Racial Inequalities in the Organ Transplantation Selection Process – How Can CL Psychiatrists Be Part of the Solution

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Transplant Medicine: Neuropsychiatric Complications after Transplantation, June 9, 2022, 10:00 AM - 11:15 AM

Objectives:
- To review psychosocial transplant evaluation domains
- To review the research on race/ethnicity and important transplantation milestones
- To discuss the role of CL psychiatrists as advocates for equitable care for our most vulnerable patients

Methods:
- Review of literature

Results and Outcomes:
Transplantation offers a chance for patients with end-stage organ failure to prolong and improve the quality of their lives. Along with medical evaluation, psychosocial evaluation has been found to be an important predictor of post-transplant outcomes. However, especially in the current US climate of increased awareness of racial and ethnic inequality, it behooves us to reflect on how racial and ethnic inequality influences the transplant selection process.

Emerging evidence raises important questions. After controlling for other variables, Black patients with end-stage liver disease were less likely to be listed for a liver transplant (Jesse et al, 2019). For lung transplant recipients, it took longer for non-white patients to be listed (Mooney et al, 2018). Race and ethnicity are intertwined with other psychosocial variables (e.g. stigma towards mental health, socioeconomic status, social support availability). These inequalities will translate into the final outcomes of our psychosocial evaluation.

In this workshop, Dr. Maldonado will evaluate the evidence for suggested domains of transplant psychosocial evaluation. Dr. Sher will discuss the influence of race/ethnicity in the transplantation referral, evaluation and outcomes. Dr. Hussain will moderate a discussion as to how CL psychiatrists can advocate for marginalized patients throughout the various stages of the transplantation.
Objective: Violence in the healthcare setting is exceedingly common – 75% of nearly 25,000 workplace assaults occur annually in healthcare settings1 yet only a small percentage are reported. Clinicians can feel conflicted about how to address these given their feelings of obligation to treat all patients. This symposium will address a novel, multidisciplinary committee in a large tertiary academic medical center developed to address patients who pose a risk of violence. A consultation-liaison psychiatrist leads this committee to allow for a broad perspective in the understanding of human behavior, particularly behavioral manifestations of illness.

Methods: Development of a robust, multidisciplinary committee occurred over 2 months and has been in existence for 15 months. A protocolized procedure was developed to present patients to this committee (by clinicians across the hospital system). The committee was subsequently embedded into a hospital-wide workplace safety policy and patient data tracked including demographics, location of event, outcome and future plans of care.

Results: Violent event reporting, review of events and development of treatment care plans increased during the 15-month period. Patient care terminations decreased despite greater attention paid to violence allowing for comprehensive care of vulnerable patients. Satisfaction of clinicians increased as more attention was paid to sensitive situations.

Conclusion: A multidisciplinary committee to discuss violent events across the hospital system can be effective to allow for improved care of vulnerable patients and satisfaction of healthcare clinicians. Consultation-Liaison Psychiatry is uniquely poised to lead this type of committee given expertise in behavioral management in medical settings.
The Assessment of Living Donor Transplant Candidates: The Development of the SIPAT–D.

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Transplant Medicine: Neuropsychiatric Complications after Transplantation, June 9, 2022, 10:00 AM - 11:15 AM

Background: The first successful living donor transplant was performed in 1954. Since then, with advances in immunotherapy and HLA matching, there has been a slow, but steady rise in the number of living organ donation. The process of donation is not without risk, thus it is imperative that we improve the method for psychosocial assessment of living organ donors.

Methods: Based on their experience developing the Stanford Integrated Assessment for Transplantation (SIPAT), our group underwent an extensive research of the available literature for evidence of psychosocial criteria that could be used to develop a comprehensive, yet practical psychosocial assessment of donor candidates.

Results: The result was the development of a 21-item tool the Stanford Integrated Psychosocial Assessment for Transplant Donors (SIPAT–D), designed to standardize the psychosocial evaluation of prospective living organ donors. The tool is divided in four section, including assessments of a donor’s: (a) readiness level, (b) social support system, (c) psychological stability and psychopathology, and (d) decision making capacity and process. The SIPAT–D helps identify donor candidates who are at risk for negative psychosocial outcomes after transplantation, while assisting in the process of assessment of candidate’s capacity to proceed with organ donation and allowing for the development of interventions directed at improving a donor’s candidacy.

Conclusion: The SIPAT–D is a comprehensive screening tool designed to assist in the psychosocial assessment of living organ-transplant donor candidates. The tool should allow for the development of interventions directed at improving a donor’s candidacy and improving candidate selection and screening.
Common Roots in Healing Processes of Trauma – Expanding Comprehension with Ecology & Explorations.

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Trauma and Posttraumatic Stress Disorder, June 9, 2022, 10:00 AM - 11:15 AM

‘Sleep Health’ affects cognitive, social and emotional development, thus mental health. Daytime sleepiness, affecting sustained attention or vigilance, behaviors and their interpretation in cultural context are the focus of this narrative. Presentation at clinical services in developmental pediatrics and child and adolescent psychiatry or mental health services is often precipitated by dysregulation within performance and behavioural domains. The aetiology of poor ‘vigilance’ and in consequence problematic daytime behaviours, which become subject of psychotropic medication prescriptions, are multifactorial but strong evidence in recent decades has suggested that poor sleep health (reduced amount of sleep and non-restorative sleep) is a common factor. This paper presents two conceptual frameworks, a ‘medical logic model’ and a merged ‘social emotional, wellbeing framework’, and combines them into one. The first one proposes the incorporation of ‘sleep’, and the myriad of other factors that contribute to poor sleep, thus affecting vigilance and in consequence, daytime behaviours. The second one reviews ‘social emotional wellbeing’ in the context of predictive, perpetuating factors and predispositions informed through different cultural perspectives. A proposed ‘transcultural, transdisciplinary and transdiagnostic framework’ is an amalgamation of these frameworks which may serve as a starting point from which adaptations of this model could be developed to suit the purposes of holistic diagnosis and treatment of complex childhood presentations in different cultural contexts.
Neuropsychiatric Complications after Transplantation

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Transplant Medicine: Neuropsychiatric Complications after Transplantation, June 9, 2022, 10:00 AM - 11:15 AM

Objectives:
After the this symposium, learners will be able to
- recognize importance of delirium in transplant recipients (Maldonado)
- discuss and recognize neuropsychiatric side effects of immunosuppressants and other transplant-related medications, including PRES (Zimbrean)
- appreciate incidence, presentation, and importance of seizures in transplant recipients (Sher)
- Recognize clinical presentation and management of Central Pontine Myelinolysis associated with morbidity and mortality (Hussain)

Methods:
literature review and case presentation

Results and conclusions:
Neuropsychiatric complications are common in transplant recipients. For example, approximately of 40% of lung transplant recipients develop delirium after transplantation and this affects their outcomes. Up to 5% of lung transplant recipients have posterior reversible encephalopathy syndrome (PRES) after the transplant surgery, this being one of many possible neuropsychiatric side effects of immunosuppressants. Liver transplant recipients can experience central pontine myelinolysis (CPM), a complication due to perioperative shifts of intracerebral sodium. Seizures are also not rare, but are understudied and underrecognized.

Consultation Liaison Psychiatrist need to be aware of Osmotic demyelination syndrome, which although a rare neurological disorder, is found in the quintessential CL patient population. Central pontine myelinolysis (CPM) is the classical presentation, reflecting greater susceptibility of pontine white matter tracts, but extrapontine involvement is also common. Patients with alcohol use disorder, diabetes, renal failure, hyperemesis gravidarum and liver transplant patients are the most susceptible and present with varying symptoms including encephalopathy and catatonia. Using a case example Dr. Hussain will discuss the clinical manifestations, pathophysiology and management options.
Irritation and workability as predictor variables of depression and anxiety

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Objective: Employees’ mental health impairments are a leading reason for long-term sickness-leave and early retirement. Therefore intervention programmes have evolved to counteract this development. The aim of the study was to investigate factors associated with mental health in employees of an international white-collar company who used a short-term psychotherapeutic intervention.

We investigated whether workability and psychological strain were associated with anxiety and depressive symptoms, controlling for sociodemographic variables and psychological vulnerability.

Methods: Workability was assessed using a single-item measure, the Work Ability Score (WAS). The irritation scale (IS) was applied for the assessment of psychological strain. Anxiety and depressive symptoms were assessed using modules of the Patient Health Questionnaire (GAD-7, PHQ-9). We applied linear multiple regression for the identification of the relevant determinants above mentioned.

Results: N=88 employees participated of whom n=83 had complete datasets for analyses. Mean age was 47.3 years (SD = 9.3), 58% were male. 80% of the whole study population were in a relationship.

The results revealed that lower work ability and higher irritation were significantly associated with anxiety symptoms (work ability: beta = -0.31; irritation: beta = 0.30) and depressive symptoms (work ability: beta = -0.25; irritation: beta = 0.31). Living in an intimate relationship was associated with lesser depressive symptoms (beta = -0.23). Explained variance was .24 for anxiety and .34 for depressive symptoms.

Conclusion: The results suggest that early identification of low perceived work ability and elevated irritation might help to identify employees at risk and these might benefit from preventive psychotherapeutic interventions.
Behavioral and dietary intervention to reduce weight in adult overweight and obese kidney transplant recipients – first results of a pilot study

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Transplant Medicine, June 9, 2022, 10:00 AM - 11:15 AM

Objective:
In the last decades, overweight and obesity have become a global public health issue affecting organ transplant recipients. Especially patients after kidney transplantation (KTx) are susceptible to weight gain due to less strict nutrition recommendations, improved appetite, and overall well-being. However, obesity in KTx patients is associated with increased mortality and morbidity.

Methods:
We performed a randomized-controlled trial (28 vs. 28 patients) to evaluate the effectiveness of a behavioral and dietary intervention for weight loss in KTx recipients with overweight or obesity (BMI≥27 kg/m2). The intervention group (IG) received 12 sessions (telemedical or face-to-face) within six months, while the control group (CG) received information on behavior change once. The primary outcome was a weight loss of ≥5%. Additionally, metabolic and psychosocial outcomes were evaluated.

Results:
At Hannover Medical School, 56 patients could be included in this study. 48.2% were women; the mean age was 48 years, and the mean BMI was 32.0 kg/m2.
In the IG, 29.6 % (n=8) and in the CG, 16.7 % (n=4) reached a weight loss of ≥5%. The difference between groups was not statistically significant. However, we found a statistically significant weight loss in the IG after the intervention period.

Conclusion:
Even though the primary study objective was not reached, we could detect positive tendencies, including a high adherence to study participation. The influence of the Covid 19 pandemic and associated limitations on study outcomes need to be discussed. The necessity to meet specific needs of KTx patients in future studies must be examined.
Evidence-base for pre- and post-transplant substance use disorder treatment interventions

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Transplant Medicine, June 9, 2022, 10:00 AM - 11:15 AM

Objective: Alcoholic liver disease (ALD) is the most common indication for liver transplantation (LT), and substance use disorders in general are commonly observed in solid organ and stem cell candidate populations. Transplant centers do not have consistent guidelines regarding candidate involvement in pre-and post-transplant treatment interventions and self-help meetings, such as Alcoholics Anonymous (AA) and Narcotics Anonymous (NA), as means of promoting patient outcomes. This study is a review of the medical literature over the past 25 years for evidence-based pre- and post-transplant substance use disorder treatment interventions and their impact on post-transplant relapse and survival in transplant recipients.

Methods: This retrospective review included both PubMed and MEDLINE peer-reviewed English language articles from 1/1/1994 to 12/31/2019. Key terms for cross-referencing include BMT, heart, kidney, liver, lung, pancreas, and stem cell transplant with alcohol use disorders, alcohol abuse, alcohol dependence, drug abuse, drug dependence, addiction, and treatment.

Results: There are multiple European and U.S. studies which have utilized retrospective and prospective methodologies to examine the therapeutic effects of pre- and post-transplant substance use disorder treatment interventions, primarily in ALD populations. This presentation will include a review of the extant medical literature and provide recommendations for current practices and future studies.

Conclusion: This study identifies the peer-reviewed English language articles pertaining to pre- and post-transplant substance use disorder treatment interventions and their associated impact on transplant outcomes, including substance use relapse and mortality.
Cognitive function before and after intravenous iron supplement for iron deficiency in heart transplant recipients

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Objective: Cognitive dysfunction has been demonstrated after heart transplantation (HTx). In a previous study, lower haemoglobin was associated with Mild Cognitive Impairment among HTx recipients. We examined in a randomized, placebo-controlled, double-blind trial (https://doi.org/10.1016/j.healun.2021.01.1390), as pre-specified secondary outcome, whether intravenous iron supplement for iron deficiency resulted in changes in cognitive function 6 months after intervention.

Methods: Cognitive function was assessed by tests from the Cambridge Neuropsychological Test Automated Battery (CANTAB) and included assessment of psychomotor speed (Reaction Time), visual memory (Paired Associates Learning), and working memory/executive function (Spatial Working Memory). Change from baseline to follow-up in the raw scores of 2 individual measures for each cognitive domain was analysed.

Results: Of 94 participants (36.2% female) with cognitive data at baseline and follow-up, 57.4% were transplanted due to dilated cardiomyopathy. At time of inclusion, mean age was 54.5 ±14.1 years and participants had been transplanted on average 8.5 ±6.4 years earlier. Mean z-scores at baseline ranged from -.5 to -.6 on both measures of visual memory as well as of working memory/executive function. Change in performance did not differ statistically significant between treatment arms for any of the 6 individual measures.

Conclusion: HTx recipients with iron deficiency performed, on the group level, approximately half a standard deviation below normative mean on measures of visual memory and working memory/executive function. Compared to placebo, intravenous iron supplement did not result in statistically significant different changes in performance on measures of psychomotor speed, visual memory, and working memory/executive function after 6 months.
Perspectives of depressed mothers on: Use of technology to deliver integrated parenting intervention in Pakistan

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Depressive disorder #1, June 9, 2022, 10:00 AM - 11:15 AM

Background: Maternal depression is a public health issue, with significantly higher rates in Low- and Middle-Income Countries (LMICs) such as Pakistan, and adverse consequences for mothers and children. This was a qualitative study nested in a multicentre trial testing the role of a mobile application called TechMotherCare based on an integrated intervention (Learning through Play plus Cognitive Behaviour Therapy) for depressed mothers of young children (0-3 years).

Methods: In-depth one-to-one qualitative interviews were conducted with 17 depressed mothers at pre-intervention stage and 14 at post-intervention stage. Two semi-structured topic guides were developed for pre (to explore their views on potential use of technology) and post-intervention interviews (to explore perceived usefulness of technology to deliver intervention). Interviews were conducted by trained qualitative researchers, audio recorded, transcribed verbatim and translated into English.

Results: Data was analysed using the Framework Analysis. Participants talked about acceptability and usefulness (can see intervention messages at a convenient time, simple easy to understand messages, a potential way of overcoming barriers related to travel, messages can be shared with other family members). Participants highlighted satisfaction with momentary assessment of mood. Challenges were reported such as unable to receive messages when a mobile phone got damaged, connectivity issues and concern from family on using mobile phone. Participants recommended using audio-messages for increasing access to those who cannot read/write and to include fathers as well.

Conclusion: Digitally delivered psychosocial intervention is feasible and acceptable for depressed mothers and can be a potentially effective and cost-effective solution for maternal depression in LMICs.
Battling depression: A journey towards empowering fathers in their parenting role in Pakistan

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Depressive disorder #1, June 9, 2022, 10:00 AM - 11:15 AM

Objectives:

Paternal depression is an under-researched area. It leads to poor child outcomes in social, academic, and cognitive development including increased risk of psychopathology in later life. This study aimed to evaluate the effectiveness of a culturally adapted integrated parenting intervention “Learning Through Play Plus (LTP+)” for depressed Pakistani fathers of children <3 years of age, delivered by the Community Health Workers.

Methods:

A total of 357 depressed fathers were recruited from two low resource community settings in Karachi, Pakistan into a two arm, parallel design randomized controlled trial comparing LTP+ Dads (n=171) to treatment as usual (TAU, n=186). Twelve sessions of LTP+ Dads were offered over four months in a group setting. Assessments were carried out at baseline, 4 and 6-month follow-up using the Hamilton Depression Rating Scale, Oslo social support scale, Generalized Anxiety Disorder scale, Euro-Qol-5 Dimensions, Rosenberg Self-esteem Scale, Parenting Stress Index, and Knowledge, Attitude and Practices questionnaire.

Results:

Participants in the LTP+ arm showed a significant reduction in depressive symptoms compared to those in the TAU arm at month-4 (Mean Difference -5.28, 95% CI -3.52 to -7.04, p=0.000) and effect was sustained at 6-month follow-up (MD -2.18, 95% CI -0.72 to -3.64, p=0.004). There was significant improvement in LTP+ arm on anxiety, social support, quality of life, parenting stress, knowledge and positive attitudes about child development at 4-month FU compared to TAU arm.

Conclusions:

A low cost culturally adapted group intervention was effective in reducing depression in depressed fathers of young children in Pakistan.
Persistence and Predictors of Somatic Symptoms over 10 Years: A Real-World Perspective of Men and Women in the MONICA/KORA Cohort

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Somatic Symptom Disorder, June 9, 2022, 10:00 AM - 11:15 AM

Objective: We aimed to assess whether somatic symptoms remain persistent in the general population.

