions. Her cutaneous activity always relates to the level of stress and depression in her life. It was associated with emotional stress followed by a feeling of relief after picking. Currently she has extensive cutaneous ulcerations and reports feeling more depression and stress over recent weeks. Her current medication includes clozapine and venlafaxine. She has declined clinical psychology but was willing to talk with our CLP. She meets the proposed diagnostic criteria for SPD. This patient has a associated psychiatric comorbidity. Depression with suicidal thoughts associated with a dysfunctional parental relationship. **Conclusions:** Data about the pathophysiology of SPD are still limited. SPD may lead to substantial psychosocial dysfunction. A vary of reports show a relation to the obsessive-compulsive spectrum disorder but also to depression. Skin picking behaviours were sustainably reduced when treatment included antipsychotic medication were combined with psychotherapeutic strategies.

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### Childbirth experience and psychosomatic challenges

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**Background:** Childbearing and its outcome profoundly affects the mother's physical and mental health. A case of Mrs X. is presented, illustrating the impact of pregnancy-generated physical and mental symptoms. **Case description:** Mrs X. was an anxious 29-year-old housewife in her second pregnancy. Her first pregnancy was associated with left-sided sciatica. A family history of diabetes was significant, necessitating diet modification for gestational diabetes. She underwent an emergency caesarean delivery for failure to progress; an oozing wound required prolonged treatment. During the current pregnancy, Mrs X.'s BMI at booking was 48. She requested a caesarean delivery. Serial ultrasonographic measurements showed the baby to be below the 50th centile. From 31 weeks onwards, she was advised regarding her left-sided sciatica and intermittent headaches. At 37 weeks she was discharged after hospitalization for headaches, vomiting and a "runny stomach". Getting to sleep was difficult. She developed non-proteinuric hypertension. At elective caesarean, extensive adhesions between the rectus sheath and the omentum, as well as the bladder, slowed access. When fundal pressure did not deliver the baby's head, successful forceps assistance delivered a male baby. Routine closure followed hemostasis checks. The baby weighed 3750 grams; Apgar scores were 6, 9, and 9. An oozing wound and pyrexia required antibiotics. She received psychotherapy for feeling low. **Conclusions:** A planned pregnancy that needed intensive antenatal care and caesarean delivery prevented an unsatisfactory outcome. Postnatally she had wound problems and felt low; apt psychosomatic care brought relief. Future research and health provision should support psychosomatic patient-centered care.

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### Curtailling unethical practices in women's healthcare

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Retaining a sensible level of caution is essential when introducing new treatments into clinical practice. Professional ethics, particularly the concept of non-maleficence, require a balanced evaluation of risks and benefits, including potential side-effects, when taking consent for any procedure. This is not straightforward when long-term data are not readily available, such as with the prematurely overzealous use of pelvic floor mesh in recent times. This talk considers some guiding principles that can help doctors maintain professional integrity when dealing with incomplete information, whilst providing the best possible individualized care. Psychosomatic challenges faced by patients with problematic mesh insertions will be elucidated. When evaluating novel interventions, doctors should consider all pertinent available information on safety and efficacy. Repeated post-procedure complications mandate remedial action, with event recording/reporting, re-evaluation of treatment modalities, and product withdrawal where known harms surpass benefits.

Pelvic floor mesh implants were introduced hurriedly, with insufficient data on long-term outcomes. Sometimes, meshes fragmented and migrated to the pelvic floor/organs, resulting in severe pain that affected patient's wellbeing and relationships. Persisting delays in acknowledging concerns generated psychosomatic ill-health in many who may have chosen differently. Though it cannot undo all harm, the clinical psychosomatic approach allows partial mitigation, thereby shifting the ethical balance in a positive direction. Failure to adequately discuss risks (including data gaps) when obtaining consent hinges on unethical practice, which is magnified by the premature introduction of products. Doctors, along with governments and manufacturers, must work together, lest knowledge gaps become ethical lapses.

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### Migration and psychosomatic impact of bad obstetric history

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**Background:** A Bad Obstetric History (BOH) includes pregnancy losses (3 or more) caused by chromosomal anomalies, infections, incompetent cervix, thrombophilias, etc. Mrs X., who had a BOH and psychosomatic symptoms, is depicted. **Case description:** X., a 34-year-old seventh gravida, had recently migrated to the UK. Hers was an accepted consanguineous marriage. Previously, she had had three miscarriages, two stillbirths, and a termination of pregnancy for fetal anomaly. The termination confirmed a fetus with hydrocephalus and large kidneys; a retained placenta was removed. An autosomal recessive hereditary condition was confirmed. She was devastated. In her current pregnancy she booked late. She complained of itching. Obstetric cholestasis was excluded. Fetal growth was at the 90th centile. Glucose tolerance test was normal. She went into labor spontaneously

at term. A cord presentation, confirmed at 3cm dilatation, necessitated emergency caesarean delivery under general anesthesia. An adherent placenta was manually removed. Primary postpartum hemorrhage was controlled by uterotonics. Her female baby weighed 3960 grams. Her wound pain seemed intolerable; injectable analgesia was given for five days. She gave up breast-feeding. She was melancholic, despite having a healthy baby. The couple had wanted a male. She became dysphoric. Psychosomatic support was provided in a primary care setting. She coped gradually after weeks. **Conclusions:** X. had suffered both physically and mentally after each pregnancy loss, yet, despite a successful birth on this occasion, she became dysphoric. Appropriate psychosomatic care helped gradually. Patient-centered psychosomatic care helps facilitate the maternal role and should be encouraged where indicated.

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### Unexplained pelvic pain as an example of a psychosomatic condition

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**Background:** Psychosomatic disease manifestations are commonplace. Nevertheless, many amongst the medical workforce lack familiarity with their etiopathogenesis, diagnosis and treatment. Non-recognition and misdiagnosis lead to persisting psychosomatic manifestations in many patients, with knock-on effects on family, friends and society. Recognizing the psychosomatic aspects of such conditions would enhance patient-centered care. **Methods:** Illustrative vignette with video, outlining methods for managing psychosomatic disease conditions. **Results:** Ms Y., a 25-year-old nulliparous administrator, lived with a partner who worked away from home, returning for "emotionally charged" weekends when he might become "too tipsy". Admitted from A&E for laparoscopic treatment of lower abdominal pain, she was non-pregnant and seemed mentally alert. She wore supports for a fractured left clavicle, besides a fractured right patella. She mentioned a recent fall but was unclear regarding the precise cause of her injuries and partner help. Biopsychosocial considerations suggested a psychosomatic approach could be productive. Ms Y. had refused internal examination at A&E but consented following reassurances from the psychosomatically aware gynecologist that she would be in control during the examination – her personality was revealed, and rapport established. Her abdomen, with scars from previous appendectomy and laparoscopies, was slightly tender, soft and non-distended. Her cervix was slightly tender; infection screening was done. Abdominal scanning revealed normal uterus and adnexa. After examination, her pain began subsiding. She declined surgical treatment and was happy to be discharged four days later. **Conclusions:** Pelvic pain in a young woman was successfully managed by a staggered psychosomatic approach that accounted for the patient's personality, concerns and fears.

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### Palpating my own myalgia - selfishness and altruism

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As a medical undergraduate and at the end of a seminar on transgenerational psychosomatics in the year 2018, I was asked to write an *essai* (Montaigne) on experiencing the seminar. Writing an *essai* and not an essay makes all the difference in the world: the *essai* written with *i* in the end concerns my very own perceiving primordially; the essay written with *y* tells about experiencing in general, beyond the individual being concerned. As an undergraduate medical student, I was asked to palpate the shoulder (frozen shoulder) of a myalgic patient and to sense what I simultaneously sensed in my own shoulder. A leitmotif aroused: sensing myself means sensing the other. Being one of the presenters, I'll try to move through MOSE by carefully watching both moving and breathing in their interrelationship - at any time.

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### Autonomic deficits and psychosomatic dysregulation in a group of adolescents at high risk of psychosis

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**Background:** Evidence suggests that the first manifestations of schizophrenia may be detected several years before the psychotic onset. Basic symptoms are often assessed to detect individuals who are at risk of developing schizophrenia. Literature on the physiological and psychosomatic correlates of adolescents at-risk for psychosis is scarce. Specifically, the association between autonomic dysregulation and psychosomatic symptoms has never been explored in individuals who have been deemed at high risk of developing a psychotic disorder. **Methods:** Participants were 27 adolescents who were referred to a mental health department and were positively assessed for basic symptoms by means of the Schizophrenia Proneness Instrument (SPI-A/CY). Psychosomatic dysregulation was investigated by means of the Psychosomatic Dysregulation Inventory (PDI). Autonomic Dysregulation was measured through electrocardiogram (ECG) monitoring before, during and after the cessation of a social stimulus. ECG monitoring investigated several measures, including Cardiac Vagal Tone (CVT), Heart Rate Variability (HRV) and Respiratory Sinus Arrhythmia (RSA). **Results:** Data analysis showed a positive association (between  $r=.20$  and  $r=30$ ) between psychosomatic symptoms, as assessed with the PDI, and CVT during the recovery phase after the cessation of the stimulus. **Conclusions:** Our findings suggest that autonomic dysregulation found in individuals at risk of developing a psychotic disorder may be linked with psychosomatic dysregulation, in line with previous research suggesting the presence of an autonomic dysregulation in schizophrenic subjects.

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### Psychosomatic dysregulation as a mediator within the relation between cognitive disturbances and psychosomatic symptom in



## an adolescents' group for at-risk psychotic onset

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**Background:** Psychosomatic dysregulation is linked with attachment trauma, psychopathology and affective neuroscience. On the other hand, cognitive disturbances (COGDIS), which are included into basic symptoms (BS), seem to predict psychotic onset. Basic Symptoms (BS) refer to self-experienced subclinical disturbances and they are occurred in many mental disorders. Furthermore, psychosomatic symptoms in adolescence can predict several mental illnesses in adulthood. **Methods:** In this study we have led a mediation analysis in 41 adolescents (age: 19.5±3.5 years), followed out with ASL Roma 1. We used somatization subscale of the Symptom Checklist-90Revised (SCL-90R) to measure psychosomatic symptom, while we assessed cognitive disturbances (COGDIS) with the Schizophrenia Proneness Instrument (SPI) and psychosomatic dysregulation with the Psychosomatic Dysregulation Inventory (PDI). **Results:** Results showed that there is a regression between COGDIS scores and somatization subscale of SCL-90R ( $\beta$ :.218,  $p \leq .05$ ). This relation has a significant direct effect in mediation model ( $\beta$ :.115,  $p \leq .05$ ). Psychosomatic dysregulation, considered like a mediator variable, has a significant indirect effect on the relation above reported ( $\beta$ :.137,  $p \leq .000$ ). **Conclusions:** This evidence seems to suggest that it might be useful to look after psychosomatic dysregulation in the early interventions with at-risk of psychotic onset adolescents.

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## A psychiatrist among surgeons: cardiac surgery as a research paradigm for testing hypotheses about late life neuropsychiatric symptoms

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Late life mental disorders (e.g. depression, delirium, and dementia) are common and significantly associated with morbidity and mortality in elderly population around the world. However, current scarcity of hypothesis-driven research on etiopathogenesis of late life mental disorders hamper development of prevention or treatment strategies for them. Based on the speaker past and current research, the use of cardiovascular surgery (e.g. coronary artery bypass graft surgery and left-ventricular assist device surgery) as a human experimental model test the vascular depression hypothesis, the critically attained threshold of cerebral hypoperfusion (CATCH) hypothesis of dementia, and multifactorial model of delirium will be discussed. The combined method of transcranial Doppler and functional EEG to investigate

cerebral perfusion at macro- and micro-vascular cerebral perfusion in relation to development of neuropsychiatric symptoms after cardiac surgery will be also discussed.

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## Psychosomatic Medicine and Consultation-Liaison Psychiatry world-wide – different? accepted? certified?

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**Background:** What is the current status of Psychosomatic Medicine (PSM) and Consultation-Liaison psychiatry (CL) world-wide? **Methods:** Experts in PSM and CL representing twenty countries across the world completed a 10-item questionnaire on the nature and training of the fields, and the certification status. **Results:** A majority (65%) felt that PSM and CL were different, and PSM was more psychotherapy oriented. About 40% felt PSM was more research oriented. Half of the respondents had a Department of PSM in their country, in 10%, teaching of PSM in medical schools was required by law. In 90% of the countries, there is a CL Service in health care facilities. In 40%, special certification exists for PSM or CL. In Latvia and Germany, PSM is an independent medical specialty, while in Greece and France, PSM is an independent non-medical discipline. PSM is a subspecialty of Internal Medicine in China. In the rest, CL is a subspecialty of psychiatry. In 65%, formal training in PSM/CL exists in medical school (60%), residency (60%), and during fellowship (30%). **Conclusions:** CL is vibrant in UK, Australia, South Africa, Canada, and USA. PSM, which is more psychotherapy-oriented seems dominant in continental Europe, especially in Germany and France. In Germany, the law requires the teaching of PSM and establishes independent PSM departments. The orientation of the psychosomatic departments seems to be more psychodynamic than traditional biologically oriented psychiatry departments. Asian and African countries seem to place increasing importance in CL. Globally, CL psychiatry and PSM are widely accepted.

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## Successful treatment of a treatment resistant depressed diabetic patient with borderline personality traits

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**Background:** The comorbidities of depression and diabetes complicate successful treatment of both conditions. **Case description:** J., a 72-year old, married Japanese-American retired librarian, was referred to our Psychiatric Intensive Outpatient Program for treatment of severe depression and uncontrolled diabetes. Patient had failed many treatment attempts, including TMS, ECT, various psychotropics and conventional psychotherapies. His mood, relationship with spouse, and physical condition declined markedly. J. was malodorous, with strikingly long toenails. He had bad breath from uncontrolled diabetes, his clothes were unwashed for months. He was not a desired group member or patient in an office. He was hopeless, helpless, and passively suicidal.

Nevertheless, he showed a spark of intellectual interest when he attended a Dialectical Behavior Therapy (DBT) coping skills class which led to attendance in a full DBT program. Patient became compliant to his medication regimen and his diabetes became stabilized. His depression improved significantly, his hygiene improved, and his breath was fresh. **Conclusions:** J. presented himself as being repellent because of his poor hygiene, but we felt that his intelligence was a strength to leverage. When he showed intellectual interest in DBT, our department provided him with a successful individualized program. DBT is a type of cognitive-behavioral psychotherapy, utilizing skills training classes to learn new skills and strategies, to manage emotions and decrease self-harm and suicidal ideation, change patterns of behavior that are not helpful. DBT in this case also enhanced compliance to medication regimen.

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## 228 Unmet needs in oncology, a way to further target the therapy

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**Background:** Since many years, in health care, the perspective of the Quality of Life of the patient has enriched the biomedical vision of cancer care. Nevertheless, when we move from a physician centred care to a patient centred-care we must take in account also the so-called care needs of the patient, defined as the requirement of some action or resource in care that is necessary, desirable, or useful to attain optimal well-being. Unmet needs assessment is designed to identify how well and how much the needs of the patient have been satisfied or not, give us a more comprehensive idea of the impact of cancer on patients' life and should therefore be collected prior to designing and providing tailored cancer care services. **Methods:** Three studies have been conducted in different Italian sample of cancer patients (lung cancer, melanoma, colorectal cancer), to assess the degree of unmet supportive care needs, using an Italian validate version of the Supportive Care Needs Survey – Short Form. **Results:** Relevant findings were the presence of a moderate-to-high level of unmet need (melanoma and lung cancer), and the evidence, in all the studies, of a gap in the provision of adequate supportive care for cancer patients, notably regarding the Psychological domain. **Conclusions:** The study populations reported specific unmet supportive care needs, mainly related to psychological concerns. Refer to supportive care seems to be a feasible way to plan adequate interventions to relieve suffering or to prevent suffering as much as possible.

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## 229 The post-traumatic stress disorder in an informal caregiver: a clinical case

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**Background:** Post-traumatic Stress Disorder (PTSD) is a psychosomatic condition triggered by traumatic events and

influenced by the lack of social support. Social support is also a moderator of caregiver psychological distress. In the absence of social support caregiver distress increased. Some recent studies point out how burden is linked to subjective perception of stress and anxiety. According to these premises, the aim is to describe a psychological treatment based on both individual and family support in an informal caregiver with PTSD. **Case description:** 77-year-old female patient, her husband's caregiver. Her family is composed by husband, one son and one daughter. She was run over by a car and suffered multiple fractures and mild traumatic brain injury. Psychological report: intrusive thoughts of the accident and emotional neglect. Two session of EMDR integrated with individual psychological support in rehabilitation setting and weekly family support. Pre and post treatment evaluation: depressive and anxiety symptoms (BAI, BDI-II, BHS), coping skills (COPE), burden caregiver (CBI), affective neuroscience personality (ANPS) and the impact of event Scale (SIDE). At the end of treatment, we observe a decrement in scores of emotional burdens (-62,5%), anxiety (-77,27%) depressive symptoms (-50%) as well as reduction of event distress. Whereas we observe an increment in positive attitude (13,79%) and perceived social support (12,90%). **Conclusions:** This result support the hypothesis that the caregiver suffering from PTSD needs social support and EMDR therapy.

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## 230 A novel approach to lifestyle: integrating neuroaffective and relational factors

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**Background:** Healthy lifestyle plays an important role in primary and secondary prevention of many diseases. Recent studies in the field of psychosomatics and affective neuroscience evidence how supportive social relationships are associated with healthy lifestyle. Nevertheless, neuroaffective predisposition to healthy lifestyle and the link with other factors of well-being have received little empirical attention. The aim of the present exploratory study is to test the relationship between functional lifestyle on one side and neuroaffective and relational aspect of well-being on the other side. **Methods:** Sixty participants were randomly selected from the healthy population. All participants were assessed by the following self-report questionnaires: Psychological Well-Being Questionnaire (PWB), Affective Neuroscience Personality Scales (ANPS), Attachment style Questionnaire (ASQ). The health-related behaviors were evaluated by self-report measures: Mediterranean Diet Questionnaire (MDQ), International Physical Activity Questionnaire (IPAQ) and a self-report measure of smoking. Participants were split into two groups based on self-report measures of health-related behaviors: functional and dysfunctional lifestyle. Data were analyzed through the Mann-Whitney U-test. **Results:** Statistically significant ( $p < .05$ ) differences were found between functional and dysfunctional groups in the scores obtained at the following subscales: ANPS-positive emotions, in particular ANPS-seeking, ANPS-care, PWB-self acceptance, PWB-positive relationship, PWB-autonomy, PWB-purpose in life, PWB-environmental control and ASQ-discomfort with closeness. Apart from ASQ discomfort with

closeness, scores of functional participants are higher than dysfunctional participants. **Conclusions:** Basic positive emotions, well-being factors, positive relationships can be associated with protective factors for healthy lifestyle instead avoidant relationships can be considered risk factor for healthy lifestyle. This evidence implies novel strategies and approach to improve lifestyle for health and well-being.

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### Creating a life shelter

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In medicine we must be prepared to reach a grenzsituation, a boundary situation. We first begin to live when we experience life in the face of death, to paraphrase Jaspers. The moving Seminar (MOSE) is a transcultural event to explore characteristics of the grenzsituation and its facilities. MOSE stands for group work which is grounded in self-reflection which can reapplied at any time. After an initial presentation of a case chaos may ensue. Nothing seems to proceed. The situation at this point is like a birthing process at a standstill, the demise of the intended intercultural process. We reach the impasse of the Egyptian – French physician Sami-Ali or of gestalt psychology. However, the discussion returns and, like after a healthy birth and the first cry, we happily conclude: “Let it be”. The discussion course or leitmotif is thus unanimously described: analysis is followed by contemplation, simultaneous analysis and contemplation lead to chaos; the chaos ends in acceptance and permission. Being one of the presenters I’ll try to steer the group process in the way described.

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### Why the 6-item version of the Hamilton Depression Rating Scale should be preferred in drug trials on depression

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**Background:** When measuring severity of depression by using a symptom rating scale such as the Hamilton Depression Scale (HAM-D), each of the items in the scale has to contribute in a way that ensures that the summed total score of the scale reflects the underlying dimension of severity of depression. This aspect is referred to as unidimensionality, and it implies that the individual items of a scale must be consistently rank-ordered according to their relation to the dimension in question, meaning that scorings on lower prevalence items presuppose scorings on higher prevalence items. Unidimensionality is tested through item response theory analysis, and in 1981 Per Bech became the first researcher using this approach in the psychometric evaluation of depression rating scales. The HAM-D in its 17-item version (HAM-D<sub>17</sub>) did not fulfil the criteria of unidimensionality. However, the Bech–Rafaelsen Melancholia Scale (MES) and the 6-item version of the HAM-D (HAM-D<sub>6</sub>), both introduced by Per Bech, were found to be unidimensional. These findings have later been replicated in a very large sample in the context

of a drug trial on depression. **Methods:** The above-mentioned replication study will be reviewed, and the implication of using a unidimensional versus a non-unidimensional scale in drug trials on depression will be exemplified and discussed. **Results:** Application of non-unidimensional rating scales in drug trials on depression may have negative consequences. **Conclusions:** When a depression rating scale is chosen for a drug trial on depression, unidimensionality should be considered.

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### Acute effects of LSD in healthy subjects and in patients during LSD-assisted psychotherapy

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**Background:** Lysergic acid diethylamide (LSD) is increasingly used in clinical research. The goal of this study was to characterize and compare the acute effects of LSD in healthy subjects and in patients with psychiatric disorders. **Methods:** We investigated the acute effects of 0.1 and 0.2 mg LSD in placebo-controlled, double-blind, cross-over studies in 24 and 16 healthy subjects. Additionally, acute effects of LSD (0.1-0.2 mg) were assessed in 8 patients with various psychiatric diagnoses treated in Swiss psychiatric practices in group settings and in 11 patients with anxiety associated with life-threatening illness and treated alone within a placebo-controlled clinical trial. Acute subjective effects of LSD were assessed using visual analog scales (VASs), the 5 Dimensions of Altered States of Consciousness (5D-ASC) scale and the Mystical Experience Questionnaire (MEQ). **Results:** In healthy subjects, LSD acutely and dose-dependently enhanced ratings of feelings of openness, trust and closeness to others on the VASs. On the 5D-ASC, LSD increased ratings on all scales compared with placebo with higher ratings of blissful state, insightfulness, and changed meaning of percepts after 0.2 mg compared with 0.1 mg. LSD (0.1-0.2 mg) had similar effects on the 5D-ASC and induced similar mystical-type experiences in the MEQ in healthy subjects and patients (alone and in group settings). **Conclusions:** LSD has acute empathogenic effects that may be beneficial in psychotherapy. Preliminary findings indicate that LSD produced largely comparable acute alterations in consciousness and mystical-type experiences in healthy subjects in an experimental setting and in psychiatric patients in different treatment settings.

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### Burn out

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Burn out is characterized by exhaustion, distress, reluctance to work, psychosomatic complaints, and interactional recklessness. It is seen as a result of overinvolvement and overburdening in the job. Burn out is listed in the ICD-10 as “Z 73, Problems related to life-management, burn out”. There are many differential diagnoses, from neurasthenia / fatigue syndrome (F48.0) to many other mental disorders, which are

also accompanied by feelings of being worn out, tiredness, and negative cognitions towards the world. Furthermore, there is a long list of somatic illnesses, which can mimic a burn out syndrome. Given this background, complaints about burn out must first be understood as a leading syndrome, which needs a thorough psychiatric and medical diagnostic clarification. If all other diagnostic options have been excluded, burn out is a rest category, which is even less impairing than adjustment disorders, which are defined as stress reactions without sufficiently prominent symptoms to justify a more specific diagnosis. Given this background the treatment of burn out is to foster a better work-life balance. This can be difficult as it requires to change aspirations, dependency on external demands, dysfunctional cognitions of subjective indispensability, etc. If a motivation to change is reached, volitional psychology and the transtheoretical model of Prochaska and DiClemente can help to progress from wish to action. Positive psychology gives guidance regarding what can help to overcome burn out. Participants of the workshop will learn how to diagnose burn out, how to clarify differential diagnoses, and how to help clients.

### 235 Impairment across different areas in life in embittered persons

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**Background:** Feelings of injustice and embitterment are strong emotions which can severely impair daily life and even result in psychological disorders. This study investigated the frequency of feelings of injustice and embitterment and their relation to burdens in different areas of daily life. **Methods:** A total of 200 inpatients of a department of behavioural medicine filled in the Differential Life Burden Scale, DLB-Scale and the Post-Traumatic Embitterment Scale, PTED-Scale which asks for experiences of injustice and embitterment. **Results:** Patients who reported experiences of injustice and embitterment also complained about impairments in well-being and significantly more burdens in many areas of life, especially with respect to the family and the workplace. **Conclusions:** The findings indicate that an experience of injustice and embitterment is frequently seen in psychosomatic inpatients. It is associated with severe impairment of well-being and functional capacities. Although embitterment is typically elicited by single life, injustice or downgrading events, it results in negative feelings across most areas in life.

### 236 Assessment of needed psychological capacities in the workplace: the Mini-ICF-APP-W

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**Background:** Problems at work arise when there is no adequate person-environment fit. According to the International Classification of Functioning, Disability and Health, participation is defined as the relation between

capacities of the person on one hand and demands of the environment on the other. The assessment of psychological capacities of persons can be made with the Mini-ICF-APP. Additionally, there is a need to also assess at the workplace, which psychological capacities are needed. **Methods:** A new instrument has been developed, which allows to assess capacities regarding the workplace, parallel to the Mini-ICF-APP. At present, there are a short and a long version. In two hospitals both scales have been filled in by 69 employees to describe the psychological capacities which are needed in their daily work. Additionally, the structural characteristics of the workplace have been assessed with the KFA (Kurzfragebogen zur Arbeitsanalyse, Work Structure Questionnaire), and individual problems at work have been measured with the Work Ability Index. **Results:** Both versions have been designed parallel to the Mini-ICF-APP. First data show high correlations between both scales, indicating that they measure similar constructs. There are specific correlations with capacity demands and the structure of the workplace. Relations between workability and judgments of employees on needed capacities show that work demands are in part related to individual performance. **Conclusions:** The parallel assessment of capacities of the person and capacities as needed at the work place allows to make judgement on the person-environment fit. This is an important prerequisite for helping disabled persons to find a work place which fits to their impairment.

### 237 Both dysmorphophobia and self-inflicted skin lesions: a clinical case presentation

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**Background:** Both dysmorphophobia and Self Inflicted Skin Lesions (SIL) represent a challenge for the practising dermatologist and may often require an interdisciplinary approach. Both conditions may occasionally overlap. **Case presentation:** We present the case of a 22 old male patient, who had been manipulating papules on the face probably originated by a perioral dermatitis, thereupon causing some minor tissue induration and telangiectasias. The lesions caused him significant discomfort and fear of social contact, which were undoubtedly out of proportion if compared to the extent of the physical damage. The patient refused psychological support. Flash lamp pulsed laser treatment over 4 session led to an improvement of the damage and subsequently to a relief of his psychological suffering. **Conclusions:** When psychological interventions are refused, some minor non-invasive physical intervention may reduce the discomfort of psychodermatological patients. It remains open whether such interventions are ethical and to what extent they may represent a risk of reinforcement of the pathological behaviour.

### 238 The role of brain entropy on antidepressant effect in major depressive disorder

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**Background:** Brain Entropy (BEN) indicates brain information processing capacity and has been implicated in various brain disorders. Major Depressive Disorder (MDD) is characterized by intense and persistent negative feelings in extended time, indicating a disruption of information processing which may be measured through BEN mapping. However, BEN remains unstudied in MDD, so we assessed functional magnetic resonance imaging (fMRI)-based BEN mapping in MDD in order to explore the biomarkers of predicting efficacy of antidepressants. **Methods:** A total of 86 MDD patients and 47 matched controls were recruited. MDD was diagnosed based on Diagnostic and Statistical Manual of Mental Disorders, 4th ed (DSM-IV). Symptoms of depression were assessed using the Hamilton depression scale (HAMD-24) at baseline and follow-up (after 8-week treatment). All subjects underwent fMRI scans at baseline, and 30 patients completed scans at follow-up. Whole brain BEN maps at each session was calculated using the BEN mapping toolbox. **Results:** As compared to controls, MDD patients had lower BEN in medial orbitofrontal cortex (MOFC)/subgenual cingulate cortex (sgACC), but higher BEN in motor network (MN) and visual cortex (VC). After 8 weeks treatment, the BEN in olfactory bulb (OB) and insula were increased. Higher baseline MOFC/sgACC BEN was associated with higher disease severity; larger BEN reduction in MOFC/sgACC and larger BEN increase in temporal cortex (TC), fusiform gyrus (FG) and MN were related to better treatment outcome after 8-week medications; higher baseline MOFC/sgACC BEN predicted larger HAMD-24 score reduction after 8-week treatment; while higher baseline posterior cingulate cortex/precuneus (PCC/PCu) BEN predicted better therapeutic effect (HAMD-24 score-reduction rate). **Conclusions:** BEN shows disease-related changes in MDD; BEN may provide a new means to predict therapeutic effect for MDD.

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### Validation of a brief scale assessing Eating Self-Efficacy

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**Background:** Eating Self-Efficacy (ESE) may be defined as the belief in one's ability to self-regulate eating. Several ESE scales have been proposed but most of them focus on weight management or dieting. We developed a very brief scale assessing ESE in situations in which people face external (i.e., food availability and social eating) or internal (i.e., emotions, tension and hunger) pressures for excessive food intake. **Methods:** Study 1: 412 young female adults completed questionnaires including 25 items aimed at assessing ESE facing those two situations. Explorative Factor Analysis (EFA) was used for selecting items. Study 2: assessed the psychometric properties of the ESE brief scale through Confirmatory Factor Analysis (CFA) and convergent and discriminant validity in 428 young adults (273 females, 155 males). **Results:** Study 1: EFA highlighted a bifactorial structure. Four items for each factor were selected, explaining 63% of variance. Study 2: CFA confirmed the good fit of the bifactorial hypothesized model (CFI .96;  $\chi^2=1120.7$ ,  $p<.001$ ; SRMR=.04; RMSA=.07) and showed good reliability for both subscales (Social  $\alpha=.786$ ; Emotional  $\alpha=.820$ ). Latent significant negative correlations with measures of eating disorders and emotional eating supported the convergent validity. Discriminant validity were derived by very low or non-significant correlations with a perfectionism measure. The measure proved to be invariant across gender. **Conclusions:** The 8-items ESE brief scale seems to be a valid and reliable instrument to assess eating self-efficacy related to social and emotional contexts. Its potential use in non-clinical and clinical research and interventions should be evaluated in future studies.

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### Functional somatic symptoms in patients with physical diseases

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**Background:** In clinical practice, chronic physical diseases are often accompanied by bothersome functional symptoms (e.g., functional gastrointestinal symptoms in patients with inflammatory bowel diseases). However, evidence regarding the impact of functional somatic symptoms in patients with physical diseases regarding diagnosis, outcome, and treatment is lacking. At the same time, it is unclear under which circumstances the DSM-5 diagnosis somatic symptom disorder can appropriately be given in addition to a diagnosis of a physical disease. **Methods:** To assess with which frequency functional somatic symptoms occur in specific physical diseases and how these functional symptoms are addressed in diagnosis and treatment of the respective patients, a review of the literature was conducted. **Results:** Functional symptoms are present in patients with diseases to a relevant extent. The prevalence depends on the underlying physical disease (e.g., 36% symptoms of irritable bowel disease in patients with inflammatory bowel disease). While physicians in practice are aware of this problem, an equivalent diagnosis and treatment of physical and functional symptoms hardly takes place in clinical practice. **Conclusions:** Functional

symptoms of patients with physical diseases are frequent and clinically difficult to distinguish from physical symptoms with clear somatic origin. In most cases, a separation between purely somatic and purely functional symptoms is neither possible nor clinically meaningful. However, to account for the functional aspects in somatic symptoms, the potential of treatment like expectation management should be assessed more decisively to enhance treatment for patients with persistent somatic symptoms.

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### Shifting the paradigm – maternal distress symptoms during pregnancy are associated with the offspring food allergy/intolerance at 6 months

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**Background:** Maternal psychological distress during pregnancy may contribute to the programming of fetus' immune system, and thus predispose to diverse childhood disorders. Our aim was to investigate whether prenatal maternal depressive or anxiety symptoms are related to the risk of offspring food allergy/intolerance at age 6 months. **Methods:** The FinnBrain Birth Cohort Study is population-based and prospectively investigating the prenatal and early-life exposures on child health outcomes. Current study included 1,976 mother-infant dyads. The outcome was the mother-reported doctor-diagnosed infant food allergy/intolerance at age 6 months. Risk factors included mother-reported own allergy and psychological distress assessed in all trimesters using the Edinburgh Postnatal Depression Scale for depressive and the Symptom Checklist-90 for anxiety symptoms. Timing, severity and continuity of the distress was modelled with four latent growth curve trajectories. **Results:** At 6 months, 2.3% of the infants had doctor-diagnosed food allergy/intolerance. The risk was elevated if mothers had constantly elevated depressive vs. constantly low symptom score (incidence of food allergy/intolerance 3.5% vs 1.6%; aOR: 2.2; 95%CI 2.2-4.1, p=.018, adjusted for maternal allergy (OR: 1.9; 95%CI 1.02-3.5, p=.045), or moderately elevated and increasing anxiety vs constantly low symptom score (5.8% vs 2.1%; 2.7; 1.2-6.3; .019, respectively, adjusted for maternal allergy (1.8; 1.0-3.4; .050, respectively). **Conclusions:** Maternal prenatal distress was associated with the infant food allergy/intolerance. Do the distress symptoms and atopic disorders share common immunological mechanisms or does the maternal distress program the fetus towards food allergy/intolerance, remains to be solved.

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### Emotional and cognitive functioning in patients with chronic pain

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**Background:** Chronic Pain (CP) is a major healthcare problem. European Federation of International Association for the Study of Pain (IASP) defines CP as a daily pain that persists for 3 months, affecting different aspects of the patients' life. CP is a subjective experience where both physical and psychological factors are involved. The aim of this study was to investigate emotional and cognitive functioning in patients with CP compared to that of non-clinical subjects. **Methods:** A total of 118 consecutive outpatients (63.6 % female; mean age 57.1) with chronic pain were recruited from the Pain Therapy Clinic - University of Bari General Hospital. 86 non-clinical subjects were recruited from outpatients' caregivers. We assessed levels of pain (Brief Pain Inventory - BPI), anxiety and depression (HADS), quality of life (SF-36), and cognitive functioning (Coloured Progressive Matrices - CPM). **Results:** CP patients showed a worse cognitive functioning (24.89±7.06, p<.01), physical functioning (29.79±7.83, p<.001), and mental functioning (36.71±12.74, p<.01). CP participants showed higher scores on HADS Anxiety (11.31±6.17, p<.001), HADS Depression (9.69±4.93, p<.001), Pain Severity (6.13±2.07, p<.001), Pain Interference (6.60±2.42, p<.01). Among CP subjects, HADS Anxiety independently explained 18 % of the variance of CPM score ( $\beta$ =-.449, p<.001). **Conclusions:** CP patients are characterized by poorer psychosocial functioning, cognitive impairment, higher rates of anxiety and depression. These results underline the importance of a psychological assessment in order to develop a comprehensive approach to CP treatment.

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### DL-3-n-butylphthalide improves cognitive impairment in SAMP8 mice: involvement of Nrf2 and synaptic plasticity

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**Background:** Oxidative stress plays an important role in the pathology of Alzheimer's Disease (AD). The Nrf2/HO-1 signaling pathway is one of the most important anti-oxidative stress pathways. Here, we attempted to explore whether DL-3-n-Butylphthalide (DL-NBP) could alleviate cognitive impairment in SAMP8 mice via activating the Nrf2/HO-1 signaling pathway and modifying the synaptic plasticity. **Methods:** Control lentivirus

and Nrf2-shRNA-lentivirus were separately injected into the hippocampus of 4-month-old SAMP8 mice and then treated either with vehicle or DL-NBP (applied in 40mg/kg) by oral gavage once daily. Ninety days later, the Morris water maze test was conducted. The expressions of Nrf2 and its downstream antioxidant enzymes and synapse-associated proteins were determined by Western blot and immunohistochemistry analyses. **Results:** Our results indicated that the Nrf2-shRNA-lentivirus further exacerbated the cognitive impairment in SAMP8 mice, and the Nrf2, HO-1, PSD and SYN levels were significantly reduced. DL-NBP failed to increase the expressions of HO-1 after Nrf2-shRNA-lentivirus management. DL-NBP improved the performance of mice and increased the PSD and SYN levels but did not reach the level of the control group. **Conclusions:** DL-NBP may partly improve the cognitive function of SAMP8 mice by activating Nrf2 signaling pathway which is related to synaptic plasticity.

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### **Prolonged grief disorder and its culturally sensitive assessment**

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**Background:** A newcomer to psychopathology, Prolonged Grief Disorder (PGD), is included in the 11<sup>th</sup> edition of the International Classification of Diseases (ICD-11). The new definition of prolonged grief disorder is based on symptoms found in the Global North and guidelines for diagnosis have been preliminarily validated in this context. The validity and acceptability of these diagnostic guidelines in worldwide is currently unknown. A culturally sensitive approach to assess PGD includes symptoms exhibited in patients from various countries and cultural context. Since in Asian countries the new PGD diagnosis received enormous interest, we include besides Switzerland also China and Japan. **Methods:** A new measure of PGD, the International Prolonged Grief Disorder scale (IPGDS) will be developed and preliminarily validated. The acceptability of the IPDGS scale along with preliminary psychometric validation was examined together with a battery of clinical assessments. **Results:** Psychometric properties of the IPDGS, including convergent and discriminant validity, criterion validity and internal consistency were confirmed. Confirmatory factor analysis supports the validity of the items. Thresholds for diagnostic decision-making are proposed. **Conclusions:** The IPGDS is a short and valid measure of PGD that shows strong clinical utility and promise for culturally sensitive assessment.

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### **Perinatal obsessive-compulsive disorder**

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**Background:** Obsessive Compulsive Disorder (OCD) is a complex psychiatric disorder with a multifactorial etiology. Biological and psychosocial factors play a key role in

modulating the liability to OCD. Pregnancy, especially the last trimester, and the postpartum period are at risk of onset, recurrence or exacerbation of OCD, leading to severe suffering and impairment for the patient, her baby and her family as well. **Methods:** We analyzed the results of the studies that have considered OCD, pregnancy and the postpartum period.

**Results:** Studies show that prevalence of OCD during the third trimester of pregnancy (3.5%) is higher than in general population (2-3%). Also, a postpartum onset of OCD occurs in up to 25% average of affected women. In pregnant and postpartum women, OCD is characterized by specific features: aggressive thoughts focused on the baby and associated compulsive behaviors that may suggest the potential for harm to the mother or child. Given the highly disturbing thought contents, affected women often avoid asking for help. Therefore, perinatal OCD is frequently undetected and untreated. **Conclusions:** Timely diagnosis and effective treatments should be offered to patients, including patient and family psychoeducation, in order to avoid persistent impairment in family life and activities of daily living, as well as extensive family involvement and accommodation of OCD symptoms, with a burden that leads families to reduce their social activities and increase their isolation and distress.