Methods: The study population included 2472 participants (1190 men, 1282 women) with a mean age of 44.3 years who took part in the population-based MONICA S3 study conducted in 1994/95, and the 10-year follow-up KORA F3 study conducted in 2004/05. Somatic symptoms were assessed by an adapted version of the Somatic Symptom Scale-8 (SSS-8a) instrument with scores ranging from 0-24. General Estimating Equation models were used to assess factors contributing to symptom persistence including sociodemographic, lifestyle, somatic and psychosocial risk factors, as well as chronic medical conditions.

Results: The mean somatic symptom score was significantly lower in men (S3:6.88±3.87, F3:6.60±3.86) than women (S3:8.43±4.0, F3:8.31±4.2) at both time points. Somatic symptoms remained moderately persistent in both genders (men:κ =0.42, women:κ=0.48), with the largest persistence in trouble sleeping for men (κ=0.41) and pain in the joints for women (κ=0.41). The predictive effect of previous somatic symptoms on the somatic symptom burden (SSB) at follow-up was largest [men:β=0.82(SE 0.12), women:β=0.85(SE 0.12)], followed by increasing age, poor self-rated health and depression. On the other hand, higher education and increased medical utilization were inversely associated with increasing somatic symptoms during follow-up. Although numerous somatic factors, including hypertension and obesity, were significant in predicting increasing SSB in men, chronic health conditions were not associated with increased SSB in men nor women.

Conclusions: Somatic symptoms remained moderately persistent in the general population during 10 years of follow-up, strongly influenced by sociodemographic and psychosocial factors.
Epistemic trust and personality functioning as mediators for the association of adverse childhood experiences and posttraumatic as well as complex posttraumatic stress symptoms in adulthood

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Trauma and Posttraumatic Stress Disorder, June 9, 2022, 10:00 AM - 11:15 AM

Background Adverse childhood experiences (ACEs) are associated with posttraumatic and complex posttraumatic stress disorder symptoms in adulthood (PTSD/cPTSD), as well as reduced epistemic trust (trust in the authenticity and personal relevance of interpersonally transmitted information) and impaired personality functioning. The present work aims to investigate the mediating effects of reduced epistemic trust and impaired personality functioning in the association of ACEs and PTSD/cPTSD.

Method We conducted structural equation modeling (SEM) based on representative data of the German population (N=2,516). Personality functioning (OPD-SQS) was applied as mediator between ACEs (ACE) and PTSD/cPTSD (ITQ), while epistemic trust (ETMCQ) was added as predictor for OPD-SQS. TLI, CFI and RMSEA (95% CI) determined the models’ fit.

Results N=831 (33.0%) participants reported at least one ACE, while n=243 (9.7%) reported ≥4 ACEs. Fit indices were good to excellent (TLI=.98; CFI=.99; RMSEA=.03 (95% CI=.013;-.049)). ACEs were significantly associated with PTSD (β=.29; p<.001), explaining 8% of its variance. Adding OPD-SQS as mediator increased the explained variance of PTSD to 17% while the direct association between ACEs and PTSD decreased (β=.16), and thus, indicating a partial mediation. The ETMCQ substantially increased the explained variance for OPD-SQS (37%) compared to ACEs as single predictor (15%).

Conclusion We add to previous research emphasizing the critical association of ACEs and PTSD/cPTSD symptoms. Offering insights on underlying factors, we show that reduced epistemic trust and impaired personality functioning are relevant mediating factors. Since both are modifiable by psychotherapy, profound knowledge about these constructs can inspire future research on psychotherapeutic interventions and prevention.
The predictors of multiple somatic symptoms in a population sample: The Lifelines cohort study

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Somatic Symptom Disorder, June 9, 2022, 10:00 AM - 11:15 AM

Objective: Multiple bodily symptoms predict poor health status, high healthcare use and onset of functional somatic syndromes. This study aimed to identify the predictors of multiple somatic symptoms in a population sample.

Methods: The prospective, population-based Lifelines cohort study included 92,539 adults who were followed up for a mean of 2.4 years. At baseline socio-demographic status, self-reported medical disorders, neuroticism, psychiatric disorders (assessed with MINI) and other variables including SCL-90 somatisation scale were assessed. The predictors of a high somatic symptom score at follow up were assessed using logistic regression which adjusted for baseline somatic symptom score (n=67,121). The relative predictive power of 7 dimensions was assessed using linear regression.

Results: The strongest baseline variables which predicted a high SCL somatisation score at follow-up (n=20,664) were: baseline somatic symptoms score, fibromyalgia, irritable bowel syndrome, prolapsed intervertebral disc, frequent use of analgesia, agoraphobia, panic disorder and migraine. The first six of these plus GERD, negative health perception, GAD and few years of education predicted a persistent high somatisation score. In linear regression analysis summary scores of demographic features, medical, psychiatric and functional disorders, stress, neuroticism and current health status were all independently associated with SCL somatisation score at follow-up.

Conclusions: The numerous predictors of multiple somatic symptoms probably underlie its ubiquitous predictive nature and may reflect numerous different aetiological pathways. The bi-directional relationship between functional somatic syndromes and multiple somatic symptoms is compatible with the notion that perception of bodily symptoms is a key component of both.
Burnout and work engagement among hospital staff during the COVID-19 pandemic: longitudinal results from the COPE-CORONA study

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COVID-19 and Hospital staff #1, June 9, 2022, 10:00 AM - 11:15 AM

Background: We investigated changes in burnout and work engagement and their predictors in hospital staff during the COVID-19 pandemic in an international study supported by the European Association of Psychosomatic Medicine (EAPM).

Methods: Two online surveys were distributed to hospital staff in seven countries (Germany, Andorra, Ireland, Spain, Italy, Romania, Iran) between May and October 2020 (T1) and between February and April 2021 (T2). Burnout, work engagement, job function, age, gender, and contact with COVID-19 patients, and individual resources (self-compassion, sense of coherence, social support) and work-related factors (support at the workplace, risk perception, health and safety at the workplace, rejection due to work) were measured via self-report questionnaires at both measurements.

Results: A total of 611 respondents were included for longitudinal analyses (75.6% women). From T1 to T2, we found a slight increase in burnout, but not for work engagement. Burnout was high among personnel with high contact with COVID-19 patients. Personnel who had contact with COVID-19 patients at T1 but no longer at T2 showed persistently high levels of exhaustion. These differences were independent of job function. Individual resources and work-related factors showed associations with burnout and work engagement, both at T1 and T2. However, no significant interactions emerged.

Conclusion: Burnout represents a potential problematic consequence of occupational contact with COVID-19 patients. Since this also applies to personnel whose contact decreased significantly, special attention should be paid to this group in organizational health management. Individual resources as well as organizational factors are important starting points for interventions.
Objective: Depression and self-harm are major public health problems and a particular concern for low and middle income countries. Despite the fact that depression and self-harm are significant contributors of suicide, treatment gap for these conditions is huge. The World Health Organization launched the Mental Health Gap Action Programme (MhGAP) Intervention Guide in 2016. This study aimed to contextualize and adapt the mhGAP-IG (depression and self-harm/suicide module) for Pakistan.

Methods: Six online focus groups (FGs) were conducted via video link with General Practitioners from 5 provinces across Pakistan, with 8-10 participants (n=52) in each FG. A detailed presentation was given to the participants on depression and self-harm module. All FGs were facilitated by trained qualitative researcher, digitally recorded, transcribed verbatim, and translated into English. Analysis was conducted using thematic analysis with major and minor themes identified from all focus groups.

Results: Four major themes were derived: perceived barriers of using the mobile application in primary care settings (negative impact on rapport-building, time constraint, privacy issues), perceived benefits of using the e-mhGAP-IG (precise, step-by-step guide), suggestions for additional features in the e-mhGAP-IG (Urdu translation, cultural-specific terms to express somatic manifestation of depression, conveying importance of using application to patients, flow charts to be displayed in clinics), and training requirements for GPs to use the application (face to face practice sessions during evening hours).

Conclusion: The contextualization process provided valuable insight for changes required to make a country-specific version of e-mhGAP-IG and to optimize its use in Pakistan.
Objective: To investigate the long-term changes in anxiety and depressive symptoms, protective and risk factors in hospital staff during the COVID-19 pandemic. Specifically, our aims were: 1) to evaluate sociodemographic, work-related, and individual characteristics associated with changes in distress symptoms; 2) to explore whether and to what extent sociodemographic, work-related, and individual characteristics predict distress symptoms. Methods: Two online surveys were distributed to hospital staff in six countries (Germany, Andorra, Spain, Italy, Iran, Ireland) between May-October 2020 (T1) and between February-April 2021 (T2). An international working group was established for this study, supported by the European Association of Psychosomatic Medicine. Sociodemographic characteristics, contact with COVID-19 patients, anxiety and depressive symptoms, self-compassion, sense of coherence, social support, risk perception, and health and safety at the workplace were evaluated in 611 hospital workers using self-report measures. Results: Between T1 and T2, we found a significant increase in anxiety and depressive symptoms. Lower levels of self-compassion and sense of coherence over time were reported in subjects with anxiety or depressive symptoms both at T1 and T2. High levels of risk perception (T2) and low levels of self-compassion (T2), sense of coherence (T2), and social support (T1 and T2) significantly predicted anxiety or depressive symptoms at T2. Conclusion: These findings point out the risk of developing and maintaining distress symptoms during the COVID-19 pandemic is associated with lower individual and work-related resources in hospital workers. Therefore, enhancing these resources may be a starting point for providing adequate psychological support interventions.
Functional somatic disorders and the association with neuroticism and adverse life events - DanFunD

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Objectives
Several psychological factors have been proposed to be involved in the onset and perpetuation of functional somatic disorders (FSD). However, large population-based studies investigating the importance of both personality and adverse life events are sparse. The current study aimed to investigate the association between FSD and especially neuroticism and the accumulated number of adverse life events.

Methods
This cross-sectional study included a random sample of the adult Danish population (n=9,656; 53.9% women). Different definitions of FSD (bodily distress syndrome, irritable bowel, chronic widespread pain, and chronic fatigue) were established by means of both self-reported questionnaires and diagnostic interviews. Neuroticism was measured with the Danish version of the short-form NEO Personality Inventory. Accumulated number of adverse life events was measured with the Danish version of the Cumulative Lifetime Adversity Measure.

Results
Strong positive associations were found between FSD and neuroticism. Likewise, positive - however less strong - associations between FSD and the accumulated number of adverse life events were found. We found no moderational effect of neuroticism and the accumulated number of adverse life events in the association to FSD.

Conclusion
FSD were highly associated with neuroticism while association to the accumulated number of adverse life events were less strong. Neuroticism and the accumulated number of adverse life events did not have a moderating effect on the probability of having FSD. Prospective longitudinal studies are needed in order to conclude on causality.
Potentially Traumatic Events, Social Support and Symptom Burden in Patients with Persistent Somatic Symptoms: a Longitudinal Study

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Trauma and Posttraumatic Stress Disorder, June 9, 2022, 10:00 AM - 11:15 AM

Objective: Psychological trauma is a well-known risk factor for the onset of persistent somatic symptoms (PSS). In contrast, little is known on the relation between potentially traumatic events (PTEs) and the severity of PSS, and on the protective effect of social support. We aimed to: (i) determine whether childhood, adulthood and recent PTEs are associated with symptom burden over 4-year time in patients with PSS; (ii) examine associations of cumulative exposure to PTEs (in childhood and adulthood) with symptom burden; and (iii) determine whether social support modifies these associations.

Methods: Longitudinal data of 322 patients with PSS were analyzed. PTEs (Life Events Questionnaire) and social support (Social Support Scale) were assessed at baseline. Symptom burden was measured in terms of symptom severity (PHQ-15) and physical functioning (RAND-36 PCS) at 6 measurements over a 4-year interval. Associations were analyzed using longitudinal mixed model analysis.

Results: Patients with multiple childhood PTEs reported higher symptom burden over 4 year time. Adulthood PTEs were associated with higher symptom burden in patients with but not in patients without childhood PTEs. Recent PTEs were not associated with symptom burden over 4 year time. Social support did not modify any of the associations.

Conclusions: PTEs are associated with symptom burden over time, in addition to the well-known association with the onset of PSS. PTEs in early life and cumulative exposure to PTEs in childhood and adulthood are associated with higher symptom burden over 4-year time in patients with PSS. Social support did not attenuate the associations.
Are former infections a determinant for functional somatic disorders. The DanFunD study

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Somatic Symptom Disorder, June 9, 2022, 10:00 AM - 11:15 AM

Objectives: Infections have repeatedly been suggested to initiate and affect the exacerbation of symptoms in Functional Somatic Disorders (FSD). The literature is limited by inconsistent findings in studies conducted in clinical settings with selected populations and shorter follow up time. We aimed to test the hypothesis that former infections are determinants for FSD using data from a large population-based cohort study.

Methods: FSD-cases were identified and linked retrospectively to former infections identified in national hospital admission registries. 9656 men and women aged 18-76 years were included. FSD was measured by various delimitations: bodily distress syndrome (BDS), irritable bowel (IB), chronic fatigue (CF), chronic widespread pain (CWP), multiple chemical sensitivity (MCS), and somatic symptom profiles (SP). The associations between FSD and former infections – with a timespan up till 17 years - were analyzed using logistic regressions calculating odds ratios (OR) and 95 % confidence intervals (CI) adjusted for age, sex and socio-economic status.

Results: Any infection in the foregoing 17 years was consistently associated with all delimitations of FSD. For example number of admissions with infections was positively associated with BDS (OR: 1.26; 95 % CI: 1.20 - 1.32). Bacterial infections were significantly associated with BDS (OR: 1.69; 95 % CI: 1.46-1.96), IB, CF and CWP. Viral infections were not significantly associated with BDS (OR: 1.29; 95 % CI: 0.99-1.68). The associations appeared stronger the more severe symptom profiles.

Conclusion: Former infections may be determinants for FSD. Further studies are needed to assess the driving force behind this association.
From identification of biopsychosocial risk factors to an increase in pain-related self-efficacy – study protocol of the online-based conveyance of an explanatory model for persistent back pain (IDRIS)

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Objective: Etiological models with a biopsychosocial foundation form an important framework for an elaborated understanding of potential causes and maintaining factors in chronic back pain. The IDRIS-study examines if the self-efficacy in patients with acute back pain can be improved with the help of a personalized and animated psychoeducational intervention, based on a current etiological model for the development of persistent somatic symptoms.

Methods: Data on psychosocial risk factors of participants with acute back pain (<12 weeks; N=564) will be assessed online at baseline, after 1 month and after 3 months. Part of the cohort (n=264) will be chosen randomly to receive the intervention or serve as control group. Based on the baseline data, each participant in the intervention group will receive a personalized animation video with psychoeducation on specific risk factors for chronification of back pain. The animation will include information on biopsychosocial factors which may influence the patients’ back pain, and ways to actively prevent chronification.

Results: Main outcome is self-efficacy, measured with the questionnaire to detect pain-specific self-efficacy (FESS). We further expect an improvement in secondary outcomes (intensity and limitation due to back pain after 1 and 3 months) within the intervention group. Acceptance and feasibility of the intervention will be measured.

Conclusion: The study will develop and evaluate a psychoeducational intervention, which can be used online in the early treatment of patients with back pain. If proven effective, it could help to foster a biopsychosocial understanding of acute back pain, and thus reduce risk of chronification.
Effectiveness of Group Psychotherapy for Narcolepsy Type 1

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Psychotherapy and interventions, June 9, 2022, 11:45 AM - 1:00 PM

Introduction:
Narcolepsy type 1 (NT1), a severe chronic neuropsychiatric disorder of the sleep-wake system, with excessive daytime sleepiness and cataplexy (loss of muscle tone, triggered by emotions) often accompanied by other psychiatric symptoms. Standard therapy focusses on pharmacotherapy, psychotherapeutic aspects as quality of life, disease acceptance and performance skills are neglected. The aim of this pilot study was the superiority of an additional method-integrating group-psychotherapy (cognitive-behavioural and body-oriented) on emotional aspects.

Methods:
The prospective single-arm interdisciplinary study included 10 patients with NT1 (ICSD). Medication stayed unchanged during the investigation period and psychometric data was collected at T-1 (6wks waiting), T0 (pre-), T1 post-intervention, T2 follow up (16wks) including specific sleep-related symptoms (PSQI, FSS, ESS), affective symptoms (HADS), emotion regulation (FEEL-E), health-related quality of life (QoL) (SF-12), disease acceptance as well as disease processing and coping (FKV-LIS-SE)

Results:
We found an improvement (T0/T1) in 1) the psychological subscale of QoL (SF-12): 60.4/64.8. 2) depression and anxiety symptoms (HADS): anxiety:7.7/6.3; depression: 6.9/6.7. 3) emotion regulation (FEEL-E):19.8/20.8. Group mean values did not reach statistical relevance except for a subsample of 3 pts in HADS: 12/9.3 (anxiety), 9.3/8.6 (depression). No relevant changes in PSQI, FSS, ESS were found. T2 data is pending.