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### **How can doctors and patients tolerate uncertainty of functional disorders better: psychiatric and systemic psychotherapeutic perspective**

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**Background:** Lack of concordance between a doctor and a patient about diagnosis has been often found in patients with psychosomatic/functional disorders. Discordance has been predicted by depression and somatoform disorders. A difficult doctor-patient relationship often prevails. At the same time psychiatrist and somatic doctors rarely co-construct their diagnostic and treatment plan together, resulting in expanding number of treatment admissions without sense of efficacy. In Western culture learning *per partes* is favored and different levels of experience are rarely co-constructed. **Methods:** In workshop presentation of useful models will be presented by reflective lecture, case vignettes, and feed-back of participants. First, participants will be invited to share their reflections, experience and beliefs regarding coping with uncertainty as part of etiology, diagnosis and treatment of functional disorders from the part of doctors and patients. Secondly, useful evidences (information from neuroscience, psychiatry and psychotherapy) will be presented for co-construction of common territory of clinical knowledge for somatic and psychiatric doctors. Third, following problems in doctor-patient relations will be addressed: many patients view the diagnostic explanation of their functional symptoms as rejection, patients can also start questioning the physician's clinical competency. **Results:** Information from second part will be translated in empowering explanatory models for patients, using appropriate terminology or language that is acceptable to the patient. Participants will be able to construct more reflexive models of communication with other doctors and patients with functional disorders. **Conclusions:** Regarding that scientific discipline is conceptualized as a form of territory with excluding and including knowledge,

promoting co-construction of clinical knowledge with doctors of different disciplines and therapeutic alliance with patients in psychosomatics/functional disorders with use of systemic discourse will be presented as useful and applicative model.

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### Intrapersonal, interpersonal, and physical space in eating disorders

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**Background:** Body Image Disturbance (BDI) is a core characteristic of Eating Disorders (EDs) whose underlying mechanisms are still unclear. Recent studies from spatial cognition indicate that our bodily experience involves the integration of different sensory inputs within allocentric and egocentric reference frames. The Allocentric Lock Theory (ALT) suggests that BDI may be caused by a deficit in the spatial reference frames processing. Specifically, BDI may be the result of a multisensory processing deficit in the way expected versus experienced body-related experiences are integrated. In the last two decades, researchers have embraced Virtual Reality (VR) that appears particularly effective in studying, assessing and treating BID. This study investigated the presence of deficits in the egocentric and allocentric reference frame in EDs patients through VR procedure and explored the meanings that characterize the ED experience through a constructivist approach. **Methods:** A sample of 12 ED patients and 12 HCs participated in the study. A virtual reality-based procedure and repertory grids were adopted. **Results:** The results showed significant impairments in the processing of spatial reference frames in EDs that might be related to body representation. Furthermore, the ED patients showed an extreme and unidimensional construing of self and of the self as seen by others. **Conclusions:** This study has demonstrated impairments in spatial cognition and unidimensional, extreme and rigid ways of construing self and others in EDs. These findings could represent a unique impairment in the construction of identity, expressed in different ways, that constitutes the core symptom of EDs.

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### Psychological predictors of cancer: a case-control study

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**Background:** Scientific evidence has failed to generate conclusive evidence about the possibility that specific psychological factors are linked to cancer diagnoses. This case-control study examined whether psychological factors may contribute to the prediction of a cancer diagnosis. **Methods:** The study involved 215 participants (control group: 111 adult volunteers, 55% females; clinical group: 104 patients with first-time cancer diagnosis, 55% females) from Italy aged between 20 and 80 years old. Anamnestic information was collected for all participants, and both groups completed questionnaires assessing psychiatric symptoms, maladaptive personality traits, alexithymia, positive and negative affect, traumatic experiences, and defense mechanisms. Group differences were examined, and a logistic regression was used to test if the investigated variables were able to predict the participants' belonging to the groups. **Results:** Compared to the control group, patients reported more traumatic experiences, poorer mental health, higher levels of alexithymia, and higher negative affectivity. Surprisingly, they also reported an increased use of mature defenses. Negative affectivity (OR= 1.19, p<.001), alexithymia (OR= 1.07, p=.001), mature (OR= 1.95, p=.003) and immature (OR= .34, p<.001) defenses were significant predictors of belonging to the clinical group. **Conclusions:** Our findings suggest that a need exists to accurately assess several domains of mental functioning in cancer patients. This may help clinicians to develop tailored psychological interventions for these patients.

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### The effects of Well-Being Therapy in chronic migraine: a single case description

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**Background:** Chronic migraine is associated with resistance to pharmacological treatment and poor benefits from the stress-oriented interventions. The clinical case here described reports the effects of Well-Being Therapy (WBT) in a chronic migraine patient. **Case presentation:** An 18-year old woman with a diagnosis of chronic migraine according to the International Classification of Headache Disorders was proposed WBT not having had benefits from pharmacological interventions and psychological support routinely delivered by the Headache Centre. The assessment included the headache diary, the Psychological Well-Being Questionnaire (PWB), the Psychosocial Index (PSI), the Kellner scale. At baseline the lady reported 54 migraine attacks in the previous 15 days; low PWB autonomy (38), PWB environmental mastery (46), PWB self-acceptance (44); high PWB personal growth (62), PWB positive relations with others (67), PWB purpose in life (71); moderate PSI psychological distress (27). At the end of session 4, the patient reported 20 migraine attacks in the previous 15 days; an increase of PWB environmental mastery and self-acceptance (about 13% and 18%, respectively); a decrease of PWB personal growth and purpose in life (about 8% and 12%, respectively). At the end of session 7, she reported: 18 migraine attacks in the previous 15 days; an increase of PWB



autonomy (46), PWB self- acceptance (56); a good harmony (47); a decrease of PSI psychological distress (21); a good change after the initiation of the treatment. **Conclusions:** In chronic migraine patients WBT might lead to a moderate decrease of migraine attacks and to a clinically significant increase of psychological well-being.

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### Pattern separation performance in obsessive compulsive disorder

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**Background:** Pattern separation (PS) is the process by which similar inputs are transformed into non-overlapping representations, triggering excessive overgeneralization of fear or negative memories. Although a deficit in PS seems to be a transdiagnostic process affecting mood, anxiety, trauma-related disorders and psychosis, currently the relationship between PS and Obsessive-Compulsive Disorder (OCD) is unexplored. This study investigated whether, adjusting for OCD core features, OCD patients showed lower PS than healthy controls. **Methods:** A case-control study was run: 30 OCD patients applying to the Psychiatry Unit of the Turin University and 30 healthy controls enrolled from the general population of Florence were recruited. Rating scales were used to assess cognition, obsessive symptoms, and cognitive beliefs. Object and Context PS were measured via the Mnemonic Similarity Task-Object (MST-O) and the Context Version (MST-C). Cases and controls were matched for age and sex. Mann-Whitney, Chi-square tests, Multivariate logistic regressions were run. **Results:** Cases showed more severe obsessive symptoms, stronger cognitive beliefs, lower cognition, lower Context PS (p-value range: .02-.04) than controls, while no differences were found on Object PS. Cases were more likely to report unwanted intrusive thoughts (OR=1.40, 95%CI=1.11-1.77) and lower Context PS (i.e., tendency to misidentify similar items as new) (OR:.61, 95%CI .38-.97) than controls. **Conclusions:** OCD patients reported lower context PS than healthy controls. PS should be assessed in OCD patients since it seems an interesting clinical feature.

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### IFP “MR” psychosomatic training, starting with Balint groups

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The Florence Institute of Psychosomatic Training, now named also Massimo Rosselli (IFP “MR”) was founded on the 29th March 1984. It developed originally from the Training Group

of the Tuscan section of the Italian Society for Psychosomatic Medicine. The depth and foresight of the president of the Institute, Massimo Rosselli, through his intuition inspired and gave coherence to the training models created over this long period of time. He stated that “on an operative level the main objective in psychosomatic training is the therapeutically valid management of the relationship with the patient”. At that time the projects of the IFP “MR”, along with the experiences of Balint groups, also included body experiences in the form of guided self-relaxation, relational observation, non-verbal communication and family systems therapy. In the early nineties radical changes took place within the context and organizational models of the health service in Tuscany. It became necessary for the operative plan of psychosomatic training to be focused mainly on the therapeutic relationship, keeping the Balint group as its fulcrum. Attention to the doctor-patient relationship within the specific training plans of the Tuscan region, and the institution of a Master Course dedicated to Balint groups, made it possible to go from sensitization to the realization of structured training courses in Balint groups for physicians. This continued for almost 20 years. From 2009 to 2012 a project was planned, proposed and carried out by the IFP “MR” together with FORMAS of the Tuscan Region, entitled “Advanced course of training in the leadership of Balint Groups”. Consequently, the greater number of Balint group leaders available widened the Balint training experience throughout numerous centers in Tuscany.

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### Excessive belching successfully treated with Psychodynamic Psychotherapy: a case report

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**Background:** Excessive belching is a disorder that severely affects quality of life. Though is not rare, most of reported cases were treated with behavioural therapy. We present a case addressed with the Operationalized Psychodynamic Diagnosis in Childhood and Adolescence (OPD-CA-2) with full recovery of daily activities in 4 sessions. **Methods:** A 16-year-old male came to our outpatient unit, along with his parents. He had a history of excessive belching for the last 9 months. He had consulted an internist and a gastroenterologist. Celiac and helicobacter pylori screenings were negative. Gastrosocopy, colonoscopy, abdominal ultrasound and MRI were normal. Belching did not interfere with sleep and was less frequent at home. He also had complaints of abdominal pain with no reflux or regurgitation. The start was traced to the use of cloxaciline to treat an acute acne breakout. Despite the discontinuation of treatment symptoms worsened coincident with the divorce of his parents. He was attending school only twice per week. Physical examination was unremarkable. Thirty-two belches were counted in the first 1-hour session. According to OPD-CA-2, axis was evaluated, and the secondary gain of the symptom was noted. Difficulties in relation with his peers and his parents were addressed. **Results:** By the third week he was attending school daily, without any belching. **Conclusions:** This case emphasizes the need to understand physical symptoms, even the loud ones, as a whole. This can save time and distress to our patients. A focused psychodynamic oriented psychotherapy offers a way of addressing both the physical symptom and the conflicts underlying.

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**Influence of change in intolerance of uncertainty on patient's evaluation and dentist's evaluation of symptom in burning mouth syndrome**

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**Background:** Most of patients with Burning Mouth Syndrome (BMS) might visit the several clinics due to dissatisfaction with their symptoms. BMS patients with high Intolerance of Uncertainty (IU) which is the tendency to have excessive anxiety toward uncertainty situation may be dissatisfied with their residual symptoms. The purpose of this study was to examine the influence of changes in IU on consistency in rating of symptoms between patients and dentists. **Methods:** Participants were 40 patients with BMS. The measurements used in this study were Short Intolerance of Uncertainty Scale (SIUS) at first visit and 3 months after first visit, Patient Global Impression of Change (PGIC) and Clinical Global Impression scale (CGI) at 3 months after first visit. **Results:** Based on SIUS scores from first visit to 3 months follow-up, the participants were divided into three groups: keeping high SIUS score, decreasing SIUS score, keeping low SIUS score. To examine the consistency in rating of symptoms between patients and dentists, correlation analysis was conducted using PGIC (patients rating) and CGI (dentist rating) in each group. The group keeping high score in SIUS had low association between these measurements ( $r=-.04$ ), although groups keeping low score and decreasing the score in SIUS had moderate association (keeping low score:  $r=-.56$ ; decreasing score:  $r=-.66$ ). **Conclusions:** The results of our study implied that high score in SIUS might cause discrepancy in rating symptoms between patients and dentists. Improving IU might prevent that discrepancy.

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**Consultation-liaison psychiatry from subspecialty to professional attitude: hints from the activity with candidates to liver transplantation**

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**Background:** About 70 candidates to liver transplantation are assessed every year by the Consultation-Liaison Psychiatry Service (CLPS) of the Modena Policlinico General Hospital (Modena, Italy), since the establishment of the liver transplantation unit in 2000. **Methods:** To identify the skills required for the assessment of patients referred for liver transplantation, we reviewed the clinical and research activity of the CLPS at the transplantation unit placed in the Policlinico General Hospital. Clinical data were obtained from a large dataset including detailed information concerning all referrals made for liver transplantation. Research data were derived from all scientific works developed by the CLPS in the field of liver transplantation from its establishment in 1989. **Results:** Several skills are required to assess candidates to liver transplantation. Some are general (e.g. assessment of psychiatric diagnosis and medical-psychiatric comorbidity, use of psychopharmacological treatments, liaison with primary care services, etc.), others are specific to the setting of liver transplantation (i.e. ability to adapt language, interview procedures and interventions to specific requirements of liver patients addressed to transplant; management of ethical issues concerned with transplantation). Once acquired, both general and specific skills may be implemented in psychiatric settings other than the liver transplantation unit, thus representing professional assets potentially useful in all psychiatric settings. Notably, the CLPS represents the elective setting where such skills may be acquired by trainees. **Conclusions:** CLP should be considered not only as a subspecialty, but also as a *forma mentis*, i.e., a professional attitude the psychiatrist may implement in several psychiatric settings.

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**Metabolic, serologic, atherogenic and psychological factors associated with the presence of colorectal precancerous lesions: a cross-sectional study in a psycho-neuro-endocrine-immunological (PNEI) perspective**

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**Background:** Many studies have recently attempted to recognize coherent explanations for the strong association between Metabolic Syndrome (MetS) and psychiatric disorders, especially anxiety and depression. Colorectal Cancer (CRC) has also been frequently associated with MetS. Aim of this study was to describe an out-patient sample undergoing screening colonoscopy from an innovative psycho-neuro-endocrine-immune perspective. **Methods:** Cross-sectional study. Period of data collection: 2009-2011. Demographic, anthropometric and serological data, intima-media thickness (IMT), flow-mediated dilation (FMD) were collected; a psychometric assessment (HADS, TCI, INTERMED, SF-36) and comorbidity index (Cumulative Illness Rating Scale, CIRS) calculation were performed. Statistical analysis: STATA 13.0. **Results:** Of the 62 patients recruited (M/F 31/31, mean age: 60.8±9.4 years), 26 patients (41.9%) were satisfied diagnostic criteria for MetS, and 28 (45.2%) had a colorectal adenoma. MetS was associated to: C-reactive protein ( $r=.54$ ,  $p=.000$ ), IL-6 ( $r=.37$ ,  $p=.009$ ), right carotid IMT ( $r=.3163$ ,  $p=.0165$ ), CIRS score ( $r=.56$ ,  $p=.000$ ), TCI self-directedness ( $r=.34$ ,  $p=.027$ ) and to the presence of at least one adenoma in the large bowel ( $r=.28$ ,  $p=.028$ ). Some inter-correlations between TCI dimensions, describing personality, were also found. **Conclusions:** The study attempted performing an exploration of very different dimensions of health that may share common pathways of pathogenesis. Future studies should apply such multidisciplinary approach on larger sample sizes.

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### Treatment of irritable bowel syndrome

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**Background:** With its high prevalence of around 11% worldwide the irritable bowel syndrome (IBS) belongs to one of the most relevant somatoform disorders. It is responsible for decrease of patient's life quality (QoL) due to somatic as well as mental symptoms and causes high costs in health care systems. **Methods:** Latest guidelines as well as meta-analyses and systematic reviews on treatment options were assessed and will be critically discussed during the talk. **Results:** Several pharmacological approaches such as antibiotics, antidepressants, anti-inflammatory agents were used in patients with IBS showing overall a positive effect on symptoms. Among non-pharmacological treatment options psychotherapy including gut-directed hypnosis and some probiotics were most often reported to be symptom- or QoL-modifying interventions. **Conclusions:** Due to high complexity of the IBS pathophysiology and varying symptoms an individualized approach in treatment seems to be the most efficient strategy.

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### The effects of psychotherapeutic short-term interventions on demoralization in patients with advanced cancer

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**Background:** The treatment of psychological distress and particularly loss of meaning and states of demoralization in cancer patients with a shortened lifetime prognosis is an emphatic goal of psycho-oncological interventions. Managing Cancer and Living Meaningfully (CALM) is a psychotherapeutic short-term intervention for advanced cancer patients that aims to reduce psychological distress and increase hope and meaning. **Methods:** We conducted a randomized controlled trial to compare CALM (IG-CALM) with an active control group receiving an unspecific supportive intervention (CG-SPI). A total of 206 patients with a solid malignant UICC stage III or IV tumor were randomized, 100 patients to the IG-CALM, 106 patients to the CG-SPI. There were 3-6 sessions within six months in both study groups. Data were collected before the start of therapy (t0) and at 3 (t1) and 6 (t2) months follow-up. The effectiveness of CALM was compared between IG-CALM and CG-SPI with regard to reducing psychological distress as well as promoting well-being and quality of life through validated self-assessment tools. **Results:** Our results show for the majority of the outcome variables in both groups a reduction in psychosocial distress during the observation period: both depression and anxiety decreased, and quality of life and well-being improved significantly. Also, the effects are largely stable over time. However, intention-to-treat (ITT) analyzes (mixed models) show a significant change in demoralization over time ( $p = .002$ ), but no significant group effects ( $p = .382$ ). **Conclusions:** Further research is needed to investigate differential effects of psychotherapeutic short-term interventions in palliative care.

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### Five Tone therapy of TCM

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Guided by the theories of TCM, such as the concept of holism, the unity of body and spirit, the theory of Five Elements and spirit zang-organs etc., Five Tone therapy is a kind of music therapy to develop mind and body health which uses different musical scale and timbre to influence both emotions and organs. Textual research on ancient and modern books and literatures of TCM. It is provided that five tone therapy has a history of more than 7,000 years. There are five tone - Jue, Zhi, Gong, Shang, Yu - which are related to five-zang organs. Not only can it moderate mind but also it can regulate function of organs. Five tone therapy is a useful and generalizable treatment to work with psychosomatic disorder. It will complement the treatments of psychosomatic disorder. But it

is still needed to do more studies to clarify the mechanism of five tone therapy. And it asks for more songs to correspond to five tone therapy.

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### Hypnosis and imaginative techniques

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Hypnosis is an aid for treating symptoms in people with cancer or chronic diseases, on the negative impact on self-esteem and self-confidence. Self-hypnosis, hypnosis focused on meditation, long acting hypnosis are interventions in order to give to the patient self-mastery, self-efficacy awareness and hope by ego enhancement. Physical pain is one of the most significant symptoms, moreover the patient must deal with side effects as nausea, vomiting, loss of appetite, diarrhea. Hypnosis is likely to be effective for most people suffering from these problems. Among the benefits associated with hypnosis is the ability to alter the psychological components of the experience of pain that may then influence even severe pain. Anxiety and fear often accompany the patient: emotions which influence the immune system. Reaching calming and tranquility feelings is a way to fight the cancer and the immune system deficiency, that occurs. Although results in this field are currently anecdotal and scarce, some of them show positive results after visualizing techniques, which stimulate immune system functioning. In brief, hypnosis appeared to help immune system and reduce: pain, anxiety, distress from cancer or from medical procedures (collateral damage in chemotherapy). Hypnosis can be considered a tool for the patient, as a permanent psychological support who helps to increase self-esteem and to deal with cancer (physical, psychological, social impacts) and chemotherapy side effects.

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### Application of the Sydney Melancholia Prototype Index in a Brazilian sample of depressive patients

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**Background:** Different instruments have been proposed to evaluate melancholia in the last decades. Sydney Melancholia Prototype Index (SMPI) is a scale that uses a non-conventional strategy to evaluate melancholia based on the prototype model. The instrument was evaluated for the first time in a non-English-speaking sample. **Methods:** A sample of 106 Brazilian outpatients with depression was evaluated simultaneously with a translated version of self-rated SMPI (SMPI-SR) and clinician-rated SMPI (SMPI-CR). A 4 items difference in the scores of the prototype) were used to distinguish Melancholia x Non-Melancholia. Kappa

coefficient and t-test was used to evaluate concurrent validation with DSM-IV, CORE, HAM-D6 and HAM-D17 and GEE for test-retest reliability. Prevalence of melancholia and sensitivity/specificity test were calculated across instruments. **Results:** Kappa's agreement between CMPI-CR and DSM-IV was moderate (kappa 0.443  $p \leq 0.001$ ). Melancholics according to the SMPI-CR presented scores significantly higher in CORE, effect size (ES)=0.83 ( $p \leq 0.001$ ), HAM-D17 ES=0.46 ( $p = 0.049$ ) and HAM-D6 ES=0.65 ( $p = 0.002$ ). The prevalence of melancholia was higher using DSM criteria for melancholia (56.6%). When we calculated sensitivity and specificity of SMPI using DSM criteria for Melancholia as the standard we found low sensibility (51%) and high specificity (95,6%). Test-retest measured by GEE showed no difference ( $p = 0.55$ ), indicating stability of the instrument. **Conclusions:** The clinician-rated version of SMPI (SMPI-CR) presents satisfactory psychometric properties comparing to other scales that measure Melancholia and is a simple and useful option for further studies in the field.

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### Sydney Melancholia Prototype Index: translation and cross-cultural adaptation into Brazilian Portuguese

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**Background:** Depression possibly is not a single syndrome but rather comprise several subtypes. DSM-5 proposes a Melancholia specifier with phenotypic characteristics that could be associated with clinical progression, biological markers or therapeutic response. Sydney Melancholia Prototype Index (SMPI) is a prototypic scale aimed to improve melancholia diagnose. So far, there is only an English version of the instrument. The aim of this study is to translate and adapt the English version of SMPI into Brazilian Portuguese. **Methods:** Translation and cross-cultural adaptation of self-report (SMPI-SR) and clinician-rated (SMPI-CR) versions were into Brazilian Portuguese were done following recommendations of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR). This guideline includes the following steps: preparation, forward translation, reconciliation, back translation, back translation review, harmonization, cognitive debriefing, debriefing results review, proofreading and final report. **Results:** The Brazilian Portuguese versions of SMPI were well-accepted by respondents. Changes in about two-thirds of the items in order to obtain a Brazilian Portuguese version of SMPI were necessary. **Conclusions:** Both versions of SMPI are now available in Brazilian Portuguese. SMPI could be an important option to enhance studies on melancholia in Portuguese speaking samples.

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## New perspectives for Well-Being Therapy in the Netherlands

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**Background:** Relapse after treatment of mental disorders is a major problem. Enhancing psychological well-being and resilience may reduce the risk of relapse in patients with mental disorders. Well-being therapy tries to address these factors. **Methods:** The original model of well-being therapy was developed by the Italian psychiatrist Giovanni Fava. It is based on a conceptual model of six dimensions of psychological well-being: environmental mastery, personal growth, purpose in life, autonomy, self-acceptance, positive relations with others. At the University of Twente we developed a protocol of the therapy based on the original model and made it suitable for patients in community mental health centres. **Results:** It is our aim to conduct efficacy studies at a larger scale and to implement well-being therapy in Dutch health care. The adapted protocol will be presented as well as a case study based on the application of the protocol with a client who suffered from a major depressive disorder. **Conclusions:** The results of the research on the effectiveness of the therapy are promising. New research into the use of well-being therapy for the treatment of somatic complaints will be discussed.

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### Testing the effectiveness of an expressive writing intervention on embittered employees. Results of a randomized controlled study

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**Background:** Clinicians working in occupational health services often recognize features of embitterment in organizations however, research on interventions for embitterment are scarce. The present study aimed to assess the effectiveness of an expressive writing intervention on working adults who experience workplace embitterment. **Methods:** Employing a randomized control trial we ought to test an expressive writing intervention for its effects on embitterment, work-related rumination and sleep quality and assess whether the effect of the intervention was maintained over time by following up participants after one and three months. Participants who met the inclusion criteria; score on Post Traumatic Embitterment Disorder scale >1.6 and were not receiving other forms of therapy, were randomly assigned to write about either a negative, emotionally, upsetting experience (experimental group), or about a factual topic (e.g., factual description of their daily routine; control group) for 20 min a day for three consecutive days. **Results:** Findings partially supported our hypothesis as results showed that participants who completed the expressive writing intervention (n=23) did not show significantly lower levels of embitterment, affective rumination, higher levels of detachment, either improved sleep quality, compared to participants who completed the factual writing (n=21), when baseline values were controlled for. **Conclusions:** The effectiveness of an expressive writing intervention in reducing

workplace embitterment is still blurry as findings indicated no significant difference between factual and expressive writing. Further research is warranted in order to test the effectiveness of other interventions aiming to help people suffering from embitterment.

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### Biological markers for parental burnout: the case of hair cortisol

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**Background:** Parental burnout is a specific syndrome resulting from enduring exposure to chronic parenting stress. It is characterized by an overwhelming exhaustion related to one's parental role, an emotional distancing from one's children, and a loss of parental fulfillment, which all contrast with how the parent felt before. Studies on job burnout have shown that it was associated with hypercortisolism. It has then been suggested that hair cortisol concentrations could represent a biomarker for burnout. This study aimed to examine whether this applies also to parental burnout. **Methods:** Hair cortisol (from 3cm hair samples; expressed in pg cortisol/mg hair) was assayed in 129 burned out parents who enrolled in group therapy for parental burnout. Hair samples were taken before the first group session. Patients' cortisol concentrations were compared with those of a control sample of 30 parents. **Results:** The mean cortisol concentration of burned out parents (Mean = 105.12; SD = 115.89) was significantly greater than that of control parents (Mean = 43.64; SD = 27.59). Results held when cortisol values deviating more than 2 SD from the mean were excluded. **Conclusions:** Results dovetail with past results about job burnout and suggest that hypercortisolism is indeed a biomarker for burnout. Individual cortisol values must nonetheless be interpreted with caution as 29% of the patients had cortisol values equal or below the mean of control parents.

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### Psychosomatics of sleep

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Sleeping is a function that involves the whole individual and, as Engel proposes, the biopsychosocial approach allows a complete look over sleep and over all functions. Attention is directed to the person who sleeps rather than to the brain protagonist of sleep. The brain contains major mechanisms that induce and maintain sleep, but it is strongly related to other body functions and to the environment. The characteristics of the subject, the quality of its experiences, the characteristics and quality of its relationships, the characteristics and quality of the context in which it lives, contribute to determining the quality of sleep. Sleeping is a vital necessity for the human being, however man is not the

only animal species that sleeps. In fact, many living beings sleep both in the sense of a physiological definition of sleep, more pertinent for birds and mammals, and in the behavioral sense, most useful for invertebrates and animals that have a rather simple nervous system. However, life needs sleep and the living need to sleep. The dimension of sleep is a life partner of everyone, another dimension of life. We sleep on average one third of our life dreaming and sleeping we dream a lot. Whatever the meaning of sleep, its fundamental role for the well-being of the individual and for preserving health condition is proven.

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### Relational competence

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Each health profession uses its own technical actions in a relational context. The quality of such context is a strong variable for the effectiveness of the interventions, for their quality and for the patient's perception of the latter. These statements, so far object of arguments of psychological nature, find a strong point of reference in the outcomes deriving from the neurosciences. In this sense we recall the studies by Northoff, Rizzolatti and co-workers, Benedetti, Biggio and many other authors. Therefore, the relational competence, a competence thanks to which one acquires the ability to grasp all aspects of the encounter with the patient, is a strong variable of the patient care process as it implements its effectiveness. The sum of the outcomes on the importance of the relationship is not corroborated by adequate training, which is not very widespread as it is not yet considered of the same weight and value of technical competence.

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### Personality at the end-of-life: that's why studying it

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**Background:** There is little research on the role of coping and personality with respect to the quality of life when facing death and dying. **Methods:** Hospice inpatients diagnosed with terminal cancer were interviewed at bedside using self- and clinician-rated scales. Coping strategies, personality characteristics, psychological morbidity and quality of life were assessed. Hierarchical multiple regressions and mediation analyses were performed to study the relationships between these variables. **Results:** Participants reported low quality of life, clinical depression and borderline anxiety. The extent of disease awareness influenced the choice of coping. Pain, denial and acceptance were associated with the whole quality of life, whereas psychological morbidity, self-distraction, humor and self-transcendence were associated with the emotional component of quality of life. Acceptance and self-directedness mediated the impact of psychological morbidity on the quality of life. Other characteristics of coping and personality mediated the impact of psychological morbidity on specific components of quality of life. **Conclusions:** Personality and coping seem to provide a valid

template for the way patients may address the end of life in a hospice setting. In this study, the effect of psychological morbidity on the quality of life is better explained by the indirect intervention of patients' individual characteristics than it is through direct effects. Sustaining those characteristics, for example, through psychological interventions, could enable patients to better deal with psychological suffering and thus enhance the quality of life for those dealing with the end of life.

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### Psychosomatic syndromes among hemophilia patients: experimental contribution

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**Background:** Haemophilia is an inherited X-linked bleeding disorder caused by a deficiency in coagulation factor VIII (haemophilia A) or IX (haemophilia B). The clinical manifestation of haemophilia consists in an increased bleeding tendency, mainly localized in joints that frequently lead to persistent joint damage with chronic arthropathy. Given the chronicity of both the disease and treatments and their impact on life-style, a general impairment in the quality of life is well documented. Despite expected, to date no information is available in the literature about the possible presence of psychosomatic syndromes in haemophilia. This study try to bridge this gap being aimed to apply the psychosomatic approach of the Diagnostic Criteria for Psychosomatic Research-Revised version (DCPR-R) on haemophilia patients. **Methods:** The study is currently ongoing. To date, 29 haemophilia adult patients were interviewed through the Diagnostic Criteria for Psychosomatic Research-Revised version. **Results:** The presence of at least one psychosomatic syndrome was observed in 44.8% (n=13) of the haemophilia patients, whereas two or more diagnoses were made for 17.2% (n=5) of them. The top three more frequent syndromes diagnosed were Type A behaviour (20.7%), Irritable mood (20.7%) and Persistent Somatisation (13.8%). Currently, non-significant associations were found between the frequency of psychosomatic syndromes and the severity of the disease. **Conclusions:** The preliminary results suggest the presence of psychosomatic syndromes and encourage to continue this assessment among haemophilia patients in order to expand the already high standard of care request for such patients.

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### Japanese version of Family Coping Questionnaire for Eating Disorders

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**Background:** Carers for a family member with an eating disorder are important for treatment. The Family coping Questionnaire for Eating Disorders (FCQ-ED) was developed to assess coping strategies of carers of patients with eating disorders originally in Italy. FCQ-ED has five subscales: coercion, positive communication, collusion, seeking for information, and avoidance. However, there has been no such questionnaire in Japan. Therefore, the purpose of the present study was to develop the Japanese version of FCQ-ED and evaluate its reliability and validity. **Methods:** First, we got the permission to develop the Japanese version of FCQ-ED from the author of the original version. Then, FCQ-ED was translated into Japanese and back-translated by professional editor. Next, we recruited carers of patients with eating disorders. We asked them to complete the Japanese version of FCQ-ED and Profile of Mood Status (POMS). Finally, the reliability and concurrent validity were assessed. **Results:** The subjects consisted of 118 carers (63 mothers, 29 fathers, 13 spouses, 7 siblings, and 6 others). The mean age of them was 52 years. The Cronbach's alpha ranging between 0.73 and 0.42 of the five subscales of FCQ-ED. The concurrent validity analyses revealed the following significant correlations ( $p < .05$ ): coercion, positive communication, and seeking for information with POMS tension-anxiety; positive communication with POMS anger-hostility and fatigue; and seeking for information with POMS fatigue. **Conclusions:** Some of the subscales had low reliability. Therefore, future research with larger sample numbers should be conducted and the underlying factor structure should be reconsidered.

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### On the change of salivary $\alpha$ -amylase level in a student of early childhood education during a childcare internship

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**Background:** There are some evidence suggest students of early childhood education engaged in childcare internship often increase the salivary cortisol level, which is an indicator of stress reflected an activity of the hypothalamic-pituitary-adrenal (HPA) axis. On the other hand, alpha-amylase levels in saliva, which is another possible biomarker of stressor, reflected an activity of the autonomic Sympathetic Nervous System (SNS), during childcare internships have not been fully examined. The aim of this study is to examine the alpha-amylase levels of childcare student during their internships. **Methods:** Alpha-amylase levels were measured by Salivary Alpha-amylase Monitor (NIPRO: CM-2.1). Fifteen students of early childhood education with informed consent engaged in the child care internship during two weeks in this study. Measurements were administered every morning (8:00a.m.), noon (12:00p.m.), evening (18:00p.m.), 3 times per day during two-week internship. **Results:** Analysis of variance with repeated measures is performed in which the dependent variable is salivary  $\alpha$ -amylase and the independent variable is set on the measurement time. The levels of salivary alpha-amylase at post childcare internship point were significantly decreased ( $p < .05$ ). Decreases in salivary  $\alpha$ -amylase

concentration after the end of the internship was remarkable as the daily fluctuation. **Conclusions:** It is considered that salivary  $\alpha$ -amylase concentration responds more quickly and sensitive to stressor than salivary cortisol concentration. Implications for measurement of stressor with salivary Alpha-amylase during internship will be discussed at the conference.

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### Psychometric validation analysis of Eysenck's Neuroticism and Extraversion Scales in a sample of first-time depressed patients

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**Background:** Neuroticism is a transdiagnostic trait that seems to manifest itself on a continuum from mild range of distress to severe range of distress in response to stress. Brief measures save time in a busy clinical practice and uni-dimensional measures has a more unambiguous association with other constructs. The present analysis aimed to answer the following research questions: 1. Are the identified subscales of Eysenck Personality Questionnaire (EPQ) psychometrically uni-dimensional? 2. Is the hierarchical nature of the neuroticism construct supported? 3. Is extraversion/introversion correlated negatively and positively with depression? **Methods:** A first time depressed sample ( $n=150$ ) completed the EPQ and Hamilton Depression Rating Scale (Ham-D 17-item) at baseline and at follow-up five years later. **Results:** Question 1: Based on the PCA, shortened versions of the scales showed acceptable to excellent uni-dimensionality (Loevinger's coefficient of homogeneity ranging from .41-.67). In particular, the shorter extraversion scale resulted in better psychometric validity. Question 2 and 3: The correlation for the Neuroticism-depression (N10) was  $r=.51$ , for Neuroticism-interpersonal sensitivity,  $r=.44$ , and Neuroticism-anxiety (N6),  $r=.37$  supporting clinical validity and the hierarchical nature of the neuroticism construct. Introversion (I3) approached a clinically significant correlation with depression ( $r=.37$ ). **Conclusions:** In conclusion, the present study identified uni-dimensional subscales within the Eysenck's neuroticism scale and extraversion scale. The subscales may be useful in predicting types of psychopathology and identifying underlying vulnerability that could serve as specific treatment targets in depression and anxiety.

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### Rumination-focused Cognitive Behavior Therapy for a case of problematic anger and angry rumination: a single subject case description

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**Background:** Anger has been robustly associated with aggression. Angry rumination defined as perseverative thinking about a personally meaningful anger-inducing event has been associated with aggression through intensifying

negative affect (e.g. anger) and reducing self-control. Only very little research has targeted interventions for angry rumination and further research to develop interventions addressing angry rumination is urgently needed. Rumination-focused Cognitive Behavior Therapy (RfCBT) was designed to teach patients with depression how to interrupt the mental habit of rumination, and to shift into a more constructive style of thinking, characterized by more concrete and experiential processing. The current case presentation investigated the feasibility and effect of individual RfCBT for a patient with personality disorder (schizotypal disorder) and problematic anger and angry rumination. Over a period of 10 months the patient received 25 sessions of RfCBT. Assessment was completed every 5 sessions and a follow up was conducted at 3 months post therapy. All sessions were videotaped and 50% was transcribed. **Case description:** The patient completed an extensive assessment battery of M.I.N.I, SCID-2, State-Trait Anger Expression Inventory (STAXI-2), Novaco Anger Scale (NAS), Schedule of Imagined Violence (SIV), the Anger Rumination Scale (ARS), Penn State Worry Questionnaire (PSWQ), Ruminative Response Scale of the Response Style Questionnaire (RRS), Stressful Life Events Screening Questionnaire (SLESQ), Perceived Stress Scale (PSS), Hamilton Depression Scale (HAMD-6), and Metacognitive Anger Processing scale (MAP). **Conclusions:** The presentation will unfold in detail the content and process of the therapy for this individual discussing the patient's responses and outcome of the therapy with an eye to the applicability of RfCBT for schizotypal disorder and angry rumination.

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### 273 The Hamilton Rating Scales for Depression: the 17-item version compared to the 6-item version

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**Background:** The Hamilton Depression Rating Scale (HDRS) was first published to assess the effectiveness of the first generation of antidepressants. The scale has been the dominating standard measure of depression severity even since, although limitations in regard lacking psychometric validity of the total scores of the HDRS has been documented. Bech identified the issues to take into account when comparing scales: self-reported versus clinician-reported scales, brief versus comprehensive scales, binary versus continuous Likert items, positively versus negatively worded items, discriminatory versus predictive validity, unidimensional versus multidimensional scales, measuring response (effect size) versus remission rates (number needed to treat). Hamilton Rating Scales for Depression 17-item version (HAM-D17) is a clinician-reported scale, while the 6-item version (HAM-D6) derived as a subset of items from the full scale has been developed also in a self-reported version. The full HAM-D (HAM-D17) is multidimensional, but the HAM-D6 is unidimensional. **Methods:** The presentation will use video to illustrate the clinical use of the HAM-D-17 rating scale including its administration and scoring. A scoring sheet separating the HAM-D-6 items from the HAM-D-17 items will be used and distributed. **Results:** Participants scores on the video are discussed in the

workshop. **Conclusions:** The workshop should contribute to participants feeling of competency in administering and rating the and the HAM-D<sub>17</sub>/HAM-D<sub>6</sub>.

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### 274 Postoperative delirium - an update on clinical features, neuropathogenesis and management

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**Background:** According to the current definition, delirium is a neurobehavioral syndrome, caused by transient impairment of brain activity, secondary to systemic disorders. It is characterized by alterations of consciousness and attention, specific cognitive deficits, alterations of the perception, disturbances of psychomotricity, behavior and mood. It is associated a higher morbidity, mortality, loss of independence, as well as increased hospital stay and increased total healthcare costs. Unfortunately, relatively little is known about postoperative delirium because of its phenotypic heterogeneity and heterogeneity of screening tools, often resulting in underdiagnosis.

**Methods:** The authors aim to evaluate the major EEG findings associated with delirium. **Results:** Postoperative delirium is common, especially in patients with pre-existing cognitive impairment and those undergoing major surgery. Further development of EEG analytical methods will provide markers for early detection, intervention, and assessment of treatment, in addition to mechanistic insights into this disorder. Vigilant identification and proper management of these patients is essential. **Conclusions:** Because postoperative delirium is an emerging area of research, the knowledge gained from ongoing and future studies will significantly impact the landscape of postoperative delirium and will continue to be useful for preventing and mitigating the consequences of postoperative delirium.

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### 275 Solution focused coaching for patients suffering from functional dyspepsia symptoms with stressors

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**Background:** Functional Dyspepsia (FD) is a common clinical condition associated with upper abdominal symptoms. Psychological approaches for FD are not established. We treated patients who had functional dyspepsia symptoms with solution focused coaching which was not only focused on these symptoms, but also on finding a solution from the behind stressor. **Methods:** The subjects were 79 outpatients with functional dyspepsia symptoms, whose stressor was identified and who then received solution focused coaching and had their



data analyzed. Age, gender, alcohol, smoking, sleeping, type of FD (epigastric pain syndrome or postprandial distress syndrome), depression, number of options, solutions from stressor, helicobacter pylori eradication, proton-pump inhibitors (PPIs), prokinetic agents and endpoint were analyzed. The endpoint was determined when functional dyspepsia symptoms disappeared, and drugs were no longer necessary. This study was approved by the ethics committee of the university. **Results:** Multiple Logistic regression showed solution from stressor (odds ratio [OR]=54.50, 95% confidence interval [CI]: 10.35-286.84) and smoking (OR=0.077, CI: 0.014-0.438) associated with endpoint, while number of options was not significantly associated with endpoint. Simple regression between Solution and number of options showed a significant relation ( $R=0.373$ ,  $p=0.0001$ ). Proton Pump Inhibitors and prokinetic agents were not significant in this analysis. If the solution was successful, 83% of patients reached the endpoint. **Conclusions:** Using solution focused coaching, to find a solution from the stressor concerned with FD symptoms was more effective than using drugs. That number of options was related to solution may indicate the importance of high-quality solution focused coaching.