Discussion:
The results show the described improvement in the whole group, lacking statistical relevance according to the small sample size. Further investigation is needed to differentiate a potential subgroup of NT1 that benefits from a specific psychotherapeutic interventions.
Interpersonal and Non-Interpersonal Distress During Pandemic: Effects on somatic symptoms

Landa A

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Objective: Our prior research suggests that distinct neural circuits subserve interpersonal and non-interpersonal emotions, and that specifically interpersonal vs non-interpersonal trauma has stronger association with somatic symptom disorders. As COVID-19 pandemic resulted in multiple types of similar stressors being experienced by large populations, it presented a unique opportunity to study the relative contribution of interpersonal versus non-interpersonal distress to health and somatic symptoms specifically. This study investigated the effects of interpersonal and non-interpersonal distress as well as coping strategies on somatic symptoms and recovery.

Methods: Adults ages 30-59 (n=1038) residing in the areas affected by COVID-19 pandemic completed multiple measures of interpersonal and non-interpersonal history, wellbeing, medical and mental health history and somatic symptoms throughout the pandemic at multiple time points, as well as the three newly developed scales: comprehensive Pandemic Experiences Questionnaire (PEQ); Pandemic-Related Stress Questionnaire (PRSQ) to rate pandemic-related distress separately for Interpersonal and Intrapersonal stressors, and coping styles scale (COPE-I) which assess interpersonal and non-interpersonal coping.

Results: By differentiating interpersonal and non-interpersonal distress we show the unique contribution of interpersonal distress and coping strategies to the incidence and severity of somatic symptoms, as well as to the recovery.

Conclusions: This study suggests that interpersonal distress has a unique contribution to health. Therefore, it’s assessment and treatment need to be implemented into clinical practice in both medical and mental health settings. The distinction of interpersonal and non-interpersonal distress in research studies would help further understanding of the mechanisms underlying these effects.
Pilot study of an ecological momentary music intervention to reduce stress of Turkish immigrant women

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Psychotherapy and interventions, June 9, 2022, 11:45 AM - 1:00 PM

Objective: Immigrant women experience multiple types of discrimination, including ethnic discrimination (ED). Experienced chronically, ED is known to affect health due to dysregulations in psychobiological stress systems. Therefore, interventions with the potential to immediately alleviate stress reactions to perceived ED and other stressful events are particularly promising. We investigate the feasibility and the effectiveness of a tailored ecological momentary music intervention in reducing stress levels after discriminatory and other stressful events.

Method: During the 35-day pilot study, participants (N=20 chronically discriminated Turkish immigrant women) answer items regarding their momentary stress levels, perceived ED, and further variables four times a day in their daily life using a smartphone-based app. Additionally, they report every event they perceive as discriminating and/or stressful. Participants are subsequently instructed to either listen to music (intervention event) or not to listen to music (control event) on a random basis (intraindividually randomized design). As part of every report, participants collect saliva samples.

Results: At the time of abstract submission, eleven participants have been accepted for study participation. By the time of the congress, preliminary findings on the effects of music listening in moments of acute perceived ED/stressful events on psychological and biological stress levels will be available. Further, qualitative data from semi-structured interviews on the feasibility of the intervention will be available.

Conclusion: Results of our innovative pilot study will provide valuable insights regarding the feasibility and the effectiveness of music listening as a self-management tool to reduce stress levels in the everyday life of chronically discriminated individuals.
A pilot study of mirror therapy on patients with chronic somatoform pain disorders and its effect on psychometric and physiological parameters


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Background: Chronic pain and its associated somatoform disorders are of high prevalence in the general population. Patients often report reduced quality of life and high symptom burden while many patients respond insufficiently to the available treatment options. In this pilot study, we investigated the effect of mirror therapy on patients with chronic somatoform pain disorders.

Methods: We included fifteen subjects who have been diagnosed with a chronic somatoform pain disorder (F.45.40, F45.41). Pain of the subjects had to be laterized, i.e. pain had to be dominant in the left or right side of the body. The subjects received a four-week (15min/day) tablet-based intervention incorporating exercises for the upper and lower limbs which, after thorough instruction, were carried out by the subjects themselves at home. Before (T0) and after (T1) the intervention we assessed symptom severity with questionnaires. In addition to this psychometric assessment, we also measured thermal pain thresholds (heat and cold).

Results: Pain intensity as measured by the German Pain Questionnaire was significantly reduced after the intervention (T0: -13.8%, p=0.004). Additionally, we found a change in the pain threshold of cold stimuli, i.e. subjects were getting more sensitive to cold stimuli (+25.2%, p=0.041).

Conclusion: We demonstrated that mirror therapy is able to reduce pain intensity and modulate associated physiological parameters. As this pilot study and its findings are limited by several factors, e.g. small sample size and a missing control group, these promising results motivate further studies investigating this novel intervention in the patient collective with pain disorders.
Coping with Illness and Aging: The Role of Hope and Empathy

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Baycrest

Psychotherapy and interventions, June 9, 2022, 11:45 AM - 1:00 PM

Objective:
Getting older is associated with multiple losses such as health, spouse, role, work, finances, social connection and meaning. The loss of hope and dignity, due to a lack of empathy towards older adults is particularly detrimental to emotional health. Examples from a clinical psychotherapy practice will demonstrate the importance of hope and an empathic approach in providing treatment to this population.

Methods:
The stages of hope in illness and aging will be outlined. The importance of having hope and the capacity to take action to maintain self-efficacy, resilience and the ability to cope will be demonstrated. The concept of empathy will be clarified and then the question of how empathic health-care systems and society are in providing care and meeting the needs of our aging population in both community and long-term care will be discussed.

Results:
Clinical vignettes will demonstrate the importance of both offering realistic hope and being guided by empathy in addressing the feelings of anxiety, sadness, fear and vulnerability in the ill and aging population that seek our help as they often fall victim to the perils of ageism.

Conclusions:
The vulnerable frail population of seniors remain vulnerable to an unempathic attitude and approach by both healthcare practitioners and society which unfortunately may contribute to a loss of hope and despair. We can help this population by recognizing and addressing these problems at both individual and societal levels through advocating for a more hopeful and empathic approach that also encourages seniors to find their own voice.
Functional somatic disorders: a new common classification for research and clinical use

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APPLICATION FOR A PANEL DISCUSSION (90 min. total)
- as discussed with Christoph Pieh (please delete this note before publication)

Background:
Functional somatic symptoms are common and complex phenomena involving both bodily and brain processes, which pose major challenges across medical specialties. The EURONET-SOMA group has outlined five problems pointing to the need for a new classification (1). The authors propose a new classification, ‘functional somatic disorder’, which is neither purely somatic nor purely mental, but occupies a neutral space between these two historical poles. This classification reflects both emerging aetiological evidence of the complex interactions between brain and body and the need to resolve the historical split between somatic and mental disorders. This proposal will be presented at the symposium and opened to critical discussion.

Procedure of the symposium:
a) Bernd Löwe, Hamburg, Germany: Brief introduction into the topic and its context (5 min)
b) Winfried Rief, Marburg, Germany: The current confusion in classification (10 min)
c) Per Fink, Aarhus, Denmark: Bodily Distress Syndrome as an evidence based proposal (10 min)
d) Christopher Burton, Sheffield, UK: The EURONET-SOMA proposal for functional somatic disorders – from a generalist perspective (10 min)
e) Peter Henningsen, Munich, Germany: The EURONET-SOMA proposal for functional somatic disorders – from the perspective of „psychological medicine“ (10 min)
f) Bernd Löwe, Hamburg, Germany: Panel discussion with questions to the speakers and the audience (45 min)

Reference:
1) Burton C, Fink P, Henningsen P, Löwe B, Rief W, on behalf of the EURONET-SOMA group. BMC Medicine, in press.
Self-help interventions for persistent physical symptoms: a systematic review of behaviour change components and their potential effects

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Psychotherapy and interventions, June 9, 2022, 11:45 AM - 1:00 PM

Objective:
Persistent physical symptoms (PPS) remain a challenge in the healthcare system, mainly due to time-constrained consultations, uncertainty and limited specialised care capacity. Self-help interventions may be a cost-effective way to widen the access to treatment. To make a foundation for future interventions, we aimed to describe intervention components and their potential effects in self-help interventions for PPS.

Methods:
Randomised controlled trials were identified based on a systematic literature search made in PubMed, EMBASE, PsycINFO and CENTRAL. Risk of bias was assessed using the Cochrane RoB2 tool. Interventions were coded for effect on outcomes (standardised mean difference ≥0.2) related to symptom burden, anxiety, depression, quality of life, healthcare utilisation and sickness absence. The Behavior Change Technique (BCT) Taxonomy v1 was used to code intervention components. An index of potential was calculated for each BCT within an outcome category, and each BCT was assessed as ‘potentially effective’ or ‘not effective’ based on a two-sided test for binomial random variables.

Results:
A total of 51 studies were included. Only one study represented low risk of bias across all evaluated domains. Sixteen BCTs showed potential effect. These BCTs represented the themes: goals and planning, feedback and monitoring, shaping knowledge, natural consequences, comparison of behaviour, associations, repetition and substitution, regulation, antecedents and identity.

Conclusion:
The results suggest that specific BCTs should be included in new PPS self-help interventions aiming to improve the patients’ physical and mental health.
The risk factors for self-reported fibromyalgia with and without multiple somatic symptoms: The Lifelines cohort study

Creed F

University of Manchester, UK

Objective: The numerous risk factors for fibromyalgia reflect its heterogeneous nature. This study assessed whether the predictors of fibromyalgia onset vary according to number of prior somatic symptoms.

Methods: The prospective, population-based Lifelines cohort study included 138,617 adults without fibromyalgia or marked muscle pain. At baseline socio-demographic status, physical and psychiatric disorders, psycho-social and behavioural variables were assessed as potential predictors. At follow-up (mean 2.4 years later) new onsets of fibromyalgia were recorded by self-report. The predictors of new onsets of self-reported fibromyalgia were assessed using logistic regression with interaction terms between key variables and number of somatic symptoms.

Results: At follow-up 679 (0.5%) participants reported new onset fibromyalgia. The strongest predictors were: female sex, rheumatoid and osteo-arthritis, IBS, impaired sleep, migraine, few years of education and impairment by bodily pain. Interaction terms with somatic symptoms were significant for years of education, low income, rheumatoid arthritis and no. of analgesics; these were predictors only for fibromyalgia with few somatic symptoms. Participants with multiple somatic symptoms had a higher number of predictors than those with few somatic symptoms.

Conclusion: This study suggests that people developing self-reported fibromyalgia with multiple pre-existing somatic symptoms have a high risk factor load reflecting risk factors for both fibromyalgia and multiple somatic symptoms. Self-reported fibromyalgia with few somatic symptoms has fewer predictors which may be specific to fibromyalgia. Future research could usefully study whether different pathophysiological mechanisms occur when fibromyalgia is preceded by high or low number of somatic symptoms.
Factors influencing Human Papillomavirus vaccination uptake in European women and adolescents: a systematic review and meta-analysis

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Background: Cervical cancer is one of the most common malignancies in women that can easily be prevented by well-organized screening and Human Papillomavirus (HPV) vaccination programs.
Objective: This study aimed to explore cognitive and emotional factors associated with HPV vaccine uptake in European adolescents and women by performing a systematic review and meta-analysis.
Methods: A systematic literature search was conducted in representative medical databases. We included all the studies that compare various characteristics in vaccinated and unvaccinated women or adolescents. Studies were included based on predefined inclusion and exclusion criteria. Multiple analyses were performed to evaluate factors that could influence vaccination rates.
Results: On a total population of 5979 participants, pooled results showed that knowledge about HPV infection can positively influence the rates of vaccination with an Odds Ratio (OR) of 1.82, a confidence interval (CI) between 1.27 and 2.61, showing statistical significance at a Z value of 3.24 with a p-value of .001. Neither knowledge about HPV vaccination (OR=1.39, CI: 0.73-2.65, Z=1.01, p=0.31), nor knowledge about cervical cancer screening (OR=1.05, CI:0.55-1.98, Z=0.14, p=0.89) did not seem to have an effect on vaccination rates. However, intention to undertake a cervical cancer screening (CCS) showed higher vaccination rates than women who do not intend. Other factors influencing vaccine uptake were: fear of side effects, insufficient information and believe that chances of being infected are low.
Conclusions: Results demonstrated that knowledge about HPV infection can positively influence vaccination, potentially showing a role for HPV education.
DanFunD – disentangling functional somatic disorders using classical epidemiological methods


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Persistent physical symptoms (e.g. pain, fatigue), which can develop into functional somatic Disorders (FSD) are prevalent in all medical settings, but great controversies exist as regard delimitation, occurrence, risk factors, prognosis, and costs.

The Danish study of Functional Disorders (DanFunD) was initiated to outline the epidemiology of FSD in the world’s first population-based cohort with specific focus on FSD. The research plan employs a bio-psycho-social approach, i.e. to 1) test delimitations of FSD; 2) estimate prevalence and incidence rates 3) identify factors associated with FSD; 4) assess prognosis and consequences for persons with FSD; and 5) calculate social and healthcare costs for society.

A total of 28,773 men and women aged 18-76 years randomly sampled from the general population were invited. 9,656 (33.7 %) participated in the baseline examination and 5,513 (57.1 %) also in a 5-year follow-up (2017-2020). Participants filled in detailed questionnaires, completed a health examination, a biobank was established, and the cohort was linked to central national registries.

Prevalence of FSD is 10-15 %, twice as common in women as in men. Persons with FSD report impaired daily activities, lower self-perceived health, and higher self-perceived chronic stress. This qualifies FSD as a major public health problem. Analysis are on-going, and so-far we found FSD to be associated with lower social class and former infections, whereas a hypothesis about altered pain regulation in FSD was not confirmed.

Findings from DanFunD confirms the value of population-based cohort studies as a tool to disentangling the epidemiology of poorly understood diseases.
The PAINMIG cohort-study: Mental pain and pain proneness in migraine subjects

Cosci F, Mansueto G

University of Florence

PAIN: From bench to bedside, June 9, 2022, 11:45 AM - 1:00 PM

Objective: The aim of the present cohort study was to investigate migraine patients enrolled at a tertiary care unit to study suffering and pain behaviors and identify potential risk factors for migraine.

Method: An observational cross-sectional study was carried out on patients with chronic migraine (CM), episodic migraine (EM), and healthy subjects (HS). The three groups were matched for age and sex. A comprehensive assessment of migraine disability, pain, psychiatric disorders, psychosomatic syndromes, depressive and anxious symptoms, euthymia, mental pain, psychosocial variables, and pain-proneness was performed.

Results: Three hundred subjects were enrolled (100 CM, 100 EM, 100 HS). Based on the multiple regression analyses, those presenting higher levels of psychological distress (OR=1.15, 95%CI 1.03-1.28) and proneness to pain (social impairment: OR=3.59, 95%CI 1.14-11.29; depressive symptoms: OR=3.82, 95%CI 1.74-8.41) were more likely to be CM than HS. Those with higher levels of proneness to pain (social impairment: OR=4.04, 95%CI 1.60-10.22; depressive symptoms: OR=2.02, 95%CI 1.26-3.24) were more likely to be EM than HS. Those presenting higher levels of mental pain were more likely to be CM than EM (OR=1.45, 95%CI 1.02-2.07).

Conclusion: Migraine is an unpleasant sensory and emotional experience associated with psychosocial manifestations which might contribute to the level of suffering of the individuals. Mental pain resulted to be the variable which most differentiated chronic from episodic migraine individuals.
Can mortality over 25 years be predicted in healthy middle-aged women?

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1Medical Clinic, Division of Psychosomatic Medicine, Charité CBF Charite, 2Stress Research Institute, Stockholm University, 3Beuth Hochschule für Technik, 4Dept Clinical Neuroscience, Karolinska Institutet

Objective: It is assumed that psychosocial, psychophysiological and behavioural factors can limit the life expectancy of women who do not suffer from a serious illness. We investigated whether these factors are related to long-term survival.

Methods: The study group consisted of 300 presumably healthy women aged 30 to 65 years (mean age 57.5 years) randomly selected from the normal population. Their behavioural and psychosocial risk profiles as well as their exercise, smoking, sleep and dietary habits were recorded using standardised procedures. Depressive symptoms were measured by the Pearlin questionnaire. Time and frequency domain measurements were performed using 24-hour ECG. At follow-up after 26.1 years (range 25.3-28.3), all-cause mortality was assessed in 299 (99.7%) of the 300 women. In a new exploratory analysis using machine learning algorithms, we compared the effects of psychosocial and behavioural mechanisms with other risk factors.

Results: We found that 101 (33.9%) of the previously healthy women had died. A sedentary lifestyle or regular intensive exercise (HR 1.62 [95% CI 1.10-2.40; p=0.016) and HRV without cardiac arrhythmia (HR 0.20, 95%CI 0.81-0.48; p=0.001) were found to be important predictors in the model. Current smoking, depressive symptoms, SDNN and C-reactive protein were included in the predictive model but were not found to be significant. Social integration, diet and sleep disturbances were not included in the model.

Conclusion: The data confirmed our hypothesis about the influence of behavioural and psychophysiological risk factors on long-term survival. Targeted preventive measures in various areas identified here could contribute to a prolongation of life.
The Stanford Proxy Test for Delirium (S-PTD): A New Tool for the Screening of Delirium in the Medically-Ill – A Multicenter Validation Study

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¹Stanford University, ²University of Washington, ³King Saud University

Objective: Even though delirium is common and usually associated with increased morbidity, mortality and poor physical and cognitive outcomes, it continues to be a commonly underdiagnosed and misdiagnosed disorder.

Methods: Using data from two previous validation studies of the S-PTD, performed in two separate countries (Stanford University, USA and King Khalid University, Saudi Arabia), we compared the diagnostic sensitivity and specificity of the S-PTD against an assessment based on DSM-5 criteria. Both studies were performed under similar clinical conditions, in patients admitted to in-patient clinical units, who were independently and blindly evaluated for the presence of delirium using the S-PTD and a neuropsychiatric assessment.

Results: A total of 194 patients from Stanford University Hospital and 282 patients from King Khalid University Hospital were included in the combined analysis (N=476). The follow-up resulted in a total of 167 days of delirium and 535 non-delirious days. Demographic data analysis showed that delirious patients were on average older than the non-delirious patients. The S-PTD had a sensitivity of 82% and a specificity of 93%.

Conclusion: The S-PTD is a nurse administered screening tool developed to address the deficiencies in current delirium screening tools. Advantages include: it is brief (about 1-minute), considers multiple time points, requires no direct patient participation, and is more comprehensive. This large multicenter validation study demonstrates that the S-PTD is superior to previously reported delirium screening tools. Its ease of use and comprehensiveness will allow a significant improvement in delirium screening if adapted to current hospital practice.
Atypical working hours are associated with substance use in women: longitudinal analyses from the CONSTANCES cohort


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Young Researcher’s Symposium, June 9, 2022, 11:45 AM - 1:00 PM

Background: We examined the prospective associations between atypical working hours and substance use, including also sugar and fat consumption.

Methods: In the CONSTANCES cohort, a total of 47,288 men and 53,324 women currently employed were included from 2012-2017 for tobacco and cannabis outcomes, and 35,647 and 39,767, respectively from 2012-2016 for alcohol and sugar and fat outcomes, and they were then followed up annually. Atypical working hours were self-reported at baseline and considered three different indicators: night shifts, weekend work and non-fixed working hours. Generalized linear models computed odds of substance use and sugar and fat consumption at follow-up according to atypical working hours at baseline while adjusting for sociodemographic factors, baseline depression and baseline level of consumption.

Results: Night shifts increased significantly the odds of using tobacco in women (Odds ratios, ORs varying from 1.55 to 1.62) and cannabis in men (ORs varying from 1.80 to 1.95). Weekend work increased the odds of using tobacco (ORs varying from 1.51 to 1.67) and alcohol (OR of 1.16) in women. Non-fixed working hours increased the odds of using tobacco and alcohol in men and women (ORs varying from 1.15 to 1.19 and 1.12 to 1.14, respectively). Dose-dependent relationships were found for tobacco use in women (P for trends<0.0001). No significant associations were found for sugar and fat consumption.

Conclusion: The role of atypical working hours on substance use should be taken into account by public health policy makers and clinicians for information and prevention strategies, especially among women.
Attitudes towards COVID-19 compared to influenza vaccination among hospital staff

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Background: Despite hospital staff’s high vaccination priority due to recurrent patient contacts, COVID-19 vaccination hesitancy in this group is alarming. In the general population, the previous uptake of influenza vaccination increases the likelihood of COVID-19 vaccination. The aim of the present study was, therefore, to investigate attitudes towards COVID-19 compared to influenza vaccination among hospital staff.

Method: Three samples were recruited from employees of the University Medical Center Hamburg-Eppendorf: an Influenza vaccination group (n = 167), a COVID-19 vaccination (n = 671), and a COVID-19 refuser group (n = 54). All three samples answered numerical rating scales on the subjective risk of the respective infection to themselves and in general, the risk of vaccination and its perceived efficacy. COVID-19 vaccination refusers could also select the three most important reasons for refusal from a list and provide additional reasons via an open-ended item.

Results: COVID-19 vaccination refusers rated the risk of infection for themselves and in general as well as the efficacy of the vaccine lowest and the risk of the vaccine highest. Their most frequently provided reasons for refusal were possible side effects (67%), pregnancy (52%), and perceived pressure to vaccinate (46%).

Conclusion: Hospital staff who had been vaccinated against influenza or COVID-19 reported comparable risk-benefit assessments, although the latter is a comparatively new vaccine. Our results show a relatively high propensity to vaccinate against COVID-19 among hospital staff, with a simultaneous need to balance vaccine information, the need for vaccination, and voluntary uptake in future vaccination campaigns.
Sex and gender differences in help-seeking of patients with somatic symptoms

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Objective: Women are reported to consult general practitioners (GPs) more frequently than men. However, previous studies on sex differences in help-seeking behaviour for somatic symptoms do not distinguish between sex and gender, do not account for sex differences in presented symptoms, and are often conducted in clinical settings, automatically excluding non-help seekers. Therefore, we assess the independent associations of sex and gender with primary care help-seeking for somatic symptoms in the general population.

Method: Records from the longitudinal population-based Lifelines Cohort Study were linked to routine electronic health records from GPs. We applied generalized linear mixed-effect models to assess whether participants’ sex and gender, operationalized by a novel gender index, were associated with consulting GPs, while adjusting for participants’ presented symptom(s), age, presence of chronic disease and educational level. In post-hoc analyses we assessed whether gender-related variables, such as mean paid working days per week, were associated with help-seeking behaviour.

Results: Of the 20,187 individuals with linked data, 8,325 participants (67.5% female; mean age=44.5 [SD=12.9]) reported at least one new-onset somatic symptom and 255 (3.1%) hereof consulted the GP. Female sex was positively associated with consulting the GP (OR=1.78; 95%CI=1.13-2.80), whereas feminine gender was not significantly associated with this (OR=0.67; 95%CI=0.39-1.16). More paid working days negatively associated with help-seeking (OR=0.95; 95%CI=0.91-0.98).

Conclusion: The results suggest that female sex rather than feminine gender associated with primary care help-seeking behaviour for somatic symptoms. Nevertheless, clinicians should be aware that gender-related variables, such as mean paid working days may associate with help-seeking behaviour.
A peer-delivered psychosocial support intervention improves disease acceptance and quality of life in patients with rare diseases – a randomized controlled trial

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Objective: This study aimed at evaluating the efficacy of a six-week transdiagnostic psychosocial support program (Depping et al., JAMA Psychiatry, 2021), which combines telephone-based peer-support and self-management, and which has been specifically developed to address the unmet psychosocial support needs of patients with rare diseases.

Methods: Within a randomized-controlled trial, we compared the program in addition to care as usual (CAU) with CAU alone in patients with four heterogeneous rare diseases. Outcomes were assessed at baseline, directly after, and six months after completing the program. Primary outcome was disease acceptance (Illness Cognition Questionnaire, ICQ). Secondary outcomes were quality-of-life (SF-12), self-management abilities (Health Education Impact Questionnaire), illness cognitions (ICQ), social support (F-SozU), depression severity (PHQ-9) and anxiety severity (GAD-7). Data were analyzed with an intention-to-treat principle.

Results: We included N=89 patients (mean age=46.3±14.9; 66% female). All patients in the intervention group completed the program. There were no group differences at baseline. Compared to the control group, the intervention group showed significantly better disease acceptance six months after the program (mean difference −1.47; 95%CI[−2.63, −0.31]; p<.05, Cohen’s d=0.4). Moreover, the intervention group improved in mental quality of life, several self-management abilities, perceived social support and helplessness compared to the control group.

Conclusion: The brief and peer-delivered psychosocial support program improved disease acceptance and further outcomes in patients with different rare diseases. Since the program is transdiagnostic and location-independent, it has the potential to reach many individuals within this hard-to-reach patient population for psychosocial support.
The mediating role of stress for the effects of the music listening style on pain

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Objective: Music listening is effective in pain and stress management and can be modulated by the music listening style (MLS): Music empathizers (ME) focus on emotional aspects of music, and music systemizers (MS) focus on structural aspects. This study aimed to investigate if the MLS influences pain and stress, and if the effect of MLS on pain is mediated by stress.

Methods: Healthy participants (N=61; age: M=24.2, SD=3.89; female/male ME/MS) listened to stimuli during a cold pressor test (CPT) on three days (1: participant-selected music, 2: researcher-selected music, 3: lapping water; random order). Pain intensity, subjective stress, heart rate (HR), heart rate variability parameter RMSSD, salivary alpha-amylase (sAA) and salivary cortisol (sCort) were repeatedly measured. Data were analysed with multilevel and mediation analyses.

Results: In interaction with gender and condition, MLS influenced reactions in pain intensity and HR, but not subjective stress, RMSSD, sAA or sCort. The effect of MLS on pain intensity was mediated by stress-related parameters: in ME – compared to MS – higher levels of subjective stress at the CPT and lower sCort levels at baseline and CPT were observed, which in turn was associated with higher perceived pain intensity at the CPT and a stronger increase in pain intensity from baseline to CPT.

Conclusion: Our findings suggest that the MLS can influence specific pain- and stress-related parameters. The effect of the MLS on pain is mediated by endocrine activity and subjective stress. The study provides novel information on individual differences in coping with pain and stress.
Psychotropic drugs in patients with Covid-19: a retrospective cohort study (PsyCovid-19 study)

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COVID-19 #1, June 9, 2022, 11:45 AM - 1:00 PM

Objective

There is evidence of a bidirectional association between COVID-19 disease and psychiatric disorders. Our objective was to identify if individuals with psychiatric disorders could have a worst prognosis and if psychotropic drugs could worsen the disease course.

Methods

In our study, we included all individuals with a laboratory-confirmed COVID-19 infection (PCR diagnosis) who were admitted to the University Hospital of Bologna between 1st March 2020 and 31st January 2021. We checked mortality at 14 and 30 days after admission. We also collected data about pre-existing psychiatric disorders and the use of psychotropic medications at the admission. Finally, we estimated cause-specific Hazard Ratios (HR) of mortality using weighted Cox regression models and adjusting sociodemographic (age, gender) and clinically relevant variables (comorbidity, c-reactive protein levels, severity of disease at presentation, history of smoking).

Results

Out of a total of 1,201 hospitalized patients, 318 were prescribed psychotropic medications at the time of admission. Among these, 48 (4.0%) were taking an FGA and 63 (5.2%) an SGA. We present data which show that exposure to antipsychotics prior to hospitalization was associated with increased cause-specific HR of death at 14 and 30 days in adjusted models.

Conclusion

Patients with COVID-19 infection exposed to antipsychotics may have a higher risk of mortality, so these drugs should be prescribed with caution. People affected by severe mental illness have both medical and socioeconomic risk-factors for severe Sars-Cov-2 infection, morbidity and mortality, therefore they should be considered fragile patients within the COVID-19 vaccination campaign.
Objective: Smoking is one of the leading causes of preventable deaths. A large proportion of Pakistani males use tobacco. Existing evidence demonstrates a positive association between depression and tobacco use. This study aimed to assess the prevalence and socio-demographic predictors of tobacco use among depressed fathers of children (0-3 years) in Karachi, Pakistan.

Methods: This is a secondary analysis of a large Cluster Randomized Controlled trial evaluating low-cost group parenting program called Learning Through Play (LTP) plus intervention for depressed fathers (NCT03564847). Depressed fathers (N=357), aged 18-55 years with a young child (0-3 years) were recruited from two low resource towns in Karachi. Hamilton Depression Rating Scale was used to measure severity of depression. Data on tobacco use and type of tobacco was also collected.

Results: The findings revealed that 72.6% of depressed fathers reported current tobacco-use, majority using smokeless-tobacco (61.9%). Gutka was most frequently used smokeless-tobacco (45.4%). Low-income status (OR=.58, CI [.36, 0.92] and living in rented house (OR=.39, CI [.23, 0.67]) were significant predictors of tobacco use. Moreover, younger age (OR=.98, CI [.96, 1.02]), low level of education (OR=.99, CI [.83, 1.19]), living in joint family system (OR=1.14, CI [.69, 1.86]) and severe depression (OR=1.26, CI [.66, 2.41]) were associated with more tobacco use.

Conclusion: In Pakistan, tobacco use in depressed fathers is strongly predicted by socio-economic determinants. Tobacco control programs must include disadvantaged populations such as those with low literacy, living in poverty, and individuals with mental illnesses to improve health and prevent premature deaths.
Development of a patient-centered biopsychosocial collaborative care strategy for the treatment of multi-morbid older patients in the multinational, EU-funded ESCAPE project


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ESCAPE study, June 9, 2022, 4:30 PM - 5:45 PM

Objective: Blended collaborative care (BCC) delivered by nurse care managers (CM) is effective in improving quality of life, mood, and medical parameters in patients suffering from physical-mental multimorbidity. Since multimorbidity is common but often insufficiently treated in older patients, we will, using a participatory approach, adapt the BCC strategy to target patients aged 65+ with heart failure, 2+ somatic conditions and psychological distress across different health care systems.

Methods: Existing BCC strategies are modified to the cohort’s needs by: a meta-algorithm to prioritize care goals in a shared decision-making process between patients, GPs and care managers (CM); participatory input from patient groups; counselling guidance for complex health behavioral changes; a web-based information platform; and a supervising multidisciplinary physician specialist team. First, CMs will identify patients’ support and care needs and priorities. Following a detailed consultation with patients’ GPs and the specialist team, CMs and patients set up a care plan with specific treatment goals. Over the course of 9 months CMs will in regular telephone contacts: educate and counsel patients and pro-actively monitor and support their treatment progress. To assist implementation a care management manual and online training are developed. Requirements of the different health care systems are considered to facilitate adaptability.

Before the general launch, we conducted a feasibility test at one German study site.

Results: We present results from the feasibility study and the prototype ESCAPE BCC intervention.

Conclusion: The prototype ESCAPE BCC intervention will subsequently be tested in an RCT in six European countries.
How to understand the psychodynamic aspects of the consultation: an EAPM-ACLP workshop

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ACLP EAPM workshop, June 9, 2022, 4:30 PM - 5:45 PM

Objective: The EAPM and ACLP both support training C-L psychiatrists and psychosomatic medicine specialists to carry out psychodynamically-informed assessments of how patients unconsciously shape the meaning of their illness and the challenge to press on in life. Faced with multiple competing pressures to efficiently care for medical patients, C-L psychiatrists and allied health professionals will better meet the needs of their patients if they are equipped to listen and think through the whole meaning of the patient’s illness and suffering.

Methods: We will address these issues through presentation and discussion of two cases that illustrate the advantage provided by dynamically informed consultation. A panel of experienced and analytically trained C-L experts will show how a psychodynamic understanding of powerful emotional responses in (a) the patient and his or her relatives, (b) the ward’s medical team, and (c) the psychiatric consultant, enables the examination of transference and counter-transference phenomena and underlying unconscious conflicts.

Results: The commentary will illustrate how trainees can be encouraged to cultivate the capacity to integrate dynamic formulation into their consultative work.

Conclusions: Presenting actual patients, drawing on the deep experience of the panel members to comment, and then inviting audience participation in further reflection on the challenges of working with the medically ill who have significant psychodynamic contributions to their behavior will strengthen the ability of all participants to bring these skills to bear on their daily clinical work.
Depression and its Correlates in Patients with Heart Disease in Pakistan: A Prospective Cohort Study

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Depressive Disorder #2, June 9, 2022, 4:30 PM - 5:45 PM

Objective: Rate of depression is 2 to 3 times higher in patients with heart disease as compared to general population. Depression is an independent risk factor of poor prognosis in this population. The current study aimed at assessing the prevalence of depression in patients with heart disease in Pakistan and to compare depressed and non-depressed participants on clinical and social outcomes.

Methods: This was a prospective cohort study. A total of 568 patients with heart disease were recruited from two tertiary care and one primary care setting in Karachi, the largest metropolitan city in Pakistan. Participants were assessed at baseline and after a 6-month follow up for depression using the Hamilton Anxiety and depression rating scale, social support using Oslo, health-related quality of life using the EuroQol (EQ-5D) and stressful life events using the Life Events Checklist.

Results: A total of 420 (74%) participants were depressed at baseline. At baseline, depressed participants reported significantly more stressful life events, higher level of anxiety, reduced social support and poor health related quality of life as compared to non-depressed participants. A total of 274 participants completed 6-month follow up assessments. Similar trends were observed at follow-up assessment.

Conclusion: Findings suggest that the rate of depression is high among patients with heart disease in Pakistan and depression is associated with anxiety, stressful life events, reduced social support and poor quality of life. Controlled intervention trials are needed to understand the potential benefits of identifying and treating depression.
Objective: Few studies have explored the potential of blended collaborative care (BCC) through an investigation of patients’ unmet needs. The present study aims to analyze specific needs in elderly patients with heart failure (HF) and multimorbidities, and investigate their possible associations with sociodemographic variables (age; gender), number of comorbidities and psychological distress (anxiety; depression).