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### Clinical and economic outcomes of remotely delivered Cognitive Behavior Therapy for repeat unscheduled care users with severe health anxiety: a multi-center randomized controlled trial

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**Background:** Repeat users of unscheduled health care with severe health anxiety may be challenging to engage in psychological help and incur high service costs. We investigated whether clinical and economic outcomes were improved by offering Remote Cognitive Behaviour Therapy using videoconferencing or telephone (RCBT) compared to Treatment As Usual (TAU). **Methods:** A single-blind, parallel group, multi-centre randomised controlled trial (RCT) was undertaken in primary and general hospital care. Participants were aged >18 years with >2 unscheduled healthcare contacts within 12 months and clinically severe health anxiety > 18 on the Health Anxiety Inventory (HAI). Data were collected at baseline, 3, 6, 9 and 12 months. The primary outcome was

change in HAI from baseline to six months on an intention-to-treat basis. **Results:** 156 (33%) participants were recruited out of 470 who were eligible. 78 were randomised to TAU and 78 to RCBT with data available for 112 participants (72%) at six months. Compared to TAU, RCBT significantly reduced health anxiety at six months (mean change difference HAI -2.81; 95% CI -5.11, -0.50;  $p=.017$ ), 9 and 12 months with significant improvements in general health, depression and generalised anxiety. RCBT was strictly dominant with a net monetary benefit of £3,164 per participant at a willingness to pay threshold of £30,000. No treatment-related adverse events were reported in either group. **Conclusions:** Remotely delivered CBT may reduce health anxiety and cost and may be a promising intervention for repeat users of unscheduled care with severe health anxiety.

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### Emotion variability change in response to a positive emotion regulation intervention for people with elevated depression

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**Background:** Studies of interventions that specifically target positive emotion show small to medium effects on well-being. Emerging evidence indicates that emotion variability may be important to consider in addition to mean levels of positive and negative emotion. In this analysis, we examine effects of a positive emotion regulation intervention on positive and negative emotion reactivity to daily stressors over the course of the intervention. **Methods:** A total of 602 people with elevated depression were randomized to a self-guided online positive emotion regulation intervention ( $n=539$ ) or a daily emotion reporting control condition ( $n=63$ ). The intervention covered 8 skills for increasing positive emotion that participants accessed over 5 weeks. Each week consisted of one or two sessions with associated home practice. All participants completed daily measures of emotion and stress. **Results:** Contrary to hypotheses, there were no between-group differences in positive emotional reactivity on days when a stressor was experienced. However, for negative emotional reactivity, those who received the intervention showed greater decreases in negative emotion over the study period relative to controls on days when a stressor was experienced. **Conclusions:** These results indicate that a positive emotion regulation intervention in people experiencing elevated depression influenced negative but not positive emotional reactivity to a daily stressor. Possible explanations for these unexpected findings include the online delivery mode and different emotion regulation processes in people with depression.

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### Interest in religion, spirituality and Spiritually Integrated Psychotherapy among Brazilian depressed patients

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**Background:** Religion and spirituality represent a very important domain for many individuals over different cultures worldwide. Evidences demonstrate that religiosity and spirituality represent predominantly a protective effect for depressive disorders. Otherwise, an integrated approach to patients S/R in mental health care and psychotherapy still remains a challenge. **Methods:** This study evaluated the interest in spiritual integrated psychotherapy (SIP) among 226 Brazilian individuals with a diagnostic of depressive episode. Religion and spirituality were evaluated with validated versions of Duke University Religion Index (DUREL) and WHOQOL SRPB. Predictors of interest in SIP, including sociodemographic and clinical variables, were evaluated in logistic regression models. **Results:**

Most patients reported affiliation to a religious group (82.8%), predominantly Catholic (42.2%), Evangelical (20.6%), and Spiritism (14.3%). Most depressed patients reported that it is important that professionals ask about spiritual or religious issues in health care consultations (82.1%). Nevertheless, only 36.9% reported ever being asked about S/R issues. Regarding SIP, 68.3% of patient's reported that they would like to participate in a SIP. Higher religious attendance individuals report less interest in SIP. Older age (OR: 1.03,  $p=.02$ ), depressive symptoms (OR: .89,  $p=.00$ ), psychotic symptoms (OR: .38,  $p=.02$ ) and being employed (OR: .94,  $p=.04$ ) decreased the chances of being interested in SIP, whereas higher WHOQOL-SRPB quality of life (OR: 1.15,  $p=.04$ ) increased the odds of interest in SIP. **Conclusions:** Religion and Spirituality represent a very important domain to most depressed patients and should be addressed in clinical practice. Spirituality integrated treatments represent a relevant approach to many depressed individuals.

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### What do we know?

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**Background:** Sleep is important to normal brain functioning. It is affected in many inflammatory diseases including skin diseases.

Sleep problems have been reported in many skin diseases and in turn they affect the quality of life and increase the morbidity associated with chronic skin problems. **Methods:** Review of current literature on sleep and skin disorders. Observational case-control study performed at the University of Wisconsin-Madison. **Results:** Our pilot study and the follow up Observational case-control study confirmed that chronic and inflammatory skin disorders are associated with more insomnia as well as poor quality of sleep. They also increase fatigue symptoms in patients. **Conclusions:** Sleep problems affect quality of life and are frequent in patients with chronic skin diseases. Dermatologists need to evaluate and treat or refer the patients for treatment of sleep problems.

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### Individual supervision model in an Integrated Care Setting- Promises and Challenges

Beena S. Nair

Role of individual supervision in an integrated care setting, for both psychiatric trainees and primary care providers. Kaiser Permanente has an integrated model of care where Primary care physicians and specialists are co-located to provide easy access to care and services and to provide integrated care to the patients. I, the Consultation Liaison Psychiatrist, have an office in the Kaiser medical/surgical hospital which also houses the primary care clinic and emergency room. The psychiatry department of this Kaiser hospital is in a separate location about 3 miles away. Located full time in the medical/surgical setting, I play a significant role in providing this integrated care to patient through formal and informal consultations to the primary physician treating the patient in all these settings. Teaching Medical Students and Residents in this integrated model can be rewarding and challenging. Medical students and residents assigned to the service will have exposure to a broad range of patient population from adolescent to geriatric patients with wide psychopathology ranging from managing depression and anxiety to suicide attempts and behavioral problems in dementia patients. Also, this rotation provides exposure to interdisciplinary care management of complicated patients, working closely with nursing staff and ancillary staff. The training provides individualized learning experience from assessment to biopsychosocial formulation and management of each cases rather than purely algorithm-based practice.

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### Connection with People Experienced by People with Hikikomori Experience

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**Background:** Deepening our understanding of the sufferers of Hikikomori (social withdrawal) is indispensable for dealing with the problem of social Hikikomori. However, as there are few opportunities to hear their feelings and their stories of the experience, understanding of the sufferers has not deepened. This study discusses connection with people, as regarded by sufferers of Hikikomori, based on their experience. **Methods:** The contents described by people with experience of Hikikomori in the special feature "this is how I connected with people" of Hikiposu No. 2 was examined by the qualitative method (KJ method). **Results:** People with experience of Hikikomori were living with the feelings that they "want people to accept their Hikikomori-style life" and they "want to live in society" at the same time. In addition, while they were feeling discouraged about their future due to the "repetition of the same kind of day," they felt that they "cannot take the first step." Meanwhile, they found their place in the world (of Internet) where they were accepted and felt safe to stay. Using that world as their base (while looking for the chances to connect with people), they succeeded in slowly connecting with "people who accept the change of direction and understand the difficulties" and "people who provide specific support" (loose connection). **Conclusions:** Sufferers of Hikikomori need a place where they feel safe to stay; the

connections with people who accept their life style, listen to them, and help their everyday life were effective.

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**Tapping Touch - a holistic care method: psycho-somatic experience of human care**

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Tapping Touch (TT) is a holistic care method, based on the slow, soft and mindful touch, with the right and left hands alternately. It is developed by a Japanese psychologist, Ichiro Nakagawa, Ph.D. in 2000. Because of its simplicity and applicability for daily lives and clinical usages, it has been used in the professional fields of human care, such as medicine, nursing, psychology, education, social work and disaster support. TT has shown to reduce stress symptoms, depression, anxiety, and sleep problems, and also to improve communication and relationship. Its specific characteristics include: 1. simple, safe and flexible usages; 2. minimal needs for verbal communication; 3. availability of mutual-care and self-care method; 4. wide applicability for human-care in general. TT has shown to have useful effects on mind, body, and relationship, and there have been more empirical researches accumulating to conform the effects. For example, a psycho-physiological research on TT suggested significant increment of serotonin (blood 5-HT), known to relate to psychological depression and anxiety. In this workshop, participants will learn about the holistic-care method, Tapping Touch, through both lecture and experience.

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**The theory and practice of Tapping Touch**

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Tapping Touch (TT) is a holistic care method, based on the slow, soft and mindful touch, with the right and left hands alternately. Because of its simplicity and applicability, TT has been used in the professional fields of human care, such as medicine, nursing, psychology, education, social work, palliative care, and disaster support. TT has shown to reduce stress symptoms, depression, anxiety and sleep problems, and to improve communication and relationship. There have been more empirical researches accumulating to conform TT's positive effects. For example, a psycho-physiological research on TT suggested significant increment of serotonin (Blood 5-HT), which is known to relate to depression and anxiety. The purposes of this symposium are to introduce the holistic method of TT to a global professional community of psychosomatic medicine and examine usefulness and practicality of TT in the fields of psychosomatic medicine, through reporting the results of current empirical studies and clinical applications. After the presentations, there will be discussion with participants in order to consider the usefulness and practicality of TT in the fields of psychosomatic medicine.

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**The effects of Tapping Touch on self-compassion**

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**Background:** Tapping Touch (TT) is a holistic care method, based on the slow, soft and mindful touch, with the right and left hands alternately. TT, in addition to physiological and psychological effects, has positive effects on human relationship such as increasing a sense of trust and acceptance toward others and decreasing a sense of rejection from others. However, since now, there has been no research on the relationship toward oneself. Therefore, we have examined the effects of TT on self-compassion. **Methods:** Subjects were randomly paired up to perform TT, and saliva collection and questionnaire survey were conducted before and after the TT. The subjects of analysis were 23 (male, 7; female 16; age: 45.22±11.03 years). **Results:** Data analysis included t-test on the means of subscales of Self-Compassion Scale (Japanese version). Results showed a significant difference between pre- and post-performance on the subscale of self-criticism, indicating that TT tends to decrease the tendency for self-criticism. In this analysis, there were no other significant differences found. **Conclusions:** The results of this research indicate that Tapping Touch decreases a sense of criticism toward oneself.

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**Application of Tapping Touch in school-social work and its holistic effects in schools**

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Tapping Touch (TT) is a holistic-care method, known to have beneficial effects on body, mind and relationship. The presenter will share a clinical case in which TT, not only helped a troubled student, but also improved school's support system. In a public junior high school, a student became deeply despair with self-blame and suicidal after having lost her mother from an accident. In response to the school requests, a clinical social worker (this presenter) started counselling with the use of TT. The clinical social worker also made a constant effort to convey the holistic characteristics (i.e., an approach to body, mind and relationship) of TT as well as the student's conditions to teachers. As results, the student's insomnia and sense of loss and loneliness were reduced; she became more relaxed, focused and gained will to live. The teachers became more tolerant of the student's needs for gradual change and growth, which in turn resulted in the improvement of school's support system. This presentation will share this clinical case in detail in order to explain how to apply TT effectively in school social work and its holistic effects in educational setting.

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**An investigation concerning the taste sensitivity between the eating disorder patients and the healthy people**

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**Background:** The purpose of this study is to investigate whether there is the difference of taste sensitivity between the eating disorder patients and the healthy controls or not. Additionally, we consider the factors which influenced the results. **Methods:** The subjects were 12 eating disorder patients and 24 healthy controls matched by sex and ages. All of them were Japanese women. We carried out the taste sensitivity test, in which the thresholds for the tastes of sweetness, saltiness, acidity and bitterness were analyzed using a filter-paper disc diffusion method on the tongue tips region (chorda tympani nerve area) and the soft palate region (greater petrosal nerve area). The thresholds for 4 kinds of tastes on 2 areas were determined, the results were evaluated using Mann-Whitney's U test between the eating disorder patients and the healthy controls. **Results:** Compared to that of the healthy controls, the thresholds for acidity and bitterness of the eating disorder patients on both areas showed significantly higher values (acidity:  $p < .05$ , bitterness:  $p < .01$ ). In contrast, there were no significant differences for sweetness, saltiness on both areas between 2 groups. **Conclusions:** The results of this study showed that the eating disorder patients were insensitive for specific tastes (acidity and bitterness), compared to the healthy people.

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### Hikikomori supporter's experience

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**Background:** Since the backgrounds of Hikikomori (social withdrawal) are different from each other, support depending on the individual is required. In this study, we aimed to clarify experiences of hikikomori supporters from their narrations. **Methods:** We conducted a semi-structured interview with a supporter and analyzed using a qualitative method (KJ method). **Results:** From the 216 original labels, the following were derived: Hikikomori person's despair and feeling hurt; the situation that both the person and the family are victims; involvement with the Hikikomori person so that their mind may healed and can turn to be positive; empowerment and involvement by capitalizing on their interests and needs; certain support that can be made possible by hearing from the Hikikomori person and their parents; appropriate support by listening and observing; encouragement that leads to the peace of mind, confidence and accomplishment of the Hikikomori person; every means that may increase what the hikikomori person can do and gain experience; modification of the person resulting from modification of the parent; support for parents that are essential for supporting Hikikomori; mutual support and mental health among supporters; multifaceted support and

mitigating supporters' difficulties; the need for early and continued support; the need for support by schools and support agencies. **Conclusions:** The supporters were working to heal their mind and encouraged them to solve their own problems by themselves. Also, the supporters felt difficulties when they could not find out how to relate to their parents.

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### Stress and mental health in children with autism spectrum disorder: considerations through application of group psychotherapy

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**Background:** The presence or absence of developmental disorders is one important background factor in considering mental health of children. We focused attention on Autism Spectrum Disorder (ASD) children and examined how to deal with their stress as well as the desirable method of environmental adjustment. In this study, we examined factors that maintain mental health of ASD children by comparing the behavioural features of stress in the scenes of 1) daily life and 2) group psychotherapy of the target children. **Methods:** We conducted 15 monthly group psychotherapy sessions with the aim of improving social skills targeting 6 ASD children. In this study, we chose one case whose main complaint was dealing with unpleasant things. We categorized stressors, stress responses, and stress coping in the target children through parental interviews about subject's daily life scene and behaviour observation of group psychotherapy scenes. Furthermore, two scenes were compared. **Results:** The results are as follows. The stressor and stress responses were common to both scenes. When something unpleasant was found, evasive behavior such as leaving the classroom was main stress coping in the daily life scene. In the group psychotherapy scene, in addition to the avoidance behavior, multiple stress coping such as self-assertion, consulting with people, moving to calm places to switch feelings were observed. **Conclusions:** As for ASD children, it is important to understand the adaptive aspects of avoidance behaviour as well as the possibilities and importance to learn multiple stress coping strategies through involvement in small groups.

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### Case study of psychotherapeutic Yoga Therapy in a female patient who had no significant changes with pharmacotherapy over a period of three years

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**Background:** To consider the effectiveness of psychotherapeutic yoga therapy with a case study in which Yoga Therapy Darshana (YTD), or yoga therapy counseling, was applied in addition to the standard three techniques used in yoga therapy (i.e. yogic postures, breathing exercises and

meditation). YTD led to cognitive modification and improvement in her depression. Then she returned to work. **Case description:** A female researcher in her twenties, diagnosed with major depression in year X-2, under duloxetine and eszopiclone found the yoga therapy office online and had 16 private sessions. YTI was used for physical regulation. Yogic mindful observation techniques and Vedic meditation were also applied. Her physical condition improved. She still hesitated to resume work because of interpersonal problems at her company. Thence, YTD was used to analyze her deep attachment. She realized she had a tendency to over adapt due to intense aversion to being disliked. This insight helped her modify this personal cognitive feature, and she decided to live in harmony. Her depression improved greatly. **Conclusions:** This improvement was due not only to pharmacotherapy, but also to yogic awareness of bodily sensations and breathing, separation of tasks, becoming aware of her own attachment, and developing a vision to resolve her interpersonal relationships at work. The pharmacotherapy improved her brain functions. Yoga therapy improved her psychosomatic condition. Furthermore, it improved her distorted personal cognitive features. The use of both pharmacotherapy and yoga therapy led to her great improvement.

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### Developing the Questionnaire for Alexicosmia measuring personal cognitive features for Yoga Therapy assessments

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**Background:** For psychotherapy that aims to modify the client's cognition, it is important to clarify his/her points of distorted cognition or misunderstanding, and to measure the degree of distortion. In cognitive-behaviour therapy, there are many scales regarding cognition and some scales for cognitive features, but no scale exists yet for yoga therapy assessment. We are developing a scale measuring personal cognitive features by scaling the degree of discrepancy between the client's current state and the ideal form as explained in Indian philosophy and Ayurveda, Indian traditional medicine. This scale is called the questionnaire for Alexicosmia, utilizing the concept coined by Dr. Yujiro Ikemi as one of the characteristics of psychosomatic disorders. In this presentation, we will show the outline of this scale. **Methods:** We first constructed our questionnaire using four concepts based on Indian philosophy and Ayurveda, selecting 28 items with to measure with a five-point scale. Three preliminary investigations and an interview led this version of the questionnaire. Data was collected from November to December 2018. Subjects: 178 people (49 male, 129 female), age 39.6±17.8 y/o (minimum 20, maximum 75 y/o), including 67 university students (43 male, 24 female) and 111 yoga therapists (5 male, 106 female). **Results:** Factor analysis led to the derivation of the three factors: the law of nature, harmony, association with no deep attachment. **Conclusions:** We will reconsider the items with distortions, test the questionnaire's validity and reliability, and then we will standardize this questionnaire.

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### Dignity and spirituality in patients with chronic medical conditions

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**Background:** Dignity, is the status of human beings entitling them to be respected, a status which is first and not to be taken for granted. It refers to their highest value, or to the fact that human beings are a presupposition for value, as they are those to whom value makes sense. Dignity has been investigated in several fields, particularly in patients affected by terminal illnesses. The aim of the study was to explore the condition of dignity and its associated variables among patients with chronic medical conditions. **Methods:** Patients with chronic medical conditions (n=310) (cancer, neurological, cardiological or rheumatic disorders) were assessed via psychosocial tools. More specifically each patient completed the Patient Dignity Inventory (PDI), the FACIT spiritual well-being questionnaire, the EURO-QOL to assess QOL, and the Edmonton System Assessment System (ESAS). **Results:** Statistically significant associations (p<.001) were found between dignity (and dignity dimensions) and both spirituality and psychological well-being. Also, QOL, in terms of the dimensions of good personal care, high performance status, low pain and low emotional symptoms were related to high dignity and psychological well-being. **Conclusions:** Existential burden faced by medically ill patients with chronic conditions is extremely important and loss of dignity is a significant factor to be taken into consideration in general hospital in order to both implement person-centred approach that include dignity and to possibly early intervene to avoid loss of dignity.

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### The difference between demoralization and embitterment

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**Background:** Even if events that threaten life have been always played a central role in research, recent studies have outlined that experiences, considered exceptional but part of the human existence (e.g., divorce, unemployment, or chronic illness) may also lead individuals to experience enduring emotional states of suffering, including, demoralization and embitterment. **Methods:** A convenient sample of patients affected by chronic disorders (both somatic and psychiatric) participated in the Spirituality and Dignity Study (DiSp Study), aimed at analysing several psychosocial constructs, including demoralization (by using the Demoralization scale - DS) and embitterment (by using the Post Traumatic Embitterment disorder self-report scale - PTEDS) and psychological and somatic symptoms (Edmonton Symptom Assessment System - ESAS). **Results:** In a preliminary series of 100 patients with several chronic conditions, interesting correlation were found of both the DS and the PTEDS with

psychological and somatic symptoms ESAS. Although there was also significant correlation between DS and PTEDS (e.g., DS-dysphoria subscale and PTEDS) there were also significant differences, indicating that these are two different constructs. Both have shown distinct psychopathological features than other stress-related mental disorders and have been. **Conclusions:** Demoralization and embitterment are multidimensional phenomena, connected to each other by bridge dimensions and in the meanwhile characterized by distinct features. The analysis of the further dimensions we explored in the DiSp Study will give more information about the role of the constructs in influencing the representation of illness, psychosocial adjustment, spirituality and dignity.

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### Long-term treatment of panic disorder with benzodiazepines

Antonio E. Nardi

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**Background:** The aim of this study was to describe efficacy and tolerance in long-term use of clonazepam in panic disorder (PD). **Methods:** It is the long-term extension of an 8-week randomized, naturalistic study in patients with panic disorder with or without agoraphobia compared the efficacy and safety of clonazepam (n=47) and paroxetine (n=37) over a 3-year total treatment duration. Patients with a good primary outcome during acute treatment continued monotherapy with clonazepam or paroxetine, but patients with partial primary treatment success were switched to the combination therapy. **Results:** At baseline of the long-term study, the mean doses of clonazepam and paroxetine were 1.9 (SD, 0.30) and 38.4 (SD, 3.74) mg/d, respectively. These doses were maintained until month 36 (clonazepam 1.9 [SD, .29] mg/d and paroxetine 38.2 [SD, 3.87] mg/d). Long-term treatment with clonazepam led to a small but significantly better Clinical Global Impression (CGI)-Improvement rating than treatment with paroxetine (mean difference: CGI-Severity scale -3.48 vs -3.24, respectively, p=.02; CGI-Improvement scale 1.06 vs 1.11, respectively, p=.04). Both treatments similarly reduced the number of panic attacks and severity of anxiety. Patients treated with clonazepam had significantly fewer adverse events than those treated with paroxetine (28.9% vs 70.6%, p<.001). **Conclusions:** The efficacy of clonazepam and paroxetine for the treatment of panic disorder was maintained over the long-term course. There was a significant advantage with clonazepam over paroxetine with respect to the frequency and nature of adverse events.

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### The use of SSRIs in panic disorder patients

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**Background:** Treatment guidelines for Panic Disorder (PD) have favored selective serotonin reuptake inhibitors (SSRIs) over benzodiazepines (BZs) for short- and long-term treatment. Considering that BZs have not been demonstrated to be inferior to SSRIs in terms of efficacy, there may be two main reasons for this position: 1. the assertion that BZs induce

more drug dependence than SSRIs after long-term use; 2. The notion that BZs cause a higher risk of discontinuation symptoms than SSRIs. **Methods:** It was systematically searched Web of Science, PubMed, Cochrane Central Register of Controlled Trials and clinical trials register databases the short-randomized clinical trials of at least 4 weeks and maximum of 12 weeks that studied SSRIs or BZs compared to placebo in acute PD treatment and were included in a meta-analysis. The primary outcome was all-cause adverse event rate in participants who received SSRIs, BZs, or placebo. **Results:** The meta-analysis showed that SSRIs cause more adverse events than BZs in short-term PD treatment. SSRI treatment was a risk factor for diaphoresis, fatigue, nausea, diarrhea, and insomnia, whereas BZ treatment was a risk factor for memory problems, constipation, and dry mouth. Both classes of drugs were associated with somnolence. SSRIs were associated with abnormal ejaculation, while BZs were associated with libido reduction, very like placebo. BZs were protective against tachycardia, diaphoresis, fatigue and insomnia. **Conclusions:** Randomized, blinded studies directing comparing SSRIs and BZs for short term treatment of PD should be performed. Clinical guidelines based on incontestable evidence are still needed.

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### Models of integrated care and psychosomatic medicine in the Division of Collaborative Care and Wellness at the University of Rochester

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In 2015, The Division of Collaborative Care & Wellness (CCW) was created as part of the Department of Psychiatry at the University of Rochester, NY. The UR Department of Psychiatry being the home of the biopsychosocial model, has always been at the forefront of whole person, family-oriented care that is team based and integrated. The Division of CCW sees its mission to incorporate this comprehensive approach into its education and research in the service of improving the health of all people in the Rochester region. Several innovative care models that highlight the value of care integration from a clinical quality, as well as financial, perspectives will be presented. This presentation is part of a larger set of discussions highlighting different innovative models of care within a department of psychiatry in Western NY State. The move from fee for service and traditional models of care toward a value-based system requires many elements of clinical, financial and operational transformation. The Department of Psychiatry at the University of Rochester in NY is piloting several programs that showcase such innovative approaches to integrating mental health and substance use into primary care, specialty care and hospital settings.

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### Process of dealing with stress of husbands providing care for dementia afflicted wives- male caregivers in Japan

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**Background:** The number of husbands who provide care for their wives with dementia has increased in Japan. There are reports of problems including abuse due to increased stress from the caregiving, difficulty in dealing with dementia, and housework. This study aims to identify the stress of husbands and the processes involved. **Methods:** Semi-structured interviews were conducted with 14 caregiver husbands from August 2014 to June 2015, and analysis was performed using a modified Grounded Theory approach. This study was approved by the Ethics Committee of University X. **Results:** Participating husbands were 60 to 80 years old, providing care for 3 to 10 years. In the early period of caregiving, they regarded the changes in the wives as forgetfulness due to age and misunderstanding and overlooking the changes in the wives. With the worsening of dementia, husbands felt uneasiness towards housework and resistance to care for voiding, experienced difficulties responding to trouble, and mental/physical exhaustion, and were unable to respond to unusual behaviors, resulting in critical conditions unable to do anything alone. When care stress was high, husbands overcame the problems by consulting experts and using external services. Husbands felt care burdensome and loneliness as dementia progressed, while using external support services, and adjusting themselves to be a good caregiver for wives to overcome the problems. **Conclusions:** Husbands coped with the stress of caring by responding to the responsibilities of caregiving improving their caregiver skills, and managing care based on own views of working through interactions with others.

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### Struggling back to the self, even with one more step: Perspective shifting, emotion sharing, and borderline personality disorder

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**Background:** Borderline Personality Disorder (BPD) is a mental disorder characterized by relational difficulty and self-dysfunction. Laboratory studies documented that BPD is related with a problem of sharing other people's emotions (i.e., emotion sharing) as well as an inefficiency of setting aside the egocentric perspective (i.e., perspective taking). Yet, little has been known about whether resuming the egocentric perspective after taking the altercentric perspective, a crucial cognitive flexibility for emotion sharing, is impaired in the executive control process of perspective taking in BPD. **Methods:** This question was addressed in a clinical sample of

patients with BPD and a control sample of healthy community residents matched by age, gender, and intellectual function. A battery of behavioral tasks were administered to assess perspective taking and emotion sharing. **Results:** In alignment with the previous findings, BPD patients rated lower emotional feelings than healthy controls toward other people in an emotion-charged situation. More importantly, the results showed that BPD patients met difficulty in shifting between conflicting perspectives, with increased temporal costs for switching not only forth to the altercentric perspective but also back to the egocentric perspective. Intriguingly, this inefficiency at resuming the egocentric perspective after adopting the altercentric perspective was still observed in the BPD group in the subsequent repetition trials that did not involve a switch. **Conclusions:** This disadvantage in resuming the egocentric perspective may increase the hindrance to placing the self into the position of others, leading to the disruption of social interactions that require an understanding of other people's mental states.

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### The application of Well-Being Therapy to living with a disability or chronic illness: extending the foundational principles to intervention strategies

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Although most people living with a disability return to pre-morbid levels of psychological functioning, some individuals living with a disability are vulnerable for developing psychological disorders such as depression, anxiety, and PTSD. This presentation understands this phenomenon of vulnerability as more than the presence of psychopathology but also explores it from a Positive Psychology standpoint as a deficit of well-being. This will be accomplished by demonstrating the links between the historic Foundational Principles of Rehabilitation Psychology and the relevant current research on Psychology of Well Being. From there, it will explore the implications of providing meaningful interventions that could improve the lives of persons living with disability and chronic illness. Based on this view, Well-Being Therapy is proposed as an intervention since it has proven efficacy in acting as a buffer against the development of some negative affective states. A model for assisting people with disability in improving their well-being and decreasing negative aspects of their life by balancing factors relevant to well-being will be discussed along with data from some of our pilot studies. Finally, the benefits of engendering positive well-being versus the traditional focus on solely alleviating negative affective states will be discussed.

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### Well-Being Therapy in the rehabilitation setting

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The rationale behind our Well Being Workshop: Living with Spinal Cord Injury is based on an Acceptance and Commitment Therapy conceptualization, with an explicit focus on values, is evidently supported by the available literature. Individuals who experience acute, traumatic spinal cord injuries are at an increased likelihood of experiencing significant levels of depression and a decrease in psychological well-being. Such psychological deficits are conversely related to reduced functional autonomy, increased levels of pain, increased lengths of hospitalizations, and increased associated costs. Therefore, targeting depression and psychological well-being is of vital importance, particularly amongst this unique population. The proposed Well-Being Therapy consists of eight, one-hour group therapy sessions. Sessions occur bimonthly and the duration of the intervention extends over a 16-week period. Groups consist of six to eight members, as to ensure optimal opportunities to interact as group. The literature suggests that the ideal number of members for group psychotherapy is seven to eight, with a range extending from five to ten as acceptable. Groups with less than five members appear to be less effective, as the opportunity for high-quality interactions is reduced. When greater than ten individuals participate a group, less individualized time is available, and the group lacks productivity and structure. Pilot data will be presented from our studies.

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### Examining depression and anxiety during school refusal: interviews with adults who experienced school refusal during adolescence

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**Background:** Few studies on school refusal have examined the recovery process. Therefore, we examined the processes of change in the psychological, physical, and behavioral aspects of the person who has experienced school refusal. **Methods:** Semi-structured interviews were conducted with seven people (six women, one man) who experienced school refusal during adolescence, were currently aged 18 or older, and were mentally stable enough to talk about the experience. There were four people who had received psychotherapy or external support during the school refusal period, but none had received support at the start of school refusal. **Results:** The results showed that five participants had symptoms of social anxiety and depression at the start of school refusal. The other two participants showed apathy and avoidance of school. Furthermore, six participants experienced physical symptoms just before school refusal. All seven participants exhibited behaviors related to two functions in the functional model of school refusal behavior: (1) to avoid school-based stimuli that provokes a general sense of negative affectivity (anxiety and depression) and (2) to escape aversive school-based social

situations, evaluative situations, or both. **Conclusions:** This study found that many people have symptoms of social anxiety and depression at the start of school refusal. People with school refusal often experience symptoms similar to those of anxiety disorder and depression. Thus, we need to consider interventions for depression and social anxiety for the early stages of school refusal.

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### The effect of omega-3 fatty acids for depressive symptoms among pregnant women in Japan and Taiwan: a randomized, double-blind, placebo-controlled trial and biomarker study

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**Background:** This international, double-blind randomized controlled trial aimed to examine the efficacy of omega-3 polyunsaturated fatty acid (PUFAs) for depressive symptoms among pregnant women in Japan and Taiwan, and the association of increased estradiol (E2) during pregnancy with depressive symptoms in those who were and were not supplemented with omega-3 PUFAs. **Methods:** Pregnant women with Edinburgh Postnatal Depression Scale scores  $\geq 9$  were recruited at 12-24 weeks of gestation at a local hospital (site 1) and perinatal medical center (site 2) in Japan and a university hospital in Taiwan (site 3). Participants were randomly assigned to receive omega-3 PUFAs capsules containing 1,206 mg eicosapentaenoic acid (EPA) and 609 mg docosahexaenoic acid (DHA) or placebo for 12 weeks. **Results:** In total, 108 pregnant women participated in the trial. Depressive symptoms at 12 weeks was not significantly different between the two arms. However, prespecified subgroup analysis for study site showed a much lower depressive symptoms in the omega-3 PUFAs group compared with the placebo group only at site 1 (effect size = 0.72). The increase of EPA and E2 was significantly associated with a decrease in depressive symptoms only among the participants assigned to the omega-3 group. **Conclusions:** The supplementation with EPA and increased levels of E2 during pregnancy might work together to alleviate antenatal depression. Given that E2 skyrockets during pregnancy, taking



EPA in mid to late pregnancy may be more effective for depressive symptoms.

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### Sleep and psychopathology: the neurodevelopmental and neurodegenerative perspective

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Developmental psychopathology is considered a conceptual framework for developmental mechanisms in adult psychopathology evaluating developmental trajectories: increasing evidence suggests considerable longitudinal links between childhood-adolescence and adulthood psychopathology. Sleep serves important regulatory functions and is considered a key factor in early Central Nervous System development implicated in normal brain connectivity and plasticity. Additionally, sleep plays an important role in the regulation of emotions, motivation, decision-making and cognition the dysregulation of which is a key factor for psychiatric disorders. In this conceptual framework sleep disturbances during development are involved in the developmental pathways towards psychopathology in adult life. According to the neurocognitive network perspective on psychopathology neurodegeneration also play a role. Sleep serves important regulatory functions in normal brain connectivity and plasticity also in adult life and sleep disturbances have been related to neurodegenerative problems. The evaluation and treatment of sleep disturbances across the lifespan is necessary in relation to psychopathology in order to prevent and treat psychiatric disorders.

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### The associations between maternal executive functions, maternal unpredictable signals and child executive functions at 30 months

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**Background:** Executive functions (EFs; working memory, set-shifting and inhibition) are essential for development and health. Little is known about EFs' intergenerational transmission. A novel approach to studying parent-child

interaction is an entropy rate, quantifying parental sensory signals' unpredictability. This study's aim was to examine the associations between maternal EF, maternal interaction entropy, and child EF 2.5 years postpartum, to explore whether maternal sensory signals' predictability could be one piece in the intergenerational-EF-transmission-puzzle. **Methods:** Participants (n = 120 mother – child dyads) were drawn from the FinnBrain Birth Cohort. Maternal EF was measured with the neurocognitive test battery CogState (www.cogstate.com). Mother-child interaction was observed during a video recorded semi-structured play situation. Based on the interactions a maternal entropy rate was calculated, depicting the predictability of transitions between maternal auditory, visual, and tactile sensory signals to the child. Child EF was assessed with the Spin the Pots tasks and the Snack Delay task. All assessments were carried out 2.5 years postpartum. **Results:** The coding of the interaction data is presently ongoing; results will be presented at the symposium. **Conclusions:** The results will give a first indication of how maternal EF is related to the predictability of maternal communication from the child's perspective, and how this predictability is related to child EF. This novel study could further our understanding of the intergenerational transmission of EFs.

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### A single session of the integrated yoga program as a stress management education for school staff employees: the effect of practicing by themselves on the daily practitioners vs non-daily practitioners

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**Background:** The Ottawa charter for health promotion supports personal and social development through education for health. We developed a single session of a stress management education program based on integrated yoga. The effect was examined using a randomized controlled trial. The aim of this study was to assess the benefits of the practice by themselves on daily practitioners vs non-daily practitioners. **Methods:** The subjects were school staff employees who had no experience with yoga and participated in a stress management education session based on the integrated yoga program. Three months after the program, we assigned the subjects to a daily practice group (n =43) or a non-consecutive daily practice group (n =47) regarding the practice of the integrated yoga. Assessments were carried out before and after the practicing using the Subjective Units of Distress (SUD) about mind and body and the Two-Dimensional Mood Scale (TDMS). **Results:** There are no significant differences between the two groups. In both groups, the calmness (p<.001), comfort (p<.001) and cheerfulness (p<.001) significantly increased, and cognitive mind stress (p<.001) and body stress (p<.001) significantly decreased after the practicing by themselves. **Conclusions:** The results suggest that a single session of the integrated yoga program as stress management education is effective in reducing stress and promoting mood in their daily living at 3 months following, for not only daily practitioners but also non- daily practitioners. This correlates with according to our past study,

where the consecutive daily practice for 3 months promoted mental health level.

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### Effects of weight loss on sweet taste preference and palatability following Cognitive Behavioral Therapy in women with obesity

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**Background:** Current evidence suggests that obesity is associated with alteration of Sweet Taste Perception (STP). The purpose of this study was to determine if Cognitive Behavioral Therapy (CBT)-based Weight Loss (WL) can cause a change in STP. **Methods:** This case-control study consisted of 51 women aged 21-64 years. Twenty-seven with obesity or overweight were assigned to an obesity group (OB) and 24 to a normal control group (NC). The OB underwent a 30-week WL intervention using group CBT. The measurement of elements of STP, that is, detection threshold, supra-threshold perceived intensity, preference, and palatability were compared before and after intervention. Psychological variables and appetite related hormonal levels were measured. **Results:** The OB showed a 14.6% WL after intervention. At baseline, the OB preferred significantly higher sucrose concentrations than did the NC; however, this difference was no longer significant after intervention. In the OB, persistent pleasure and reduced desire for other taste, measured by repeated exposure to sweetness, normalized to levels comparable to those seen in the NC. No significant difference in discriminative perception of the threshold concentration or the supra-threshold sensory value was found between two groups before or after intervention. A significant correlation was found between the basal preferred sucrose concentration and the serum leptin level of the OB after adjusting for confounding factors. **Conclusions:** WL induced by CBT-based intervention resulted in the normalization of the sucrose preference and palatability of women with obesity. Leptin activity may be associated with the altered sweet taste preference of people with obesity.

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### Are cognitive behavioral strategies to increase adherence to exercise effective for long-term weight loss maintenance by women with overweight and obesity? A randomized controlled trial

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**Background:** Post-treatment Weight Regain (WR) is a crucial issue in the treatment of obesity. We hypothesized that participants in the program to increase adherence to exercise would show greater long-term maintenance of Weight Loss (WL). In the present study, we examined the effectiveness of a Cognitive Behavioral Therapy (CBT) program to increase adherence to exercise, with the goal of preventing WR after the end of treatment. **Methods:** Women with overweight and obesity participated in a 7-month WL intervention followed by a 3-month program of weight maintenance. Participants were randomized into one of two different weight maintenance interventions that included CBT with or without a program to increase adherence to exercise: CBTe+ or CBTe-. The primary outcome measure was change in weight from randomization to two years after the end of the intervention. **Results:** Ninety of 119 participants completed WL intervention, with a final outcome weight available for 86. In the primary analysis, there was no significant difference in weight change between CBTe+ and CBTe- at two-year follow-up. The secondary analysis revealed that CBTe+ participants who discontinued logging their daily steps during follow-up gained more weight than those who did not. Higher-emotional eating scores at randomization were associated with discontinuation of the patient's daily log. **Conclusions:** We were not able to show that the program to increase adherence to exercise was effective in preventing long-term WR. Importantly, the emotional eating score at the end of WL intervention was found to be related to less adherence to daily physical activity.

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### Heart rate variability of PTSD patients in trauma-related words condition: a preliminary study

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**Background:** Posttraumatic Stress Disorder (PTSD) has been linked with elevated sympathetic control and a recent meta-analysis showed that Heart Rate Variability (HRV) is a potential psychophysiological indicator. In this preliminary study, we used trauma-related words paradigm and tried to examine whether HRV would be declined greater in a trauma-related words condition than in a control (landscapes) condition. **Methods:** Seven PTSD patients (female: 4; age: 31.14±12.73 years) and seven healthy participants (female: 5, age: 29.3±5.44 years) were examined. Heart rate variability was measured for 5 minutes under two conditions; participants were asked to watch photos of landscapes in a control condition, whereas were asked to read displayed 15 trauma-related words in a stimulus condition. IRB approval was obtained by Kurume University (No. 16156). **Results:** Greater standard deviation of normal to normal R-R intervals (SDNN) in stimulus condition was observed in healthy participants; no differences between the two conditions were observed in PTSD patients. In addition, greater Low Frequency (LF) in stimulus condition was observed in healthy participants; whereas less LF was observed in PTSD patients. **Conclusions:** Reduced LF in PTSD patients was in line with a previous study (Green et al. 2016). Our results may indicate that patients with PTSD have difficulties with discriminating trauma-related

stimuli. Hypervigilance symptoms of PTSD patients may persist throughout the tasks.