Methods: In the “Patient Participatory Involvement” (PPI) phase within ESCAPE, quantitative data from thematic questions encompassing 5 main topics (education, individual tailoring, monitoring, support, coordination, communication), were analyzed. The questions were displayed through different cards to 65+ year-old patients to investigate specific needs/preferences in view of BCC intervention by a care manager (CM). Self-rated instruments were used to evaluate anxiety (GAD-7) and depression (PHQ-9).

Results: 27 patients (Italy=15, Denmark=7, Germany=5; mean age=74.96±7.73, range 65-91 years) were interviewed. Main patients’ needs included: Better HF information (education), enhancement of ability to manage/improve health (individual tailoring), regular checks of HF symptoms (monitoring) and update to the GP about progression of symptoms and health behaviors by CM (coordination), telephone contacts with the CM (communication). Half of the patients reported mild to severe anxiety, whereas more than half depression. Although Italian patients did not express preferences about communication tools, in the other countries males were more likely to prefer mobile messaging services, whereas females preferred patient dashboard for communicating with CM. Finally, patients with psychological distress wished more frequent appointments.

Conclusion: In ESCAPE BCC intervention, CM should take into account these unmet needs and manage the frequent requests from distressed patients.
A joint ACLP-EAPM workshop: How to understand the psychodynamic aspects of the consultation.

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ACLP EAPM workshop, June 9, 2022, 4:30 PM - 5:45 PM

Objective: The EAPM and ACLP both support training C-L psychiatrists and psychosomatic medicine specialists to carry out psychodynamically-informed assessments of how patients unconsciously shape the meaning of their illness and the challenge to press on in life. Faced with multiple competing pressures to efficiently care for medical patients, C-L psychiatrists and allied health professionals will better meet the needs of their patients if they are equipped to listen and think through the whole meaning of the patient’s illness and suffering.

Methods: We will address these issues through presentation and discussion of two cases that illustrate the advantage provided by dynamically informed consultation. A panel of experienced and analytically trained C-L experts will show how a psychodynamic understanding of powerful emotional responses in (a) the patient and his or her relatives, (b) the ward’s medical team, and (c) the psychiatric consultant, enables the examination of transference and counter-transference phenomena and underlying unconscious conflicts.

Results: The commentary will illustrate how trainees can be encouraged to cultivate the capacity to integrate dynamic formulation into their consultative work.

Conclusions: Presenting actual patients, drawing on the deep experience of the panel members to comment, and then inviting audience participation in further reflection on the challenges of working with the medically ill who have significant psychodynamic contributions to their behavior will strengthen the ability of all participants to bring these skills to bear on their daily clinical work.
Objective: Treatments for functional somatic (FSD) and related disorders vary from brief psychoeducational interventions to medical treatments, graded exercise programs, and longer psychotherapeutic courses in either individual or group based format.

Clinical trials testing these treatments show heterogeneous efficacy which may be explained by, thus far, unmet individual patient needs in terms of acceptance, illness severity or comorbidity, or methodological issues in clinical trials. Despite guideline recommendations for FSD treatments across Europe and growing evidence for their efficacy, local treatment opportunities are often scare and limited to specialized settings which contributes to individual and socio-economical FSD burden. Thus, there is a great need to develop and evaluate treatments for FSD for different settings in order to offer evidence-based and patient-centered treatments for a wider group of patients.

Method and results: In this symposium, four individual presentations will provide an overview about most recent developments in FSD treatment.

Conclusion: This symposium invites to a discussion on further development in the field of intervention research for severe FSD
imergo® Clinician Dashboard: an integrated care platform supporting the Blended Collaborative Care intervention in the international, EU-funded ESCAPE study

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ESCAPE study, June 9, 2022, 4:30 PM - 5:45 PM

Objective: A Clinical Information System is one of the essential elements of the blended collaborative care (BCC) strategy based on the Chronic Care Model. The ESCAPE BCC intervention is delivered by numerous teams across Europe supported by a distributed digital clinical platform. The development of such a platform poses several challenges including strict requirements of privacy and security of the target user groups (clinicians, patients and care managers).

Methods: The initial development work targeted the adaptation of the imergo® Clinician Dashboard platform to the requirements of a European-wide clinical study carried out under the scope of the Horizon 2020 ESCAPE project. It includes the integration of back-end components addressing security and data protection requirements of the study and the applicable European legislation (e.g., GDPR), and the numerous clinical requirements for delivery of the intervention.

Results: The system implements a single sign-on identification platform integrating access control rules based upon clinician profiles and component access. Additionally, data are stored following the latest interoperability standards such as HL7/FHIR® (data storage) and SNOMED-CT (terminology). The platform has also integrated an import/processing system to reuse data from e-health legacy systems. The use of such technologies allows the semantic analysis of data and the configuration and monitoring of goals and alerts relevant to the clinical study. Besides technical issues, the customised user interface of the platform is presented.

Conclusion: The customised imergo® Clinician Dashboard platform will constitute a state-of-the art system to manage and visualize complex patient-cantered clinical data recorded during the ESCAPE BCC intervention.
How to understand the psychodynamic aspects of the consultation (Same case – different views) - an EAPM-ACLP workshop

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ACLP EAPM workshop, June 9, 2022, 4:30 PM - 5:45 PM

Objective: The workshop will address three questions:
1) How does dynamically informed consultation provide added value for patients, colleagues, and trainees?
2) Is inclusion of this skill set a worthwhile goal for training programs?
3) How might this be accomplished?

Introduction: The EACLPP Guidelines on Training in Consultation-Liaison (C-L) Psychiatry and Psychosomatics recommend to train C-L psychiatrists and psychosomatists to carry out a psychodynamically-informed assessment how patients unconsciously shape the ‘scene’ of a consultation. Faced with multiple competing pressures to efficiently care for medical patients, residents and fellows will better meet the needs of their patients if they are equipped to listen and think through the whole meaning of the patient’s illness and suffering.

Methods: We will address these issues through presentation and discussion of two cases that illustrate the advantage provided by dynamically informed consultation. A panel of experienced and analytically trained C-L experts will show how a psychodynamic understanding of powerful emotional responses in both (a) the patient and his or her relatives and (b) the ward’s medical team and the consultant, enables the examination of transference and counter-transference phenomena and underlying unconscious conflicts.

Discussion: In conclusion, we will discuss methods whereby residency and fellowship programs can potentially strengthen the ability and comfort of trainees to integrate dynamic formulation into their consultative work.
The impact of VAD implantation on bodily experience over time

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Psycho-Cardiology, June 9, 2022, 4:30 PM - 5:45 PM

Left ventricular assist devices (LVADs) provide support in patients with advanced heart failure. Little is known about the changes in bodily experience that accompany the integration of the external device into the body image. Therefore, a bodily experience questionnaire was administered to 365 consenting LVAD patients (mean age: 59 ± 13; 86 % male; time post-implant: 3 to 36 months) in a cross-sectional, multi-center study. Changes in body image over time depending on gender or implantation type (elective vs. emergent) were analyzed. Additionally, associations between bodily experience and sociodemographic as well as psychological variables were examined.

Overall, the majority of the patients displayed a positive bodily experience (70 %) and were grateful for the intervention (85 %). Regarding time, bodily experience and gratitude for the device implantation (p = .02) increased over a three-year period. In the urgent implanted patients, however, this increase occurred only in the third year, but then even exceeded the level of the elective implanted patients (p = .04). Concerning gender differences, women showed more disturbed body experience (p = .04) and less gratitude (p = .02) than men, whereas associations with social support was found only in males (p < .001).

Our Data indicate a relatively more prolonged disturbance in urgently implanted as well as a more disturbed body image in female patients. Further, psychological integration after LVAD implantation proves to be an ongoing process that takes place over several years. These findings hold important implications for the adequate post-operative care of LVAD patients.
Encompassing Training in fUnctional Disorders across Europe (ETUDE): a European network to train a new generation of researchers in functional disorders

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Treatment of functional and related disorders: Challenges and Solutions, June 9, 2022, 4:30 PM - 5:45 PM

Objective: Functional Disorders (FD) are clusters of persistent somatic symptoms that have typical clinical characteristics but currently cannot be associated to reproducibly observable pathophysiological mechanisms. Knowledge on FD is limited and fragmented, leading to insufficient health care. There is an urgent need for training programs based on an integrated concept including both biomedical and psychosocial approaches.

Methods: The EURONET-SOMA network developed a sustainable and structured training programme aimed at educating a new generation of interdisciplinary creative early stage researchers that are able to cross disciplines. Funding for this European Training Network “Encompassing Training in fUnctional Disorders across Europe (ETUDE)” was obtained from the European Union’s Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 956673.

Results: We recruited 15 early stage researchers (ESR) from various countries and disciplines ranging from medicine to psychology and sociology. They will study underlying transdiagnostic mechanisms (four ESR), to study the validity of diagnosis concepts (three ESR), to improve treatment (five ESR), and to reduce stigma of patients with FD (three ESR). Central training within ETUDE is organized into five network-wide training schools, each involving an advanced scientific course on a specific topic related to FD, a transferable skill course focusing on general academic skills, and an outreach activity. The overall training concept will be presented.

Conclusion: The ETUDE programme integrates knowledge and skills from different disciplines in order to improve research in FD. The training schools are also open to PhD students that perform their research outside the ETUDE programme.
Does insecure attachment affect treatment outcome in young persons with post-concussion symptoms?
A secondary analysis of the GAIN trial

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Child and Adolescents, June 9, 2022, 4:30 PM - 5:45 PM

Objektive
Insecure attachment may negatively affect symptom reporting and disability in physical illness, but research on its influence on treatment outcome is scarce. This study explored if insecure attachment: 1) impacted overall treatment outcome, and 2) moderated the effect of an early interdisciplinary intervention in young persons with post-concussion symptoms (PCS).

Methods
This is a secondary analysis of the ‘Get going After concussIoN’ (GAIN) trial. Participants aged 15-30 years were randomised to either GAIN or enhanced usual care (EUC). Attachment insecurity (anxiety and avoidance) was measured at baseline with the Experiences in Close Relationships-Relationship Structure Questionnaire, and treatment outcome measured by PCS was recorded by the Rivermead Post-Concussion Symptoms Questionnaire. The impact of insecure attachment was explored using both a dimensional and a categorical approach. Multiple linear regression analysis was used.

Results
Ninety-one out of 112 trial participants were included. Neither attachment anxiety nor attachment avoidance independently affected the treatment outcome. However, in a categorical approach, fearful patients (i.e., combined high anxiety and high avoidance) had a less favourable outcome ($\beta = 9.98$, 95% CI: 4.05; 15.92, $p = 0.001$) than non-fearful patients. Insecure attachment did not moderate the superior effect of GAIN on PCS compared with EUC.

Conclusion
This study provided weak support for an association between insecure attachment and the outcome of an early intervention against PCS in young persons after a concussion. However, patients with fearful attachment may represent a more vulnerable subgroup. Further research is needed to explore if attachment-informed intervention may enhance treatment prospects.
Changes in heart rate variability during cognitive behavior therapy in depressed post-cardiac surgery patients: randomized controlled study

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Psycho-Cardiology, June 9, 2022, 4:30 PM - 5:45 PM

Objective
The aim of this research was to investigate if psychological rehabilitation impacts on heart rate variability (HRV) parameters changes in depressed post-CS patients.

Methods
HRV was analyzed in psychological intervention (PIG – cognitive behavior therapy (CBT) was applied, n=61) and usual care (UCG, n=64) groups of depressed post-CS patients. Depression was measured by using SCL-90R questionnaire. HRV parameters – heart rate (HR), general HRV (SDNN) and sympathetic activity index (LFC/HFC) were evaluated at physical rest over 5 minutes. The assessments were applied at 2, 12, and 24 months after CS. Eleven sociodemographic and biomedical factors were collected from medical records.

Results
After controlling for baseline imbalance (ANCOVA) findings have demonstrated improvement in PIG according to depression scores (F=15.7, p<0.001). The HRV analyses have shown significant change in LFC/HFC score in PIG (F=4.343, p<0.05), however this change have lost significance over second year. The PIG patients’ findings analyses have revealed that demographic/biomedical/personalities factors are related with some HRV parameters scores changes: education was related to HR changes (p<0.05), alexithymia - to SDNN changes (p<0.01), NYHA class and ejection fraction – to LFC/HFC (p<0.05 and p<0.001). Meanwhile other factors (age, gender, current smoking) were associated with the HRV parameters changes in UCG (p<0.05).

Conclusion
Positive changes in depression scores are related with better LFC/HFC dynamics after CBT, however later the positive change has lost its significance. In order to link multiple determinants for course of disease after CS, the complex interplay between mind and body have to be further investigated.
Objective: Psychological interventions have been shown to reduce symptom load and disability in young people with various functional somatic syndromes (FSS). However, the mechanisms of change are less investigated, especially in young patients presenting with multi-organ symptomatology. The objective was to examine whether changes in illness perception, illness behaviour (i.e. all-or-nothing and limiting) and psychological flexibility (i.e. avoidance and fusion) mediated changes in self-perceived physical health in adolescents receiving group-based Acceptance and Commitment Therapy (ACT) compared with adolescents receiving Enhanced Usual Care (EUC). A further aim was to assess if baseline level of proposed mediators moderated the mediation.

Method: Data from 91 adolescents (15-19 years) with multiple FSS of at least 1 year's duration from the randomized trial 'ACT for Health in Adolescents' (AHEAD) were used in a parallel growth process mediation analysis. Assessment of mediators was performed at baseline (before assessment), 2 months (prior to start of group-therapy), 4 months, 5.5 months (2 weeks after end of treatment (EOT)), and at 8 months (3 months after EOT).

Results: Improvement of illness perception and avoidance, but not illness behaviour and fusion, mediated the effect of AHEAD on physical health 3 months after end of treatment. Baseline levels of negative illness perception and avoidance did not moderate the mediation.

Conclusions: AHEAD reduced negative illness perception and avoidance and, consequently, improved physical health in young people with multiple FSS. Reducing these factor seems to be viable treatment targets and therefore beneficial to integrate in future treatment programs for this patient group.
Are study populations in trials of antidepressants and psychotherapy comparable? A retrospective case study of two parallel running trials for multi-organ functional somatic disorder

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Treatment of functional and related disorders: Challenges and Solutions, June 9, 2022, 4:30 PM - 5:45 PM

This study retrospectively compares two previous parallel running, randomized, controlled trials of pharmacotherapy (imipramine) and psychotherapy (acceptance and commitment therapy) for multi-organ functional somatic disorder (FSD). Differences in demographics, psychiatric comorbidity, illness severity, and illness duration associated with eligibility for the two trials and patients' willingness to participate are explored using linear or binary regression models. 418 patients with multi-organ FSD was included. We found that 377 (95%) were eligible for psychotherapy and 257 patients (61%) for pharmacotherapy. Patients eligible for pharmacotherapy were less severely impaired, less often received disability pension, reported shorter illness duration and experienced less psychological distress than patients eligible for psychotherapy. Whilst exclusion criteria for both trials differed markedly, it was not possible to clearly identify patient or illness characteristics associated with patients' willingness to participate. The study showed that trial-specific exclusion criteria led to the selection of less complex and less severely impaired patients in the pharmacological trial in this sample of multi-organ FSD. Our findings have important implications for the interpretation and comparability of RCT results of different treatments in multi-organ FSD and may point to some common flaws in study design and interpretation of pharmacological vs. psychotherapeutic intervention trials in psychiatry.
Identification of molecular mechanisms between depression and outcome in heart failure

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Psycho-Cardiology, June 9, 2022, 4:30 PM - 5:45 PM

Objective: Depression in chronic heart failure (HF) leads to worse outcomes. Analysing proteomic profile might explain the underlying molecular pathomechanisms.

Methods: Depressiveness was assessed by the Patient-Health-Questionnaire-9 (PHQ-9) in the MyoVasc study (NCT04064450; N=3,289), a prospective cohort study on chronic HF. Total of 358 proteins was quantified in EDTA plasma by targeted immuno-PCR (Olink, Sweden). Elastic net linear regression was used to identify proteins associated with somatic and cognitive component of PHQ-9. Subsequent pathway analysis was conducted with STRING. Based on the selected proteins, protein scores for PHQ-9 were generated with linear regression and evaluated for the prediction of outcome.

Results: PHQ-9 scores and protein biomarkers were available in 2725 participants (AHA Stages A-D). 29 proteins (10-fold CV R²=0.08) and 75 proteins (10-fold CV R²=0.09) were identified for cognitive and somatic dimension of PHQ-9. Protein-protein network analyses revealed that the selected proteins are involved in inflammatory and metabolic pathways. In Cox regression analyses, the somatic PHQ-9 protein score was a predictor of all-cause death (HR 1.43, 95% CI: 1.24-1.66, p<0.0001) and worsening of HF (WoHF) (HR 1.19, 95% CI 1.05-1.35, p=0.0066), independent of age, sex, clinical profile and medication. The cognitive PHQ-9 protein score was as well predictive of all-cause death (HR 1.52, 95% CI: 1.21-1.91, p=0.00027), but less predictive of WoHF (HR 1.03, 95% CI: 0.84-1.26, p=0.77).

Conclusions: Molecular mechanisms associated with dimensions of depressiveness in the context of heart failure were identified. These mechanisms were prognostic for worsening of HF and death, indicating their clinical relevance.
Psychometric properties of the Health Anxiety by Proxy Scale (HAPYS): A new questionnaire to assess parents' worries about their child’s health

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Objective
Health anxiety (HA) by proxy describes parents’ excessive and intrusive worries about their child’s health. The Health Anxiety by Proxy scale (HAPYS) is a self-report questionnaire assessing parents' worries and behaviours relating to their child’s health. This study aimed to investigate the psychometric properties of the HAPYS.

Methods
Questionnaires, among other the Pain Catastrophizing Scale and the Adult Response to Children's Symptoms, were answered by 204 parents and a HAPYS total score was obtained for 200 parents with different risk of HA by proxy: 39 parents diagnosed with HA (high risk), 33 parents with a Functional Somatic Disorder (intermediate risk), 33 parents with different anxiety disorders (intermediate risk), and 95 healthy parents (low risk). Reliability (Cronbach's alpha and interclass correlation coefficient), convergent validity (Spearman's correlation coefficient) and discriminative validity (non-paired Kruskall Wallis) were explored.

Results
HAPYS demonstrated excellent internal reliability (α=0.95) and test-retest reliability (ICC=0.91; CI: 0.87-0.94). Convergent validity with the construct of parental catastrophizing was good (r = 0.72; CI: 0.64-0.78) as hypothesized. Good discriminant validity was demonstrated by the largest total HAPYS score observed in parents with HA (mean=35.3; SD: 3.9) and the lowest score in healthy parents (mean=10.7; SD: 0.9) (p<0.001).

Conclusion
Preliminary findings support that HAPYS is a useful measure of HA by proxy. Future research should examine the psychometric properties in larger samples and different languages including further statistical analyses specifically factor analyses.
Needs of multimorbid elderly with chronic heart failure regarding a blended-collaborative care: A qualitative interview study in preparation of an intervention within the EU project ESCAPE


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ESCAPE study, June 9, 2022, 4:30 PM - 5:45 PM

Objective:
Blended collaborative care (BCC) can improve quality of life and well-being in patients with chronic heart failure (CHF). However, few of the studies have explicitly explored patients’ and carers’ health and treatment preferences before implementing BCC. To better customize the intervention, this international study aimed to investigate patients’ and carers’ perceived needs.

Methods:
Based on an existing BCC intervention a multinational interview guide was developed. Interviews were conducted in Germany, Denmark and Italy with patients aged over 65 years, having CHF and at least two other physical diseases and their informal carers. Using framework analysis, prototype profiles of patients and carers were created.

Results:
Transcripts from 21 patients and 16 carers were analyzed. Initially, 8 country-specific profiles were identified and iteratively were narrowed down to a final set of 3 international profiles: a) Those who need and want support. B) Those who actively engage in self-care and only reach out to the health care system when they need support. C) Those who feel neglected from the health care system and do not believe in professional support. Whereas carers of the first two profiles were content with care, carers relating to the last profile showed high psychological stress and a need for support.

Discussion:
To best of our knowledge, this is the first multinational qualitative study on patients’ and carers’ needs regarding a BCC intervention. Across countries, results revealed three contrasting profiles which will serve as a basis for the development of a BCC intervention within the EU-wide study ESCAPE.
Health anxiety symptoms in Danish children during the COVID-19 pandemic: An Odense Child Cohort study

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Objective:
Concerns about the possible negative impact of the COVID-19 pandemic on the psychological wellbeing of children are increasing. Especially worries about health and illness may be exacerbated. Two investigations of health anxiety symptoms (HAS) in Danish children performed in 2020 and in 2021 respectively, are presented, aiming to explore 1) the level of HAS, 2) associations with potential risk factors, e.g.: parental HAS and child internalizing symptoms, and 3) the trajectories of HAS over time.

Methods:
Among the current Odense child cohort (OCC) population of 2430 children, 994 participated in the 2020 study (response rate 40%) and 567 participated in the 2021 study (response rate 25.5%). Children and their parents filled out questionnaires about child HAS and covariates. Adjusted odds ratios (aORs) were calculated between high score child HAS (≥90th percentile in the 2020 population) and covariates, by use of logistic regression. The HAS scores of children participating in both the 2020 and 2021 questionnaires were divided into four trajectory groups.

Results:
High score child HAS was found 14.5% of the 2021 population. Associations were found between high score HAS and parental HAS (2020), with internalizing problems at age 5 (2020 and 2021) and with internalizing problems at age 3 (2021). A low – low trajectory, indicating few HAS during the pandemic, was found in 82% of participating children.

Conclusions:
Findings suggest the presence of vulnerable families with anxious children and/or parents, where children are at increased risk of developing HAS during a global health threat.
Patient-tailored modular treatment of multiple functional somatic syndromes (STreSS-5): observational cohort study of 174 consecutive patients

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Purpose: Various psychological and pharmacological interventions are used to treat severe multisystem functional somatic disorders (FSD). The use of patient-tailored treatment strategies taking individual problems, underlying causes and patient preferences into account may potentially increase patient engagement and enhance overall treatment effect. In this study we therefore aimed to test the feasibility of a patient-tailored modular treatment for patients with severe FSD.

Methods: This is an uncontrolled cohort study (STreSS-5) on patients with multisystem FSD between 20 and 60 years old. Patients were recruited between 2015 and 2016. Measurements were obtained at baseline, before and after each treatment module, and at end-point (58 weeks after baseline). Treatments modules were: 1) Assessment and group-based psycho-education, 2) Group-based psychotherapy (either Acceptance and Commitment Therapy, ACT, or Mindfulness Based Stress Reduction, MBSR), and 3) a second course of group-based psycho-therapy (ACT or MBSR). Main hypothesis: 60% of patients would report a statistical significant and clinical relevant improvement in physical health (4 points improvement in SF-36 aggregate score)

Results: In all, 174 were included and completed the first psycho-education module. Of those, 144 patients were referred to the second module, either ACT or MBSR. Next, 53 was referred to the third treatment module, ACT or MBSR. The main hypothesis was not met (ITT 0.39, 95% CI [0.30; 0.47]).

Conclusion: This patient-tailored modular treatment did not prove feasible in terms of improving treatment effect further compared to previous trials (STreSS 1,2,3, and 4). Plans on testing this program in a larger controlled trial is terminated.
The association of positive psychological factors with work ability one year after myocardial infarction

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Background: Positive psychological factors like optimism, resilience and self-efficacy may facilitate successful adjustment after hospitalization for myocardial infarction (MI) and treatment with percutaneous coronary intervention (PCI), including return to work.

Objective: To examine whether positive psychological factors (optimism, resilience, and self-efficacy) predict work ability one year after PCI for MI.

Methods: Patients treated with PCI and with paid employment were included and completed questionnaires at 1 and 12 months post PCI discharge. Patients filled out the LOT-R optimism scale, the dispositional resilience scale (DRS-15), and the Cardiac Self-efficacy Scale (CSE) at 1-month, and the work ability index (WAI) at 1-year follow-up. Hierarchical linear regression models were used. Sensitivity analysis was performed for the acuteness of the PCI treatment.

Results: In total, 323 patients (14% women; mean age 59.5±6.8y; 74% acute PCI) completed both surveys. At 1-year follow-up, resilience (β=.152, p=.009) and cardiac self-efficacy (β=.273, p<.001), but not optimism (β=.044, p=.432), were associated with work ability at 1 year, irrespective of cardiac history, or sex. Age (β=-.158, p=.002) and comorbidity index (β=-.104, p=.044) were significant covariates. Sensitivity analysis revealed that in patients receiving an elective PCI, only age and self-efficacy were significant predictors, while for acute patients, sex, educational level, and all positive psychological factors were significantly associated with work ability.

Conclusion: Resilience and cardiac self-efficacy were independently associated with work ability 1 year post PCI, whereas optimism was not. Identification and support of patients low in cardiac self-efficacy and resilience may contribute to improved restoration of work ability post PCI.
Assessing the role of maternal alexithymia and quality of family interaction on adolescent alexithymia and somatic depression using structural equation modeling

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Child and Adolescents, June 9, 2022, 4:30 PM - 5:45 PM

Objective: The relationship between alexithymia, particularly difficulty identifying feelings (DIF) and difficulty describing feelings (DDF), and somatic depression was found to be mediated by somatosensory amplification (SA). Yet, little is known about the influence of family process on adolescent alexithymia and somatic depressive symptoms. This study aims to test out the hypothesis that maternal alexithymia would affect alexithymia and somatic depression in offspring via family process.

Methods: A total of 240 mother-adolescent dyads were recruited from a paediatric outpatient clinic. Adolescents completed Center of Epidemiological Studies—Depression Scale (somatic symptom subscale), Somatosensory Amplification Scale (ChSAS), Toronto Alexithymia Scale-Short form (TAS-9-C) (DIF and DDF subscales) and 15-item Systemic Clinical Outcome Routine Evaluation (SCORE-15) (measuring family strengths, difficulty and communication). Mothers were administered TAS-9-C. Structural equation modelling was conducted to test the hypothesized relationships among variables.

Results: Results showed a good fit to the data that maternal DIF (β=0.201) and DDF (β=0.207) respectively influenced family strengths which, thus, affected adolescent DDF (βs ranged 0.354-0.383); family strengths (β=0.335) and adolescent DDF (β=0.373) predicted somatic depressive symptoms (maternal DIF: CFI=0.937, RMSEA=0.034 [90%CI: 0.023-0.043]; maternal DDF: CFI=0.932, RMSEA=0.035 [90%CI: 0.025-0.044]). SA was not significantly associated with somatic symptoms.

Conclusion: Findings provide support for the impact of maternal alexithymia on offspring DDF which affects somatic depressive symptoms. Our findings also underscore the mediating effect of family process on alexithymia across generation. This study lends support to the literature considering the role of alexithymia across generation in the risk of developing somatic depression.
Evaluation of a patient-centred biopsychosocial blended collaborative care pathway for the treatment of multi-morbid elderly patients – The ESCAPE clinical study


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ESCAPE study, June 9, 2022, 4:30 PM - 5:45 PM

Objective: A Blended Collaborative Care strategy (BCC) can improve treatment of patients with medical-mental comorbidity. However, patients often suffer from multiple chronic conditions. The European Union-funded ESCAPE project will examine the impact of a BCC intervention targeting patients aged 65+ with heart failure, 2+ medical comorbidities plus mental distress / disorder.

Methods: After developing an extended and modified BCC strategy (presented by Lühmann et al., Kohlmann et al., Gostoli et al.) and a dedicated web-based platform (Velasco et al.), we will examine this strategy in an RCT (n=300) embedded in a comprehensive cohort study following 450 patients over 18+ months. Our primary hypothesis is that the ESCAPE BCC intervention improves health-related quality of life (QoL) measured by EQ-5D-5L by ES >0.35 compared to physicians’ usual care. Secondary outcomes include medical endpoints (morbidity, mortality), psychological well-being, and treatment satisfaction. Furthermore, we will assess caregiver burden and QoL, indicators for quality of care, and health-economic parameters. The non-randomized cohort will serve as external reference for the RCT findings.

Results: We will present the study design and its implementation across participating countries including AI-supported translation of study materials into the local languages. Results from a feasibility study will also be reported.

Conclusion: ESCAPE expands the BCC strategy to support treatment of multimorbid older patients and involve their carers, actively integrate GPs treatment plans and state-of-the-art information technology. If proven effective, the ESCAPE BCC strategy can serve as a template for patients with different multimorbidities across diverse health care systems throughout Europe.
Depression and Anxiety Are Associated with Increased Risk of Infections, Revisions, and Reoperations Following Total Knee or Hip Arthroplasty

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Objective: Depression and anxiety may be linked to poor surgical outcomes, but there has been a lack of attention to these comorbidities within total joint arthroplasty (TJA) cohorts. This study aims to define the prevalence of depressive and anxiety disorders prior to TJAs and assess their impact on risks of infection, revision, and reoperation.

Methods: Between 2000–2019, 21,469 TJAs (11,458 knee; 10,011 hip) performed at a single academic medical center were identified from a linked electronic medical record (EMR) system. Depressive and anxiety disorders were determined from EMR diagnoses or by an artificial intelligence method followed by manual chart review validation. Patients with other mental health diagnoses were excluded. Mean follow-up was 6 years.

Results: Combined depression/anxiety prevalence was 32% prior to primary knee surgery and 30% prior to primary hip surgery. 84% of patients undergoing knee surgery and 80% undergoing hip surgery had been treated with antidepressants and/or anxiolytics for a depression/anxiety indication. Presence of a depressive or anxiety disorder was associated with significantly increased risks of infection (HR=1.5 knee; HR=1.6 hip), revision (HR=1.6 knee; HR=1.7 hip), and reoperation (HR=1.4 knee; HR=1.6 hip), p<0.001 for all. Similar prevalence of depressive and anxiety disorders, medication treatment, and associations with complications were observed following revision TJAs.

Conclusion: Depression and anxiety are common prior to TJAs and associated with significantly increased risk of infection, revision, and reoperation. Mental health optimization prior to TJA may be of similar importance to management of more commonly considered preoperative variables such as diabetes and hypertension.
Associations of job strain and family strain with risk of major depressive episode: A prospective cohort study in U.S. working men and women

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Objective: Studies assessing sex differences in the associations of psychosocial strain with depression have shown mixed and inconsistent results. Our objective was to examine prospective associations of job strain and family strain with risk of major depressive episode (MDE) among United States workers, as well as assess potential effect modification by sex.

Methods: Using data from the nationally representative and population-based Mid-life in the United States (MIDUS) study with a prospective cohort design and a 9-year follow-up period, the effects of job strain and family strain at baseline on risk of MDE within the 12 months prior to the follow-up assessment were examined in 1581 workers (805 men, 776 women) who were free from MDE within the 12 months prior to the baseline survey, by multivariate Poisson regression analysis.

Results: After adjustment for relevant covariates, there was evidence for effect modification by sex for the association between job strain and MDE but not for the association between family strain and MDE. Indeed, high job strain was prospectively associated with the risk of MDE (RR and 95% CI = 2.14 [1.14, 4.03]) in men but not in women. Moreover, high family strain was prospectively associated with a higher risk of MDE (RR and 95% CI = 1.57 [1.05, 2.37]) in the whole sample.

Conclusion: Family strain was associated with risk of MDE regardless of the sex of a person. In contrast, high job strain may involve an increased risk of developing MDE only in men but not in women.
Experiences of unspecified living kidney donors the Netherlands

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Transplant Medicine #2, June 10, 2022, 10:00 AM - 11:15 AM

Objective The Netherlands has one of the highest numbers of unspecified kidney donors (UKDs) in Europe. In this large qualitative study, we aimed to explore experiences of the first cohort of UKDs in [name of transplantation centre]. Information from this study could help improve the (follow-up) care for this group.

Methods 106 UKDs who donated between 2000-2016 participated in a semi-structured interview concerning their experiences with donor evaluation, hospital admission, recovery and aftercare, reactions from others, and experiences with anonymity. Interviews were audio-recorded, transcribed verbatim and independently coded by 2 researchers in NVivo using an inductive approach.

Results Reported experiences were: Satisfaction with donation process, Uncertainty about donor approval, Life on hold during workup, Donation requires perseverance and commitment, Interpersonal stress, Normalization of donation, Becoming an advocate for donation, Appreciation of anonymity, Persistent curiosity about donation outcome, Ample social support, and Dissatisfaction about hospital care. The latter theme included a perceived lack of empathy form the hospital staff, frustration about donation-related expenses and insufficient knowledge among general practitioners about living with one kidney.

Conclusions UKDs were generally satisfied with the donation process and feel good about the donation and helping a kidney patient. Although anonymity was highly appreciated by most donors, receiving anonymous feedback about the transplant outcome was important for them. Some of the financial frustrations are less relevant due to changes in reimbursement since these donations took place, however ongoing education for healthcare professionals might help increase understanding of this type of donation and empathy towards these donors.
Objective: Health behaviors including handwashing, mask wearing, social contact limitation, and physical distancing are crucial for slowing the propagation of COVID-19. Beside these behavioral components, one can wonder whether more emotional aspects of distancing could also play a role in limiting the spread of the disease. The notion of emotional distancing would be a particularly relevant aspect to consider. Emotional distancing involves an attempt to minimize, avoid, or change one’s negative emotional experience. We hypothesize that adopting higher emotional distancing could be an alternative strategy to health behaviors, and in particular, an extreme form of social and physical distancing.

Methods: A sample of 6026 Belgian participants (N = 6026, 57.4% women) was recruited online. We used longitudinal data collected in five time points over a period of three months from early April until early July, 2021, which corresponds to the third peak of the pandemic in Belgium. Emotional distancing was measured using 4 items (e.g., “In the current context, I maintain an emotional distance from people living outside of my home.”).

Results: Hierarchical regressions analyses performed across the five measurement times indicated that higher emotional distance was related to higher age, being male, being more introverted, lower in agreeableness, lower in compassion, having fewer close relations, feeling more perceived control in health behaviors, and feeling less empathetic emotions.