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### Acute effects of MDMA and LSD and their relation to outcome in the substance-assisted treatment of complex PTSD

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**Background:** Swiss law allows for the restricted medical use of scheduled psychotropic drugs. Since 2014 the authors have obtained case-by-case licenses and developed a group therapy model utilizing MDMA and LSD. The majority of patients suffer from treatment resistant complex posttraumatic stress disorder (c-PTSD). Due to regulatory limitations, this program may not be combined with research as to not circumvent established drug development regulations. **Methods:** MDMA and LSD as adjuncts to psychotherapy are used mainly in a group setting. Frequent and typical acute effects of MDMA and LSD encountered in this population of c-PTSD patients are described from a clinical perspective and are correlated with short-term developments and long-term outcome of the psychotherapy. **Results:** c-PTSD needs a much larger number of psychedelic experiences (10 - >20) and a longer course of psychotherapy (5-10y) in contrast to PTSD resulting from single trauma. Typical acute MDMA effects (prosocial effects, fear reduction, mood elevation, release of tension, enhanced recall and processing of traumatic memories) improve the therapeutic relationship and catalyse the psychotherapeutic process. Acute effects of LSD (mystical-type peak experience) are much more confrontational, further deepening the therapeutic process and yielding more overall change potential. Acute drug effects correlate only partially with the progress and outcome of psychotherapy. Comorbid recurrent depression resolves better with LSD. **Conclusions:** Long-term MDMA- and LSD-assisted psychotherapy leads to clinical improvement of c-PTSD symptoms, social functioning and well-being in a population of patients with chronic treatment resistant c-PTSD. Acute drug effects reflect treatment progress and outcome only partially.

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### Development of a Cognitive Behavior Therapy program for university students experiencing difficulty with academic adjustment

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**Background:** Academic well-being in university students is closely tied to mental health. Some universities conduct

Cognitive Behavioral Therapy (CBT) for depression prevention, but programs are not specialized for students experiencing difficulty with academic adjustment. This study aimed to develop and examine the effectiveness of a CBT program to enhance academic adjustment in university students. **Methods:** A six-session online CBT program was developed based on a previously-developed CBT program targeting depression prevention, and 16 students consented to participate in the study. Measures used were the single-item Difficulty with Academic Adjustment Scale (DAAS; students respond yes/no to the question of whether they feel able to concentrate on their academic work), the Beck Depression Inventory II (BDI-II), the 28-item General Health Questionnaire (GHQ-28), and the Brief Core Schema Scales (BCSS). Analysis was performed via paired *t* test at pre-/post-intervention. The study was approved by the Nagasaki University Graduate School of Biomedical Sciences ethics committee. **Results:** After the intervention, seven of 14 students had improved DAAS scores. In addition, BDI-II scores decreased significantly ( $t(13) = -2.80, p < .05, r = .61$ ), as did total GHQ-28 scores ( $t(13) = -3.14, p < .01, r = .66$ ). However, no significant differences were found in GHQ or BCSS subscale scores. **Conclusions:** Half of study participants reported improved academic adjustment. Overall results suggest that participants experienced fewer depressive symptoms and better mental health. Future studies should be conducted with greater numbers of participants in order to verify the results of this study.

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### Factors promoting and obstructing communications with children when mothers have cancer

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**Background:** Parents with cancer experience struggles and conflicts about communicating with their children about their cancer. Previous studies have qualitatively explored promoting and obstructing factors when parents inform their cancer diagnosis to their children. However, no study has examined the key components related to these factors. This study quantitatively investigated the essential factors that promote and obstruct communications with their children about their diagnosis and medical condition. **Methods:** Participants were 81 female cancer patients whose children were younger than 18 years at the time of their diagnosis. They were either outpatients at the designated cancer hospitals in Japan or patients who were involved with self-help cancer groups. Patients who had agreed to participate in the study were asked to complete a questionnaire regarding the promoting and obstructing factors related to when they disclosed their diagnosis and medical condition to their children. **Results:** Principal component analyses revealed that the promoting factors consisted of five items, including: To maintain a trusting relationship with my children, to enable my

children to cope better with my illness. Similarly, the obstructing factors consisted of four items, such as Not to put an emotional burden on my children. **Conclusions:** The results indicated that maintaining a trusting relationship and preserving the mental health of their children are the key considerations for mothers with cancer when determining when and how to tell their children about their cancer. Psychosocial support, which focuses on these aspects, may be helpful to alleviate these conflicts when making this difficult decision.

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### Thiamine deficiency in the cancer-bereaved after the death of a spouse

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**Background:** The loss of a spouse is the greatest stressor in life, leading to various psychological and physical problems in the bereaved. However, there have been few reports of Thiamine Deficiency (TD) in such cases. **Methods:** From a series of bereaved partners who lost a spouse to cancer, we report on those who developed TD after bereavement. **Results:** A 50-year-old woman lost her spouse due to colon cancer 15 months ago and made her first visit to the bereavement clinic at our institution 1 year ago. On losing her husband, she became distressed and experienced various problems in her daily life. Although she was diagnosed with bereavement reaction and was followed in the outpatient clinic, anorexia, weight loss (9 kg/year), and lethargy were recognized one year later. As thiamine stores in the body last as few as 18 days, thiamine deficiency was suspected, and an improvement in her lethargy was observed upon administration of 100 mg of thiamine. The diagnosis of TD was supported by her abnormally low serum thiamine level. **Conclusions:** This report demonstrates that there is a possibility that bereaved could develop TD after the loss of a loved one. TD should be considered whenever there is a loss of appetite lasting for more than 2 weeks, and medical staff should pay careful attention to the physical condition of the bereaved to prevent complications resulting from TD.

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### Fragile positive affect and systemic inflammation

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**Background:** Growing evidence suggests that extensive fluctuation over time in positive affective states has downstream negative implications for inflammatory responses, yet it remains unclear which specific aspects of individual's affect dynamics are associated with inflammatory dysregulation. **Methods:** We examine how affect dispersion, instability, and inertia are related to systemic inflammation using data obtained from 930 participants in the second Midlife in the United States (MIDUS II) study. Summary measures of individuals' affect dynamics were calculated from reports of daily positive affect (PA) and negative affect (NA) obtained during telephone interviews across 8 consecutive evenings. Circulating concentrations of interleukin-6 (IL-6), C-reactive protein (CRP), and fibrinogen were determined from fasting blood samples. **Results:** Controlling for differences in individuals' average level of affect and overlap among affect dynamic measures, systemic inflammation was uniquely associated with greater dispersion and instability in PA but not in NA. **Conclusions:** These findings add to a growing literature connecting PA dynamics with health by demonstrating how fragile forms of PA are instantiated in downstream physiological systems.

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### The WHO-5 well-being index

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**Background:** The WHO-5 is a short questionnaire consisting of 5 simple questions and is among the most widely used measures of subjective psychological well-being. Since its development in 1998, the WHO-5 has been translated into more than 30 languages and has been used in research studies and clinical settings all over the world. In 2015, we conducted a systematic review of the literature on the WHO-5. This review covered 213 studies involving the WHO-5. The use of the WHO-5 has continued since the publication of our review. Therefore, at this workshop, both the results of the review from 2015 as well as an update of this review conducted in 2019 will be presented. **Methods:** At the workshop, the focus will be on the following aspects of the WHO-5: 1) its clinimetric validity, 2) its performance as a screening tool for depression, 3) its responsiveness in controlled clinical trials and 4) its applicability across study fields. **Results:** The review demonstrated that the WHO-5: 1) has solid clinimetric properties, 2) is a sensitive and specific screening tool for depression, 3) can be used as an outcome measure balancing the wanted and unwanted effects of treatments in clinical trials, and 4) is applicable across a wide spectrum of fields, including psychiatry, psychology, endocrinology, geriatrics, neurology, cardiology and oncology. **Conclusions:** The WHO-5 well-being index is a valid measure of subjective psychological well-being. The questionnaire takes a few minutes to complete and is very well received by respondents.

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### Risk and protective factors of hypertension among people with neuroticism trait.

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**Background:** The neuroticism personality trait is well associated with vulnerability to psychological distress and can be a risk factor for various mental and physical diseases. Nevertheless, its relation to hypertension, which is one of most prevailing lifestyle related diseases in Japan, has been thought negative according to the results of several studies executed in the country. The purpose of this study was to elucidate factors which influence the relationship between neuroticism and hypertension. **Methods:** The subjects were over 3000 participants in the Kyushu University Fukuoka Cohort Study, and they were under treatment of only hypertension. The participants responded to self-administered questionnaire, and factors related to hypertension; dietary salt intake, dietary potassium intake, tobacco smoking, alcohol drinking, habitual exercise, body weight, and psychological stress were analysed. Participants' blood pressure was measured by physician or nurse. **Results:** Although neuroticism was negatively related to intake of salt and potassium, habitual exercise, and body weight, it showed positive relation to psychological stress. Neither alcohol drinking nor measurement value of blood pressure was significantly associated with the personality trait. Relationship between tobacco smoking and neuroticism was observed only in women. **Conclusions:** Between neuroticism and hypertension, there might be several protective and risk factors, offsetting each other.

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### Relational effects of Tapping Touch: is it really good for anyone?

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Tapping Touch (TT) is a simple care technique that influences not only the psychological and physiological aspects but also the interpersonal relationships of a person. It has been suggested that the effect of TT is similar in all individuals. However, there has been no empirical investigation of the effects of TT on different individuals. Therefore, we examined difference in the effects of TT on the interpersonal relationships of people with disassociation tendencies, alexithymia tendencies, trust in the TT partners, physical contact experiences with parents in the past, maltreatment experiences and attachment style. Results indicated that TT had positive effects on most interpersonal variables, regardless of psychological variables or the above types of past experiences. However, the effects of TT were partially suppressed in people with high alexithymia tendency, more maltreatment experiences, low trust in the TT partner or a few experiences of physical contact with parents in the past. On the other hand, the effects of TT were promoted in individuals with high dissociation tendency and fearful attachment style. These findings suggest that TT is effective for almost all individuals. Moreover, it is suggested that TT can be used more effectively by implementing it according to the psychological characteristics and past experiences of each person.

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### Effects of Tapping Touch on changes in oxytocin concentration in saliva part 2: the difference depending on attachment style

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**Background:** Fukui et al. investigated the effects of Tapping Touch (TT) on interpersonal relationships and reported that salivary oxytocin secretion increased in people receiving TT. It was also reported that oxytocin secretion is suppressed in maltreated children. In this study, we focused on the attachment style as reflecting the quality of the nurturing environment and examined changes in the amount of salivary oxytocin secretion resulting from TT based on different attachment styles. **Methods:** Japanese adults (n=18, 6 men and 12 women, age: 45.50±12.23 years) took part in the study. They conducted TT in pairs. Saliva was collected, and a questionnaire survey was conducted before and after TT. **Results:** ANOVA was conducted by using the amount of oxytocin concentration in saliva as the dependent variable with the measurement time (pre/post), TT execution sequence (received TT first/received TT later) and attachment style (secure/preoccupied/dismissing/fearful) as independent variables. Results indicated that neither the main effect nor the interaction was significant. However, an increase in oxytocin was observed in the secure attachment group that received TT first, whereas no changes were observed in the fearful attachment group. **Conclusions:** These findings suggested that the secretion of oxytocin was promoted in the secure attachment group, which was assumed to have received adequate care in childhood, whereas oxytocin was suppressed in the fearful attachment group, which might have received less care.

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### Sleep, circadian de-synchronization and emotion dysregulation in psychopathology.

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In the last few years, a new hypothesis is emerging and recognizing the role of circadian system desynchronization in the development of psychopathology. The circadian system is critical for the synchronization with the environment and allow a correct functioning of various internal physiological processes essential for the optimization of responses to environmental fluctuations and for the strengthening of homeostatic control mechanisms. Atypicality in the maturation of the circadian systems principally lead to alterations in the sleep-wake pattern whose have a high prevalence in psychiatric disorders. Sleep serves important regulatory functions and is considered a key factor in normal brain connectivity and plasticity in relation to the regulation of emotions, motivation, decision-making and cognition and sleep disturbances are related to the dysregulation of which is a key factor for psychiatric disorders. On the other hand, sleep

disturbances have been associated with an increased risk of developing psychiatric disorders and are related to illness severity, relapse and recurrence, and symptoms such as aggressive, impulsive and risky behavior, anxiety, emotional hyper-reactivity and increased risk of substance abuse and suicide rates. We may hypothesize that sleep disturbances may impair emotion regulation leading to psychopathology. Addressing sleep disturbances in psychopathology may be useful in order to contribute to emotion regulation.

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### About what and to whom patients with mental and psychosomatic symptoms want to talk

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Patients with mental and psychosomatic conditions, especially those with somatoform disorders, are a particularly critical and difficult population. These patients often seek help for pain in the head, back and extremities, for heart and digestive complaints, for general vegetative symptoms such as tiredness, fatigue, exhaustion (burnout) or even restlessness, nervousness and tension as well as sexual dysfunctions. In addition, depressive and anxiety symptoms are often present in varying degrees. This complex morbidity will be illustrated by the patient population in the field of psychosomatic medicine and psychotherapy. It will be explained that further merely quantitative expansion in the highly specialized sector of psychotherapy cannot solve the pressing current health problems and existing over-, under- and mis-utilization of medical resources. In the first line health care of mentally and psychosomatically ill, four professional competences are mandatory (somatic-medical, psychotherapeutic, pharmacological, social-medical). Especially in cases of special urgency, the psychotherapeutic competence tends to lose its relevance compared to the other three competencies. About these four competences, the empirically proven treatment-related preferences of the patients, which are still little considered in the current health policy debate, are presented.

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### Some reflections on the experience of Balint groups

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A physician's emotional involvement with the symptoms and problems presented by a patient, i.e. the countertransference that Balint considers the physician's personal, subjective and affective reaction to a patient's problem, can weaken or paralyze diagnostic and therapeutic capacity. Balint groups, in which the emotions emerging form a central part of the work, help physicians by opening up new areas of understanding and consequently offer the possibility for more effective diagnostic and therapeutic intervention. Thanks to the help of colleagues and their points of view, and thanks to the leader acting as the conductor of an orchestra, creating harmony and avoiding cacophony, physicians participating in a Balint group recover and expand true diagnostic and therapeutic competence. Their emotional difficulties, understood and worked out, become a valuable additional therapeutic tool.

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### Psychosomatic: a complexity science-based approach

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This paper is presenting different contributions to psychosomatic developed in the perspective of complexity science. The new theory represents an integration of different biophysical and cognitive domains considered as components of a dynamical hyper-network. We believe that this theory can produce breakthrough advancements in consciousness studies, psychosocial and clinical applications through the investigation of macro-parameters describing the behavior of the system at hand. In the literature, there have been many examples aimed at finding coarse-grained descriptors able to explain the behavior of complex systems composed of several different elements. Statistical thermodynamics has emphasized the importance of focusing on the dynamics of the degree of order and variability of a given system. This approach can be extended to any scientific field, posited that we get a sensible measure of system autocorrelation. In biology, many studies showed the usefulness of looking at biological systems from the perspective of statistical mechanics, that is, focusing on the mutual correlations among their parameters. This scientific stance takes the name of "middle-out" approach since it focuses on a mesoscopic level maximizing the correlations among system descriptors, thus, it lies "in the middle" between pure "bottom-up" (the causally relevant layer is the microscopic one) and "top-down" (the causally relevant layer is where general laws are defined) models.

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### The incremental validity of cognitive defusion and flexible present-focused attention in predicting adjustment to chronic pain

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**Background:** Research in the context of the Acceptance and Commitment Therapy (ACT) consistently showed that pain acceptance is associated to high emotional well-being and daily functioning in patients with chronic pain. Fewer studies have explored the contribution of other core processes of ACT to pain adjustment. This study explored the incremental validity of cognitive defusion and flexible present-focused attention over pain acceptance in predicting depression and life satisfaction in patients with chronic pain. **Methods:**

Participants were 86 patients with chronic pain (66.3% females; mean age 54±12.8 years) recruited from the Unit of Anaesthesiology and Pain Therapy at the Santa Chiara Hospital of Pisa (Italy). Participants completed self-report measures of pain acceptance, cognitive defusion, flexible attention, depression, and life satisfaction. **Results:** Pain acceptance, cognitive defusion and flexible attention were significantly related to less depression and higher life satisfaction. Cognitive defusion added unique and significant variance in the prediction of both less depression (18%) and higher life satisfaction (10%). Flexible present-focused attention added unique and significant variance in the prediction of life satisfaction (5%), but it failed to significantly predict depression. Cognitive defusion was the strongest predictor of depression, whilst pain acceptance was the strongest predictor of life satisfaction. **Conclusions:** Both cognitive defusion and flexible attention processes proved incremental validity over pain acceptance in predicting depression and/or life satisfaction. Findings highlight the importance of taking into account not only acceptance-related processes but also cognitive defusion and attentional abilities in explaining and promoting adjustment to chronic pain.

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### Post-SSRI Sexual Dysfunction: a paradigmatic case or withdrawal after discontinuation of SSRI?

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**Background:** Post-SSRI Sexual Dysfunction (PSSD) is a sexual and emotional dysfunction apparently caused by serotonin reuptake inhibitor antidepressants (ADs) which include Selective Serotonin Reuptake Inhibitors (SSRIs) and Serotonin–Norepinephrine Reuptake Inhibitors (SNRIs). It may occur during or after the discontinuation of the treatment and lasts after the discontinuation. There are no diagnostic criteria nowadays available, thus the PSSD prevalence and incidence are unknown, as well as the etiopathogenesis and effective treatments. **Case description:** At the age of 21 years, X. started sertraline 100 mg/die for a major depressive episode. Thereafter, the drug was tapered and discontinued but new symptoms occurred and remained unchanged for 4 years since today. The new symptoms included: premature ejaculation, erectile dysfunction, absence of libido and sexual pleasure, tactile anaesthesia and temperature in the genital area, emotional flattening, a sense of detachment and alienation, reduced creative capacity/abstraction/ imagination. Several pharmacological treatments (e.g., buspirone, amisulpride, bupropion, pramipexole, aripiprazole) were prescribed without benefits. Hormonal blood tests were normal. When the patient came for the assessment at the Pharmacopsychology Service, he was evaluated via the Structured Clinical Interview for DSM-5 (SCID-5), which showed current major depressive disorder, persistent depressive disorder, generalized anxiety disorder, and obsessive-compulsive disorder; the Diagnostic Criteria for Psychosomatic Research-Revised (DCPR-R ISS), which showed allostatic overload, hypochondria, persistent somatization, somatic symptoms secondary to a psychiatric disorder, demoralization; and via the Diagnostic clinical Interview for Drug Withdrawal 1 (DID-W1) which diagnosed new withdrawal symptoms. **Conclusions:** In X., PSSD symptoms are part of a broader syndrome which was

diagnosed via the DID-W1 and is named new withdrawal symptoms. This suggests that withdrawal symptoms might include a wider variety of sexual symptoms that have not been explored up, yet.

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### Post-SSRI sexual dysfunction: results of an online survey

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**Background:** Post-SSRI sexual dysfunction (PSSD) is a condition characterized by sexual and emotional dysfunction apparently caused by serotonin reuptake inhibitor antidepressants (ADs), like SSRIs or SNRIs. PSSD occurs during or after the discontinuation of the treatment and lasts after the drug discontinuation. No diagnostic criteria are currently available, the etiopathogenesis is unknown, as well as possible effective treatments. **Methods:** A total of 123 subjects self-declaring to be affected by PSSD were recruited via the web. All subjects agreed to fill in an ad-hoc online survey collecting demographic data, clinical features, and including three standardized scales: the Arizona Sexual Experiences Scale (ASEX), the Hospital Anxiety and Depression Scale (HADS), and the World Health Organization Well-Being Index (WHO-5). **Results:** The results showed that 97.6% of the sample was free from sexual dysfunction before taking ADs. In 100% of the cases the dysfunction was persistent, it began with SSRI/SNRI and lasted after treatment discontinuation. The most common PSSD symptoms were: genital anesthesia, weak or less pleasant orgasm, poor libido, and erectile dysfunction. The ASEX scores showed an average score ( $\pm$ SD) of  $21.9 \pm 3.4$ , indicating a high degree of sexual dysfunction. The HADS scale mean $\pm$ SD was  $9.1 \pm 4.4$  for the anxiety subscale and  $10.3 \pm 3.6$  for the depression subscale. The WHO-5 mean $\pm$ SD score was  $31.4 \pm 21.1$ , showing low levels of psychological well-being. **Conclusions:** The results showed that the PSSD exists and is characterized by highly severe sexual dysfunctions and psychological distress.

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### Somatization in patients with Parkinson's disease

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**Background:** Parkinson's Disease (PD) is a neurodegenerative disorder characterized by motor and non-motor symptoms such as somatization. Most studies evaluated somatization in PD by using a traditional psychometric model. In these studies, somatization has been described as a diagnosis of exclusion rather than as a somatic manifestation of psychological distress. The aim of the present systematic review was to include studies focused on a clinimetric approach, that is a clinically based measurement method, to assess somatization in patients with a diagnosis of PD. **Methods:** Following the Preferred Reporting Items for

Systematic Reviews and Meta-Analyses (PRISMA) guidelines, we conducted a systematic and comprehensive search of the literature on Web-of-Science, PsychINFO, PubMed, EBSCO, ScienceDirect, MEDLINE, and Scopus. **Results:** A total of 9 studies were included and analyzed. Somatization was not only a highly prevalent condition affecting 66.7% of PD patients but also one of the most severe symptoms of psychological distress. In addition, somatization showed to be a risk factor for the development of cognitive impairment and dementia in PD patients. **Conclusions:** Time has come to reject the misleading theory of psychogenic disorder, it is now time to focus on a biopsychosocial approach and a clinimetric assessment of somatization. Such an innovative evaluation method has several clinical implications: staging the development of somatization, evaluating the severity of somatization, providing prognostic information, and measuring the level of psychological well-being.

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#### **Irritable bowel syndrome, fibromyalgia, chronic fatigue syndrome and related syndromes are prevalent and highly overlapping in the general population. DanFund**

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**Background:** Prevalence of various Functional Somatic Syndromes (FSS) in the general population varies with observed overlap between the syndromes. However, studies including a range of FSS are sparse. The objectives of this study were to 1. investigate prevalence and characteristics of various FSS and the unifying Bodily distress syndrome (BDS); 2. identify mutual overlaps of the various FSS and investigate if they are captured by the BDS diagnosis. **Methods:** In a cross-sectional study design we included a stratified subsample of 1590 adults from a randomly selected Danish general population sample (n=7493). Telephonic diagnostic interviews performed by trained physicians were used to identify individuals with FSS and BDS. **Results:** Prevalence of overall FSS was 9.3% and 1.1% had at least three FSS. The various FSS were highly overlapping with low likelihood (ranging from 18.9% to 43.3%) of having one in its "pure" form. Prevalence of BDS was 10.5% and 2.0% had the multi-organ type. Overall diagnostic agreement of FSS with BDS was 92.0% (kappa 0.78, p<0.0001). Multi-syndromic FSS and multi-organ BDS were strongly associated with female sex, poor health, physical limitations, and comorbidity (p<0.0001). **Conclusions:** FSS are highly prevalent and

overlapping. Their impact on functioning and quality of life is considerable; the multi-syndromic cases being most affected. BDS captured the majority of FSS. While the specific FSS diagnoses may be useful for specialists, BDS makes it easy to distinguish between multi-syndromic individuals and those with symptoms from only one or two organ systems. This distinction may improve clinical management.

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#### **Insomnia and somatoform disorder**

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**Background:** Insomnia is highly prevalent in somatoform disorder. Bodily symptoms increase after sleep deprivation however, the underlying mechanism of this interaction is still unclear. We investigated the impact of sleep deprivation on pain perception considering the impact of mood and sleepiness. **Methods:** Tonic cold pain was assessed with Quantitative Sensory Testing (QST) after one habitual night (T1), after one night of total sleep deprivation (T2) and after one recovery night (T3). Sleepiness was measured with the Stanford Sleepiness Scale (SSS) and mood with a German short version of the Profile of Mood States. **Results:** Nineteen healthy participants (13 females; 29.7 ± 7.5 years old) were included. Tonic cold pain showed a significant difference between T1 (48.2±27.5 mm), T2 (61.7±26.6 mm), and T3 (52.1±28.7; p=.007). Sleepiness (SSS) and mood (ASTS) changed significantly (p<.01), however, the change of mood but not of sleepiness correlated with the difference in pain (R=.53; R<sup>2</sup>=.29; p=.022). **Conclusions:** The same pain stimulus is rated 28% more painful after sleep deprivation and normalizes after recovery night. The change of mood seems more important for the interaction of sleep and pain than sleepiness itself.

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#### **Do subjects with obesity underestimate their body size? A Narrative review of estimation methods and explaining theories**

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**Background:** Body image is a multidimensional concept that encompasses the subjective estimation of body size. Overweight and obese subjects might underestimate their body size, but research findings are still contrasting. Body size misperception may be due to differences between populations and samples or in the methods used to assess the individuals' body size perception. **Methods:** A narrative review was carried out to summarize the results of research that investigated the estimation of body size in overweight and obese subjects and to explore the above-mentioned mixed research findings. **Results:** The heterogeneity of the studies



did not allow drawing definitive conclusions - and further investigations are needed in order to reviews the individuals' key characteristics which are able to determine a misperception of their body size. **Conclusions:** To elucidate the extent and significance of body size misperception in overweight and obese persons is fundamental for the provision of effective weight loss interventions

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### Implementation of a community health worker intervention for women with depression and unmet social needs in women's health practices

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**Background:** Despite the health implications of unmet social needs, few interventions explicitly integrate social needs in the context of depression. We will describe Personalized Support for Progress (PSP), an intervention developed together with stakeholder perspectives to support women's health patients with depression and socioeconomic disadvantage. **Methods:** We screened women  $\geq 18$  years for elevated depressive symptoms in three women's health practices serving primarily low-income patients. We randomized women to PSP or a comparator and collected data pre- and post-intervention. In PSP, women met with a community health worker (CHW), completed a prioritization tool, developed a personalized care plan, and worked with the CHW to implement their care plan. Primary outcomes were satisfaction, depression, and Quality Of Life (QOL). We conducted exploratory subgroup analyses as well. **Results:** A total of 235 women participated; 54% identified as African American, 19% as White, and 15% as Latina. Mean age was 30 years; 77% reported annual incomes  $< US \$20,000$ /year; and 30% were pregnant at enrollment. Women in the PSP intervention arm reported high satisfaction and improved depression severity ( $p < .001$ ). There were no differences between groups for the primary outcomes. Subgroups reporting greater improvement for QOL in PSP included participants with baseline anxiety ( $p = .05$ ), lack of access to depression treatment ( $p = .02$ ), pain ( $p = .04$ ), and intimate partner violence ( $p = .02$ ). **Conclusions:** Clinics serving women with depression and social needs may find benefit from offering PSP as was recommended by our stakeholders. Distinguishing who may benefit from tailored interventions such as PSP is a critical next step.

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### The influence of psychosocial characteristics on the delayed diagnostic of cancer patients (stage evaluation)

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**Background:** In the last decades, cancer became a global public health concern. In Romania cancer incidence is only 6.4% higher than in Europe, but mortality rate is 38.74% higher, this being partly due to a higher number of cases diagnosed too late. This study aims to determine the associations between the delayed presentation in cancer and a series of psychosocial characteristics (depression, coping style, social support). **Methods:** 89 patients (27-96 years old, mean age 55.5) (79.77% women, 70.78% from urban areas), diagnosed with multiple types of cancer, were administered Rosenberg's Self-Esteem Scale, DUKE Social Support questionnaire, DASS 21-R (for psychiatric comorbidity), Strategic Approach Scale for Coping, and the Cognitive-Emotional Coping questionnaire. Marital status, medical and family history, current symptoms, types of therapy, initial and current symptoms, and the time between first symptoms and the presentation at the hospital were also collected. Data was analyzed using Spearman's Rho. **Results:** Delayed presentation was positively correlated with male gender ( $s = 0.234$ ,  $p = 0.027$ ) and depression scale ( $s = 0.245$ ,  $p = 0.021$ ). Particularly, in the breast cancer group, a positive correlation was met between delayed presentation and coping oriented towards putting blame on others ( $s = 0.346$ ,  $p = 0.036$ ), and a negative correlation between delayed presentation and rumination ( $s = 0.323$ ,  $p = 0.051$ ). Anxiety and self-esteem were not correlated to delayed presentation. **Conclusions:** Coping styles, depression and gender influence delayed diagnosis of cancer, this potentially contributing to a bad prognosis of oncology patients. Further longitudinal studies and screening procedures could contribute to a better understanding of the individual contribution of these factors to delayed diagnosis.

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### Hyperarousal symptoms in cardiac arrest survivors predict 12-month clinical outcomes

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**Background:** We recently demonstrated that cardiac arrest-induced posttraumatic stress disorder (PTSD) symptoms are characterized by a 4-factor model that includes dimensions for re-experiencing, avoidance, numbing, and hyperarousal symptoms. It remains unknown, however, which dimensions are predictive of clinical outcome. **Methods:** PTSD symptomatology was assessed in cardiac arrest survivors at hospital discharge via the PTSD Checklist-Specific scale. Responses on items for each symptom dimension (re-experiencing, avoidance, numbing, hyperarousal) were treated as continuous predictors. The combined primary endpoint was

all-cause mortality (ACM) or major adverse cardiovascular events (MACE) (hospitalization for myocardial infarction, unstable angina, heart failure, emergency coronary revascularization, or urgent defibrillator/pacemaker placements) within 12 months post-discharge. Four bivariate Cox proportional hazards survival models evaluated associations between individual symptom dimensions with ACM/MACE. A multivariable model then evaluated significant bivariate predictors and clinically important variables (i.e. age, sex, comorbidities via the Charlson Comorbidity Index, premorbid psychiatric diagnoses, and initial cardiac rhythm) with ACM/MACE. **Results:** A total of 114 patients (59.6% men, 52.6% white, mean age: 54.6±13) were included; 36 (31.6%) screened positively for PTSD and 39 (34.2%) experienced ACM/MACE. In bivariate analyses, only the hyperarousal dimension was significantly associated with ACM/MACE. In the final multivariable model, patients with greater hyperarousal symptoms (HR: 1.1, 95% CI [1.1, 1.2],  $p = 0.001$ ) were more likely to experience ACM/MACE after adjusting clinically important variables. **Conclusions:** The severity of PTSD hyperarousal symptoms is a strong and independent predictor of ACM/MACE within 12 months of cardiac arrest. Early assessment of hyperarousal symptoms after cardiac arrest could identify those at risk for future ACM/MACE.

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### Exposure to maternal prenatal psychological distress is associated with wheezing at child age 24 months

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**Background:** Exposure to prenatal maternal psychological distress may contribute to programming of fetus' immune system and the risk of childhood chronic disorders. Our aim was to investigate whether prenatal exposures including maternal distress are associated with wheezing at child age 24 months. **Methods:** The FinnBrain Birth Cohort Study is population-based and prospectively investigating prenatal and early-life exposures on child health. For current study, 1200 mother-infant dyads were studied. The outcomes were 1) wheezing ever, and 2) four-class classification including wheezing with doctor-diagnosed eczema, wheezing without eczema, only eczema, or neither. Wheezing and eczema were based on maternal questionnaire of the International Study of Asthma and Allergies in Childhood. Distress was assessed in all trimesters using the Edinburgh Postnatal Depression Scale for depressive and the Symptom Checklist-90 for anxiety symptoms. **Results:** At 24 months, incidence of wheezing ever was 17% and of eczema 23%. Wheezing ever was associated with high late pregnancy depressive (adjusted OR: 2.2; 95%CI 1.2-3.8;  $p=.008$ ) and anxiety symptoms (2.2; 1.2-4.3; .018, respectively. Further, only wheezing without eczema (the

neither group as reference) was associated with late pregnancy depressive (adjusted OR: 1.06/point; 95%CI 1.01-1.1;  $p=.01$ ) and anxiety symptoms (1.05/point; 1.01-1.1; .022), respectively. All analyses were adjusted for maternal asthma and smoking during pregnancy. **Conclusions:** Maternal prenatal psychological distress was associated with toddler wheezing and wheezing phenotype without eczema. Finding is noteworthy when designing early mechanistic approaches into atopic disorders but warrants further research.

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### A retrospective study of patients with somatic symptom disorder

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Somatic Symptom Disorder (SSD) was first mentioned in Diagnostic and Statistical Manual Disorders, 5th ed., and clinicians are facing an increasing rate of prevalence. As a result, appropriate diagnosis and treatment is essential. SSD patients presenting with dizziness can be affected at all ages. The elderly aged over 65 years old have a lower incidence rate and a less severe degree of somatic symptom disorder. The patients are more common in women, especially who are in perimenopausal period. The degree of autonomic nervous dysfunction of female patients is more serious than that of male patients. Female patients are more likely to have vegetative nerve functional disturbance. The adults are more susceptible to moderate to severe somatic symptom disorder than older ones.

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### Results of the TREATED-ACS: a randomized controlled trial on the effectiveness of Cognitive Behavioral Therapy, combined with Well-Being Therapy, in improving depression and reducing cardiac risk among patients with acute coronary syndrome

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**Background:** Depression and demoralization play a negative prognostic role on the course of Acute Coronary Syndrome (ACS). Specific therapeutic strategies should thus be implemented. Whereas the efficacy of psychopharmacology is controversial for the risk of cardio-toxicity, the effectiveness

of Cognitive-Behavioral Therapy (CBT) for depression in ACS patients is well known. However, survival of cardiac patients does not improve by the reduction of depressive symptoms. The combination of CBT with Well-Being Therapy (WBT) has been applied in psychiatry, though not yet in cardiology. The aim of the TREATED-ACS was to evaluate the efficacy of CBT plus WBT in improving depression and reducing cardiac risk in depressed/demoralized ACS patients compared to clinical management (CM). **Methods:** 100 patients with DSM depressive disorders and/or DCPR demoralization with or without type A, one month after a first ACS episode, were randomized to CBT+WBT or CM group. Both psychological and cardiac data up to 36 months after baseline were collected. The study was multi-centric (Bologna and Torino). **Results:** CBT+WBT was associated to both fast decrease of depressive symptomatology severity right after the end of the treatment and significant improvement of biomarkers (platelet count, HDL, d-dimer). The two groups showed similar frequencies of adverse cardiac events. However, relapses in CBT+WBT patients were predicted by older age and higher global cardiac risk, whereas relapses in CM were predicted by depression in comorbidity with Type A behavior. **Conclusions:** The findings suggest the clinical utility of CBT+WBT on both psychological and certain biological parameters of cardiac risk.

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### **Morbus Mediterraneum or real pain? Experts' assessments on the causes of pain among migrant patients in the Black Forrest, Germany**

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**Background:** There is a body of research showing biased diagnostics and treatments in migrant patients in various medical fields including pain. We aimed to explore whether a multicultural group of experts in pain management are aware of concepts such as Morbus Mediterraneum and how they assess the relevance of the cultural background of the patient regarding pain behaviour. **Methods:** In the Southwest of Germany, qualitative interviews with 12 professionals (anaesthesiologist and other physician specialists, psychotherapists, physiotherapists and a pain nurse originating from Germany as well as Tunisia and Russia) and 21 migrant patients were conducted. Qualitative data were analysed using MaxQDA. A content-structuring qualitative content analysis according to Kuckartz was carried out. Here, we report on the results of the experts' interviews. **Results:** Experts from inside and outside Germany were aware of potential bias due to lack of cultural competence in experts and health literacy in patients. The respondents reported taking cultural aspects of pain behaviour into consideration. However, one expert reported on a case of delayed diagnostics when a woman from Turkey was assessed with homesickness and Morbus Mediterraneum while she had a myocardial infarction. All experts opted for further training in clinical cultural competence from university training onwards throughout professional life. **Conclusions:** Despite experts' awareness, biased diagnostics may occur sometimes. Culture sensitive information material should be provided for experts so that they can navigate through pain behaviour characteristics of

patients stemming from different cultures. These materials should be elaborated in a participatory approach with migrant patient groups.

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### **Are romantic attachment and couple relational characteristics predictive of assisted reproductive treatment positive outcomes?**

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**Background:** Infertility represents a major life crisis that threatens significant life goals and can negatively affect a couple's psychosocial health. A supportive relationship and a secure romantic attachment appear to represent protective factors that may reduce the stress arising from the experience and also play an important role in the success of Assisted Reproductive Treatment (ART). The general aim of the study is to investigate the association among romantic attachment, couple characteristics and ART outcome. **Methods:** A total of 76 infertile women enrolled in a clinic in Rome completed the Experience in Close Relationship- Revised (ECR-R), the Couple Relationship Inventory (CRI) and a socio-demographic questionnaire. **Results:** Data analyses showed a significant positive association between ECR-R Anxiety and CRI Idealization/Persecution and Mistrust, and between ECR-R Avoidance and CRI Mistrust, whereas a significant negative association between ECR-R Avoidance and CRI Attunement was found. ART positive outcome was negatively correlated to ECR-R Avoidance and positively related to CRI Dependence. A multi-variable logistic regression revealed that ECR-R Avoidance decreased the probability of pregnancy. **Conclusions:** ART success appears to be related to lower levels of fear of dependence and interpersonal intimacy, and to higher abilities in self-disclosure within the romantic relationship. ART success was also found to be associated with higher aspects of tenderness and care in the couple. Further investigations are needed in order to confirm this finding with the aim of developing specific therapeutic interventions for couples facing this experience in order to promote the quality of couple relationships thereby increasing the rate of successful ART outcomes.

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### **Updating issues in the NCCN guidelines on distress in cancer**

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**Background:** The National Comprehensive Cancer Network Clinical Practice Guidelines in Oncology (NCCN Guidelines) for Distress Management have, since 1997, been arguably the most important and widely used screening tool used internationally to assess patients for routine screening of distress in patients with cancer. Organizations such as the International Psycho-Oncology Society and Cancer care organizations in Canada have adopted the NCCN Guidelines for Distress management. As clinicians recognize Distress as

the 6<sup>th</sup> vital sign, our field is moving into full implementation of these guidelines and evidence-based treatments for distress. **Methods:** A review of the history of the NCCN Guidelines and present guidelines and use of the guidelines will be discussed. The 2019 version of the Guidelines will be summarized as well as models for dissemination will be reviewed. **Results:** The yearly, updated, NCCN Guidelines for Distress Management provides a consensus method for oncology teams to identify patients who require referral to psychosocial resources as well as providing oncology teams with guidance on interventions for patients with mild distress. **Conclusions:** The NCCN Guidelines provide guidance and direction for mental health professionals, social workers, nurses, APNS, certified chaplains and other members of oncology teams regarding treatments and interventions for psychosocial problems for patients with cancer. Future directions in implementation of the guidelines, and evaluation of the efficacy of treatments will be reviewed.

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### Using technology to support collaborative approaches to psychiatric problems in rural areas

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**Background:** Resident of rural areas are at a disadvantage when it comes to receiving mental health care. One large barrier to providing mental healthcare in these areas is a lack of specialty providers leaving emergency room providers to care for patients with complicated mental illness, which leads to increased length of stays, unnecessary admissions and transfers out of county. **Methods:** This was a pilot project to test the viability and efficacy of a teleconsultation model in 2 rural Affiliate Hospitals. The primary aim of this model is to enable rural hospitals to keep a greater number of the low acuity medical/surgical admissions that require a psychiatric consult, and to reduce Emergency Department (ED) overcrowding. This model consists of a Psychiatric Assessment Officer (PAO), at the rural hospital who completes initial psychiatric assessments in person. The Telepsychiatry staff at the University of Rochester is available to discuss cases over the phone and through video consultation. **Results:** This program has contributed to a decline in ED utilization for patients with behavioral health issues as well as increase emergency room provider satisfaction. **Conclusions:** The University of Rochester PAO model for rural emergency rooms is an effective way to increase ED provider satisfaction and decrease ED utilization for those with behavioral health needs by leveraging technology and experts at an academic medical center in conjunction with rural psychiatric social workers.