Conclusions: Emotional distancing is another facet of health behavior that could play a significant role in limiting the propagation of the COVID-19.
Uncovering the Role of Body Movement in Psychotherapy

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Psychotherapy: Nonverbal processes in psychotherapy, June 10, 2022, 10:00 AM - 11:15 AM

This presentation is a review of how studies of body movement in psychotherapy progressed from the work of a few social scientists and psychoanalysts (1920 — 1960) to a surge in micro-analysis of face-to-face interactions prompted by systems theory and advances in film and video recording (1960 — 1985). By the 1990s, studies of nonverbal behavior and emotion regulation in parent-infant and marital interactions were influencing therapy practice, while microanalyses of gesture/speech relationships were demonstrating the cognitive nature of co-speech gestures. For the past twenty years, advances in neuroscience—especially the discovery of mirror neurons—have inspired a great deal of research on emotion, cognition, and intersubjectivity with vital implications for the assessment of psychotherapy process. This presentation will feature some key contributors to what has become a veritable “movement movement” within psychotherapy research and practice. The current focus on “embodiment” and intersubjectivity is influencing theories of mind, the nature of emotions, and assessment of change in therapy. Methods of coding movement patterns that generate minor or ambiguous results will be compared with clinically promising, well-tested methods that are consonant with the neuroscience of movement and gesture. The presentation will conclude with a discussion of current challenges in movement and therapy research.
Experiences from the ad hoc setup of an online mental health self-help program during the COVID-19 pandemic

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COVID-19 #2, June 10, 2022, 10:00 AM - 11:15 AM

Only a very short time ago mental health therapies were mostly conducted in person and experiences with digital or online services were limited. This was due to technical barriers but also the reluctance of treatment providers to leave traditional therapeutic settings which focus a lot on the personal therapeutic relationship. In our hospital there was no or minimal use of digital or online therapies before the COVID-19 pandemic. Driven by the physical distancing rules and the subsequent hold of most psychiatric, psychotherapeutic and psychosocial therapies we developed within only a few days an online mental health self-help intervention program. We report the process of the implementation which was done on a low-budget basis using standard technical and digital equipment and has only recently been developed into a smartphone-based App with external funding. The program was accepted very willingly by patients and the general population, and we report access data as well as the results of psychometric questionnaires completed by the users. We are now planning on keeping the program active in the longer run to supplement and expand traditional treatment settings.
Gestures in significant moments in psychodynamic psychotherapies
(Contribution to the symposium: Nonverbal processes in psychotherapy)

Spiegel J

Hebrew University Jerusalem

Psychotherapy: Nonverbal processes in psychotherapy, June 10, 2022, 10:00 AM - 11:15 AM

Gestures in significant moments in psychodynamic psychotherapies

Two studies will be presented that used reliable methods of analyzing conversation and nonverbal behavior to locate significant moments in psychodynamic psychotherapy sessions. Results will be discussed in how far the nonverbal information gained through close observation - e.g. the alignment of bodily activity between therapist and patient, the mirrored turn-taking of gestures or sitting positions - can facilitate the clinical understanding and assessment of significant moments in the clinical context.

In the first study, a hermeneutic approach to assessing the verbal dialogue was used to identify “Moments of Meeting”, a feeling of authentic togetherness in the psychotherapeutic dyad, found to enable processes of change (Boston Change Process Study Group, 2018). In a second step, a microanalytic gesture coding system (NEUROGES, Lausberg & Sloetjes, 2015) was used to describe the nonverbal patterns of the dyad during those moments. Notable connections were found between Moments of Meeting defined by the dialogue and nonverbal markers such as synchronic turn-taking of gestures: i.e. changing sitting positions and mirroring the other’s gestures slightly time delayed.

In the second study, occurrences of “common ground related actions” or “doing-we”, a conversation analytic term for the presumed background information shared by participants in a conversation (Stalnaker, 2002), co-occurred with bodily activity and “irregular” self-touching behavior identified through NEUROGES coding. Additionally, mutual smiling and gazing behavior proved an important factor for the success of “common ground” offerings, which are also viewed as prototypical affective microsequences (Bänninger-Huber & Huber, 2017).
The association of substance use with attaining employment among unemployed job seeking adults: Prospective findings from the CONSTANCES cohort.

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Substance Abuse, June 10, 2022, 10:00 AM - 11:15 AM

Objectives: To examine the prospective association between tobacco, alcohol and cannabis use and attaining employment among job seekers.

Methods: From the French population-based CONSTANCES cohort, data of 5,114 unemployed job seeking adults enrolled from 2012 to 2018 were analyzed. Binary logistic regressions computed the odds ratio (OR) of remaining unemployed at one-year of follow-up (versus attaining employment) according to substance use at baseline. The following independent variables were introduced in separate models: tobacco use (non-smoker, former smoker, light (<10cig/day), moderate (10-19cig/day) and heavy smoker (>19cig/day)), alcohol use according to the Alcohol Use Disorder Identification Test (non-users (0), low (<7), moderate (7-15) and high or very high risk (>15)) and cannabis use (never use, no use in the previous 12 months, <1/month, <1/week and ≥1/week). Analyses were adjusted for age, gender and education.

Results: At the one-year follow-up, 2,490 participants (49.7%) were still unemployed. Compared to non-smokers, moderate and heavy smokers were more likely to remain unemployed, with OR (95% CI) of 1.33 (1.08-1.64) and 1.42 (1.04-1.93), respectively. Compared to alcohol users at low risk, no alcohol users and alcohol users at high or very high risk were more likely to remain unemployed, with OR (95% CI) of 1.40 (1.03-1.83) and 2.10 (1.53-2.87), respectively. Compared to participants who never used cannabis, cannabis users for at least once a week were more likely to remain unemployed, with OR (95% CI) of 1.63 (1.33-2.01).

Conclusion: Substance use may constitute a modifiable barrier in attaining employment in job seekers.
Therapeutic impacts of alpine sports in psychiatric disorders: a practical approach

van der Kallen F

Auszeit Reha St. Lambrecht

Alpine Environment and mental health, June 10, 2022, 10:00 AM - 11:15 AM

„You don´t have to put up with everything. You can also be stronger than the fear.” (Victor Frankl, psychiatrist and alpinist)

In psychiatry, there is good evidence for the effectiveness of physical activity in the treatment of various disorders. However, it is not known exactly which kind of sports is most suitable.

Viktor Frankl’s answer to the question, why he climbed mountains, points out a substantial aspect of alpine sports: going beyond physical exercise, alpinism provides the opportunity to concern oneself with fear, and therefore in a wider sense with stress. As fear and stress are tightly connected with numerous psychosomatic and psychiatric disorders, alpine sports ought to be suitable for prevention and treatment.

Moreover, the alpine environment offers various occasions to train body, mind and social skills. Thus, alpine sport obviously has significant impacts on health, which is defined as “a state of complete physical, mental and social well-being” (WHO).

Giving an overview of current literature, this talk will point out health-related aspects of alpine sports. It will illustrate different ways how alpine sports have been implemented in health care systems and will reflect appropriate possibilities for the future.
Prototypical Affective Micro-Sequences (PAMs) in the psychotherapeutic relationship

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Psychotherapy: Nonverbal processes in psychotherapy, June 10, 2022, 10:00 AM - 11:15 AM

In our research, we start from the widely accepted assumption that the relationship between patient and therapist is an important factor in the psychotherapeutic process (e.g., Horvath, 2005). The therapeutic relationship consists of a trustful working alliance and the implementation of a specific therapeutic treatment technique. Processes of affective regulation play an important role in terms of the realization of both aspects. Affects are not only communicated verbally, but also by nonverbal behaviors such as facial expressions, head- and body movements or the tone of voice. The emphasis in this presentation lies on facial behavior. The data comes from a research project which investigates processes of affective regulation in psychoanalytic psychotherapies. All sessions are videotaped. Facial interactive behavior is coded objectively with the Facial Action Coding System (FACS). In this presentation, I will focus on the so-called Prototypical Affective Microsequences (PAMs). PAMS serve the function to regulate negative emotions with the help of the interacting partner and are characterized by smiling and laughter. Different types of PAMs play an important role in maintaining the balance between a secure working alliance and conflictive tension. In my presentation, I will introduce the phenomenology and function of these different types, using examples. The relation between the frequency of PAM types and the therapeutic alliance (measured with the HAQ by Luborsky et al., 1994) will be discussed. Finally, I will try to relate our results in the area of facial expression to the findings in the field of body movements.
Association of Pre-existing Mental Health Conditions with Acute Mountain Sickness in High Altitude Expedition Members at Everest Base Camp

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Alpine Environment and mental health, June 10, 2022, 10:00 AM - 11:15 AM

Background
Mental health disorders are common, but limited data are available regarding the number of people with pre-existing psychiatric diagnoses going to high altitude. It is also unknown whether mental health conditions are associated with increased risk of acute mountain sickness (AMS).

Methods
We analyzed data from a previous study at Everest Base Camp. Participants self-reported their past medical histories and substance use and had a brief history taken by a physician. AMS was assessed using the self-reported 2018 Lake Louise AMS Score.

Results
The 85 participants (66 men, 19 women, age 38±9 years) reported a prior diagnosis or symptoms compatible with a diagnosis of depression (23%), anxiety (6%), post-traumatic stress disorder (1%), and psychosis (9%) when questioned by a physician. The prevalence of psychiatric diagnoses was much lower in the self-reported data (28/85 vs. 2/85, chi-square 27.4, p<0.0001). There were increased risks of AMS with depression (OR 3.3; 95%CI 1.2-9.2; p=0.012), anxiety (OR 7.4; 95%CI 2.0-27.0; p<0.001), and recreational drug use (OR 4.0; 95%CI 1.1-15; p=0.027).

Conclusions
Many people with mental health conditions go to high altitude. The increased risk of AMS in participants with pre-existing mental health conditions might be related to a heightened sensitivity for somatic symptoms, a common underlying pathophysiology, or confounding of the AMS score by psychiatric symptoms.
Cluster analysis of anxiety and depression symptomatology during the COVID-19 pandemic in a sample of Portuguese residents

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Objective: To explore how different sociodemographic and behavioral characteristics were associated with anxiety and depression symptoms among a sample of resident adults in Portugal.

Methods: An online snowball cross-sectional study was carried in Portugal: November 2020-February 2021. A total of 453 participants over the age of 18, residents of the country were included. The HADS Scale was used to assess anxiety and depression symptoms and results were clustered into homogeneous groups via the K-means unsupervised algorithm. The Chi-Squared test identified significant associations between clusters and studied characteristics. The statistical analyses were performed in R language with significant level of 0.05.

Results: Most participants were female (69.8%), with less than 40 years (60.8%), with a higher education degree (75.3%). Three clusters of anxiety and depression were identified. Cluster 1, 2 and 3 contained 42.8%, 18.1% and 39.1% participants, respectively. Cluster 1 was characterized by low anxiety and depression symptoms (average 4.21 and 1.98, resp.), cluster 2 by high anxiety and depression (average 14.82 and 9.43), and cluster 3 by mild anxiety and mild depression (average 8.66 and 6.36). The variables age (p-value: 0.024), gender (p-value: 0.041), drinking (p-value: 0.002), food insecurity (p-value < 0.001), food affordability exacerbation (p-value < 0.001), comorbidity (p-value < 0.001), anxiolytics (p-value < 0.001), household income (p-value: 0.017) and change income (before and after the pandemic) (p-value < 0.001) were significantly associated with the anxiety-depression clusters.

Conclusion: Women, younger, those with insufficient household income or that suffered change in income due to COVID-19, and people with comorbidity appear to have higher levels of anxiety and depression symptoms. Targeted interventions should be prepared for these groups.
Validation of the Quick Stanford Proxy Test for Delirium (qS-PTD): a Short and Highly Effective Screening Tool for Delirium

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Background: Delirium is a very commonly overlooked psychiatric syndrome in hospitalized patients. Rates of misdiagnosis are high and current delirium screening tools have significant limitations.

Methods: The qS-PTD was developed by performing stepwise regression analysis to data collected during the original S-PTD validation study at Stanford University in an effort to shorten the tool and increase its predictive power. We confirmed our model using bootstrapping, resulting in a tool that retains six of the original twelve prompts, and adding age as a variable. The new tool was then validated using additional data from a second S-PTD validation study performed in King Saud University. In both studies, all patients from specified clinical units were approached for recruitment with two daily independent assessments: the S-PTD and a neuropsychiatric assessment using DSM-5 criteria, which served as the reference.

Results: The results from the model built using 194 patients from Stanford University resulted in a sensitivity of 84% and a specificity of 89%. By applying the same model to the data of 282 patients in King Saud University Hospital, we obtained a sensitivity of 92% and a specificity of 91%. When combined, this results in a sensitivity of 88% and a specificity of 90%.

Conclusion: The qS-PTD is an innovative screening tool that has proven to be highly effective in detecting delirium in both ICU and non-ICU patients. Unlike other screening tools, the qS-PTD is brief, simple to use, requires no direct patient participation, and can be effectively used by nursing staff.
The influence of the donation procedure on the mental health of unspecified kidney donors

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Objective Unspecified kidney donation has successfully expanded the living donor pool, but the motivation and mental health of unspecified kidney donors (UKDs) remain controversial. Qualitative studies on these topics are scarce. We explored how UKDs describe their motivation for donation and (influence of the donation on) their mental health.

Methods 106 UKDs who donated between 2000-2016 participated in a semi-structured interview concerning their motivation for donation and mental health before, during and after donation. Interviews were audio-recorded, transcribed verbatim and independently coded by 2 researchers in NVivo using an inductive approach.

Results 42 donors received a psychiatric diagnosis at some point in their lives. 23 of these received mental health treatment at time of or after the donation, of which 13 were in treatment at time of the interview. Motivations for donation included: Desire to help others, Inspired by religion/principles, and Psychological gain. Mental health themes after donation included: Satisfaction and happiness, Empowering experience, Life-changing experience, Brief psychological distress, and Persistent negative emotions. In one case, the persistent negative emotions appeared to be related to mental health problems.

Discussion UKDs were mainly motivated to donate by a desire to help somebody. A small group of donors, mainly ones with mental health problems, hoped to gain psychological benefits from donating. Generally, the donation did not harm the mental health of our donors, although donors reported both positive and negative influences of the donation on mental health. These findings provided valuable information for mental health clinicians performing mental health assessments of UKDs.
The initial emotional reaction of the recipient following the announcement of donation project: An indirect marker for the mental quality of life of the living kidney donor?

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Objective
The quality of life mental dimension of living kidney donors is estimated to be slightly lower than that of the same age and sex of the general population (Briançon et al, 2011). It is influenced by characteristics related to the way the donation was been lived, including in particular the perception of a feeling of owing on behalf of the recipient.

The present study aimed to report, according to the donor, the perception of the recipient’s initial emotional reaction following the announcement of the donation project.

Methods
125 candidates for live kidney donation referred between year 2015 and year 2019 for psychosocial pre-donation assessment underwent a psychiatric interview. Their perception of the recipient’s initial emotional reaction following the announcement of the donation, their own feelings about donation and other psychosocial domains were analyzed.

Results
40% of donors perceived a “negative” initial reaction of the recipient following their announcement of the donation such as anxiety, ambivalence or refusal. For 37%, they reported “positive” reactions in the recipient such as being moved, glad, surprised or relieved. 36 donors described in the recipient an initial reluctance or refusal followed by a consent.

Conclusion
These subjective descriptions suggest a focus on the detection of some emotional reactions in recipients following the announcement of the donation. It would be helpful for physicians in the care management of recipients, and also would improve the quality of life mental dimension of donors. Further prospective studies should explore correlations with psychological status of donors after donation.
Emotional mental imagery in alexithymic individuals as reflected in co-speech gesture
(Contribution to the symposium: Nonverbal processes in psychotherapy)

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Dept of Neurology and Psychosomatic Medicine, Gsu

In alexithymic individuals the inability to express feelings verbally is well documented. Their ability to express emotions nonverbally, however, is subject to controversial discussions. While some authors report that emotions are expressed on a somatic, motor and nonverbal level, others outline that nonverbal expression of emotion is as impaired as verbal expression. In contrast to facial expression, co-speech gestures are specifically suited to investigate mental imagery related to emotional scenarios, e.g. the two hands carefully touching each other as depiction of a tender relationship.

Healthy individuals (16 f, 17 m) with alexithymia (TAS, BVAQ) and matched controls without alexithymia (16 f, 17 m) were videotaped during responses to emotional scenarios (Levels of Emotional Awareness). The participants' videotaped hand movements were coded without sound by two independent certified raters with the NEUROGES® analysis system for nonverbal behavior and gesture, which differentiates between pictorial gestures (presentation) and non-pictorial gestures/actions (emotion/attitude, emphasis, egocentric direction, subject-oriented action).

ANOVA yielded a significant effect of Group on the frequency of presentation gestures, while no Group differences were found for the four non-pictorial gesture/action types. The alexithymic individuals displayed significantly fewer presentation gestures than the non-alexithymic individuals. The four non-pictorial gesture types were not reduced in alexithymic individuals, indicating that they show no deficit in gestural expression overall. However, the specific decrease of pictorial presentation gestures in alexithymic individuals suggests a deficit in mental imagery concerning emotional scenarios. Therefore, the development of mental imagery should be considered in psychotherapy of alexithymia.
Affective responses to both climbing and nordic walking exercise are associated with intermediate-term increases in physical activity in patients with anxiety and posttraumatic stress disorder – a randomized longitudinal controlled clinical pilot trial

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Objective: Exercise programs have shown anxiolytic effects in psychiatric patients. Adherence to exercise programs and subsequent long-term lifestyle change is influenced by acute affective responses of the exercise programs. This research aimed to assess acute affective responses of two different exercise modalities compared to a non-exercise control program and its effects on persisting physical activity behavior change.