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### Managing Cancer and Living Meaningfully. A psychotherapeutic approach to early palliative care

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There is increasing evidence for the value of early palliative care, the psychological dimensions of which may be the most important at early stages of disease. However, much less systematic attention has been paid to the psychological care of patients with advanced disease than to the management of their physical symptoms. Managing Cancer and Living Meaningfully (CALM) is a novel 3-6 session semi-structured psychotherapeutic intervention designed to fill this gap and to be integrated with both cancer care and palliative care. CALM addresses four major content domains in which adaptive challenges are common, if not inevitable. These are: navigating the health care system and communicating with health care providers, personal relationships and the sense of identity, the sense of meaning and facing the end of life. The process of CALM also attends to the regulation of emotions and to expanding awareness of the possibilities for living in the face of advanced disease. A large randomized controlled trial comparing CALM to usual care in patients with advanced cancer demonstrated that the CALM is associated with less depression and death anxiety, a greater capacity to communicate with health care providers, to clarify goals and values and to prepare for the end of life. A global knowledge translation program for training and delivery of CALM is now underway in more than fifteen counties. Further work is needed to determine whether an intervention of this kind can become a standard of care in patients with advanced disease.

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### The loss of meaning in psychosomatic medicine: challenges and solutions

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A growing body of evidence demonstrates the value of psychological interventions for patients with serious medical conditions. Such interventions are often directed to support the modulation of emotions, the sense of meaning in life and to help patients face the end of life. These aims were once central to the field of psychosomatic medicine, however, shorter hospitalizations, limitations in funding, and the recent shift to behavioral and pharmacological interventions in medical psychology and psychiatry have diminished the priority given to experiential therapies. Pharmacological approaches to psychological and behavioral symptoms are needed but are limited in their utility to improve the longitudinal adjustment of most medical patients and their families. Such approaches have nevertheless become central to the field of consultation-liaison psychiatry, which is now largely limited to the period of hospitalization for acute medical complications or interventions. Paradoxically, support for meaning-related psychotherapeutic interventions is now greater in medicine than in psychology or psychiatry. Evidence to support their feasibility and effectiveness has particularly emerged from the related fields of psychosocial oncology and palliative care. A variety of strategies may be needed for these approaches to the medically ill to return to the mainstream. These include enlarging the evidence base and training for psychological and psychotherapeutic approaches and embedding psychosocial health professions as core members of the medical team, rather than in a consultation-liaison capacity. Such strategies may help to restore meaning to the field of psychosomatic medicine and to patients whose suffering it is intended to relieve.

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### The myths of happiness and the foundational principles

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The mission of Rehabilitation Psychology is enhancing the well-being of people living with disability or chronic health conditions. The onset of a disability represents a crisis and beliefs, including the myths that a person brings to this crisis, are integrally related their well-being. One superordinate myth is the belief it is impossible to be happy with a disability. The critical point is our responses to disability onset govern repercussions. This presentation describes determinants of happiness, including, proportion due to individual's biological "set point", environmental circumstances, or intentional activities (positive thinking, explanatory style, nurturing relationships, managing stress, living in the present and engaging in self-care). This is followed by exploring the myths and assumptions about disability that undermine effective adaptation. These myths are directly tied to three of the six foundational principles: adjustment to disability, psychosocial assets and self-perception of bodily states. Wright describes adjustment to disability as a three-step process of adaptation, adjustment and acceptance. These steps require integrating change, satisfaction with this integration, and not feeling personally diminished with this integration. A myth typically present at disability onset is that everything is lost. The truth is most of the person's former assets remain or they can develop new assets. Reminding individuals of their tangible, achieved, or personal assets helps dispute this myth. Helping others understand their experience is what they agree to attend to determines their lived experience. Helping them attend to positive aspects of their past and current life is vital.

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### Nosography in psychosomatic medicine: a hot topic

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**Background:** The DSM has showed limited clinical utility in psychosomatic medicine since it is not able to catch properly the psychosomatic syndromes. A clinimetric approach may be a tool to be used to have a more comprehensive diagnostic evaluation of patients. An example of clinimetric tools in psychosomatic medicine are the Diagnostic Criteria for Psychosomatic Research-revised. Their criterion-related validity is here tested. **Methods:** A total of 100 subjects with a diagnosis of chronic migraine (CM) and 100 with a diagnosis of episodic migraine (EM) were assessed via the Diagnostic Criteria for Psychosomatic Research-Revised - Semi-

Structured Interview (DCPR-R SSI); the Structured Clinical Interview for DSM-5 (SCID-5); the Psychosocial Index (PSI). Criterion-related validity was tested via one-way Analyses of Covariance, each PSI subscale was used as dependent variable and the number of DCPR-R diagnoses as grouping variable.

**Results:** Forty-seven subjects (23.5%) reported at least one DSM-5 diagnosis according to the SCID-5: major depressive disorder (8.5%; n=17), agoraphobia (7.5%; n=15), panic disorder (6.5%; n=13) were the most frequent. One hundred and ten subjects (55%) reported a DCPR-R diagnosis according to the DCPR-R-SSI: allostatic load (29%; n=58), type A behaviour (10.5%; n=21), persistent somatization (8%; n=16), irritable mood (7.5%; n=15), illness denial (7.5%; n=15), alexithymia (5% n=10) were the most frequent. Subjects with one DCPR-R diagnosis (n=64) showed the lowest levels of PSI psychological distress (9.39±0.74) and abnormal illness behaviour (0.43±0.10). Subjects with three or more DCPR-R diagnoses (n=13) showed the highest level of PSI psychological distress (14.98±1.16) and abnormal illness behaviour (1.55±0.22). **Conclusions:** It is now time to implement the standard nosography with clinimetric tools which allow a more comprehensive assessment in psychosomatic medicine.

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### Neuro-affective and relational components of pain in a rehabilitation setting

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**Background:** This study aims to investigate the relational, affective, and neurological aspects of pain in a rehabilitation setting. Pain perception of stroke and orthopaedic patients was assessed and compared with the physiotherapists' evaluation.

**Methods:** The stroke group (n=43) completed the Visual Analog Scale (VAS) and the Questionario Italiano del Dolore (QUID) at T0 (admission to the hospital) and T1 (discharge) for a quantitative and qualitative assessment of pain. In parallel, physiotherapists evaluated patients' pain through the VAS. A control group of orthopaedic patients (n=111) undergone the same procedure. **Results:** The affective dimension of pain prevails compared to the somatic and cognitive ones in both groups at T0 and at T1. Furthermore, both groups VAS scores significantly decreased at the discharge (p=.00). In the 51% of the overall cases, a concordance between the patient and the physiotherapist evaluation of pain emerged at T0. When this concordance was missing, physiotherapists underestimated the pain of the orthopaedic patients and overestimated the pain of the stroke ones. Nevertheless, the patient-physiotherapist concordance significantly increased (p<.05) at T1. Interestingly, in the cases of discordant evaluation of pain, patients showed higher VAS scores at T0 than the cases of concordance (p=.03).

**Conclusions:** These results highlight the role of patient-physiotherapist relationship in the subjective evaluation of pain and the need to consider also the subjectivity and defensive attitude of health professionals in evaluating pain. The affective and relational components of pain will be

discussed considering also the contribution of affective neuroscience in clarifying these results.

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### The efficacy of Brief Psychodynamic Psychotherapy for fibromyalgia: a pilot study

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**Background:** Fibromyalgia (FM) is a chronic pain condition characterized by widespread pain, fatigue, sleep disorder and psychological distress. Although the efficacy of psychological interventions such as cognitive-behavioural therapy is well-known, there are few studies investigating the efficacy of Brief Psychodynamic Therapy (BPT) in FM. Therefore, we conducted a randomized controlled trial comparing an individual BPT, inspired on the Brief Dynamic Interpersonal Therapy model, versus an individual Cognitive Therapy (CT). **Methods:** Thirty female patients with FM were recruited in an Italian hospital setting and randomized to receive either BPT (16 sessions, 1 session/week) or CT (16 sessions, 1 session/week). Outcome measures, administered before (T0) and after the psychotherapy treatment (T1), included the Fibromyalgia Impact Questionnaire-Revised (FIQ-R), the Hospital Anxiety and Depression Scale (HADS), the Metacognitive Functions Screening Scale (MFSS), the Toronto Alexithymia Scale (TAS-20), the Relationships Questionnaire (RQ) and the health-related quality of life (SF-36). **Results:** Both treatments were equally effective in reducing the FIQ-R ( $p=0.018$ ) and the HADS total score ( $p=.015$ ) and in improving the health-related quality of life, both in the mental ( $p=.001$ ) and physical ( $p=.004$ ) component of the SF-36. No significant changes emerged, instead, in the MFSS, RQ and TAS-20 questionnaires after the treatments. **Conclusions:** The brief psychodynamic therapy showed to be equally effective as the individual cognitive therapy in lowering the psychological distress level, and in improving fibromyalgia-related symptoms and patients' health-related quality of life.

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### Predicting health outcomes from time series features of affect dynamics: a machine learning approach

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**Background:** The ebb and flow of our daily experiences leads to both moments of pleasurable emotional states (i.e., happiness, joy, excitement, enthusiasm, contentment), or Positive Affect (PA), and moments of aversive emotional states (i.e., sadness or anger), or Negative Affect (NA). Both theory and empirical research have shown mixed evidence for

the relationship between PA and desirable life outcomes (e.g., marital satisfaction) – with some work showing poor health outcomes, such as risky health behaviors, from enduring high PA. **Methods:** Roque et al present data from a national study of midlife adults in the US (MIDUS), linking affect dynamic time series features (dispersion, instability, and inertia) to biological correlates, including diabetic status, through use of an exploratory machine learning approach. **Results:** Results demonstrate that affect dynamic time series features are predictive of health outcomes, and of particular interest – the features extracted from an exploratory algorithm align with features previously implicated to be important in the affect dynamics literature (MSSD, autocorrelation, coefficient of variation). **Conclusions:** This inquiry led to an understanding that positive affect features are more numerous in predicting two-class diabetic status (non-diabetic vs diabetic), and both positive and negative affect are equally important in predicting three-class diabetic status (non-diabetic, pre-diabetic, diabetic). Further, affect instability features (i.e., MSSD, mean change) were more numerous, in predicting the three-class status, compared to the two-class status.

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### Collaborating with patients, families, and healthcare teams to provide biopsychosocial care: clinical service and training models

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A growing evidence base supports that patients and families with behavioral health needs fare better when mental health and biomedically-oriented providers partner together. This approach attends to all aspects of health-including health behaviors, life stressors, and stress-mediated physical symptoms, and views all these aspects as linked, interrelated, and recursive. Biopsychosocial and collaborative approaches to healthcare that integrate behavioral and biomedical interventions are more likely than siloed approaches to enhance patient outcomes, patient experience of care, and clinician satisfaction. However, many in the health professions do not receive systematized, interprofessional, and competency-based training that adequately prepare them for the work of integration. The recognition is growing for specific and targeted training for these models. This presentation will highlight the importance of collaboration among interprofessional healthcare teams, families, and patients in the service of enhancing both the quality and experience of care. It will begin with a description of several innovative clinical programs designed to serve the total health needs of patients and families across a variety of medical settings, including discussion about the importance of both effective clinical teams and partnership with families as key facilitators to health promotion. Second, it offers a description of unique approaches to training for care provision within this model of care delivery, including bringing together professionals across disciplines and across levels of training for shared learning and shaping perspective on shared patients. We will share data derived from program evaluations of this training in order to demonstrate satisfaction as well as impact on practice.

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### Aspects of the experience of the representative of Hikikomori parents' committee

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**Background:** A self-help group Hikikomori (social withdrawal) Parents' Committee (Committee), which operates in various locations, plays an important role as a parent support group. However, there is nobody willing to bear the responsibility of the representative from the fear of overburdening. To tackle this issue, the aspects of the experience of the representative is clarified to consider the countermeasure. **Methods:** A semi-structured interview survey on the experience is conducted on the four representatives from each Committee. The result is analyzed with the modified grounded theory approach and the result map is created. **Results:** It consisted of 17 concepts and 5 categories. Centering on (i.e., compliance with basic concept to continue the Committee), the process by which the representative of the Committee keeps holding the meeting has been repeated while (consideration for participants) and (efforts for smooth operation of the Committee) with a mixture of conflict and collaboration and (efforts to overcome the problem) are related each other in a simultaneous and complex manner. Through these experiences, the representative has realized the value of the Committee and acquired (something to support continuity), that is, the pride as a representative. **Conclusions:** The result map is visualized and presented to the members; measures to reduce stress on the Committee operation is considered.

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### Alexithymia and depression- Is there a relationship?

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**Background:** Alexithymia is described as a stable personality trait however some describe it as a concomitant state reaction to an illness, which may be predicted by anxiety state, a depressed mood or poor quality of life that lessens overtime as the illness improves. Depression has been used as the disease state on which the stability of alexithymia construct was examined. Research evidence indicates different views about the relationship between the alexithymia and depression. **Methods:** The existing literature on Alexithymia and depression will be assessed. The review may include published articles on assessment of alexithymia using Toronto Alexithymia scale (TAS 20) and depression using Beck depression inventory II or Hamilton rating scale for depression or Quick inventory for depressive symptomatology or any other scales and finding a relationship between the two. **Results:** Depression is associated with alexithymia. In major depression the rate of alexithymia ranges between 45-46% during the acute phase of illness. The prevalence of alexithymia was higher in those with higher score for depression and it brought about deterioration of depression with time. **Conclusions:** Alexithymia has a strong association

with depression and depression must be taken into account as a confounding factor when studying Alexithymia in the subjects. Alexithymia also effects the prognosis of depression and depression in turn explains the impact of social factors on alexithymia.

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### The effect of laughter measured by scoring facial expressions: observation study

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**Background:** Laughter is a universal expression of emotion for humans, and it has been linked with health and well-being. The purpose of this study is to clarify the physical and psychological effect of laughter by scoring procedure of facial expression. **Methods:** During a period of a month, a total of three interventions to induce laughter were conducted for 22 adults. During the interventions, data on facial expression and vital signs were collected for future analysis, and psychological examinations were conducted. **Results:** Measures related to quality of life, including scores on the Medical Outcomes Study 36-Item Short-Form Health Survey version 2, did not show signs of improvement between the measures before or after interventions for mean participants. When analyzing participants separately, those participants who laughed more heartily, showed significant reductions in their scores for Tension-Anxiety, and Pain. The male group had significantly lower scores for happiness according to the data for facial expression. **Conclusions:** This study suggests that laughter may not bring positive changes to total quality of life. However, it does appear that the effects of laughter may be more easily demonstrated for participants who are not habituated to its effects, which would depend on the specific intervention used and the context in which the laughter takes place.

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### Effect size of parental burnout on somatic symptoms and sleep disorders

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**Background:** Parental burnout is a unique and specific syndrome that emerges as a result of a chronic imbalance between risks and resources in the parenting domain. It consists of four dimensions (exhaustion in one's parental role, contrast with previous parental self, feelings of being fed up with one's parental role and emotional distancing from one's children) and has serious consequences for the parents, the couple, and the children. However, studies investigating the impact of parental burnout on health are scarce. The aim of the present study was to evaluate the impact of parental burnout on somatic symptoms and sleep disorders. **Methods:** The study used a cross-sectional design. Participants were 226 parents from the Basque Country (54% women;  $M_{age} = 42.15$  years,  $SD = 7.84$ ) who were recruited through several schools. Somatic symptoms were assessed with the Pennebaker Inventory of Limbic Languidness (PILL), sleep disorders were

evaluated with the Pittsburgh Sleep Quality Index (PSQI), and parental burnout was assessed with the Parental Burnout Assessment (PBA). **Results:** Bivariate correlations showed that parental burnout is positively and significantly related to somatic symptoms ( $r=.40$ ;  $p=.00$ ) and negatively related to both sleep quantity (sleep hours) ( $r=-.22$ ;  $p=.001$ ) and sleep quality ( $r=-.21$ ;  $p=.002$ ). **Conclusions:** Parents with more parental burnout symptoms report more somatic complaints and poorer sleep quality and quantity than those with less parental burnout. Given the cross-sectional nature of the study, experimental or interventional research should be carried out to ascertain causal relationships between these variables.

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**Web-based Acceptance and Commitment Therapy program to improve psychological well-being for working mothers with pre-school child: a protocol for randomized controlled trial**

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**Background:** Parenting children is known to be challenging to psychological well-being of women, in particular, when they have a job. Acceptance and Commitment Therapy (ACT) is based on acceptance of difficulty and focuses adoption of actions and behaviours, into daily practice, according to individual core values. ACT might be able to support working mothers to cope with problems that they face during child bearing. The purpose of this presentation is to discuss a protocol of a randomised controlled trial (RCT), examining the effects of a newly developed internet-delivered ACT (iACT) program on improving psychological well-being at posttreatment and 6-month follow-up among working mothers. **Methods:** The target population of the RCT will be fulltime-employed female workers with a pre-school child(ren). Participants who fulfil the eligibility criteria will be randomly allocated to an iACT intervention group ( $n=200$ ) or wait-list control group ( $n=200$ ). Participants in the intervention groups will be asked to complete the programmes within 12 weeks after the baseline survey. The main program contains eight modules developed based on ACT. Primary outcomes are components of psychological well-being, based on Ryff's model. Secondary outcomes are intention to leave their job, depressive and anxiety symptoms, and parental burnout. **Discussions:** The results will provide evidence on the effective approach in improving psychological well-being of working mothers with a child. The intervention thereby can be implemented as a universal mental health program for working mothers with easy access and cost-effectiveness.

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**Comparison of cause of death in inpatients with schizophrenia and organic mental disorders: a survey of 20 years in a psychiatric hospital**

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**Background:** As an aging society, Japan faces a growing number of deaths among patients in psychiatric hospitals. **Methods:** In this study, we reviewed 251 death certificates from a psychiatric hospital with 282 beds in one of the Prefecture of Japan over the last 20 years (January 1996 to December 2015). We compared causes of death between patients with organic mental disorders including dementia (F0 category) and patients with schizophrenia (F2 category). In this study, 115 patients were classified as F0, 79 were as F2; 23 were in other categories, and 34 were not otherwise specified according to ICD-10. **Results:** Among F0 patients, the most common cause of death was respiratory infection (63%). Among F2 patients, respiratory infection was also the most common (39%), followed by malignant cancers (18%), gastrointestinal disorders (12%), and sudden death (11%). Mean age at death was 10 years younger in F2 patients than in F0 patients. **Conclusions:** This result implicates that prevention or early treatment of respiratory infections might improve prognosis. The long-term use of antipsychotics might affect the shorter duration of life in F2 patients and warrants further studies.

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**Dysregulation of decision making in patients with anorexia nervosa**

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**Background:** Anorexia Nervosa (AN) is a severe psychosomatic disorder prevalent in young women. Fear of fattening and drive for thinness make patient try to lose weight through restricting food intake and over exercise. Some of them also do purging and compensatory vomiting. AN patients show a number of cognitive dysfunctions such as impaired cognitive flexibility, attention deficit, and poor decision making. Studies using neuroimaging techniques has been trying to elucidate the neural basis of cognitive dysfunction in AN patients. **Methods:** We administered the Wisconsin card Sorting Test (WCST) and the Iowa Gambling Task (IGT) to AN patients and healthy controls. Blood oxygen level dependent signal reflecting regional brain activity during the task was measured by functional magnetic resonance imaging. **Results:** AN patients showed significantly poorer correct rate in WCST than controls. When an error occurred in WCST, activity in right VentroLateral PreFrontal Cortex (VLPFC) was significantly lower in the patients than in healthy controls. Performance of IGT did not differ between the two groups. AN patients showed hyper activity in right DorsoLateral PreFrontal Cortex (DLPFC) during IGT. **Conclusions:** Right VLPFC has a critical role in motor inhibition, which stops inappropriate action. The VLPFC is an end point of ventral visual processing stream which evaluates objects, so the region mediates object-based working memory. VLPFC also receives motivational and emotional information. DLPFC is key region of executive function. Taken together, Hyperactive DLPFC and hypoactive VLPFC might be related to altered decision making of patients with AN.

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**Somatization and DCPR in psychotic patients**



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Mr. X. is a 38-year old man, single, who lives with parents and had a high school graduation. He worked as a worker for 12 years in a factory but could not work for 2 years due to his psychiatric disease. He had: insomnia, anorexia, vomiting, panic attacks with chest pain, dyspnea and palpitation stomachache, weakness, future concerns and disease anxieties. He applied many times to the emergency department and cardiology and gastroenterology clinics. Gastroscopy, colonoscopy and Holter monitorization was made and no pathology was found. When he was 18-year old, he saw dead and injured people in the Marmara Earth Quake he was shocked and for three days he did not speak about this. He has obsessive personality. A psychiatric assessment showed that X. reduced self-care, psychomotor activity. He had anxiety and low mood. He had visual hallucinations and paranoid delusions. He had control and symmetry obsessions and compulsions. Based on the DCPR, he had the following diagnoses: health anxiety, illness anxiety, fear of death, secondary somatic symptoms to psychiatric disease, permanent somatization, conversion, demoralization, alexithymia. X. was treated with paroxetine 60 mg and olanzapine 5 mg. Panic attacks faded away and he found a job in a factory. Palpitation, chest and abdominal pain, disease fears did improve. He continued to apply emergency, gastroenterology and cardiology departments. Y. is a 44-year old lady, divorced, living with parents in a family apartment, does not work, she had primary school graduation. She presented headache, gastric pain, nausea, abdominal swelling, vertigo, she had auditory hallucinations, she has approximately a 21-year history of schizophrenia treated with clozapine. She also had type 2 diabetes. The psychiatric examination showed a poor self-care. Mood was depressed, auditory hallucinations and paranoid delusions were present. Based on the DCPR, she had the following diagnoses: health anxiety, disease phobia, disease denial, somatic symptoms, persistent somatization, conversion, type A behavior, demoralization, alexithymia. In patients with medically unexplained somatic complaints, psychiatric assessment and treatment should be done as soon as possible. Because of the opinion that DSM system is insufficient to describe the psychological problems of individuals with psychosomatic disorders is generally accepted, DCPR classification has been developed and used by the researchers in recent years.

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#### Implicit emotional processing in fibromyalgia: an experimental study

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**Background:** Aberrant emotional processing is reported in fibromyalgia. However, this capability is generally measured through explicit measures, like self-report questionnaires and facial emotion recognition task. Instead, no previous research has investigated the implicit emotional processing in fibromyalgia. **Methods:** Individuals diagnosed with fibromyalgia and matched healthy controls were enrolled for this study. Individuals' capability to recognize the emotions of fear and anger was investigated through an implicit emotional recognition task grounding on the "redundant target effect": individuals respond faster when two identical targets are presented simultaneously rather than when presented alone. Reaction Times (in ms) and Accuracy (in percentage) were measured. In addition, the level of alexithymia was measured by asking participants to judge explicitly their ability to identify and describe emotions (TAS – 20). **Results:** Individuals with fibromyalgia were less accurate and slower in recognizing the emotion of fear, when compared to controls. About the emotion of anger, the results were more controversial. However, the relationship with the level of alexithymia, when measured using a standard questionnaire, was not significant. **Conclusions:** Difficulties in the implicit component of emotional processing emerged in fibromyalgia. We discussed our results taking in account the meaning of the emotion of fear in this clinical condition. We also proposed that the individual's capability to efficiently recognize an emotion might be more efficiently inferred studying the implicit behavior, rather than the subjective evaluation of one's own emotional processing capability.

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#### The effect of a virtual-reality full-body illusion on body image in obesity

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**Background:** Full Body Illusion (FBI) is a virtual reality technique in which individuals experience ownership over an entire virtual body through a synchronous multisensory stimulation, with effects on size estimation of body parts (i.e., perceptual body image). We reported that a female individual with severe obesity showed changes in her body image after FBI. This result led to the question if FBI might be a useful tool to modify the negative body image observed in obesity: in this study we verified if FBI might be experienced in obesity and if it might induce changes in body image, measured through a body parts size estimation task. **Methods:** Participants affected by obesity and healthy weight participants were asked to estimate their own height, the horizontal length and the circumferences of their own shoulders, abdomen and hips,

before the FBI illusion, and after both synchronous (i.e., experimental) and asynchronous (i.e., control) conditions. Moreover, the strength of illusion was measured through the traditional questionnaire. **Results:** Participants with obesity as well as healthy weight participants experienced the illusion. Moreover, both groups showed changes in the estimation of the circumference of the hips after synchronous, but not the asynchronous condition. **Conclusions:** FBI can be experienced in obesity. However, the results about the modulation of the negative body image in terms of body size perception seemed controversial. Future research needs to verify the therapeutic use of FBI in rehabilitative programs for obesity as well as the role psychological and cognitive components on the strength of the illusion.

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**Anxiety and placebos without deception:  
Open-label placebos reduce test anxiety and  
improve self-management skills - a  
randomized controlled trial**

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**Background:** Test anxiety is a condition in which people experience extreme distress and anxiety before and in test situations. It affects between up to 40 percent of all students. Conventional treatment approaches include both medication and psychotherapy, but studies also demonstrated that placebos affect anxiety symptoms. While in the classic understanding it is essential that placebos are deceived, recent studies demonstrated that placebos may have an impact even without concealment. Thus, open-label placebo effects have been reported, e.g., for irritable bowel syndrome, chronic lower back pain, or allergic rhinitis. Here we aimed to examine if open-label placebos reduce test anxiety and improve self-management skills. **Methods:** We conducted a randomized controlled trial (n=58), in which students before an exam at the university received either placebos without deception or no pills at all. After two weeks we tested whether anxiety symptoms and self-management skills had changed. **Results:** Open-label placebos reduced test anxiety and improved self-management abilities (skills and resources) more than the control group. Moreover, improvement in resource motivation predicted performance in the exam in the open-label placebo group, but not in the control group. **Conclusions:** We conclude that open label placebos seem to improve test anxiety better than a control group with comparable patient-adviser contact. Hence, we argue that open-label placebos might be a possible treatment for students to reduce test anxiety and improve self-management abilities.

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**From CBASP to WBT – clinical case  
presentation of WBT as a second-line  
treatment in a patient with depression**

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**Background:** Mrs. M. is a 56-year old married woman with persistent depressive disorder with several prior episodes and a self-insecure personality accentuation, previously treated with the Cognitive Behavioral Analysis System of Psychotherapy (CBASP) in an inpatient (6 weeks) and outpatient (30 sessions) setting in combination with psychiatric medication. When starting the four-session WBT treatment, she was partially remitted (BDI score pre 25, post 1), with residual symptoms concerning her self-worth and lacking stability and sturdiness (PWBS: low levels of autonomy and self-acceptance, high level of personal growth). **Case description:** Within the WBT treatment, the patient continuously filled out the well-being diary, unravelling that most of her distress was rooted in low autonomy, especially in putting her own needs behind those of others and constantly worrying about others' expectations. She was able to learn to better resist social pressure and act according to her own needs and standards, thus also setting more realistic boundaries, goals, and expectations. As a result, Mrs. G. was able to attain a more positive and self-accepting perspective and was highly motivated to continuously orient her daily routine and focus according to well-being. **Conclusions:** The four-session WBT treatment was an important addition to the prior CBASP treatment of the patient. The shift of focus and consequent change of perspective made it possible for her to tackle her self-worth issues and attain a higher degree of awareness and thus flexibility within the relevant domains of psychological well-being, resulting in a higher perception of well-being and improved general condition.

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**Insights into the formation of a trusting  
therapeutic relationship: feasibility of an  
experimental approach**

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**Background:** The Therapeutic Relationship (TR) is central to any psychotherapy. Although empirical studies have investigated individual components of the TR, there is still no evidence of how the relationship should be designed in a first contact to be positively perceived by both patient and therapist. In the present experimental pilot project, we thus defined two relationship styles (relationship-focused vs. problem-focused), based on the interpersonal circumplex. **Methods:** In a randomized two-group design, 64 university students were assigned to the two styles and received a single psychological counseling session on interpersonal conflicts. The TR was examined as primary outcome in regard to the relationship style and mediating and moderating effects by variables such as personality traits, interpersonal problems, and expectations. Reduction of distress and perceived change were assessed as secondary outcomes. **Results:** Analyses of adherence show that the experimental manipulation of the defined relationship styles was successful and feasible in a single counseling session. The quality of the TR was highly rated across conditions and raters with no direct significant group differences. Positive correlations were found e.g. for clients' positive expectations regarding the counseling session,

perceived change, and the TR. **Conclusions:** The experimental approach and variation of the TR under naturalistic conditions are practicable and the quality of the TR is highly rated regardless of the relationship style. Further mediator and moderator analyses can provide information about differential relationship formation. Results of such studies could form the long-term basis for the development of indication criteria for an optimal individualized relationship design style.

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### Emotion dysregulation: a correlation network analysis

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**Background:** Emotion dysregulation has been linked to the development of several disorders. Accordingly, a need exists to better understand the specific domains of emotion dysregulation and their reciprocal interactions. In the current study, we examined the structure of the relationships among different domains of emotion dysregulation by applying a correlation network approach. **Methods:** The study involved 813 adult volunteers who completed three questionnaires on difficulties in emotion regulation, alexithymia, and interoceptive awareness. First, we estimated a regularized partial correlation network of scale scores. Subsequently, we clustered the scales of the measures into domains by using the spin-glass algorithm. Finally, we estimated a Bayesian network and generated a directed acyclic graph that summarizes the casual direction of the associations in our network. **Results:** Three clusters were identified that were interpreted as domains of emotional uncertainty, impulsivity, and lack of self-understanding. The study also showed that the difficulty to listen to one's body for generating insight is a crucial variable linking alexithymic traits and lack of emotional awareness with limited interoceptive ability, with the latter being connected with dysregulated emotional states via excessive worrying. Also, we found that a limited access to emotion regulation strategies may generate diverse paths pointing to alexithymic features and to limited interoceptive abilities. **Conclusions:** Our findings support the view that emotion dysregulation comprises a network of cognitive and emotional symptoms, in which the difficulty to link bodily sensations with mental states plays a crucial role.

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### Effect of opioid use on treatment outcomes of a multidisciplinary pain rehabilitation program

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**Background:** Widespread US opioid prescribing for chronic pain began in the late 1990s, resulting in marked escalation of opioid overdoses and opioid related deaths in a so-called "opioid epidemic." It is unclear whether patients with chronic pain on opioids benefit similarly to patients off opioids from engagement in multidisciplinary abstinence-based pain rehabilitation programs. **Methods:** This was a retrospective

review of 253 consecutive admissions to a 3-week outpatient pain rehabilitation program. All consented subjects were  $\geq 18$  years with pre-admission agreement to taper off opioids. Subjects were divided into three groups based on admission opioid status: no opioid use, opioid use, opioid use with probable use disorder (OUD). Treatment outcomes were assessed using a series of mixed model ANOVAs 3 (Group: no opioid, opioid use, OUD) x 2 (Time: admission, discharge) with Bonferroni corrections. **Results:** Of 253 patients, 149 were off opioids at admission, 32 on opioids and 72 on opioids with a suspected OUD. Admission daily oral morphine equivalence was 73.14 mg. Significant main effects for time were detected for pain severity, pain interference, depressed mood, and pain catastrophizing (all  $<.001$ ), while no main effects of opioid use or opioid use x time effects were detected. The same pattern of effect was found for observer rated outcomes such as 5-minute walk test and loaded reach test (both  $<.001$ ). **Conclusions:** These findings suggest that patients off opioids, taking opioids and taking opioids with presumed OUD all make significant progress with pain reduction and improved function in an abstinence-based multidisciplinary pain rehabilitation program.

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### Patients with incestuous dreams – the unsolved oedipal conflict – Patrick Swayze and a law student

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**Background:** According to Freud, the Oedipus complex was primarily of importance for the sexual development of a person. Later authors such as Loewald and Lacan emphasized its importance for the development of an individual's autonomy. The function of the Oedipus conflict is to become capable of maintaining relationships and to cope with conflicts through a successful triangulation. An unresolved Oedipal conflict can have serious consequences. **Case description:** Patrick Swayze identifies with an ambitious mother who is his ballet teacher, is constantly overcoming injuries while building a successful career. He had a rigorous training schedule after severe injuries and was very successful as an actor and dancer in the movie *Dirty Dancing* among others, as well as a football player. But he succumbs to alcoholism and eventually dies at the age of 57 of a resulting pancreatic carcinoma. A student wanted to become a judge but suffers from depression during his studies. In incestuous dreams, the identification with the mother becomes evident. He conquers the mother, but the repression of the weak father leads to a conflict with the male identity. Identification and guilt led to massive blockades with failures during exams. **Conclusions:** In a subset of patients, the theory of castration anxiety applies. Patrick Swayze and the law student kill the father within themselves. There is an incestuous relation to the mother. This results in a conflict with the male identity. Sexual and occupational impotence occurs, they castrate themselves. Patients with incestuous dreams are blocked in their entire personality development.

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### Down-contexting the symptom and medical education: building up trust, facing professional life anew

Wolfram Schüffel

Marburg, Germany

The future of medical education within a changing world with climate change and refugees is to be built up in group work. Group work is to be performed by physicians, their co-workers, student physicians, people, patients who are citizens. Down-contexting, symptom, trust, and facing professional life anew may be connected with terms I call moving phenomena. They are able to move the meaning of a seemingly well-known term down to certain impressions and sensations. In this case the connections or new contexts are: 1. down-contexting: listening, viewing etc., primorderly; 2. symptom: willing to sense something unusual, unheard, unseen in oneself at any time; 3. trust: accepting a new horizon of values, namely leitmotif; facing anew: moving and breathing, i.e., dwelling according to the approach used. When performing down-texting the groups turn into workgroups. Their members are geared to respect the symptom as a most elaborate and creative achievement of the living organism (in German: leib). The living organism presents (not symbolizes) the wishing, warding off, suspending, and solving (ww;ss) the problems of unconsciously and consciously sensing the sense of life as presented by the leib. The workgroup themselves turn into a life shelter for the symptom: the members of the workgroup identify four approaches, namely separating from a dyad, growing inwardly/outwardly, experiencing the leib; all by trying to ask how instead of why. This ultimately may lead to becoming aware of a life circle rooted in four times, namely now, past, present, future.

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### Psychosomatic medicine between narrative and evidence-based medicine - a history of PM in Germany after WW I

Wolfram Schüffel

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When meeting the patient, we may undergo the thrilling experience that "narrative and evidence-based approaches" can be combined. How can this be done? This basically was the formulation of an anterospective view as I like to call the perspective of Erich Wittkower who is Founding President of the International College of Psychosomatic Medicine (ICPM). As a researcher, teacher and most of all as a gifted physician he referred to the physicians His and Cannon the then famous internists in Germany in the States resp. He was aware of transference/countertransference as described by Freud one hundred years ago. Thus, he united the two main aspects of Psycho-Somatic Medicine in one person. Being persecuted by the Nazis he escaped to Canada via Britain. In Germany, the Nazi regime (1933 – 1945) had eradicated most forms of a humanistic approach in medicine. However, being encouraged by Founding Members of the European Conference on Psychosomatic (ECPR) like Groen and Leigh in 1957 and Founding Members of the ICPM in 1969 like Bastiaans, Pelzer, Reiser, Lipsitt, Ikemi et al., it

was possible to find the German College of Psychosomatic Medicine (DKPM) in 1974, i.e., almost 30 years after the societal and cultural disaster. This was followed by founding the Deutsche Gesellschaft (DGPM) in 1991, i.e., almost half a century after the fall of the Nazi regime. Meanwhile, Balint's narrative approach met the approach of evidence-based medicine. Both approaches have been introduced to all 36 medical schools in Germany as well as to the general health care, research, undergraduate, and postgraduate education. Two major issues have to be followed up in future: how can we remember what happened (PTSD and Traumatic Neurosis and its history)? How will it be possible to mourn (Germany's Constitution and its general "embodiment")? Wittkower's life may help to follow up the two issues.

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### Integrated psychonutritional assessment in eating disorder with life time traumatic experiences

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**Background:** Unresolved Post-Traumatic Stress Disorder (PTSD) can be a maintaining factor for Eating Disorders (EDs) and intrusion and emotions can trigger each other. Treatment should handle the factors which might impede recovery. The aim of this study was to assess ED patients with PTSD according to the psychological and nutritional approach and to study the effects of Cognitive Processing Therapy (CPT) integrated in outpatient Psycho-Nutritional Rehabilitation (PNR) and Cognitive and Cognitive-Behavioral Psychotherapy (CT/CBT) for Bulimia Nervosa (BN). **Methods:** A total of 296 BN females (age 25.24 + 6.7 years; duration of illness 8.6 + 6.17 years) were assessed with EDI-3, CBA 2.0, and CAPS, PWB. 22.3% (n=66/296) met DSM-5 criteria for PTSD and 95.6% (62/66) of these reported the first traumatic event before the onset of BN. Manualized CPT was added to PNR+CT/CBT treatment for patients with PTSD. **Results:** BN patients with PTSD show greater EDI-3 bingeing (p=.002), vomiting (p=.041), emotional dysregulation (p=.019), CBA-Anxiety (p=.036), CBA-Negative beliefs (p=.009) and lower Interoceptive awareness (p=.026), PWB Autonomy (p=.031) and Self-acceptance (p=.046) than BN patients without PTSD. Treatment duration for BN patients with PTSD was 34 PNR sessions and 37 CPT-CT/CBT sessions. The drop-out rate differed for BN patients with PTSD (3.8%) against BN patients (12.2%). CPT integrated treatment was associated with reduced ED symptomatology in ED patients with PTSD. **Conclusions:** ED with PTSD may benefit from trauma-informed treatment. Future research should include a control group to verify whether the addition of CPT to PNR+CT/CBT obtains greater treatment response in such patients.

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### Pre-transplant sense of coherence in end-stage organ failure is not predictive for post-transplant trajectories of mental health and

## quality of life. Preliminary results from the Swiss transplant cohort study

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**Background:** Sense Of Coherence (SOC) is a health-promoting factor, reflecting a person's ability to respond to stressful situations. SOC is argued to be a relative stable trait and may therefore be of importance in coping with chronic illness. The aim of this study was to investigate SOC as a predictor for post-transplant trajectories of mental health and quality of life. **Methods:** In this prospective study, 45 transplant recipients (solid organs) were examined annually for mental health (Hospital Anxiety Depression Scale) and quality of life (EuroQOL five dimensions questionnaire) over a period of 5 years post-transplant (T1-T5). SOC was measured using the 13-Item Sense of Coherence Scale and was assessed pre- and 6 months post-transplant. Linear regression models were used to examine the association between SOC and post-transplant mental health trajectories. **Results:** The correlation between pre-transplant and 6 months post-transplant SOC was relatively weak. No significant relationship could be identified for pre-transplant SOC and post-transplant mental health trajectories. SOC 6 months post-transplant was found an independent and significant predictor for post-transplant improvement in mental health and quality of life (QoL) overall assessment periods (T1-T5). **Conclusions:** SOC 6 months post-transplant proved to be a reliable predictor of post-transplant trajectories of mental health and QoL, although the effect of SOC for QoL seems to wane over time. Interestingly, pre-transplant SOC was not predictive for post-transplant trajectories, indicating that SOC in end-stage organ failure could be impaired by various factors such as poor somatic health status, functional limitations, existential worries, limited life expectancy, and stressors related to the need of organ transplantation.

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## Preliminary investigation of the Pictorial Representation of Illness and Self Measure (PRISM) to measure suffering in a multi-national sample of people with recently diagnosed ulcerative colitis

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**Background:** ICONIC is a large, prospective, observational

study evaluating cumulative burden of ulcerative colitis (UC) in recently diagnosed adult patients under routine care in 33 countries. **Methods:** Disease severity was measured by clinicians' global ratings and endoscopy findings. All patients completed the patient-modified Simple Clinical Colitis Activity Index (P-SCCAI, a measure of disease activity), the Short Inflammatory Bowel Disease Questionnaire (SIBDQ, assessing quality of life), and the Rating Form of Inflammatory Bowel Disease Patient Concerns (RFIPC). Suffering was measured by the Pictorial Representation of Illness and Self Measure (PRISM), and depression using the Patient Health Questionnaire (PHQ-9). Sociodemographic data were also collected. **Results:** 1814 patients enrolled in ICONIC and fulfilled the selection criteria, of whom 978 (54%) were female. Most patients (N=1294, 71%) had been diagnosed with UC for <1 year. Significantly lower PRISM scores (indicating greater suffering) were reported for men than women, and for patients with more severe disease. Mean PRISM scores (suffering) varied between countries. PRISM correlated moderately with PHQ-9, SIBDQ, P-SCCAI, and RFIPC ( $r = -0.40$  to  $-0.50$ ;  $p < 0.0001$ ). In multiple regression analysis, P-SCCAI, SIBDQ, and RFIPC all made significant contributions to the variance of PRISM (all betas  $p < 0.001$ ). **Conclusions:** Our results are consistent with predictions from published research using PRISM. The variance in PRISM scores showed significant contributions from standard and routinely used measures of disease activity, quality of life, and patients' concerns in UC, indicating that further investigation into PRISM as a global patient-focused outcome measure in UC is warranted.

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## Factors relating caregiver's preference for patients' advance care planning in Japan

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**Background:** Personalized ACP aims to respect the autonomy and choices of terminally ill patients regarding end-of-life care. However, there are cases in which doctors must instead discuss ACP with surrogates (including caregivers) for various reasons such as patient's dementia. This study was to examine the preferences of home caregivers on patient advance Care Planning (CP), including Life-Sustaining Treatment (LST), and the factors relating these preferences. **Methods:** In this cross-sectional study, self-written questionnaires (individuals filled it out by themselves) were distributed to 506 in-home caregivers in six Japanese prefectures; the questionnaires contained items on caregiver and patient demographics, number of people living together in a caregiver's home (aside from patients), care duration, comprehension level of doctors' explanations regarding their patient's condition, patient diseases, whether caregivers have or have not told patients about their disease, level of nursing care, and caregiver LST preference (preferred or not preferred). **Results:** Valid responses were obtained from 309 caregivers (110 males and 199 females; mean age,  $65.29 \pm 12.09$  years; response rate, 61%). More than half of them were not sure of their patient's LST preference. Sex, number of people living together in a care home, comprehension level of doctors' explanations, and care duration were found to be the significant factors relating caregivers' LST preference ( $p < .05$ ). **Conclusions:** Health providers should be cognizant of the background factors

relating caregiver ACP preference when deciding on LST for terminal patients.

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### The self-regulation of alexithymia: chronic self-regulatory modes influence alexithymia through mindfulness

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**Background:** Recent findings indicate that alexithymia is the result of a multidomain, multidimensional failure of interoception, defined as the attentional focus on and awareness of one's internal bodily sensations. However, less is known of the effect of self-regulatory modes and dispositional mindfulness on alexithymia. Self-regulatory modes consist of a *locomotion*, characterized by movement from state to state and *assessment*, characterized by comparative appraisal of entities and states. We tested the hypothesis that self-regulatory modes affect alexithymia through dispositional mindfulness, defined as a moment by moment conscious attention and awareness of external and internal stimuli. **Methods:** In two studies, consisted of 224 online American respondents, locomotion and assessment orientations were assessed as chronic individual differences. Dispositional mindfulness was assessed by MAAS. Alexithymia was assessed by TAS-20. **Results:** Consistent with our predictions, in Study 1, a significant indirect effect was obtained, indicating dispositional mindfulness fully mediates the relationship between self-regulatory mode of assessment and alexithymia. Additionally, dispositional mindfulness partially mediated the relationship between locomotion and alexithymia. Study 2 replicates and extends this pattern of results. Specifically, dispositional mindfulness and reappraisal fully mediated the relationship between self-regulatory mode of assessment and alexithymia. By contrast, while dispositional mindfulness partially mediated the relationship between locomotion and alexithymia, reappraisal was not found to be a significant mediator. **Conclusions:** The findings indicate the effect of chronic as well as moment to moment self-regulatory processes on alexithymia, indicating the contribution of awareness to sensation techniques in treatment of alexithymia.

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### Spatiotemporal differences of gastric electrical activity in patients with chronic nausea and vomiting syndrome

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**Background:** Biomarkers has been an important issue in patients with Chronic Nausea and Vomiting Syndrome (CNVS). Gastric electrical arrhythmia has been indicated in the patients and recently aberrant electrical synchronization

becomes a new important remark to explain gastric arrhythmia. Therefore, we tested our hypothesis that gastric electrical dis-synchronization exist in patients with CNVS. **Methods:** A total of 122 patients with chronic abdominal symptoms were enrolled. Patients were selected to make 3 groups; 25 patients with CNVS, 7 patients with nausea in organic Gastrointestinal (GI) diseases and 90 patients with another GI disease. Gastric electric frequency was measured from 4-electrode electrogastrography for 24 hours and analyzed using machine learning with Keras package. Accuracy rates (Acc) of discrimination of nausea group and CNVS group were calculated and statistically evaluated. **Results:** From other gastrointestinal symptoms, Acc of both nausea and CNVS group showed over 70% in single- and 4-electrode analysis. Single-electrode analysis indicated significantly higher Acc in CNVS group than in nausea group (79.8% vs 74.7%,  $p=.0153$ ). 4-electrode analysis also showed remarkably higher Acc in CNVS than in nausea group (80.2% vs 71.3%,  $p=.0008$ ). There were no statistical differences in Acc between single- and 4-electrode analysis in whole nausea and CNVS group ( $p=.175$ ,  $p=.813$ ). **Conclusions:** Spatiotemporal differences of gastric electrical activity were indicated especially in patient with CNVS compared to other gastrointestinal symptoms. These results suggested that altered gastric pacemaker and gastric wall conduction may play an important role to generate gastric arrhythmia and nausea symptom in patients with CNVS.

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### Distinguishing treatment resistant depression from anxiety disorders.

Edward Silberman

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**Background:** The high rate of treatment failure in depressive illness is of increasing concern in psychiatry. Of note, current clinical biases favour diagnosing depression over anxiety disorders. This presentation reviews evidence that better recognition and treatment of anxiety disorders may diminish the apparent prevalence of treatment resistant depression. **Methods:** We reviewed the literature pertinent to diagnostic biases against anxiety disorders, definition and predictors of treatment resistance in depression, and distinguishing mood disorders with anxiety from anxiety disorders with dysphoria. **Results:** Epidemiologic studies demonstrate that anxiety disorders are the most prevalent form of psychopathology, but psychiatrists diagnose them at one-half to one-third the rate of mood disorders. Non-response occurs in 30% to 50% of antidepressant trials, and prominent anxiety is a risk factor for antidepressant treatment failure. Studies show that subjective depression alone does not distinguish clinical anxiety from mood disorders. However, anhedonia, emotional disengagement, self-blame, and helplessness are specific to depressive illness. **Conclusions:** Diagnostic bias against anxiety disorders and treatment bias against the use of benzodiazepine anxiolytics may result in falsely viewing a sub-set of dysphoric patients as having treatment-resistant depression. We suggest guidelines for distinguishing primary anxiety disorders with low mood from primary depressive disorders with anxiety.

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### Myths and realities about side effects and tolerability of benzodiazepines

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Concern about potential for abuse, cognitive impairment, motor impairment, and other side effects often limits prescribing of benzodiazepines. This presentation will summarize what is known about these issues based on the scientific literature. We reviewed the core literature pertaining to adverse effects of benzodiazepines, focusing on comprehensive reviews and recent studies. The profile of somatic side effects of benzodiazepines is low, and less than those of antidepressants. Benzodiazepines have been well demonstrated to be associated with decrements of cognitive functioning, most prominently processing speed and visuospatial processing, although rarely to a degree that is functionally impairing in non-geriatric patients. Cognitive deficits improve after medication discontinuation but may remain below baseline for 6 months or more. An association between benzodiazepine use and dementia has been raised, but not demonstrated to be causal. Benzodiazepines are associated with increased risk of motor vehicle accidents, although the degree of risk due to benzodiazepines alone is less clear. Patients with no substance abuse history do not experience euphoria from benzodiazepines, do not tend to escalate their doses over time, and are not at added risk for abuse of alcohol or recreational drugs. Benzodiazepines are well-tolerated by most people and are not likely to be abused, except by patients who are already polysubstance abusers. Impairment of cognition and motor performance are possible adverse effects and are of concern in older patients and those with coarse brain pathology.

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### Avoidant restrictive food intake disorder in adolescents with chronic pain

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**Background:** Although not well recognized, adolescents with chronic pain frequently experience disturbances in eating related to pain, changes in appetite, medication side effects, and elimination diets. Although these adolescents may be at risk for Avoidant Restrictive Food Intake Disorder (ARFID), a DSM-5 diagnosis in which individuals avoid food due to concerns regarding the aversive consequences of eating, research has not examined ARFID in this population. **Methods:** Participants included 79 adolescents (82.28% female; Mean age=16.19, *SD*=2.46; Mean BMI percentile=69.97, *SD*=31.52) participating in an interdisciplinary chronic pain rehabilitation program who scored in the clinical range ( $\geq 20$ ) on the Eating Attitudes Test – 26 (EAT-26) and received an eating disorder evaluation. Because ARFID was not a recognized diagnosis at the time of some of these patient's evaluations, independent coders reviewed records using current DSM-5 criteria for ARFID. **Results:** Of the 79 patients with elevated EAT-26 total scores ( $M=30.33$ , *SD*=8.28) who received an eating disorder

evaluation, 19 (24.05%) met criteria for ARFID. These patient's BMI were mostly in the average weight range, with a mean BMI of 21.14 (*SD*=5.33) and mean BMI percentile of 44.28 (*SD*=33.43). Characteristics of ARFID symptomatology included significant weight loss or avoidance of eating due to subsequent abdominal pain or nausea. **Conclusions:** This initial detection study of ARFID among patients in a pain rehabilitation program indicates the importance of screening for avoidant/restrictive feeding and eating related issues, as these symptoms may exacerbate pain and interfere with functioning.

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### Psychopathological aspects in alopecia areata

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**Background:** Alopecia areata is part of cutaneous diseases with influence of psychosocial factors on its onset and evolution. The psychopathological aspects of alopecia areata have been studied based on three axes: psychiatric comorbidity, personality and stressful life events. This research aims to characterize the psychological aspects of alopecia areata, assessing its influence on the genesis and evolution of the disease as well as the psychic repercussions and their psycho-social impact. **Methods:** This is a cross-sectional, observational, descriptive and analytical study. A socio-demographic, dermatological and psychopathological protocol was designed. 90 patients diagnosed of alopecia areata consecutively selected among patients  $\geq 16$  years who attended the Dermatology Department were included in the study. **Results:** Personality traits of group C have a decisive role in understanding the relationships between psychological factors and alopecia areata. Personality traits influence the onset of alopecia areata and its clinical evolution. Also, they facilitate the development of psychological disorders secondary to alopecia areata because they would propitiate a poor adjustment to the dermatological disease and determine an affectation of the quality of life. **Conclusions:** The psychosocial aspects would play a prominent role in the genesis and in the later course of alopecia areata. They are essential in the therapeutic approach of the patient, requiring a collaboration between the dermatologist and the psychiatrist.

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### Different approaches to the treatment of pain and suffering

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In most (psychosomatic) diseases psychological suffering as well as physical pain may occur simultaneously and dominate the clinical picture. Regardless the disease and the diagnoses in most cases a traditional approach is not sufficient in an attempt to help patients to cope with the suffering and pain. The symposium aims to present different complementary techniques useful in taking care of the complex problems related to the treatment procedure. In many cases a long term psychotherapy is neither recommendable nor economically nor practically applicable. The techniques presented span from

a short-term concealing after the patient has received the diagnoses of a chronic, non-curable and stigmatizing disease, training in narrative skills of General Practitioners dealing with pluridiagnosed patients, hypnosis as an aid in helping persons with Adjustment Disorder (experiencing pain and emotional suffering) related to the transition to a new country, relationship between fibromyalgia and alexithymia in regard to the treatment approach.

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### Compassion embodied toolbox

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How could we develop compassion embodied skills in our work places, in a more practical manner? This workshop will introduce you to five different tools focusing on embodied compassion: 1. Taking care of individual and organizational wellbeing, physically and mentally; 2. Bringing holistic, cultural, artistic elements to the workplace; 3. Practicing cultural embodied exercises together; 4. Being aware of the power of emotions at work – abilities and inabilities; 5. Paying attention to the spatial structures as well as the inspirational aesthetic quality of the working space.

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### Psychosomatic theory of science and compassion embodied and the arts

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In modern science of medicine Art has only recently been recognised as an integratin agent of our mind-body systems. Scientific, epistemological "truth", is not eternal but changes with the times. During the past few centuries, up to and including the present time, the Cartesian dualistic and reductionistic paradigm has dominated established medicine - without ever having been seriously questioned. Cartesian paradigm emerged after the prosecution of the Renaissance re-birth of an antique integrative approach (Hermetism) which stated that Micro cosmos (inner life of emotions, cognition and physical body) - as well as the Macro cosmos (total environment, socioeconomic as well as fysical) are integrated and mutually interdependent. That approach was threatening to the Catholic Church and resulted in systematic prosecution of many great scientists such as Copernicus, Galileo Galilei, Johannes Kepler, Giordano Bruno. Basic paradigm of The Modern Psychosomatic Medicine is that emotions and affects always have bodily expressions as well as that human body is affected by environment. The way we perceive and make sense of the world is a function of our brain's cognitive and our sensory and motor functions as well. The term embodiment is

used to describe the ways in which cognition has its basis in the physical body, and the definition is built up from a theoretical focus according to Niedenthal and colleagues on the brain's modality-specific systems that are constituted by: the sensory systems, the motor systems and the introspective systems, which govern cognitive operations and conscious experiences of emotion. The Arts incorporate these three systems, and currently there is a growing interest in how different artistic activities can enhance empathy and compassion in working environments, where wellbeing and successful leadership can grow. From systematic reviews, we know that we need more specific organisational interventions targeting psychosocial factors building on psychosomatic theory and more likely, these interventions should be grounded in the physical body (embodied) and linked to compassion to be able to better protect emotional exhaustion.

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### Prescribing exercise to optimize treatment outcomes: rationale and strategies

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Growing evidence points to the efficacy of exercise for enhancing treatment outcomes for individuals suffering from mood and anxiety disorders. The literature on exercise makes clear that when people engage in exercise, they are more resilient to stress and better able to learn and consolidate or retain new learning. In this workshop, we focus on these specific targets for intervention – resilience to stress and cognitive enhancement – and illustrate how practitioners can best prescribe exercise to engage these targets and augment their interventions. The workshop will begin with an overview of the evidence, helping practitioners develop language for providing a credible exercise intervention rationale. We will then turn to the specifics of developing an effective exercise prescription, attending to how practitioners must balance efficacy with feasibility and safety. Practitioners will learn how to determine whether exercise is safe, how to progress training to the targeted intensity, and how to work with the patient to select appropriate activities. Next, we will discuss strategies for helping patients understand and overcome the perils of good intentions and the pitfalls that derail exercise attempts. Practitioners will learn how to help patients manipulate their environment to maintain motivation for exercise and how to develop and implement self-monitoring strategies to facilitate this. We will finish the workshop discussing case examples provided by the audience.

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### Psychosomatic issues in endocrinology

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Psychological aspects are important components of endocrine conditions, that only recently have been systematically addressed in clinical research and practice. They pertain to all phases of illness. Recent stressful life events (within the year



preceding disease onset) have been demonstrated to play an etiological role in pituitary-dependent Cushing's disease, Graves' disease, and hyperprolactinemia. Both stressful life events and chronic stress contribute to a cumulative burden, also called allostatic load/overload, that may uncover a person's vulnerability. When endocrine abnormalities are established, they are frequently associated with a wide range of psychological symptoms. At times such symptoms reach the level of psychiatric illness (mainly mood and anxiety disorders); other times they are subclinical (irritable mood, demoralization, somatization) and can be identified by specific clinical research tools. Long-standing endocrine disorders may imply a degree of irreversibility of the pathological process and induce highly individualized affective responses. This understanding has led to a growing interest about the presence of residual symptoms even after adequate treatment. In patients who show residual symptoms with persistence of psychological distress upon proper endocrine treatment, responding to their particular needs is likely to improve the level of remission. The support provided by an interdisciplinary approach, including psychiatric or psychological interventions and rehabilitation measures, may be of great value. As it happened in other fields of medicine, a conceptual shift from a merely biomedical care to a psychosomatic consideration of the person and his/her quality of life may be needed for improving effectiveness in the management of endocrine patients.

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### Early detection of parental burnout in primary care settings: why and how?

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**Background:** Since it has been recently shown that parental can have serious consequences for families, early detection of parental burnout symptoms is essential. Based on the Parental Burnout Assessment (PBA) we developed a Brief Parental Burnout (BPB)-scale which can be used in primary care settings as an early screening tool for parental burnout symptoms. **Methods:** Data was collected from 1725 Finnish parents (9 % fathers) who filled in the PBA. By using two parametric Item Response Theory (IRT) method, we identified five most discriminant items of the PBA that would reliably distinguish those parents who are at burnout risk from those who are not. To examine the practical applicability of the scale, the scale was piloted in two Finnish primary care centres and feedback was collected from parents, nurses, doctors, and child welfare professionals. **Results:** The results showed that the BPB-scale is psychometrically valid and reliable tool for examining parental burnout. The experiences at primary care settings were positive and the scale helped nurses in distinguishing normal fatigue from parental burnout. Based on the parents' suggestions, the order of the items was modified and the wording of one item elaborated. The general instructions for scale administration were assembled in a BPB-scale handbook. **Conclusions:** The BPB-scale can be used in early detection of parental burnout symptoms in primary care settings of Finland. The psychometric properties and the practical applicability of the scale need examination in different countries.

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### Latent Growth Modeling Analysis of Changes in pain catastrophizing during interdisciplinary pain rehabilitation treatment

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**Background:** A key issue in chronic pain management is understanding changes necessary for improved functioning. Interdisciplinary pain rehabilitation programs (IPRP) propose that when meaningful pain reduction is not possible, treatment focus must shift towards maximizing functionality. This study directly examined treatment outcomes among a cohort of 480 patients with high impact chronic pain in a 3-week IPRP. We also examined relations among timing of changes in pain catastrophizing over the course of treatment relative to functioning at the end of treatment. **Methods:** Treatment outcomes were assessed weekly. Within-subjects ANOVAs were used to compare groups on pre- to post-treatment changes on self-report pain outcomes and observer-rated outcomes (5-minute walk, sit-to-stand). Latent change trajectories of pain catastrophizing were assessed weekly and analyzed via latent growth curve and growth mixture modelling. The association between latent change trajectories and functioning following treatment was assessed. **Results:** Significant main effects for time were detected for all self-report outcomes ( $F$ 's  $>563.31$ ;  $p$ 's  $<.001$ ;  $\eta^2 >.46$ ) and observer rated outcomes ( $F$ 's  $137.57$ ;  $p$ 's  $<.001$ ;  $\eta^2 >.46$ ). Two latent trajectories for pain catastrophizing, one with no change and one indicating significant improvement during treatment were found. Further, change trajectory during treatment was significantly related with improvement at post-treatment, such that greater reductions in catastrophizing during the three weeks of treatment were statistically predictive of larger improvements at post-treatment. **Conclusions:** These findings provide support for IPRP models in chronic pain and suggests that psychosocial mechanisms have a significant statistical relation with degree of improvement following treatment

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### Melatonin and insomnia in adults

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**Background:** Insomnia is a common sleep disorder and involved genetic, environmental, behavioral, and psychological factors which result in hyperarousal. Complication addition at the individual distress include cognitive decline, reduced quality of life, hypertension, increased likelihood of receiving disability benefits, work absenteeism, and traffic accidents. Melatonin is available in the short-acting and prolonged-release formulations and both melatonin formulations are structurally and pharmacologically

distinct from the melatonin receptor agonist ramelteon. **Methods:** We run a systematic review of clinical trials finalized to compare the different effectiveness of both melatonin formulation and compared with clinical observation of a longitudinal study of 50 patients with primary and secondary insomnia followed in hospital and outpatient psychiatric services. **Results:** Studies on melatonin have different types of indicators concerning efficacy, morning alertness, and sleep induction latency. Our observational study concerns patients who are predominantly with secondary insomnia and are difficult to compare to clinical trials but useful in the practice of real life. **Conclusions:** Prolonged-release melatonin 2 mg 2 hours before bedtime may improve sleep quality and morning alertness in patients with primary sleep disorder. It is also indicated to reduce benzodiazepine use in patients with secondary sleep disorder.

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### Dependence and withdrawal symptoms associated with benzodiazepine use

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Dependence and withdrawal symptoms are usually considered the greatest drawback of benzodiazepine use. The purpose of this presentation is to provide an integrative and critical review of these issues. Dependence associated with benzodiazepine use has been referred to as therapeutic dose dependence, non-addictive dependence and low-dose dependence, among other terms. It is a pharmacological dependence that develops in all regular, long-term benzodiazepines users and reflects a physiological adaptation at the receptor level. The main clinical implication of benzodiazepine dependence is a relatively high likelihood of the withdrawal symptoms if the benzodiazepine is ceased suddenly. However, the emergence of these symptoms is not inevitable. Psychological dependence, such as last dose dependence and talisman dependence, is a different phenomenon because it has no pharmacological basis. It is crucial for benzodiazepine dependence to be distinguished from abuse and addiction based on the criteria that include pharmacological tolerance, craving and drug-seeking behaviour. Most benzodiazepine withdrawal symptoms are nonspecific. Many resemble a recurrence of an anxiety disorder and although unpleasant, they are rarely severe or life-threatening (e.g., seizures). The benzodiazepine withdrawal symptoms last from several days to about 4 weeks, but a longer duration has also been reported. They may abate without specific treatment and usually, though not always, produce no long-lasting consequences. Their key clinical implication is a need to taper the dose of benzodiazepines before ceasing these agents to prevent or alleviate withdrawal symptoms.

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### Clinical potential of ketamine-induced altered states of consciousness: some lessons for further psychometric development from internet video testimonials of depressed individuals receiving ketamine infusions

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**Background:** To date hardly any clinical studies have investigated potential antidepressant benefits of Altered-State-of-Consciousness (ASC) phenomena in depressed patients receiving ketamine infusions. **Methods:** A search-word-guided qualitative analysis of internet video testimonials of such patients (n=62) was performed to investigate if ASC experiences during or shortly after the infusions were spontaneously reported to be associated with antidepressant effects. **Results:** We identified 14 ASC experiences which depressed individuals associated with antidepressant effects: feeling of lightness (n=14), sense of clarity (n=8), feeling out of body and/or separated from body (n=7), being on an imaginary journey (n=5), new perspective on personal problems (n=5), a kind of cognitive self-therapy (active analysis of one's psychological disorder; n=5), separation of thought from emotion (n=4), sense of peace (n=4), altered time perception/timelessness (n=3), feeling of floating (n=2), inner silence/reduction of negative inner speech (n=2), sense of beauty (n=2), all-encompassing love (n=1), and being "inside the body" (like a small person within one's own body; n=1). **Conclusions:** Some of these testified experiences cannot be captured systematically or precisely enough with current standardized ASC psychometrics. In order to investigate the antidepressant potential of the above-mentioned testified experiences more comprehensively, we created a new ASC scale – consisting of 11 subscales from the 5-Dimensional Altered States of Consciousness Rating Scale (5D-ASC) and new additional items. First preliminary results from this new scale from depressed patients receiving ketamine infusion are reported.

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### The development of the Bech-Rafaelsen Mania Scale (MAS) and the clinical applications of a 10-item modified subscale – the MAS-M

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**Background:** Released in the late 1970's, the Bech-Rafaelsen Mania Scale (MAS) was developed by Per Bech and Ole Rafaelsen. Bech called the MAS and the Bech-Rafaelsen Melancholia Scale (MES) a combined scale for measuring both positive and negative symptoms of bipolar disorder. The MAS has been put to use in landmark studies and an easy-to-use 10-item modified version (MAS-M) with superior psychometric properties has been developed for daily clinical applications. This presentation is a view on the development of the MAS and its scientific and clinical applications. **Methods:** A historical review of the MAS focusing on earlier landmark studies applying and validating the MAS. **Results:** These studies include a trial demonstrating that treatment

response in mania correlates to the plasma concentration of antipsychotics, a trial supporting the efficacy of lithium in acute mania and a comparison of the MAS with the YMRS and CGI. Also discussed are the development of a modified MAS scale (MAS-M) and the clinical utilization of the MAS-M in a hospital setting. **Conclusions:** The value and superiority of the MAS in scientific studies are well established. A modified scale shows potential for clinical adoption.

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### **Gut microbiota alters stress response and behavior in living mammals**

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There is increasing interest in the role of gut bacteria in maintaining the health of the host. It has also become apparent that the gut microbiota plays a major role in brain development and function. We reported for the first time in 2004 that gut microbes influence the development of the hypothalamic-pituitary-adrenal (HPA) reaction, which is a central integrative system crucial for successful physiological adaptation to stress. Elevation in plasma ACTH and corticosterone in response to restraint stress was higher in germ-free (GF) than in specific pathogen free (SPF) mice. The exaggerated HPA stress response in GF mice was reversed by reconstitution with *Bifidobacterium infantis*. This indicated that exposure to gut microbes was a critical environmental determinant that regulated development of the HPA stress response. This concept has now been integrated into an elaborate interaction between the microbiota, gut, and brain. Recently, several independent groups, including our own, have shown that gut microorganisms can affect the behavioral phenotype of the host. In fact, our behavioral analyses based on marble-burying and open-field behavioral tests showed that GF mice were more active and anxious than SPF mice. However, such behavioral phenotypes of GF mice were reversed by reconstitution with a predominant microbiota in the human gut. In this symposium, I'd like to talk about signaling between the gut microbiome and the brain with respect to the effect of gut microbes on the HPA axis response and host behavior, based on our series of animal experiments.

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### **Oral squamous cell carcinoma mimicking burning mouth syndrome in elderly patients: a case series**

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**Background:** Burning Mouth Syndrome (BMS) is a burning sensation in the mouth without any lesion. Up to 90% of oral cancers is Oral Squamous Cell Carcinoma (OSCC), which shows a red or white patch, a growing mass with ulceration. If the pain precedes in case of "scirrhous" OSCC, it may be diagnosed as BMS. We report 3 patients with OSCC mimicking BMS. Case1: a 68-year-old female with tongue

pain for several years. The white lesion on left side of her tongue was diagnosed as fibroma and followed up. The pain became severe and was different from the characteristic of the BMS pain. Case2: a 70-year-old male with tongue pain for half year. He had difficulty in swallowing, disturbance of morbidity and sensory paralysis. In MRI examination, mass under floor of mouth was found. Case3: a 90-year-old male with burning sensation of the tongue for one year. He had stomach carcinoma. Though no ulcer was found in oral cavity at first visit, induration was confirmed under the floor of mouth. **Conclusions:** Because most of BMS do not show any abnormalities in examinations, clinicians easily fall into a pitfall to diagnose BMS by a snapshot. With careful palpation and medical history intake, eliminating the possibility of OSCC is essential for diagnosis of BMS, especially when patients are elderly or have history of carcinoma. There is a report that scirrhous tongue carcinoma accounts for 5% of early stage tongue carcinoma. The clinicians should consider the possibility of OSCC in diagnosing BMS.

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### **Neural underpinning of interoceptive dysfunction, and an effect of interoceptive training**

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**Background:** Interoception is perception of afferent information that arises from anywhere and everywhere within the body. Interoceptive dysfunction was observed in several types of stress-related disorders with somatic symptoms. Recently, interoceptive awareness could be enhanced by biofeedback technique. Given that Anterior Insula (AI) cortex is one of key nodes of interoception, we hypothesized that AI were involved in individual differences in interoceptive dysfunction and an effect of interoceptive training. **Methods:** We conducted a longitudinal intervention study using the interoceptive training and obtained brain MRI before and after the intervention. Also, we evaluated interoceptive accuracy and somatic symptoms by using a heartbeat perception task and questionnaires from 12 healthy subjects (20.9±2.0 yrs). The study protocol was approved by the ethical committee of NCNP. Informed consent was obtained from each subject. **Results:** After the interoceptive training, somatic symptoms were reduced, interoceptive accuracy was enhanced from the baseline, and functional connectivity between AI and orbitofrontal cortex (OFC) was enhanced according to the effect of interoceptive training. **Conclusions:** The results suggest that neural network from AI to OFC is involved in individual differences in interoceptive dysfunction and an effect of interoceptive training. These findings provide the first evidence of neural underpinnings of a causal relationship between interoception and behavioral changes.

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## The effects of behavioral activation approach on depression among students affected by the Great East Japan earthquake

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**Background:** In this study, we used the Behavioral Activation Approach (BAA) for students affected by the Great East Japan Earthquake. In addition, we used Applied Improvisation (AI), which is derived from improvised theater, as a method to reduce psychological load to promote the effects of BAA. **Methods:** Participants comprised senior school students who had experienced the Great East Japan Earthquake. We administered the measures, CES-D and IES-R, pre- and post-intervention. The intervention consisted of 1 session, which lasted 50 minutes. The 172 adolescents were divided into two groups: one group was administered only the BAA (n = 72), and the other was administered both AI and BAA (n = 100). Students provided written informed consent prior to participation and the protocol was approved by the ethics committee from the authors' affiliated institution. **Results:** The results of an ANOVA (period (pre or post) x groups (BAA or BAA and AI) x High CES-D (over 16 cut-off point) or Low CES-D) showed that the interaction of the CES-D was significant (p = .001), but that of the IES-R was not. According to the interaction effects of CES-D, in the BAA and AI condition, the high depression group's post-intervention score was significantly lower than the pre-intervention score (p=.002); however, in the BAA condition, the low depression group's post-intervention score was significantly higher than the pre-intervention score (p=.007). **Conclusions:** This study suggested that AI can reduce the psychological load. Thus, it is important to promote AI to enhance the effects of psychological interventions.

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## Traditional and current approaches in Balint groups

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An experience will be held of a Balint Group in which a complicated case of a therapeutic relationship with a patient affected by psychosomatic symptoms, will be presented by a participant; thereafter the issues that emerged in the case presented will be discussed. The focus will be on the technical aspects involved and in the experience with the aim to increase relational therapeutic skills.

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## The Balint method for professionals in psycho-oncology

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The relationship between therapist and patient is influenced by expectations, phantasies, emotions, and consequent defence in both. The psychological aspects are conditioned by the setting, the personality of both the therapist and patient, by past professional, non-professional and recent and present experiences. These emotional burdens affect thought, influence relational attitudes and the decisions to be made, and are particularly influential in the treatment of cancer patients. This presentation illustrates a method of training for professionals in the health field: the Balint group. Balint groups offer an experiential technique that helps to enhance therapeutic ability through analyzing the dynamics within an interpersonal relationship.

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## Anti-social behaviors observed in Prader- Willi syndrome: a case report and literature review

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Prader- Willi syndrome (PWS) is a multisystemic complex genetic disorder which is characterized by lack of expression of genes on the chromosome 15q11.2-q13 region. Intellectual disability of individuals with PWS is often classified as mild to moderate mental retardation. Clinical features such as developmental delay, cognitive disability, behavioral problems, and self-injury are often observed. Anti-social behavior such as food stealing is likely observed, due to strong craving for food which is a consequence of multiple endocrine abnormalities. There are already several reports which focused on anti-social behaviors by individuals with mental retardation in general, but we know no studies in the past which focused on case of PWS. Although individuals with PWS often manifest mental retardation, their clinical features do not give an equivalent impression observed in individuals with genuine mental retardation. We would like to present a case of a 20 years old man with PWS which featured specific anti-social behaviors, and moreover consider the difference between individuals with PWS and genuine mental retardation through literature review. We suggest that specific cognitive function often observed in individuals with PWS may distinguish them from individuals with genuine mental retardation, thus contributing to their anti-social behaviors.

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## Low body weight seen in eating disorders means the body weight prior to the menarche, and this phenomenon means the existence of intracerebral calendar

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Low body weight seen in eating disorders means returning to the body weight prior to the menarche. These phenomena suggest a relation to the function of the intracerebral calendar which is thought to exist in the brain. Although patients themselves believe that the reduction in weight is for aesthetic reasons, the true meaning and the significance of this weight reduction to pre-menarche body and experiencing amenorrhea is so that the patient can experience the level of protection and support by their family and people around them. The patients are trying to walk forward positively in life as a member of the society corresponding to their current age as a woman while equipped with the highest possible level of security. It is thought that this animal brain calendar manages to change and develop the body shape and weight according to the age and cerebral maturity of the animal. Animal brains are similar to computers from birth to adulthood, a software for adults in their brain must be installed and updated consistently. The brain of a horse is so simple that the software can be installed in a short period of time of 4 years while the body weight of a horse increases to 500kg in that time. However, the complexity of the human brain requires numerous software to be installed and updated in the brain. Therefore, it can take 15 years to install, thus only reaching the bodyweight of 50kg in that time.

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### Assessment of psychosomatic factors in migraine patients: results of the PAINMIG study

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**Background:** Migraine is an invalidating disease which may interfere with patients' psychological status, quality of life, and functioning. Notwithstanding this, migraine has not been evaluated according to a psychosomatic perspective, that is psycho-social factors which might influence it. The present study was aimed at evaluating psychosomatic, psychosocial, and psychological variables as potential risk factors for migraine. **Methods:** Two-hundred subjects were enrolled at the Headache Centre of the Careggi University Hospital (Florence, Italy). One hundred subjects had a diagnosis of chronic migraine (CM) and 100 had a diagnosis of episodic migraine (EM). One-hundred healthy subjects (ES) were also evaluated from the general population as healthy controls (ratio case: control = 2:1). Participants completed a clinical assessment including: Structured Clinical Interview for DSM-5 (SCID-5); Clinical Interview for Depression (CID); Diagnostic Criteria for Psychosomatic Research-Revised - Semi-Structured Interview (DCPR-R SSI); Psychosocial Index (PSI); Mental Pain questionnaire (MPQ); Euthymia Scale (ES). **Results:** Among the variables considered, higher levels of mental pain (OR: 1.26; 95%CI 1.04-1.53) or more severe depressive symptoms were found as risk factors for CM towards being healthy; mental pain (OR: 1.33; 95%CI 1.10-1.62) was also found as a risk factor also for CM towards EM. **Conclusions:** Mental pain is a psychosomatic variable deserving attention in migraine patients.

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### Changing care settings related to eating disorders in Japan

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The number of patients with eating disorders (EDs) in Japan in 1998 had increased tenfold compared with that in 1980. However, the current care settings related to EDs in Japan continue to be incommensurate with the increased number of patients. In 2013, to overcome these problems, the Japanese Ministry of Health, Labour and Welfare decided to conduct a model project to establish a research and information centre and five treatment and support centres for EDs. The Fukuoka Prefectural Treatment and Support Centre for Eating Disorders was established at Kyushu University Hospital in 2015, and provides consultation support, advice and guidance to medical institutions, and educational activities for EDs. Furthermore, in Japan, there is an urgent need to establish a standard treatment effective for EDs. Therefore, we focused on enhanced cognitive behavior therapy (CBT-E), whose efficacy has abundant evidence in European countries, and are currently developing a multicentre randomized trial to verify the effectiveness of CBT-E for bulimia nervosa (BN) in Japan. Moreover, CBT-E for BN has just been covered by national health insurance in Japan. In order to calculate treatment fees at each facility, therapists should be trained and conduct the therapy according to the manual. Thus, we are providing CBT-E training seminars in addition to the dissemination of CBT-E. In the recent years, care settings for EDs in Japan have been changing in a positive direction; however, these changes are still insufficient to provide high quality care to many ED patients uniformly.

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### A case study on halitophobia with oral dysesthesia treated with low-dose aripiprazole

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**Background:** Halitophobia is defined by the excessive fear of having bad breath without clinical findings supporting the patient's complaints. This study reports a successful result of low-dose aripiprazole used for halitophobia with oral dysesthesia treatment. **Methods:** The patient is a 44-year-old female company employee who has a husband and two high school sons. The patient complained of a sensation of stringent taste film sticking on her tongue. She was also very anxious about her bad breath at the work place. Her past medical history included Meniere's disease and autonomic dystonia. **Results:** We prescribed 0.5 mg of aripiprazole for her symptoms, because she worried about drowsiness. One week later, she said "Two or three days after the first medication, the uncomfortable feeling in the mouth was somewhat relieved, and I could sometimes forget about the symptoms while

working. I think that my breath may not be so bad". No obvious side effects were observed except arousal during sleep for a few days. Four months after the first visit, her symptoms got worse again partly due to her job change, and we increased the dose of aripiprazole from 0.5mg to 1mg. Later, she said "Sometimes I was a little anxious about my breath, but I was sure I could manage it." Since then, her symptoms have continued to improve. **Conclusions:** Although the effective approach to halitophobia is not established, the current study indicated that a low-dose of aripiprazole to treat oral dysesthesia might be of clinical benefit in the improvement of halitophobia.

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### Characteristics of eating behavior among people with typical and atypical depression

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**Background:** We sought to evaluate differences in blood biomarkers and dietary habits between people with typical and atypical depression. **Methods:** We collected data from 804 Japanese elderly adults. Participants who were diagnosed with depression were further grouped into typical or atypical subtypes based on the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria. Descriptive analysis and multiple logistic regression analysis were used to evaluate the associations of blood biomarkers and dietary habits in people with typical and atypical depression. **Results:** Using structured clinical interviews, 777 participants were confirmed as not be depressed, and the remaining 27 people as having either typical (n=18) or atypical (n=9) depression. Weight, body mass index (BMI), HbA1c levels, and the proportion of non-drinkers were higher in the depressed group than in the non-depressed group ( $p < .05$ ). Atypical depression was positively associated with weight and BMI (odds ratio: OR 2.68, 95% CI 1.09-6.59, OR: 2.48, 95%CI 1.12-5.48), while typical depression was marginally related to only BMI (OR: 1.54, 95%CI 0.98-2.41). Typical depression was negatively associated with potato intake (OR: 0.54, 95%CI 0.30-0.95), while atypical depression was negatively associated with fruit intake (OR: 0.37, 95%CI 0.21-0.66). **Conclusions:** Depression among elderly adults was positively associated with weight and BMI. Furthermore, regular intake of healthy foods, such as potatoes and fruits, might decrease the risk of depression.

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### Actual status of Hikikomori support by public health nurses working for administrative organizations in Niigata prefecture

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**Background:** Hikikomori (social withdrawal) support has been provided by public health nurses working for administrative organizations (public health nurses) in Japan in cooperation with other institutions. Objective of the current study is to clarify actual status of Hikikomori support by public health nurses in Niigata prefecture. **Methods:** The study was conducted for 723 public health nurses in Niigata prefecture based on self-administrative questionnaire survey by mail regarding actual status of Hikikomori support and feeling of difficulty. Number of valid responses was 346. **Results:** Of all responders, 263 (76.1%) had experience of accepting consultation of Hikikomori with 253 cases (in total) of consultation acceptance per public health nurse. Proportion of consultation request from parents living together was larger, reaching 303 cases (in total). Approximately half of public health nurses with experiences of Hikikomori support responded they lacked knowledge about the support and felt sense of burden due to support provided for a long period of time. **Conclusions:** Approximately 70% of public health nurses had experience of withdrawal support. However, they provide supports while feeling a lack of knowledge regarding the support and burden for providing support for a long period of time as well. Therefore, it is required to figure out a withdrawal supporting method that may reduce sense of burden for the support.

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### Associations between social support, study engagement, and mental health outcomes in Japanese undergraduate students: a cross-sectional study

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**Background:** Previous studies revealed that there were positive associations between social support and study engagement. However, it was unclear what kinds of support was associated with study engagement. Moreover, it was unknown how study engagement was associated with various mental health outcomes. We aimed to examine the associations between social support, study engagement, and mental health outcomes in Japanese undergraduates. **Methods:** 705 students (age: 20±3 years) completed the questions about their demographic features, social support (J-MSPSS), study engagement (UWES-S-J), psychological distress (J-K6), insomnia (J-AIS), internet addiction (J-CIUS), and abnormal eating behavior (J-short form EBS). This study protocol was approved by the Ethics Committee of Hokkai-Gakuen University. **Results:** Multiple regression analyses revealed that there were significant positive associations between support from a significant other and engagement (dedication:  $\beta = .22$ ,  $p < .01$ ; absorption:  $\beta = .21$ ,  $p < .01$ ). Furthermore, an association between support from friends and engagement was

also significantly positive (vigor:  $\beta=.12$ ,  $p<.05$ ). Vigor had significant negative associations between psychological distress ( $\beta=-.23$ ,  $p<.001$ ), and insomnia ( $\beta=-.14$ ,  $p<.05$ ). Dedication had also significant negative associations between internet addiction ( $\beta=-.14$ ,  $p<.05$ ), abnormal eating behavior ( $\beta=-.13$ ,  $p<.05$ ). Absorption had only significant positive association between psychological distress ( $\beta=.24$ ,  $p<.001$ ). **Conclusions:** Specific social supports were associated with study engagement. Vigour and dedication had decreased various mental health problems although absorption had enhanced psychological distress.

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### Irrational beliefs and metacognition in eating disorder outpatients

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**Background:** While Cognitive-Behavioral Therapy (CBT) is considered standard treatment for Eating Disorders (EDs), to date the relationship between cognitive constructs of irrational beliefs, absolutistic, rigid, and negative thoughts, and metacognitive beliefs, evaluations of one's own thoughts, in ED outpatients has not been explored. **Methods:** Seventy ED outpatients who began CBT with integrated nutritional rehabilitation (mean age  $27.33\pm 11.50$  years and mean illness duration 7.76 years) were assessed with The Attitudes and Beliefs Scale-ABS-2, Meta-cognitions Questionnaire-MCQ-65, Eating Disorder Inventory 3-EDI-3, Eating Attitudes Test-EAT-40, Emotion Regulation Questionnaire-ERQ. A ex and age matched general population control sample ( $n=116$ ) was recruited. **Results:** ED outpatients showed significantly greater scores ( $p<.0001$ ) in dysfunctional metacognitive and irrational beliefs. Bivariate correlational analyses showed that metacognitive and irrational beliefs are moderately and significantly correlated with each other as well as with ED symptomatology. Metacognitive and irrational beliefs correlated significantly with emotion regulation strategies of cognitive reappraisal and suppression. Separate mediation analyses supported that negative metacognitive beliefs partially mediate the relationship between irrational beliefs and EDI-3 general psychological maladjustment and may mediate completely the relationship between ABS-2-total score and EAT-total score. However, cognitive reappraisal was predicted only by ABS-2 total score as negative metacognitive beliefs was not a significant mediator. **Conclusions:** Exploring the relationship between irrational beliefs and negative metacognitive beliefs of uncontrollability and dangerousness may increment the understanding maintenance mechanisms useful for CBT-based ED treatment planning. Results may underscore the possible clinical utility of integrating multiple cognitive constructs in the clinimetric assessment of EDs.

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### Alexithymia mediates the relationship of childhood trauma and impaired declarative memory performance in the general population

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**Background:** Previous studies suggested that persons with a history of childhood trauma show an impaired functioning of the declarative memory. However, existing results are not fully consistent, and the underlying mechanisms are incompletely understood. Alexithymia characterized by difficulties in identifying and describing feelings has been found to be associated with childhood trauma and may reduce learning and memory performance. Therefore, alexithymia may mediate the putative relationship of childhood trauma and impaired declarative memory performance. **Methods:** Associations of the different dimensions of the Childhood Trauma Questionnaire (CTQ) with adult verbal declarative memory performance were tested in two large, independent general population samples comprising a total of  $N = 5,574$  participants. Moreover, we tested whether the relation of childhood trauma and declarative memory performance were mediated by alexithymia (captured by the Toronty Alexithymia Scale-20) and its subfactors. **Results:** Childhood emotional neglect, but not abuse emerged as a negative statistical predictor of early as well as delayed recall of words. Likewise, childhood emotional neglect was the strongest statistical predictor for alexithymia. The association between childhood emotional neglect and early as well as late recall was significantly mediated by alexithymia. **Conclusions:** These findings suggest that childhood trauma and particularly emotional neglect have detrimental effects on adult memory declarative performance. Our results contribute to explain the mechanism underlying the relation of childhood trauma and memory deficits: Finding specific effects of emotional neglect and a mediating role of alexithymia highlights the role of emotions and the ability to process emotions for memory functioning.

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### Treatment of psychiatric comorbidities in epilepsy patients with different diagnostic systems and their relationship with quality of life

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**Background:** Epilepsy is a common chronic neurological disorder that affects and disrupts a person's daily life activities, functioning, and quality of life. Since epilepsy is often associated with psychiatric symptoms or diseases, it must be evaluated with a psychosomatic approach. The purpose of this study is to evaluate psychiatric burden in patients with epilepsy by using the Differential Diagnostic and Statistical Manual of Mental Disorders (DSM) system and Diagnostic Criteria for Psychosomatic Researches (DCPR) which is developed for psychosomatic disorder group in order to understand the

differentiation between these two classification systems. Also we aimed to examine the effect of psychosomatic diagnoses on the quality of life throughout the disease process. **Methods:** This study was performed with 100 voluntary patients diagnosed epilepsy who were admitted to Erenköy Psychiatry Hospital, Epilepsy Special Branch Policlinic of Neurology Clinic. All participants were administered with structured DCPR and Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I), as well as Data Collection Form and Short Form (SF-36). **Results:** 87% of the epileptic patients were diagnosed with DCPR, and 82% were diagnosed with SCID. When assessed by DCPR; 52% alexithymia, 44% type A behavior, 36% irritability, 35% disease denial, 35% permanent somatization, 35% demoralization, 22% somatic symptoms secondary to psychiatric disorder, 18% conversion, 7% thanatophobia, 7% health anxiety, and 7% disease fobia diagnoses were detected. Psychiatric disease was detected at 82% of epilepsy patients with SCID interview. The most common psychiatric comorbidities were depression (37%) and dysthymia (10%). While 90.2% (n:74) of the patients diagnosed with SCID were diagnosed with DCPR, 72% of the patients not diagnosed with SCID were diagnosed with DCPR. It was found that the diagnoses with DCPR were associated with a greater number of quality of life subscales and had stronger correlations. **Conclusions:** The psychiatric burden of the epilepsy is more successfully determined by the DCPR classification system than the DSM classification. Disorders determined by DCPR interview are related to quality of life.

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### Personality and fibromyalgia syndrome

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**Background:** Fibromyalgia Syndrome (FM) is a Functional Somatic Syndrome characterized by chronic pain, sleep disturbances, fatigue, cognitive changes and mood disorders. While many studies have highlighted high level of psychopathological disorders, the issue of a personality profile specific of FM is still debated. **Methods:** In this cross-sectional study, a group of 40 FM patients was compared to a group of 40 patients with Rheumatoid Arthritis (RA) and 40 Healthy Controls (HC). Personality Disorders (PD) and Personality Organization (PO) were assessed by means of the Structured Clinical Interview of Personality Disorder (SCID-5-PD) and the Structured Interview of Personality Organization (STIPO), respectively. **Results:** According to the SCID-5-PD, 32% of FM patients reported a PD, especially a Borderline or an Other Specified Disorders, compared to 7.5% of AR patients and 5% of HC. Regarding the STIPO, 42.5% of FM patients had a borderline PO, compared to 25% of AR patients and 7.5% of HC. In particular, FM patients had high impairments in the STIPO Coping-Rigidity, Primitive Defenses and Object Relations dimensions. Furthermore, the presence of a borderline PO has a statistically significant negative effect on depressive symptoms, global distress indices and somatization dimension of the Self-Report Symptoms Inventory (SCL-90-R), and on the mental component of the health-related quality of life (SF-36). **Conclusions:** Fibromyalgia patients showed a high prevalence

of a borderline PO, which negative impact on the psychopathological symptoms. The assessment of PO could be a crucial issue for treatment planning in chronic pain patients and should further be analysed.

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### Massimo Rosselli: man-medicine in Therapeutic Psychosynthesis

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Professor Massimo Rosselli was a student and close collaborator of Roberto Assagioli (the founder of Psychosynthesis) and one of the founders of the Italian Society for Psychosynthesis Psychotherapy (SIPT) and of the European Federation for Psychosynthesis Psychotherapy (EFPP). During his long career, Rosselli has been several times President of these Associations and Professor at the school of Psychosynthesis Psychotherapy of SIPT. Throughout the years Rosselli has performed an irreplaceable role within the Psychotherapy Psychosynthesis. He developed remarkable contributions both in the theory and in the clinical practice. Some key points studied by Rosselli were the central role of the Body in the psychotherapeutic process, the transpersonal dimension, and his original thought about the rights of the Soul. Massimo Rosselli has been a crucial figure in the world of psychotherapy and of psychosomatics. He had an infinite passion for the complexity of the human nature (bio-psychosocio-spiritual), leaving of all us a sense of gratefulness and encouragement in continuing his work.

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### The impact of ACP on patient's relationships

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**Background:** In the period 2013-2018 an important European study (ACTION) involving six countries, financed according to the 7<sup>o</sup> European framework, has been performed. The ACTION study dealt with the issue of advance care planning (ACP) in oncology and searched for evidence of its impact on patient and family. **Methods:** The analysis presented concerned four Italian cases (patients and their Personal Representatives) who took part in the Respecting Choices ACP intervention and, afterwards, in one or two research interviews aimed to understand their experience with the ACP programme and a Focus Group conducted with 4 facilitators of the intervention. A thematic analysis of the qualitative data was undertaken. **Results:** Some changes occurred in relation to the ACP process within the ACTION study: improvement of the healthcare professionals' communication skills; patients' empowerment; reflections and discussion within the



family about preferences for future treatments and care and about the impact of the disease on the whole family. **Conclusions:** Challenges in implementing the ACP process in Italy were mainly due to the lack of a legal framework regulating ACP and Advance Directives at the time of the study and to socio-cultural factors. The results indicate the importance of not reducing ACP to an individualistic or bureaucratic exercise. Indeed, the best interpretation of ACP seems to be the opportunity to work on a powerful, and relatively new, communication tool to be used when dealing with serious disease.

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### A case report of severe psoriasis

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**Background:** Severe psoriasis can have a very negative impact on patients' quality of life. Apart from offering the best treatment available, these patients have other needs which should be addressed in order to help them cope and manage their everyday life. Health professionals need formulate open questions to better understand how the psoriasis is affecting the lives of these patients and to identify possible areas of intervention. **Case presentation:** We present a 46-year-old Caucasian male with a history of severe psoriasis. According to the patient, his skin condition has had a negative impact on his personal, social and work circumstances. He is divorced and has a nine-year old daughter whom he looks after. He finds it very difficult to maintain a stable job due to his physical health and he tends to feel sorry for himself and manifest depressive symptoms. He feels stigmatized due to the visibility of his psoriasis on his face, hands and nails, parts of the body he cannot hide, and finds it difficult to find a partner. He has poor coping strategies, and this affects his self-esteem and his self-worth. He would like to be more proactive, but there is always something that happens in his life to interfere with his plans to do things. **Conclusions:** This case is a clear example of the need for a bio-psycho-social approach.

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### Minding the skin

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The skin is in many ways the most fundamental sense organ. We can live without sight, hearing, taste and smell, but we cannot survive if the greater part of our skin is not intact. The skin is an ever-present feature of the subject's experience of embodiment, and it is also an ever-changing one. The skin allows us to sense and perceive our life, as well as to be sensed and perceived by others. Authors such as James Joyce, Paul Valéry and Anzieu have referred to the skin their writings: The surface of the body is the deepest part of the human being. The skin makes occupying a place in space and time possible. The skin is an archive of past experience, a cartography of identity.

Thus, the important role of dermatologists who look after our skin when it is ill, bad or disabling. And because the skin is visible to others as well as to us, as well as it being such an important sense organ, it is of vital importance to ask about the burden of the skin condition and the effect on quality of life. Health professionals need to be well trained in communication skills in order to help patients open up and talk about the emotional impact of their skin condition. Applying a holistic and effective approach will increase patient satisfaction, help to set realistic goals and improve adherence to treatment.

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### Psychological well-being and positive outcomes in eating disorders outpatients

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**Background:** Positive functioning is neglected in Eating Disorder (ED) research. Specifically, while first-line treatment of Cognitive Behavioral Therapy (CBT) is known to reduce symptomatology, changes in positive functioning are underexplored. The aims of this controlled study were to assess Psychological Well-Being (PWB) in out-patients with EDs and to evaluate PWB changes following CBT-based treatment. **Methods:** 245 ED outpatients and 60 controls were assessed with: EAT-40, GHQ-30, and PWB. All patients underwent CBT-based treatment integrated with nutritional rehabilitation. MANCOVA, correlational analyses, and Wilcoxon signed rank tests were conducted to test differences between diagnostic groups, relationships between psychological well-being and eating symptomatology, and changes in psychological well-being. Seventy-five outpatients completed treatment and all measures at time of analyses and were analyzed for psychological well-being changes. Post-treatment PWB scores of 51 patients considered remitted by end of treatment were compared to control scores by Mann-Whitney U tests. **Results:** Significant differences between groups in all PWB scales were found. BN patients reported the lowest scores in all PWB dimensions compared to controls. In all ED groups, PWB dimensions resulted significantly and negatively associated with eating symptomatology, independently of distress and illness duration. Significant gains in all PWB dimensions, with moderate effect sizes in Environmental Mastery, Personal Growth and Self-acceptance were reported. Remitted patients showed significantly lower scores in Positive Relations and Self-acceptance compared to controls.

**Conclusions:** Definitions of remission in EDs may benefit from considering changes in positive functioning in addition to the standard measurement of body mass index and eating-related parameters.

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### Acute effect of body-mind practices and circuit training on instantaneous wellbeing in inpatients with major depressive episode

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**Background:** Physical activity has chronic effects on depression and well-being on mood disorders. However, few studies are designed to measure its acute effects. The present study aims to evaluate the acute effect of one circuit exercise session and one body-mind practice on instantaneous well-being in inpatients diagnosed with Major Depressive Episode (MDE). **Methods:** This is a randomized cross-over trial, with three acute interventions: body-mind (yoga, mindfulness, and relaxation), circuit exercise and control. Instantaneous wellbeing was measured by the question: "How do you feel now?" with a visual analogue scale. Each patient was submitted to the three interventions with 30 to 40 minutes duration. The circuit exercise consisted of 5 minutes warm, 4 sets of weight-lifting for upper body and lower body exercises, with a 3-minutes bike in-between. The body-mind session consisted of mindfulness practice on breathing, yoga asanas, and relaxation. The control session consisted of painting or drawing tasks. Generalized Estimated Equation procedure (GEE) was used, looking for group and time effects and group\*time interaction effect. **Results:** Fifteen participants are included so far (age: 38.5±13.2), 80% women, 60% unipolar major depression, and 40% bipolar depression. The GEE analysis showed a significant time effect, with no significant group (p>.05) effect nor group\*time interaction (p>.05) suggesting that all participants improved similarly with no significant difference between groups. **Conclusions:** Preliminary results with 15 subjects showed only a time effect on instantaneous wellbeing for all activities. Sample size estimation is 60 subjects for final results.

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### Treatment of osteoporosis with Teriparatide in anorexia nervosa patients

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**Background:** Osteoporosis is one of the common complications in Anorexia Nervosa (AN) patients. Bone mineral density (BMD) in AN patients are low due to the shortage of nutrition and the low level estrogen. As a result, 50% of AN patients at the first visit are diagnosed as osteopenia. The best way to treat osteoporosis in AN patients is to take enough in nourishment and increase their weight, but actually it is very difficult. We have successfully treated osteoporosis of AN patients with fragility fractures in by Teriparatide. The objective of this study is to evaluate the effect of Teriparatide for osteoporosis in AN patients. **Methods:** We have treated 2 female patients, with their age 42 and 59 respectively. They were diagnosed as restricting type AN and received therapy with psychosomatic medicine. Their period of amenorrhea is 9 and 18 years, respectively. Their BMD of lumber spine are 0.58 and 0.61g/cm<sup>2</sup>, respectively. The initial treatments of both patients were Vitamin D, raloxifene and bisphosphonate. Fragility fractures occurred in both patients during the treatment, so we had switched the treatment to Teriparatide. The blood exam, X-ray (the thoracic and lumber vertebra) and BMD were checked during treatment on a routine basis. **Results:** Their BMD of lumber spine increased 16.7% and 15.6% respectively from base line within 2 years. There was no additional fracture in one patient and no complication has occurred. **Conclusions:** Teriparatide is one of the most effective medical agents for treating osteoporosis in AN patients.

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### The impact of personality dimension in patients with medically unexplained oral symptoms

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**Background:** Personality dysfunction is suggested to be one of the most clinically highlighted problems of patients with a somatic symptom disorder, which partly includes Medically Unexplained Symptoms (MUS). Previous studies suggested a specific personality profile (using Big 5 Traits Inventory) for MUS patients but there are no study specifically targeted patients with Medically Unexplained Oral Symptoms (MOUS). In this study, we attempted to identify whether personality traits are correlated with symptom intensity and symptom-related health outcomes of MOUS patients. **Methods:** Data of 353 patients with MUOS from June 2018 to March 2019 were retrospectively reviewed. Patients' sex, age, psychiatric history were collected along with symptom intensity, depressive status, catastrophizing aspect, somatic symptom burden, and central sensitization index. Personality was assessed using the Japanese version of Ten Items Personality Inventory. The associations between personality dimensions and health outcomes were investigated using multiple regression analysis. **Results:** Data of 307 patients (83.4% female, mean age: 60.67±14.09 years, 49.5% had no psychiatric diagnosis) was available for analysis. After controlling for age, sex and presence of psychiatric history, three traits (Extraversion, Agreeableness, Neuroticism) were significantly associated with depression, catastrophizing, somatic symptom burden, and central sensitization (p<.05)

while the other twos (Consciousness, Openness) show less impact on central sensitization or somatic symptom burden. No significant impact was found between any personality dimensions and symptom severity. **Conclusions:** Personality might play a salient role in MOUS patients' clinical experiences. In contrast with other personality traits, the Neuroticism negatively affected a variety of health outcomes.

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### **An investigation of behavioral factors influencing elderly anorexia nervosa**

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**Background:** This study is to examine the clinical characteristics of elderly anorexia nervosa patients who visited our department for the first time. **Methods:** We conducted a retrospective study of patients with anorexia nervosa who first visited our department from January 2017 to December 2018. We extracted and examined data such as age of onset, periods from onset to specialized treatment, body mass index (BMI), and behavioral factors. Patients older than 30 years of age at the time of the first visit were defined as the elderly group, and others as the younger group. **Results:** During the period, 86 patients of anorexia nervosa had visited our department. The number of the elderly group was 31 people and the age was between 30 to 68 (mean 38±9.95 years). There was no significant difference in BMI in the elderly group and the younger group. The estimated onset age was significantly higher in the elderly group than in the younger group. In addition, periods from onset to specialized treatment were significantly longer in the elderly group. They had more constipation ( $p=.032$ ) and laxative abuse ( $p<.001$ ). **Conclusions:** For the first time, the elderly group visited a hospital not to receive a specialized treatment for anorexia nervosa but to receive a treatment for constipation and laxative abuse. The medical personnel may need to let the elderly get a medical examination anorexia nervosa as soon as possible.

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### **Effective Strategies to Reduce Teachers' School Stress in Japan: In the view point of changing their own cognition**

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**Background:** In Japan the number of teachers who file a long leave because of mental problem have increased compared with other professions. They have responsibility on their classes and try to deal with their problems alone. Therefore, they have low orientation to seek help and tend to get really stressed. To reduce their stress, changing their cognition is necessary. **Methods:** We interviewed 186 experienced teachers in elementary, junior and high schools. Mean age was 46.66 years. We asked them about their main stress in school and how they deal with it. Their statements were analyzed by

KJ method and KH coder to find effective way of thinking. **Results:** Main stress was caused from parents, especially for elementary school teachers (80/222 statements). Various effective ways of cognition to reduce the stress were found in their statements. First, figuring out their own limitation by themselves: "I can do it within this point, but I can't do it beyond here.," "I have something that I cannot do." Second, widening their schema of cognition to try to accept others' help, "This class is not mine but our class". Before meeting, "It's only 15 minutes to talk with that parent". Third, trying to shift into being half-way tempted to give it up because passionate teachers try to resolve the problem completely and it makes them point into a corner by themselves. **Conclusions:** We will discuss the possibility to use these ways of cognition as preventive treatment for education students.

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### **Different ways to take care of pain and suffering in chronic illness: painting, writing one's live story, narrative medicine and visualizations**

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Disease in general and chronic disease leads to disruption of balance of the human organism and is often accompanied by physical pain and psychological suffering. Different treatment approaches may be used in an attempt to help the patients to cope with the burdens of the disease. In the interactive workshop we will present several techniques used successfully by the authors while dealing with patients suffering from various diseases: 1. The use of images that raise different emotions and interpretations among the patients as related to personal suffering as well as to all the previous life experiences; 2. Self-writing has been proven useful both for the patient to make sense of his own experience but also for the medical staff who become more aware of their emotional responses to difficult and emotionally involving situations; 3. Still another technique consists of spontaneous imagination and identification with the presented images. The technique induces an intermediate and nuanced state between the waking and sleeping sleep states and allows visualizing emotions and bodily representation creating a symbolic form and representation.

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### **Exploring dynamics in paranoia after a positive psychology group intervention: Network Analysis with ESM**

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**Background:** The promotion of well-being is an essential element in the recovery process of any mental health problem. Despite a traditional pessimistic view of prognosis in psychiatry, there is now a greater awareness of the need for a positive perspective that focuses not only on reducing symptoms but also on well-being and positive psychosocial functioning. The aim of the current study was to analyse changes the interaction of processes after a positive psychology group intervention, using Experience Sampling Methodology (ESM) and Network Analysis. Network Analysis has recently appeared in the field of psychopathology as an alternative to study mental disorders, allowing the study of the symptoms and processes dynamics over time with time-series data. **Methods:** The sample consisted of 50 patients who were currently in individual psychotherapy as usual in a University Clinic with paranoia scores one standard deviation above the average in the sub-scale SCL-R-90 of paranoia. ESM protocol included 10 times assessments per day during one week before and one week after the intervention. **Results:** Before the intervention, paranoia predicts a lack of connection with others, which in turn predicts a negative affection and that predicts a low self-esteem, while after the intervention these connections disappear. **Conclusions:** The results revealed differences in the dynamic of processes associated to paranoia before and after the intervention.

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### Missed somatic diagnosis, adverse childhood experiences, childhood sexual abuse and treatment outcome in conversion disorder. A clinical epidemiological study

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**Background:** The association of treatment outcome with patient factors such as Adverse Childhood Experiences (ACE) in Conversion Disorder (CD) has not yet been explored. Although indications are that misdiagnosis in CD dropped over the last decades, a recent estimate is lacking. **Methods:** Clinical cohort of consecutive outpatients with CD visiting a Clinical Centre of Excellence for Somatic Symptom Disorders and Related Disorders (CLGG) in the Netherlands. Prevalence of misdiagnosis in CD was established. Associations of predictors with treatment outcome in CD were explored. **Results:** Of 73 patients, mean age 43 years, 66% started psychiatric treatment more than 12 months after onset. A mean 5 years elapsed before presentation at CLGG. Nine patients (12%) with alleged CD at referral turned out to suffer from an underlying, previously unrecognised somatic disorder that caused the symptoms originally deemed CD after re-examination at intake. In the confirmed CD cases, at end of treatment, mean Physical Symptoms (PSQ) had dropped from 24.8 to 16. However, patients with sexual abuse in childhood

had PSQ score 33.7(10.1) versus 9.1(1.6) in case of no sexual abuse as treatment outcome ( $p=.001$ ). General ACE, recent life events and having first degree family members with mental disorders were not significantly associated with treatment outcome. **Conclusions:** The high rate of a late diagnosis of an underlying somatic condition (12% after mean 5 years) despite current possibilities for somatic diagnostic procedures makes diagnostic somatic follow up of chronic alleged CD highly relevant. Childhood sexual abuse is significantly associated with poor treatment outcome. Larger prospective studies are warranted.

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### Psychosomatic matters

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**Background:** One of the tremendous challenges in development is to learn how to cope with stress. The innate neurobiological and the immune system help face, combat and absorb stress. Yet none of these systems makes any difference between mind and body. Therefore stress is often perceived as pain, muscular tension of manifests in the respiratory, nervous or cardiac system. **Methods:** Examine the stress management systems and their relation to physical expression of disorder in order to understand patient's misery and healthcare system overload. **Results:** It appears that mostly a very well treatable anxiety or mood condition underlies severe physical symptoms. Patients benefit far more from psychotherapy (individual and/or systemic) than from many medical tests. **Conclusions:** Medical doctors should take a more context and comprehensive approach to symptoms in their patients and have basic knowledge of psychotherapy to better help their patients with psychosomatic symptoms.

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### A map of cognitive and affective changes after CBT and Positive Psychotherapy: a network analysis

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**Background:** Although there is robust evidence on the efficacy of positive psychology interventions to increase well-being and reduce depression, little is known about whether they facilitate a reorganization of the connections between psychological variables. **Methods:** We used Network Analysis (NA) to explore the topography of changes in clinical symptoms and positive functioning variables after a Positive Psychology intervention (PPI) and a Cognitive-Behavioral Therapy (CBT) program for depression. Clinically depressed women were blindly allocated to either a PPI ( $n=45$ ) or a CBT ( $n=48$ ) 10-week group treatment. **Results:** Although both CBT and PPI were efficacious in reducing depression, NA showed that the PPI program was the only one that significantly changed the structure of the network of psychological

elements. **Conclusions:** The results showed that both hedonic and eudaimonic elements played a substantial role in the reorganization of the network, becoming key connecting elements between the group of clinical variables and the group of positive functioning variables.

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### Effects of Holistic Psychotherapy and mindfulness on quality of life, pain, and temperament and character in women affected by fibromyalgia

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**Background:** The goal of this study was to verify the effect of Holistic Psychotherapy with Mindfulness-based training in Fibromyalgia women. **Methods:** Thirty-five patients treated and 40 not treated were assessed via: ASQ-Anxiety, CDQ-Depression Fibromyalgia-Impact-Questionnaire (FIQ); Dallas-Pain-Questionnaire (DPQ); Temperament and Character Inventory (TCI-140). Thereafter, they received a 9-month treatment based on holistic psychotherapy (therapeutic psychosynthesis) and mindfulness. **Results:** A significant reduction of pain levels, anxiety, depression, an improvement of quality of life (FIQ) and positive modification of different dimensions of temperament and character (TCI) were found in the experimental group as compared to the control group. ASQ:  $z=-.922$ ,  $p<.001$ ; CDQ:  $z=-.2097$ ,  $p=.036$ ; FIQ:  $z=-2934$ ,  $p=.003$ ; TCI Impulsiveness:  $z=-1965$ ,  $p=.049$ ; TCI Perfectionist:  $z=-2321$ ,  $p=.020$ . Comparing empathy vs social indifference, we found:  $z=-2137$ ,  $p=.027$ ; self-forgotten vs self-conscious experience:  $z=-2137$ ,  $p=.033$ ; transpersonal identification vs self-isolation:  $z=-1976$ ,  $p=.048$ ; spiritual acceptance vs rational materialism:  $z=-2876$ ,  $p=.004$ . In addition, patients in group psychotherapy showed higher quality of life, lower pain, higher reflectivity and lower impulsiveness, more pragmatism, increased empathy at the end of treatment than subjects in the not treated group. **Conclusions:** The holistic psychotherapeutic intervention is effective in reducing pain, improving quality of life, and some temperament and character dimensions. The results are stable over time (after six months from the end of treatment).

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### Spirituality and quality of life in palliative care: effects of spirituality on the quality of life and mood in patients and health-workers

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**Background:** Spirituality plays an important role in managing the patient's illness. We wonder if awareness of the spiritual dimensions of healthcare workers also guarantees a positive attitude of terminal cancer patients in dealing with medical

care and helps support them in their spiritual affliction. **Methods:** Two samples: patients affected by terminal cancer (n=60); 2) health workers (n=83) providing care to people with advanced stage cancer. Tests: Scale of Inner-Spirituality, Spiritual-Well-being, Spiritual-Coping from BMSRI-Brief Multidimensional Spirituality/Religiosity Inventory-Fetzner Institute; SASB-Structural-Analysis of Interpersonal Behaviours (intrapsychic); FACT-QoL (only patients). **Results:** Among Health-workers we found some dimensions correlated with low Inner-Spirituality. The health-workers are not always in contact with his own feelings and needs, respect and accept them (SASB-C12:  $r=-.468$ ,  $p<.001$ ), have a medium-low ability to protect oneself (SASB-C14:  $r=-.301$ ,  $p=.033$ ) and to develop one's abilities (SASB-C13:  $r=-.450$ ,  $p<.001$ ). The self-care is medium-low. Among patients, we found FACT-QoL-spirituality dimensions: Spiritual-well-being-FACT-Total score ( $r=-.356$ ,  $p=.011$ ); Inner-Spirituality-FACT-Total score ( $r=-.381$ ,  $p<.006$ ); Spiritual-Coping-FACT-Total score ( $r=-.391$ ,  $p<.005$ ). **Conclusions:** Patients connected to spirituality are more optimistic towards life, resistant towards stress, and their quality of life better is than those without this dimension. Spirituality offers patients support, hope, meaning to life, thus improving the quality of life. Health workers should be aware of the importance of the spiritual dimensions for the patients suffering from terminal diseases. Our results suggest the importance of introducing a spiritual practice (meditation- technique of Observer-Therapeutic Psychosynthesis) for health workers for two reasons: spiritual practice, which encourages listening and self-awareness, can allow them to understand the spiritual needs of the patients; it can be an effective means of stress management for the health-workers.

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### At ease-subjective effects of MDMA in placebo-controlled studies with healthy subjects

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**Background:** 3,4-Methylenedioxymethamphetamine (MDMA, "ecstasy") is widely used recreationally. However, MDMA is also being investigated as a new medication for the treatment of post-traumatic stress disorder. This study was designed to characterize the subjective effects of MDMA in healthy volunteers. **Methods:** The present pooled analysis included data from nine randomized, double-blind, placebo-controlled, cross-over studies in a total of 162 healthy subjects (82 females) receiving a single dose of 125 mg of MDMA. Outcome measures included the five Dimensions of Altered States of Consciousness scale (5D-ASC) administered once after the drug effect, and a series of visual analogue scales (VASs) administered repeatedly during the drug effect to assess the area under the effect-time curve (AUEC<sub>0-6h</sub>). Outcome values are reported as differences from placebo ( $\Delta$ ). Sex differences were assessed after correcting for MDMA plasma concentration. **Results:** MDMA significantly increased the scores of all subscales on the 5D-ASC. However, the effects of MDMA on the 5D-ASC were rather small ( $\Delta$ 5D-ASC total score, % mean $\pm$ SD]  $13\pm 11$ ;  $p<.001$ ) with most distinct effects in the subscales blissful state and experience of unity ( $\Delta$ rating score, %mean $\pm$ SD:  $37\pm 32$  and  $21\pm 26$ ,

respectively; both  $p < .001$ ). MDMA acutely enhanced ratings of feelings of openness, talkative, trust, and closeness to others on the VASs ( $\Delta AUEC_{0-6h}$ , %mean $\pm$ SD:  $95 \pm 136$ ,  $48 \pm 151$ ,  $118 \pm 135$ , and  $71 \pm 123$ , respectively; all  $p < .001$ ). Talkative ratings were more pronounced in men than women ( $\Delta AUEC_{0-6h}$ , %mean $\pm$ SD:  $63 \pm 117$  vs  $34 \pm 178$ , respectively;  $p = .04$ ). **Conclusions:** At a dose of 125 mg, MDMA displays strong empathogenic effects that may be beneficial for the therapeutic success of MDMA-assisted psychotherapy.

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### Evidence for an enhanced procoagulant state in remitted major depression

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**Background:** Depression is associated with an increased risk of incident atherothrombotic disease. An imbalance in the hemostatic system towards hypercoagulability is one mechanism to explain this link in patients with major depressive disorder (MDD). We examined whether patients with remitted MDD also show an enhanced procoagulant state.

**Methods:** Study participants were 63 individuals (median age 35 years, 59% women), 40 with MDD who had achieved remission for at least six months and 23 healthy controls. A clinical interview was applied for making a diagnosis of DSM-IV MDD and to assess its course. Participants self-rated the severity of residual depressive symptoms and trait anxiety. Blood samples were collected for the measurement of fibrinogen, D-dimer, von Willebrand factor, and plasminogen activator inhibitor-1. Standardized z-scores of plasma levels of these hemostatic factors were added to form a procoagulant index (PCI) as the primary outcome variable. **Results:** Compared with controls, remitted MDD patients had significantly higher PCI ( $p = .013$ , Cohen's  $d = .69$ ) and fibrinogen levels ( $p = .001$ ,  $d = .91$ ), controlling for age, sex, body mass index, smoking and C-reactive protein. There were no significant associations of the PCI and individual hemostatic molecules with age of MDD onset, time since the last MDD episode, the number of previous MDD episodes and residual depressive symptoms. Additional adjustment for anxiety symptoms did not change these results. **Conclusions:** Remitted MDD is associated with an enhanced procoagulant state. Hypercoagulability seems more a trait than a state characteristic of depression, emphasizing a need for cardiovascular prevention not only in current but also remitted MDD.

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### Effects of Well-Being Therapy in a patient with demoralization as residual symptom of panic

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**Background:** Although acute panic attacks tend to fade away quickly, residual symptoms could last and lead to social

function impairments. Since patients with residual symptoms (especially depressive ones) showed to benefit from Well-Being Therapy (WBT), it is hypothesized that also demoralization, as residual symptom of panic, might be a good candidate for WBT. **Case description:** X is 24-year-old lady diagnosed with panic with social anxiety who discontinued escitalopram (15mg/day) after partial recovery. Thereafter, she was referred to the Shenzhen Chinese Medicine Hospital for psychotherapy. She was initially assessed with the Diagnostic Criteria for Psychosomatic Research - Revised (DCPR-R), a semi-structured interview which showed demoralization and irritable mood. X. was also assessed via the 42-item Psychological Well-Being Questionnaire (PWB) (baseline score of 25 in Autonomy, 32 in Environmental Mastery, 35 in Personal Growth, 40 in Positive Relations, 36 in Purpose in Life and 25 in Self-acceptance). Thereafter, 6 sessions of WBT were administered. At the end, X. did not satisfy anymore the diagnosis of demoralization according to the DCPR-R, and PWB Autonomy and PWB Self-acceptance increase of 40% and 48%, respectively. She also scored 2 in the Kellner's scale. **Conclusions:** WBT allowed to increase the sense of autonomy and self-acceptance in the patient and to coordinate imbalanced sense of well-being, it also gave benefits in terms of demoralization.

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### Increased somatic symptoms in vascular cognitive impairment patients with subthreshold depression: implications from Chinese Medicine syndrome differentiation

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**Background:** Chinese Medicine Syndrome Differentiation is typically determined by global somatic symptoms from the point of holism. Although the complex relationships between depression and Vascular Cognitive Impairment (VCI) have been well studied in the elders, the association of subthreshold depression and somatic symptoms in VCI patients remains unclear. **Methods:** Patients with VCI were consecutively enrolled between December 2016 to December 2018. They were divided into VCI+D (with subthreshold depression) and VCI-D (without depression) according to HAMD-17 score (8 to 16 vs  $\leq 7$ ). The total points of Syndrome Differentiation Score of Vascular Dementia (SDSVD) scale were introduced to evaluate the sum somatic symptoms burden. This scale consisted of 7 different Chinese Medicine (CM) syndromes with each syndrome scored from 0 to 30. Beijing version of the Montreal Cognitive Assessment (MoCA), demographic characteristics and cardiovascular factors were also recorded. **Results:** Of the 332 VCI patients that formed the study sample (mean age:  $64.58 \pm 8.40$  years; 46.39% women), 154 VCI+D patients (46.38%) were identified (mean HAMD score  $11.16 \pm 2.50$ ). Even though sharing the similar MoCA score, age, education year and cardiovascular factors (all  $ps > .05$ ), VCI+D patients had significantly higher SDSVD scores ( $t = 2.852$ ,  $p = .005$ ), when compared with those of VCI-D. SDSVD scores positively correlated with HAMD-17 scores ( $r = 0.184$ ,  $p = .001$ ) and negatively correlated with MoCA scores ( $r = -.118$ ,  $p = .031$ ). **Conclusions:** Subthreshold depressive symptoms

could increase somatic symptoms in VCI patients. The evaluation of somatic symptoms burden from Chinese Medicine “holism” could facilitate developing global psychosomatic evaluation.

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### **Altered resting-state brain activities in subcortical vascular mild cognitive impairment: dissociation of different Chinese medicine patterns**

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**Background:** It is a fundamental practice in Chinese Medicine (CM) to subdivide subcortical vascular Mild Cognitive Impairment (svMCI) into different patterns, based on CM “holism” theory. Deficiency pattern (DP) and excess pattern (EP) stand for two basic and opposite manifestations in svMCI, but the behind neural mechanism remains unclear.

**Methods:** A total of 37 patients (PA) and 23 healthy controls (HC) were consecutively enrolled between December 2016 to December 2018. Patients were subdivided into 21 DP patients and 16 EP patients according to the Syndrome Differentiation Score of Vascular Dementia (SDSVD) scale. This scale consisted of 7 different CM patterns. Each pattern with scores more than 7 would be labelled as DP and EP, respectively. Differential fractional amplitude of low-frequency fluctuations (fALFF) values were studied using Students' two sample t - test. **Results:** PA group had significantly lower fALFF in the left superior and medial frontal gyrus, and higher fALFF in the right cerebellum (corrected p value < 0.05, AlphaSim), when compared with CN group. EP group had significantly lower fALFF in the left orbitofrontal gyrus and higher fALFF in the left cerebellum (corrected p value < 0.05, AlphaSim); in contrast, DP group had significantly lower fALFF in the right middle frontal gyrus and higher fALFF in the right cerebellum (corrected p value < 0.05, AlphaSim).

**Conclusions:** Functional brain activity lateralization in DP and EP may contribute to biological measures for better stratification of heterogeneous svMCI patients.

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### **Clinical efficacy of abdominal acupuncture in the treatment of vertigo**

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**Background:** Vertigo is a common symptom in patients with psychosomatic diseases. Abdominal acupuncture therapy, which is based on the theory of traditional Chinese medicine and abdominal meridians, while takes the theory of Shenque

regulation system as the core, can improve the blood circulation of the head, and has a certain effect on vertigo by regulating qi and blood with acupuncture of abdominal points. **Methods:** The clinical manifestations, treatments, case characteristics and prognostic data of a patient with psychosomatic diseases whose chief complaint was vertigo and treated with abdominal acupuncture in the First Hospital of Hebei Medical University were analyzed. The clinical effects of abdominal acupuncture on vertigo were discussed in combination with literature and clinical experience. **Results:** After abdominal acupuncture treatment, symptoms of the patient were significantly improved. The long-term effect of follow-up is ideal. **Conclusions:** Abdominal acupuncture therapy for vertigo is painless, convenient and has little side effects, which is worthy of further clinical promotion.

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### **Pain is pain. How do pain patients with migrant backgrounds perceive the cultural competence of their health care providers?**

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**Background:** Previous research shows treatment differences between migrant patients and the majority population in various medical fields including pain. We aimed to explore how pain patients with migrant background perceive the cultural competence of their health care providers. **Methods:** In the Southwest of Germany, qualitative interviews with 12 professionals (anaesthesiologist and other physician specialists, psychotherapists, physiotherapists and a pain nurse originating from Germany as well as Tunisia and Russia) and 21 migrant patients were conducted. Qualitative data were analysed using MAXQDA. A content-structuring qualitative content analysis according to Kuckartz was carried out. Here, we report on the results of the patients' interviews. **Results:** Patients with a migration background do not necessarily confirm stereotypical behaviour in terms of a more intensive pain expression. For example, an Italian patient reports lack of understanding among her relatives regarding the intensity of her pain as she tries to hide it from her family. Language barriers are not always a problem among pain patients when living in Germany for decades. However, some patients reported experiencing language barriers when confronted with elaborated German language questionnaires. **Conclusions:** In view of the increasing heterogenization of society, it is necessary to address the socio-cultural needs of pain patients in a clinical treatment context. Therefore, culture-sensitive materials and workshops for health professionals may be useful to complement their own expertise. Furthermore, individual socialization experiences may shape the patient's perception of pain as much as socio-cultural norms and values and should be understood as well.

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## Effect of low dose aripiprazole on amitriptyline-intolerant burning mouth syndrome

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**Background:** Amitriptyline is known to be effective for treatment of chronic oral pain including Burning Mouth Syndrome (BMS). However, due to limited patients with efficacy, many side effects, and difficulty in using for the elderly, development of novel safe and effective treatments is awaited. Recently, we report cases in which aripiprazole is effective for patients with BMS. The purpose of this study is to compare the effectiveness and safety of amitriptyline and aripiprazole in treatment of BMS. **Methods:** We retrospectively and consecutively analyzed data from 73 patients (51 patients were prescribed amitriptyline, and 22 patients were prescribed aripiprazole) who had been diagnosed as BMS and underwent ECG, blood prolactin level monitoring and ExtraPyramidal motor Symptoms (EPS) monitoring. Visual Analogue Scale (VAS) and Pain Catastrophizing Scale (PCS) were examined before and after treatment. **Results:** VAS and PCS showed a significant decrease in amitriptyline group, PCS in aripiprazole group. In the amitriptyline group, we observed an increase of HR, shortening of QT and QTc. On the other hand, in the aripiprazole group, these significant changes were not observed. Moreover, Hyperprolactinemia and EPS were not found in patients in the aripiprazole group. Finally, it was revealed that VAS improvement in amitriptyline group, and PCS improvement in aripiprazole prescription group correlated significantly with QTc prolongation. **Conclusions:** As a result, it was suggested that aripiprazole could be a safe new treatment for patients who cannot use amitriptyline. Moreover, the changes in QTc may be a non-invasive estimation of clinical response to amitriptyline and aripiprazole in BMS patients.

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## The difference in the clinical characteristics of unilateral Oral Dysesthesia patients with or without trigeminal neurovascular compression

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**Background:** Oral Dysesthesia (OD) is a disease with anomalous sensation such as foreign body feeling and bitterness, even though there is no organic disorder in the oral cavity. In addition, there are also patients who complain of symptoms not only throughout the oral cavity but also localized to the right or left side. The relationship between unilateral OD and the trigeminal nerve that controls somatic sensation in the oral cavity is anatomically suggested. However, the pathophysiology is not clear. **Methods:** Data of 69 patients with unilateral OD from April 2016 to February 2019 were retrospectively screened via medical record. Trigeminal Neurovascular Compression (NVC) using MRI was diagnosed by a radiologist. Patient's gender, age, psychotic history, duration of illness, involvement, onset were collected along with the Visual Analog Scale (VAS), Self-rated Depression Scale (SDS), Pain Catastrophic Scale (PCS) and Oral Dysesthesia Rating Scale (Oral-DRS). These were analyzed by comparison between the two groups with and without NVC. **Results:** A total of 69 patients were characterized by gender 63.7%, mean age 63.08±11.09, and NVC-62.3%. Comparisons were made between the two groups with and without NVC. The results showed a significant difference in gender and dental area disease complications ( $p < .05$ ). In the questionnaire sheet, VAS, OralDRS squeezing-pulling, misalignment, eating, and work were found to be superior. **Conclusions:** It was revealed that unilateral OD daily life in patients without NVC. Also, rather than a subjective evaluation like a questionnaire, the image evaluation of the NVC is objective and can be used to determine the severity.

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## The link between positive psychology and the foundational principles

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The objectives of this presentation are: 1. Provide a brief history of positive psychology - Positive psychology is the scientific study of strengths and virtues that enable individuals and communities to thrive. Positive psychology is founded on the belief that people want to lead meaningful and fulfilling lives; to cultivate what is best within themselves; and to enhance their experiences of love, work, and play; 2. Explore how positive psychology is reflected in the Foundational Principles (FP) of rehabilitation psychology- FP are grounded in humanistic psychology and Lewinian theory. These same theories provided the basis for positive psychology principles of resilience the premise that positive emotions are evolved psychological adaptations that promote resilience and these positive emotions widen thoughts and actions, producing generativity and behavioral flexibility; 3. Provide an overview of how positive psychology and Foundational Principles are reflected in assessment and intervention practice - assessment has traditionally been based person and pathology-focused. The FP and positive psychology call for inclusion of asset



based and environmental assessment if we are to fully understand behavior and plan intervention. Following these same principles, intervention is expanded to include building positive experience and addressing environment barriers to reduce disability and enhance well-being. Specific examples of assessment instruments and interventions based on these models are reviewed.

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### Treating mind and body through while being hospitalized at URM: iMIPS and PRIME medicine programs

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Psychiatric comorbidities are common (20-40%) among hospitalized patients with acute and chronic medical conditions and are associated with higher cost of care, poor clinical outcomes and staff dissatisfaction. Moving away from the traditional medical ward model, University of Rochester Medical Center is exploring innovative ways of delivering both medical and psychiatric care for psychiatric patients with acute medical issues that require hospitalizations. Inpatient Medicine in Psychiatry Service (iMIPS) is a 20-bed acute medicine unit operated by URM Department of Psychiatry, and it is unique example of "reverse co-location" of acute inpatient medical care in psychiatric facilities. Also, unlike traditional CL psychiatry model, the Proactive Integration of Mental Health Care (PRIME) team at URM provides screening, early prevention and intervention of behavioural issues and deployment of multidisciplinary behavioural health team. Both programs have demonstrated excellent clinical and administrative outcomes. Through co-location and coordination of psychiatric service during the medical stay, these programs aim to provide an integrated behavioral and medical care for hospitalized patients with psychiatric comorbidities.

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### Psychoeducational support with family participation increases self-help skills in patients with chronic pain: the case of fibromyalgia

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**Background:** This study was conducted with the objective of introducing the Psychoeducational program as a means of everyday-life assistance, based on family participation, for Fibromyalgia patients, in particular in areas with insufficient medical support for such patients. **Methods:** Our study called for participants in four prefectures. We surveyed the following number of patients and family members: A prefecture: 24 persons (17 patients and 7 family members); B prefecture: 40

persons (18 patients and 22 family members); C prefecture: 24 persons (19 patients and 5 family members); D prefecture: 26 persons (20 patients and 6 family members). **Results:** By conducting interviews and investigations on how pain-related behavior occurs, we were able to identify the following mechanism by paying close attention to personality types (exerting type, persevering type, and hesitant type) and individual cognitive patterns. First, the type which seemingly received the full impact of the pain (appearing even as though their character had changed), most evidently revealed by their pain-induced tension and emotional instability, would be most prone to extreme perseverance (or expression of anger), exertion, or hesitant behavior. Second, conflicts within the family, or stress caused by interpersonal relationships, tended to incur depression; such patients become sensitive to things happening around them and obsessive with pain. **Conclusions:** Understanding the internal and external circumstances in which pain-related behavior is likely to occur enabled us to predict in advance the likely occurrence of such behavior and to handle each case in an individualized manner. This in turn could be used effectively in the prevention and amelioration of pain-related behavior.

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### Psychosocial factors associated with the occurrence of DCPR syndromes in asthma patients

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**Background:** Personal and social resources also the level of depression and anxiety may play an important role in functioning in the disease, even affect the prevalence of psychosomatic syndromes. It was assumed that in the group of people with asthma there is a relationship between resilience, hope, perceived social support, the level of depression and anxiety and the number of occurred DCPR syndromes. **Methods:** A sample of 120 patients with asthma, mean age 49±16.74 years. Structured Interview for DCPR, The Social Support Questionnaire, The Resilience Scale SPP-25, The Hope Scale and Brief Self-Rating Scale of Depression and Anxiety were used. Mann-Whitney U test, Spearman's rank correlations and a multiple linear regression analysis were performed. **Results:** Most of the studied resources (resilience and its subscales: perseverance and determination in action, openness to new experience and a sense of humour, personal coping competence and the tolerance of negative emotions, optimistic attitude to life and the ability to mobilize oneself in difficult situations; a subscale of hope: ability to finding solutions, perceived social support, emotional support and social integration) exhibited low negative significant correlations with the number of psychosomatic syndromes. There were significant differences in level of depression and anxiety between patients with and without each DCPR syndromes. **Conclusions:** The relationship between personal and social resources as well as the level of depression and anxiety and the prevalence of psychosomatic syndromes in asthmatic patients was confirmed. Diagnosing psychosomatic syndromes is useful to offer holistic treatment for asthma patients.

### Can computer technology enhance treatment delivery?

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**Background:** A rapidly expanding research effort has been examining the effectiveness of a variety of methods of Computer-assisted Cognitive-Behavior Therapy (CCBT) and mobile apps that can be used as components of psychotherapy. **Methods:** Review of meta-analyses, including a recent analysis of 40 randomized, controlled trials of CCBT conducted by the presenter and coworkers. Review of security, integrity, and effectiveness of mobile apps for depression and anxiety. **Results:** Moderate to large mean effect sizes have been found for a hybrid method of clinician-supported CCBT. However, attempts to provide CBT solely by computer typically have not fared as well. Several moderators of outcome have been explored. Research on mobile apps is at an early stage of development. **Conclusions:** Sufficient evidence has been gathered to support dissemination of CCBT in clinical practice. Implementation methods are discussed. Security and content issues should be considered in choosing mobile apps for clinical use.

### Psychosomatic medicine in China: past, present and future

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**Background:** With the development of research and academic exchanges, researchers and physicians have paid more attentions to the diagnosis criteria and treatment of psychosomatic disorders. **Methods:** According to the previous situation of psychosomatic medicine, Chinese Society of Psychosomatic Medicine (CSPM) hold various conferences related to different psychosomatic disorder to improve its development in China. Moreover, published papers and books to introduce the Chinese psychosomatic medicine. **Results:** Previous psychosomatic medicine focused on medical psychology education and Chinese traditional medicine, but it has its own journals and associations. Based on this, more studies were conducted, and more psychosomatic disorder diagnoses appeared. So more non-psychiatric doctors participated our association to form this multicultural group. At the same time, the Chinese government pointed out that general hospital should build a multidisciplinary mental and body disease contact consultation system, establish the collaboration with institutions of higher learning and social psychological services organization, realize the two-way referral. Although many workings have been done, the psychosomatic medicine is still in its infancy. **Conclusions:** Achieving this integration through research will have profound implications, not only for how medicine is practiced and how mental and physical health is improved, but perhaps more generally on how we as human beings view ourselves.

### Is cardiac atrophy of anorexia nervosa reversible?

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**Background:** Anorexia Nervosa (AN) cause various physical complications, including osteoporosis and brain atrophy. Most of the complications can be reversed if weight gain and resumption of menstruation are followed. Some studies showed Left Ventricular (LV) atrophy is a cardiovascular complication of AN. However, it is not certain where LV atrophy will recover or not after treatment. **Methods:** AN patients who were treated more than 1 year and assessed by echocardiography at St. Luke's International Hospital were enrolled. Primary outcome was increase of LV mass index by transthoracic echocardiography. The relationships between LV mass index and variables (i.e., body weight, body mass index (BMI), resumption of menses, and duration of illness) were assessed. **Results:** Fifteen patients (all Asian females, age: 21.5±7.3 years old, duration of illness 5.5± 6.1 years, body weight 35.7± 3.1 kg and BMI 14.2± 1.3 kg/m<sup>2</sup>) were included. While they gained 12.1±1.3 kg after 2.0±1.3 years of treatment, their LV mass index increased from 61.7± 14.3 to 66.6± 12.6 g/m<sup>2</sup>. LV mass index was significantly related to resumption of menstruation. By contrast, body weight gain, duration of illness and the increment of BMI were not significant associated with change of LV mass index. **Conclusions:** Like other physical complications, LV atrophy of AN could be reversible with treatment. Resumption of menstruation may be necessary for improvement of LV mass index.

### Presurgical psychosocial evaluation and postsurgical psychosocial care of bariatric surgery patients by psychosomatic internist in Japan

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Bariatric surgery is increasingly performed worldwide because of its efficacy not only for weight reduction but also for improvement in comorbidity such as diabetes and hypertension, and most of all it leads to decrease in long-term mortality. In Japan, health care insurance cover for laparoscopic sleeve gastrectomy was introduced in 2014, further contributing to the increase in the number of the operation performed. Psychosocial factors have been reported to be related to the outcome post-bariatric surgery. It has increasingly become apparent that there is a high-risk subgroup with poor outcome, such as failure to decrease weight or maintain the weight lost. From these aspects, psychosomatic internist may play an important role in supporting bariatric surgery patients in Japan by identifying risk factors and providing pre and post-operative psychosocial care, as well as sharing important psychosocial information

with other healthcare professionals. CBT-OB is a personalized cognitive behavioral therapy for obesity and has the potential for application in post-bariatric surgery patients and is promising for long-term weight maintenance and treatment of high-risk subgroups. At the University of Tokyo Hospital, psychosomatic internist joined the bariatric team with the role of psychosocial evaluation and care for all candidates of bariatric surgery since laparoscopic sleeve gastrectomy was introduced in May 2018. We hereby present the overview and future tasks regarding psychosocial evaluation and care pre and post-bariatric surgery.

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### Long-term effects of Group Cognitive Behavioral Therapy for depression prevention in first-year university students

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**Background:** Previous studies have reported that high Harm Avoidance (HA) scores on the Temperament and Character Inventory (TCI) are a risk factor for depression. The present study is a follow-up to a randomized controlled trial of a six-session Group Cognitive Behavioral Therapy (GCBT) program for depression prevention conducted with first-year university students with high HA scores. A reduction in depressive symptoms in the intervention group at one-year post-intervention has previously been reported. The present study examines GCBT effects at three years after initial intervention. **Methods:** To assess current depressive symptoms, the Beck Depression Inventory II (BDI-II), 28-item General Health Questionnaire (GHQ-28), and Manifest Anxiety Scale (MAS) were used. Data of 48 participants (30 from intervention group, 18 from control group) for whom complete data were obtained were analyzed via paired *t* tests.

**Results:** At three years post-intervention, the intervention group exhibited significant decreases in both BDI-II scores ( $t(29)=-2.18, p<.05, r=.38$ ) and MAS scores ( $t(29)=-2.10, p<.05, r=.36$ ), compared with pre-intervention. No significant differences were found in GHQ-28 scores for the intervention group, or in control group scores on all measures.

**Conclusions:** Results suggest that GCBT has a long-term effect on mood improvement in students with high HA. It is possible that the GCBT intervention contributes to depression prevention by fostering more adaptive thinking. However, direct comparison between intervention and control groups was difficult due to the small size of the control group at the three-year point.

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### An important role of anterior cingulate cortex and insula in mind-body interaction

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Brain imaging studies have gradually revealed the mechanisms of stress-induced mental and physical symptoms and the mechanisms through which they can be improved by treatment. This talk outlines the brain regions, such as the anterior cingulate cortex and the insula, related to these phenomena. Because the enhancement of sympathetic nervous activity caused by stress is known to be related to mental and physical symptoms, we attempted to clarify the relation of the activities of the anterior cingulate cortex and the insular cortex, both of which have been reported to be related to stress-induced mental and physical symptoms, to sympathetic nerve activity caused by stress. In the change of brain activity by psychotherapy, our studies clarified that activation of the ventral striatum (reward system) and the insula cortex was enhanced by perceiving active listening and that the impression of episodes was changed more positively by perceiving active listening. We also clarified that relief of anger by cognitive reappraisal is related to activation of the anterior cingulate cortex. In addition, a meta-analysis of brain imaging studies based on a stress coping method that used mindfulness or cognitive therapy reported that brain activation and the cerebral volume of the anterior cingulate cortex and the insula cortex were increased after treatment. Thus, it has been well documented that stress-induced mental and physical symptoms are associated with the anterior cingulate cortex and the insular cortex and that psychotherapy results in structural and functional changes in these brain regions. Consequently, we can infer that mental and physical symptoms are improved through the change of these brain regions.

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### Effectiveness of Preventing Depressive Emotion by changing their cognition for Education Students

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**Background:** In Japan compared with other professions, the number of teachers who get a long leave of absence because of mental problem has increased. It was reported that their main source of stress is dealing with parents. Education students have had time with children and some practice teaching, but they have not experienced problem with parents before becoming teachers. Therefore, simulation to confront the stress with parents is important. This is to figure out their own emotion and mindset in such situation. In addition, knowing effective ways of cognition that experienced teachers do would be helpful. We planned preventive trials for them and investigated the effectiveness of changing their cognition in such situation. **Methods:** Participants are eighteen female education students. They were asked to imagine three scenes in turn to answer their thoughts and emotions. In the first and second scenes parents complained to them about their children. Prior to the third scene they learned various ways of appropriate cognition in such situation that were acquired from experienced teachers' interview. Their emotions were

investigated by 10 Depression (Anxiety) items of multiple mood states three times. **Results:** Depression scores vary. The interaction between ten depression items and three scenes was significant ( $F(18/306)=1.801, p<.05$ ). Depression scores in eight among 10 items decreased in the third scene after learning new ways of recognition ( $p<.05$ ). **Conclusions:** To conclude, we discuss about their cognition and effectiveness of preventive approach to try to change their awareness to reduce their stress with parents.

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### Using short-term inpatient settings modifying the multistep CBT-E to introduce CBT-E smoothly for eating disorder patients in Japan

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Enhanced Cognitive Behaviour Therapy (CBT-E) has been growing interest and evidence in the treatment for patients with eating disorders. CBT-E is based on the concept of a "transdiagnostic" approach to eating disorders, which is basically an outpatient program. The first eight sessions of CBT-E are held twice a week to start the therapy successfully. However, it is not common in Japan for patients to go to the hospital twice a week. Therefore, twice-a-week sessions could be a barrier to disseminate CBT-E in Japan in the real-world settings. We are trying to find a way to overcome this barrier. One of the ways to overcome the barrier, we have introduced short-term inpatient settings for the first two to four weeks of the CBT-E program. The advantage of using short-term inpatient settings would be as follows: 1. Patients do not need to go to the hospital twice a week; 2. It is easy to introduce regular eating with snacks; and 3. It is easy to provide psychoeducation by various professionals including doctors, nurses, clinical psychologists, and national registered dieticians. In addition, only 16 outpatient sessions of CBT-E for bulimia nervosa are covered by Health Insurance System in Japan. Therefore, combination of the first four to eight sessions in inpatient settings and the rest in the outpatient settings would be reasonable. Medical insurance system in Japan and some cases using short-term inpatient settings will be shown in the symposium.

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### Biomarkers for diagnosis and treatment of bipolar disorder: hope or hype?

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**Background:** Bipolar disorder is a recurrent illness affecting about 2% of the world population. Lithium is perhaps the most effective evidence-based treatment for relapse prevention of bipolar disorder, and several studies have shown that Lithium could improve different aspects of long-term illness activity. A substantial minority of individuals remain asymptomatic for years on lithium, but many partially respond and up to one

third do not respond well. This variability is currently poorly understood, and response cannot be predicted before treatment is started (and sometimes for many months afterward). Despite recent advances in identifying new biomarkers capable of predicting response to treatments, few studies have evaluated lithium response using these methodologies, particularly for sufficient durations of treatment. The R-LiNK study has therefore been designed using a new (multimodal) approach which will provide valuable information using these new methodologies alongside a close follow-up of participants taking lithium over 24 months. The R-Link findings have the potential to finally enable personalization of lithium treatment, which would lead to prevention of unnecessary side effects and ineffective treatments while improving long-term management and prognosis for individuals with bipolar disorder. **Methods:** This study will recruit 300 individuals with bipolar disorder type I, across 15 European specialist bipolar centres. Patients will be recruited in a naturalistic setting; before commencing lithium based on their clinicians' assessment and their agreement. **Results:** At present, it is still difficult for clinicians to reliably personalize and provide information to people starting lithium about how effective the medication will be, prospectively. **Conclusions:** R-Link is a pragmatic cohort trial of lithium initiation, the results of which could help patients and clinicians to have better and more accurate predictions when considering lithium prescribing.

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### Application of Chinese characteristic treatment in psychosomatic medicine

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**Background:** According to the culture of China, some therapies with Chinese traditional features were used in the treatment of psychosomatic disorders, including Balancing Psychotherapy (BPT) and Chinese medicine. **Methods:** BPT is consisted of cornerstone, grasp, symptom, reflect, relax and mutual assistance, which means to help the client balance the mastery of coordination and relationship. BPT is to use the theory and method of psychosomatic balance to get through the obstruction of the way of thinking. We analyzed the cause of the patient, to see the patient's way of thinking is blocked and the internal homeostasis imbalance and then provide ideas to guide the patient on the problems encountered in a full and essential understanding. And then from the complex real life to cite the corresponding examples to be compared, so that patients stand in another perspective to observe themselves, deepen their own understanding of the problem. And finally, through a series of ways, patients make changes, rebuild internal balance and maintain psychosomatic health. In China, a Chinese medicine (Wuling capsule) has been either used alone or as an adjunct to antidepressant in psychosomatic disease or physical disease combined depressive or/and

anxiety symptom. **Results:** After BPT, the severity of depression, anxiety and panic were significantly improved in panic disorder and breast cancer patients. Moreover, Wuling capsule was also confirmed in improving anxiety, depression and quality of life in patients with mental disorders or epilepsy. **Conclusions:** Chinese characteristic treatments are useful to psychosomatic disorders.

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### Body size estimation in obesity: a novel insight from the implicit/explicit model of body representations

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**Background:** Individuals affected by obesity often report body representation impairments that involve a distorted perception of body size. Previous experimental studies of body size estimation in obesity have provided an inconsistent pattern of results. These controversial experimental findings will be interpreted in the light of a renewed theoretical framework, the *implicit/explicit* model of body representations. Finally, I will present our recent research that purports to investigate the possible distortions of the implicit body representation that have been scarcely explored in individuals affected by obesity. **Methods:** An adapted version of the body landmarks detection task was adopted. Participants had to locate each fingertip and knuckle of a hidden hand. The distance between each fingertip and knuckle was then used as an implicit measure of the represented fingers length and the distance between the little finger and the index was used as an implicit measure of the represented hand width. **Results:** Coherently with previous studies, healthy weight individuals underestimated fingers length and overestimated hand width. Interestingly, a comparable pattern of distortions was found also in obesity. Thus, the two populations seem to have a similar implicit body representation. **Conclusions:** Body dissatisfaction might have a role in the distortions previously found in the explicit body representations of individuals affected by obesity, while the implicit body representation might be unaffected by emotional factors.

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### Psychiatric morbidity and sleeping disorders in psychodermatologic patients

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**Background:** Considered the less literature about psychological comorbidity with psychocutaneous disease in Chinese patients, the aim of this study was to evaluate the situation of anxiety and depression as well as the sleeping quality in the psychodermatologic patients. **Methods:** A consecutive cross-sectional study was conducted in a dermatology clinic. Anxiety and depression were assessed by means of the Hospital Anxiety and Depression Scale (HADS) while sleep quality was assessed by means of the Pittsburgh

Sleep Quality Index (PSQI). **Results:** A total of 557 patients with psychocutaneous disorders filled in the questionnaires, among which 186 were male and 371 were female, aged 19 to 75 years. 20.8% patient had a HADS-A score higher than 7 while 43.4% patients had a HADS-D score higher than 7. The mean HADS-A, HADS-D, PSQI was 5.28±3.012, 7.19±2.874 and 5.48±2.869 respectively. The highest HADS-A score was seen in nodular pruritus patients (8.67±6.351) whereas the highest mean HADS-D (8.57±3.370) in pruritus patients. The highest mean PSQI score (7.00±3.606) was also seen in nodular pruritus patients. Depression was more frequently in patients with acne (55.0%), melasma (32.2%) and alopecia areata (31.0%). Anxiety was more frequently in acne (54.3%), melasma (34.5%) and seborrheic dermatitis (31.9%). Poor sleep quality (PSQI>6) was seen in 47.2% patients, especially for patients with pruritus, vitiligo, atopic dermatitis, and focal hyperhidrosis. **Conclusions:** Sleeping disturbance was highly prevalence and depression disorders were more common in Chinese patients with psychodermatologic problems.

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### Cognitive Behavior Therapy for emotional disorders in asthmatic patients

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**Background:** Asthma is a multifactorial chronic inflammatory respiratory disease that appeared to be associated with negative emotions. Previous studies suggested that Cognitive Behavior Therapy (CBT) has a consistent positive effect on asthma-related quality of life and depressive symptoms. However, little is known about the mechanisms that underlie these effects. With the development of neuroimaging techniques, it has become increasingly possible to observe the neurobiological underpinnings of CBT. Thus, we explored the possible alterations of brain function before and after CBT in asthmatic patients. **Methods:** Asthmatic patients and healthy controls (HC) both received resting-state functional magnetic resonance imaging (rs-fMRI) scan and clinical assessments at baseline. 17 patients completed the CBT course consisting of 8 sessions, then received rs-fMRI scan and clinical assessments. **Results:** After CBT, ReHo values in the bilateral calcarine sulcus, occipital lobe, left paracentral lobule and right sensorimotor cortex (SMC) were found to reverse in asthmatic patients. In addition, certain abnormal insular functional connectivity (FC) of patients also showed reversion after CBT. Moreover, some FC values was significantly correlated with the reductive ratio in depressive symptoms and asthma control scores.

**Conclusions:** CBT is effective in improving asthmatic patients' depression severity and asthma control level. Moreover, successful CBT might be associated with a reversed effect on the coordination of spontaneous brain activity in the bilateral occipital lobe and SMC, and certain insular FC.

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## The source and development of psychosomatic medicine of Chinese medicine

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**Background:** Psychosomatic medicine thought originated in China, traditional Chinese medicine has been inheriting psychosomatic medicine thinking method and theory and applied to disease prevention and treatment in modern society. **Methods:** According to the development history of traditional Chinese Medicine, we summarize the development history of psychosomatic medicine in the following 6 periods. **Results:** Firstly, the age of The Book of Changes (Zhouyi): the source of Psychosomatic Medicine. Zhouyi originated from Fu Xi and matured in Zhou Wenwang. It is the beginning of all the classics and the source of all academy and contains everything. Secondly, The Age of Yellow Emperor's Canon of Internal Medicine—the Theory of Psychosomatic Medicine. Yellow Emperor's Canon involved the abundant thought of psychosomatic medicine, such as, the combination of soma and mind, the combination of shape and soul, the seven emotional factors causing diseases et al, which achieved the theory of psychosomatic medicine. For example, The Concept of Health, The Incisive Explanation of Physiology and Pathology, The Doctrine of Social Factors Causing Diseases, The Principle and Methods of Treatment. Thirdly, Han and Tang Dynasties - the classical treatment of psychosomatic diseases. **Conclusions:** Fourthly, The era of Song, Jin, Yuan Dynasties—Establishment of the theory system of psychosomatic medicine. It is also the boom time of developing of Chinese traditional medicine. Sixthly, In modern times—Treatment based on rigid and gentle syndrome differentiation of the psychosomatic medicine. Rigid-gentle philosophy is the basic concept of Chinese traditional culture. The rigid-gentle syndrome differentiation theory is a kind of available system which can cure the psychosomatic disease effect.

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## Modified erxian decoction for peri-menopausal depression: a randomized controlled clinical trial

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**Background:** Peri-menopause is an important influence factor to depression and which will affect her family, even leading to auto-lesion or suicide. The efficacy of drug-based treatment and psychological interventions on peri-menopausal depression remain limited. Modified Erxian Decoction (a traditional Chinese herbal decoction) is designed to soothe liver-gallbladder and deodorize competitiveness. The main hypothesis of this study is to observe clinical efficacy of peri-menopausal depression patients who attend 8 weeks sertraline hydrochloride tablets and modified erxian decoction's

treatment. **Methods:** A total of 90 participants diagnosed with peri-menopausal depression disorder were randomized to receive either sertraline hydrochloride tablets and modified erxian decoction's treatment. The participants were assessed by independent evaluators before randomization, in a post-test after 4 weeks of treatment and at the end of 8 weeks treatment by HAMD, SDS and sex hormone. **Results:** The post-test results and 8 weeks assessments according to an intention-to-treat analysis showed that the HAMD and SDS scores indicated statistically greater clinical improvement in modified Erxian decoction treatment than sertraline hydrochloride tablets. In the middle of treatment, the depression degree had the greatest reduction. These results were sustained at the end of 8 weeks, even better than sertraline hydrochloride tablets treatment. However, at the end of treatment, both of them cannot improve oestrogen level, and modified erxian decoction can reduce FSH and LH. **Conclusions:** Modified Erxian decoction is an effective intervention to reduce depression for peri-menopausal depression woman. It is a safe, short, and easy-to-use that is easy to implement in a variety of environments to treat.

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## Willing Acceptance and Commitment Therapy

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**Background:** Mindfulness-based psychotherapy, known as the third-wave cognitive behavior therapy, showed a multi-cultural integration trend. **Methods:** Took root in the discoveries of evolutionary psychology and cognitive psychology, absorbed the concepts of psychotherapy and health care methods from Chinese traditional culture, techniques in mindfulness-based therapies, Willing Acceptance and Commitment Therapy (WACT) was initially formed and practiced. **Results:** WACT assumed that the basic driving force of human evolution is to increase the odds of gene's survival and reproduction. During this process, certain neural circuits were intensified by the repeated experience of painful frustration, negative experience and following maladaptive coping styles. Whereas these previous traces could be faded away and new neural circuits could be rebuilt by practicing a new coping style: willing acceptance and striving. Theoretically, it proposes a triangle model (pain/health-willing acceptance-striving) to elucidate the mechanism of psychopathology and psychotherapy in theory. Operationally, it contains four principles of psychotherapy: knowing yourself and others, reaction but adequately, reality as well as harmony, willing acceptance and striving. Furthermore, it proposes eight therapeutic procedures: understand yourself, recognize suffering, check coping style, keep openness and acceptance, mindfulness and flexibility, live in the moment, clarify the value and commit action. In this way, WACT aims to fade the neural trace of patients' painful memories, improve their psychological flexibility and rebuild their lifestyles consistent with their values. During the process of initial clinical practice, the therapeutic effect and cultural adaptability of WACT were preliminary confirmed. **Conclusions:** WACT is a new kind of mindfulness-based therapy with Chinese characteristics.

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## Effects of lifestyle intervention on psychological distress and wellbeing in obese patients: a single-group prospective observational study

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**Background:** Obesity is an urgent health issue all over the world. Interventions focused on lifestyle modification involving dieting and exercise are considered as first-line treatment for weight management. However, the effects of lifestyle interventions on psychological parameters and their relationships with lifestyle change in obese patients remain unclear. The objective of this study is to examine the effects of a lifestyle intervention, including therapeutic education, dietary modification, physical activity and problem solving, on psychological parameters, such as psychological distress and well-being. **Methods:** In this single-group prospective observational study, the subjects were enrolled in a group-based, interdisciplinary cognitive-behavioral weight-loss program for obesity. 27 subjects (27.8% of the participants in the program) completed the assessment on lifestyle, motivation for weight change, psychological distress and well-being at baseline and after the 12-week treatment. The change of continuous variables from baseline to post-treatment was tested with Repeated Measures ANOVA, whereas the modification of categorical variables' frequency with McNemar test. **Results:** Drop-out rate was 50% at end of study and average weight loss was 5.02 kg (-4.66%,  $p < .01$ ). The lifestyle intervention produced a significant improvement in lifestyle behaviour and somatic symptoms ( $p < .05$ ), and a reduced accepted weight ( $p < .05$ ). A significant increase was observed in levels of hostility ( $p < .01$ ) and restrained eating ( $p < .01$ ). No differences were found concerning psychological well-being. **Conclusions:** Lifestyle interventions may have limited benefit for psychological distress and well-being, and they may increase hostility levels, which could have a negative impact on emotional stability and healthy lifestyle maintenance.

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## Visualization in coping with suffering related to HIV/AIDS diagnosis

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**Background:** HIV infection diagnosis causes both somatic and psychological suffering of the person affected. In majority of cases receiving a positive answer to a HIV test leads to a social and emotional isolation as well evoking an elevated concern about health issues. The level of social stigmatization, experienced and internalized, together with the suffering and experienced pain influences pharmacological adherence as well as quality of life of the person. **Methods:** Fifteen recently HIV diagnosed (within 3 months) patients (6 females, 9 males, median age 36 years) referred to the Open care clinic of Infectious and tropical diseases at the University of Florence,

Italy. The subjects followed, individually, a structured set of five consecutive weakly lessons of visualisation technique specifically aimed to improve the capacity of adherence to the pharmaceutical treatment as well as to lower the level of psychological suffering. Qualitative analysis of the reports of the sessions and comparison between baseline and follow-up were run. **Results:** An overall improvement of the the stigmata experienced as well as treatment adherence was found. An improvement between the baseline and the follow-up visit was observed for 67% of the questions raised. **Conclusions:** Early intervention after the HIV diagnoses may help the patients to develop constructive coping strategies and maintain better health status over time.

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## Overlap of functional somatic disorders and implication for treatment

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Functional Somatic Syndromes (FSS), like irritable bowel syndrome or fibromyalgia and other symptoms reflecting bodily distress, are common in practically all areas of medicine worldwide. Diagnostic and therapeutic approaches to these symptoms and syndromes vary substantially across and within medical specialties from biomedicine to psychiatry. Based on a clear assessment we suggest a stepped care approach for treatment recommendations for patients with FSS and bodily distress also based on the severity and complexity of patients. Initially and in uncomplicated cases, an encompassing biopsychosocial attitude, a focus on symptomatic relief, patient activation, and avoidance of iatrogenic harm is particularly helpful. In more chronic and/or severe cases, management works best when not only the patients but also their doctors achieve a reframing of the clinical problem: from cure to care and coping, from classical biomedical explanations to a broader view of biologically and psychosocially aspects.

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## Psychobiology in anorexia nervosa

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Anorexia nervosa is a highly distinctive serious mental disorder. It can affect individuals of all ages, sexes, sexual orientations, races, and ethnic origins; however, adolescent girls and young adult women are particularly at risk. This disorder is characterised by an intense fear of weight gain and a disturbed body image, which motivate severe dietary restriction or other weight loss behaviours such as purging or excessive physical activity. Additionally, cognitive and emotional functioning are markedly disturbed in people with this disorder. Serious medical morbidity and psychiatric comorbidity are the norm. This lecture focuses on factors associated with anorexia nervosa that are of particular

relevance to clinicians, such as recent developments in diagnosis, epidemiology, pathogenesis, treatment, and prognosis.

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### **Semiotic network analysis: modelling patient cognition and behavior vis-à-vis therapy choice**

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**Background:** There is a need for novel strategies to explore interactional, interpretive, and normative domains of clinical practice where quantitative methods prove to be inappropriate or unviable. Semiotic Network Analysis (SNA) signifies such an analytic system that enables the detection of cognitive and behavioral patterns in large amounts of qualitative data. Patient decision-making processes involving therapy choice (biomedicine vs. complementary/alternative medicine) connote an exemplar of greater pertinent issues: modes of encountering and interpreting information, and the influence of predispositions on decisions regarding healthcare. Thus, the scrutiny of therapy choice provides a clinically relevant topic for the development of SNA. **Methods:** Data collection with semi-structured interviews is in progress based on non-proportional quota sampling; strata: therapy choice (1. biomedicine, 2. complementary/alternative medicine), diagnosis, and sex. Discourse and data segmentation protocols were developed to prepare data for network analysis with Epistemic Network Analysis (ENA) software. An open source software package, the Reproducible Open Coding Kit (ROCK), was created to enable the transparent, manual coding of qualitative data. **Results:** Data specification consists of meta-data and codes. Meta-data includes information pertaining to the interviewee (sociodemographic and behavioral data) and their grouping within the sample. The tentative code system consists of 3 high-level, 7 mid-level, and 53 low-level codes. Discourse segmentation is based on ENA guidelines. **Conclusions:** SNA aims to bridge qualitative and quantitative methods through the quantification of narratives. The present project is a pilot study within the development of this method, which aims to lend a more in-depth understanding to patient decision-making processes.

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### **Common pathways between mood, cognitive and cardiovascular disease: clinical evidences and pathophysiological biomarkers**

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**Background:** Epidemiological evidence suggest that there is a two-way relationship between mood and heart problems. Similar evidences have been suggested for the interface between mood and cognitive symptoms. Recent research

shows a pathophysiological proximity between these systems with biomarkers emerging with the potential of one day to help in diagnosis, disease progression and evaluate response to treatment. Understanding how these conditions share common pathways will allow us a deeper understanding on how to develop better patient care and specific treatment strategies. **Methods:** A set of original studies will be presented, from basic to clinical research. Two studies conducted at the Faculty of Medicine of the University of Toronto, Canada focused on researching the role of oxidative stress in mood disorders. Three research studies conducted at Health Sciences North, Canada, narrowed the evaluation to a population of heart failure patients with depression. **Results:** Oxidative stress and inflammation appear to have a central role in the pathophysiology of mood disorders and are central candidates for proving a shared pathophysiology between mood and cardiovascular disease. Oxidative stress and a decreased volume in hippocampus seem to be directly implicated in the pathophysiology of depressive episodes. Peripheral levels of specific markers (4HNE and LPH) are associated with central changes and clinical symptoms. Clinical and biological pathways were found between heart failure and depression, including depressive symptoms and reduced ejection fraction in heart failure seem to be mediated by NT-proBNP. **Conclusions:** Altogether these finding provides a strong hint for common pathways between these diseases.

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### **Psyche to soma: evidences for a mood-brain-heart continuum**

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**Background:** Epidemiological evidence suggest a two-way relationship between mood and heart problems. Similar evidences suggest an interface between mood, neurodegeneration and cognitive symptoms. A pathophysiological proximity seems to exist between these systems. Understanding how these conditions share common pathways will allow improved treatments. **Methods:** A set of original research studies were conducted to investigate the impact of mood episodes in heart and brain: 1. Oxidative damage was analysed in plasma of 185 subjects, consisted of euthymic older BD patients (BD-I and BD-II) compared to controls. 2. Oxidative damage and decreased hippocampal volume were analysed in correlation to depressive, hypomanic and euthymic episodes in 62 subjects with BD-II compared to controls. 3. Inflammatory changes and NT-proBNP were analysed in relationship with depressive episodes and reduced ejection fraction in 124 subjects with heart failure and depression compared to controls. **Results:** Oxidative stress and inflammation appear to have a central role in mood disorders and are candidates for proving a shared pathophysiology between mood and cardiovascular disease. Depression increases oxidative stress and correlates with decreased volume in patients hippocampus. Specific markers (4HNE and LPH) are associated with the central brain changes and clinical symptoms. Clinical and biological pathways were



found between heart failure and depression were depressive symptoms and reduced ejection fraction seem to be mediated by NT-proBNP. **Conclusions:** Altogether these finding provides a strong hints for common pathways connecting mood episodes, neurodegeneration and heart impairment. Potential biomarkers emerge and may one day help in the evaluation of for these comorbid conditions.

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