Methods: Sixty-six out-patients diagnosed with an anxiety disorders or posttraumatic stress disorder were randomly allocated to one of three groups in a randomized longitudinal controlled clinical pilot trial: climbing, nordic walking, social contact control. Affective responses were assessed pre, during, and post activity. General physical activity was recorded prior to participation, post, and at follow-ups three and six months after the program.

Results: Multilevel modelling analyzes of 1066 individual data points revealed increases in affective valence in the exercise sessions compared to the social contact sessions. State anxiety decreased in the climbing group compared to the social contact group. Physical activity was increased immediately following the program as well as at six months follow up in both exercise groups. A larger increase in affective valence during and after the sessions was associated with higher physical activity post program.

Conclusion: Climbing and conventional nordic walking exercise sessions revealed positive affective changes in out-patients indicating therapeutic potential of both modalities for acute emotion regulation. In accordance with theoretical models of human behavior change the experience of a more pleasant affective state after exercising induced more persisting effects on physical activity behavior after the exercise programs.
The urge to climb mountains:
exploration of salutogenic and pathogenic aspects in regular and extreme mountaineering

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Alpine Environment and mental health, June 10, 2022, 10:00 AM - 11:15 AM

Objective: Common knowledge implies that individuals engaging in outdoor sports and especially in regular and extreme mountaineering are exceptionally healthy and hardened. Here we investigate aspects of regular and extreme mountaineering which go beyond salutogenic effects and might share similarities with psychiatric disorders.

Methods:
This web-based study collected data on exercise and mountaineering addiction (Exercise Addiction Inventory; original and adapted version for mountaineering; Exercise Dependence Scale adapted version for mountaineering). Further parameters included mountaineering habits, the Risk Taking Inventory, the Sensation Seeking/Emotion Regulation/Agency Scale (SEAS), resilience, self-perceived stress, physical activity and mental health. Non-parametric analyses were used.

Results:
Data from 335 regular mountaineers were analysed comparing those with addiction to mountaineering (MA; n=88) to control participants i.e. subjects without addiction to mountaineering (controls, CO, n=247). In the MA group there were significantly higher values regarding self-perceived stress (p<0.001) and higher numbers of individuals affected with depression (p<0.001), anxiety (p<0.001), eating disorders (p<0.001), alcohol abuse or dependence (p<0.001), illicit drug use (p=0.050) or history of psychiatric disorders (p<0.001). No difference was found concerning resilience or somatic disorders. Individuals with MA showed higher values in all SEAS subscales as well as increased risk taking (p<0.001). No difference between the groups was found for cautiousness.

Conclusion: Regular and extreme mountaineering can display features of a behavioral addiction and is associated with psychiatric disorders. Increased risk taking in individuals with MA could potentially be a source of accidents.
Emotional changes are not correlated with echocardiography in non-alcoholic fatty liver disease

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Introduction:
The non-alcoholic fatty liver disease (NAFLD) is the new epidemics in Northern hemisphere. This condition is associated with anxiety and depression, but data on their impact on the cardiovascular risk is elusive. We looked to anxiety and depression in NAFLD in correlation with echocardiographic parameters.

Methods:
77 subjects (39 NAFLD patients, 38 controls); Liver steatosis was assessed by hepatic ultrasonography and SteatoTestTM; cardiovascular parameters by echocardiography. Anxiety was evaluated using Lehrer Woolfolk Anxiety Symptom Questionnaire (LWASQ), and depression using Beck depression inventory (BDI).

Results:
NAFLD patients presented higher BDI scores ($p: 0.009$) and LWASQ global scores ($p: 0.045$), vs. controls. LWASQ somatic factor was significantly associated with global longitudinal strain (GLS) in linear analysis ($0.0404, p: 0.002$), while lost significance following multivariate analysis ($-0.0166, p$-value$= 0.124$). Although group (NAFLD vs. controls) predicted BDI ($6.0378, p:0.005$), LWASQ global score ($27.5661, p: 0.016$), and LWASQ somatic factor ($17.5088, p: 0.004$) in linear regression, they lost significance in multivariate analysis. Moreover, the relationship between interventricular septal wall thickness (IVSWT) and BDI, LWASQ global score and LWASQ somatic factor was significant in linear analysis, but statistical significance disappeared after multivariate analysis.

Conclusions:
Although NAFLD patients presented increased anxiety and depression risk in univariate analysis, this association lost significance in multivariate analysis. A significant association between GLS levels and LWASQ somatic factor, in addition to IVSWT in anxiety and depression in univariate analysis was observed, but was lost after multivariate analysis.
The mediating role of alexithymia in the association between temperament and craving in a sample of alcoholic patients with a diagnosis of bipolar disorder

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Objective: This study has a cross-sectional design and is aimed at exploring the mediating role of alexithymia in the relationship between temperament and craving in alcoholic bipolar patients.

Method: 151 alcoholic bipolar patients (38% females, mean age: 45.69±9.04 years) were enrolled at the Villa San Giuseppe Hospital (Ascoli Piceno, Italy). The Brief Psychiatric Rating Scale (BPRS), the Mini International Neuropsychiatric Interview (M.I.N.I.), the Temperament Evaluation of the Memphis, Pisa, Paris and San Diego scale (TEMPS-A), the Toronto Alexithymia Scale (TAS-20), and the Typology Craving Questionnaire (CTQ) were administered.

Results: Difficulty in identifying feelings mediated the association between TEMPS-A anxious temperament and CTQ craving (Indirect effect: 0.42, BCaCI: 0.22-0.69), TEMPS-A cyclothymic temperament and CTQ craving (Indirect effect: 0.55, BCaCI: 0.30-0.87), TEMPS-A irritable temperament and CTQ craving (Indirect effect: 0.45, BCaCI: 0.19-0.80). Difficulty in communicating feelings to others mediated the association between TEMPS-A anxious temperament and CTQ craving (Indirect effect: 0.20, BCaCI: 0.06-0.41).

Conclusion: Among alcoholic bipolar patients with anxious, cyclothymic, and irritable temperaments, psychological interventions reducing alexithymia may be useful also to manage craving.
Delirium Among Transplant Candidates and Recipients – Risk Factors, Characteristics & Management

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Transplant Medicine: Neuropsychiatry #2, June 10, 2022, 11:45 AM - 1:00 PM

Objectives:
- After the this symposium, learners will be able to recognize importance of delirium in transplant recipients
- Learners will be able to discuss and recognize neuropsychiatric side effects of immunosuppressants and other transplant-related medications, including PRES
- Learners will be able to appreciate incidence, presentation, and importance of seizures in transplant recipients

Methods: literature review and case presentation

Results and conclusions:
Neuropsychiatric complications are common in transplant recipients. For example, approximately of 40 % of lung transplant recipients develop delirium after transplantation and this affects their outcomes. Up to 5% of lung transplant recipients have posterior reversible encephalopathy syndrome (PRES) after the transplant surgery, this being one of many possible neuropsychiatric side effects of immunosuppressants. Liver transplant recipients can experience central pontine myelinolysis (CPM), a complication due to peri-operative shifts of intracerebral sodium. Seizures are also not rare, but are understudied and underrecognized.

In this symposium, Dr. Maldonado will discuss prevalence of delirium in different solid organ transplant groups. He will discuss known risk factors, particularly in transplant patients, outcomes, and strategies for management.

Dr. Zimbrean will discuss side effects of immunosuppressant medications, including insomnia, headache, tremors, anxiety, psychosis, and PRES. She will discuss strategies to manage them and considerations when using psychotropic medications.

Dr. Sher will discuss incidence and risk factors for seizures in transplant recipients. She will discuss differential, management strategies, and outcomes.

Finally, Dr. Hussain will discuss CPM, particularly prevalent in liver transplant recipients. She will discuss its etiology, presentations, and management.
Effects of music listening on stress and skin barrier recovery: preliminary results

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¹University Of Vienna, ²University of Auckland

OBJECTIVES
In our study, we aimed to assess whether music listening after acute stress accelerates skin barrier recovery (SBR), and whether this effect is mediated by stress reduction.

METHODS
We assessed the effects of a 30-minute music listening intervention on psychological and physiological indices of stress and on speed of SBR after impairment - an established index of immune function. Acute stress was induced in female participants using the Trier Social Stress Test, after which they were subjected to either music listening or one of two control conditions (audiobook, silence). A tape stripping paradigm was used to impair the skin barrier, followed by repeated transepidermal water loss measurements to assess SBR.

RESULTS
Preliminary results from the first consecutive participants (n = 25) provide some initial indication that music enhances relaxed positive affect (known to be negatively correlated with stress) and calm mood more strongly than silence, but not than an audiobook. In contrast, reductions in subjective stress and heart rate from peak stress to post-listening did not differ between conditions. Skin barrier recovery was unaffected by these conditions, too.

DISCUSSION
Our preliminary data provide some first evidence that a lab-based music intervention after acute stress is effective in increasing positive affect and calm mood. Although the hypothesis that music affects stress and SBR is not supported in the current small sample, our novel paradigm is a promising tool for studying the effects of brief experimental manipulations on bodily health. Data from the complete sample will be presented at the conference.
Fostering second victims’ emotional well-being and resilience. A systematic review of second victim support resources and related outcomes.

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COVID-19 and Hospital Staff #2, June 10, 2022, 11:45 AM - 1:00 PM

Objective: Despite the potential adverse impact of adverse events on healthcare providers’ mental health, easily accessible support structures for second victims are still rare. We aimed to systematically review the types of second victim support resources available in healthcare institutions around the world, their effects on second victims, and barriers to implementation.

Methods: We performed a systematic search of six electronic databases (PubMed, Web of Science, Scopus, PsycINFO, MEDLINE, ScienceDirect) without restrictions to publication date and language. We searched additional literature, including grey literature databases and weekly search alerts. Two reviewers independently conducted all methodological steps of literature search and selection, and data analysis. Cases of disagreement were discussed and, if necessary, adjudicated with a third reviewer.

Results: We retrieved 2742 records, evaluated 121 full-text articles, and included 16 studies. Twelve institution-based, formalized support resources, established in the last 15 years, were described in the scientific literature. Preliminary results suggested beneficial effects for workplace safety and support culture, as well as for affected staff and peer responders. Barriers to implementation included low awareness of program availability/accessibility, persistent blame culture, reluctance by staff to show vulnerability/ask for help, and lack of funding.

Conclusion: The findings of this systematic review highlight the need to invest in second victim support programs that provide immediate as well as medium and long-term support for an improved promotion of support structures already in place. Such investments should be a high priority for healthcare organizations aiming to achieve a just culture and system resilience.
Modifiable Factors for Somatic Symptom Persistence in Patients with Somatic Symptom Disorder - Study Protocol of SOMACROSS Research Unit Project 5 (SOMA.SSD)

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Somatic Symptom Disorder #3, June 10, 2022, 11:45 AM - 1:00 PM

**Background**

Patients with Somatic symptom disorder (SSD) suffer from at least one persistent somatic symptom (PSS) as well as excessive thoughts, feeling, or behaviors related to their symptoms. There is still lack of knowledge regarding the factors and mechanisms leading to symptom persistence. This project focuses on the role of expectations and somatic comorbidity in chronification processes.

**Methods**

The investigation will be conducted as a 12-month single center prospective cohort study including n=240 patients with SSD. Multivariable prediction models with hierarchical mixed models will be used to examine the influence of expectations and somatic comorbidity on symptom severity as primary outcome. In addition, we will investigate daily symptom fluctuation by using a 10-day ecological momentary assessment study. Data will be analyzed via multivariable latent growth curve models.

**Expected results**

We hypothesize that expectations, somatic comorbidity as well as other biomedical and psychosocial factors are associated with symptom severity and determine their persistence. The aforementioned approach allows us to investigate this relationship in a 12-month period on the macro level as well as short term daily fluctuations on the micro level. The study protocol with the scientific concept and research design of SOMA.SSD will be presented.

**Conclusion**

The Project will help to identify modifiable risk factors, such as expectations, for somatic symptom persistence in patients with SSD, which could improve patient care in the future. Furthermore, we will increase our knowledge of somatic comorbidity as a potential diagnostic specifier for SSD.
Post-hospital cardiac symptoms and acute coronary syndrome-induced posttraumatic stress: a longitudinal study over 12 months

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ABSTRACT
Objective: After acute coronary syndrome (ACS), one in eight patients develops clinically significant symptoms of posttraumatic stress disorder (PTSD). We hypothesized that cardiac symptoms occurring in the post-hospital period would be associated with the development of ACS-induced PTSD symptoms up to 12 months after ACS.

Methods: Patients with ACS (n=156, mean age 59 years, 85% men) were assessed through a clinical interview for chest tightness/pain (at rest and/or during exertion) and heartbeat symptoms (palpitations, racing of heart, heart stumbling or skipping a beat) and PTSD symptoms at 3 (n=154) and/or 12 months (n=106) in the last 4 weeks. Random mixed regression models examined the association between cardiac symptoms and PTSD symptoms over time, adjusting for a range of potential predictors of ACS-induced PTSD symptoms.

Results: Chest tightness/pain (p<.001) and heartbeat symptoms (p=.005) showed an independent association with total PTSD symptoms over time. Positive and independent associations were also observed of chest tightness/pain and heartbeat symptoms with the PTSD symptom clusters re-experiencing (p=.027 and p=.002) and avoidance/numbing (p=.049 and p=.004) and of heartbeat symptoms with hyperarousal (p=0.022). The number of cardiac symptoms (p<.001) and, individually, palpitations (p=.008) and chest tightness/pain during exertion (p=.039), were also associated with total PTSD symptoms over time. Patients with heartbeat symptoms developed fewer total PTSD symptoms over time if they attended psychotherapy in the post-hospital period (p=.031 for interaction).

Conclusion: Cardiac symptoms that occur after hospitalization contribute to the development of ACS-induced PTSD symptoms and warrant consideration in comprehensive care of this patient population.
Self-soothing touch and being hugged reduce cortisol responses to stress: A randomized controlled trial on stress, physical touch, and social identity

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Objective: Self-compassion is the wish to ease suffering for the self. A simple way to express this wish are physical hand gestures like hand-on-heart touch or stroking of the arms. This study investigated whether self-soothing touch gestures or receiving a hug from others has a buffering effect against stress. In addition, the study sought to explore whether the effectiveness of these interventions would be moderated by whether the participants perceived an increased individual identity or an increased social identity.

Method: 159 healthy participants, aged 18-35, were exposed to a standardized measure of stress (TSST, Trier Social Stress Test). Dependent measures included free salivary cortisol, heart rate, and subjective stress ratings.

Results: Using a mixed-modelling approach, results indicated that there was a significant main effect of touch on cortisol levels during the stressor. Post-hoc tests showed that participants in the self-soothing touch condition had significantly lower cortisol levels than those in the control condition. There was no evidence for an interaction between touch and identity regarding cortisol levels. Differences in the heart rate among touch conditions were present (lowest in the hug condition), but these differences were not significant. There were no differences in self-reported stress for the identity and touch conditions, nor their interaction.

Discussion: These results are in line with previous work indicating that physical touch has protective effects on physiological stress responses but not on self-reported stress and suggest that self-soothing touch is a simple yet potentially powerful tool for buffering individuals’ temporary resilience against stress.

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Background: A fair system to identify ALD patients unlikely to recover hepatic function with sobriety and a low risk of alcohol relapse remains a challenge. Our study assesses the use of SIPAT in identifying suitable LT candidates with limited sobriety.

Methods: A retrospective study of all LT recipients with ALD from 2015-2019. An official policy for limited (<6 months) sobriety was implemented in 2018, which included a SIPAT Assessment, psychiatric consultation and development of a post-LT relapse prevention plan (RPP).

Results: A total of 103 LTR were performed during the included period, mean age was 53.6 years, 75% male and 45% Caucasian; 16 LTRs had limited sobriety. Demographic variables and median SIPAT scores was similar in both groups; as were graft rejection, infection, and 1-year survival rates. Alcohol relapse occurred in 6 (7%) [33% has slips; 67% sustained relapse] sustained sobriety patients, 1 (7%) patient with limited sobriety [100% sustained relapse]. LT recipients with limited sobriety had excellent outcomes: 79% adherence of relapse prevention plan; minimal alcohol use relapsed; 100% adherence to immunosuppression; no graft failures; and excellent return to work rates (64%). Factors associated with relapse included coexisting psychiatric illness (p=0.02) and failure to comply with the relapse prevention plan, and breakdown of support system (p<0.01).

Conclusion: LT for ALD with limited sobriety can achieve excellent outcomes in carefully selected patients. Our findings support current literature indicating that length of sobriety is not the only factor mediating success, but rather other factors are critically important (e.g., psychopathology, social support).
Narratives of Change in Recovery form Severe Fatigue - a Qualitative Study on Stories of Healing from Severe Chronic Fatigue Syndrome/Myalgic Encephalomyelitis

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Somatic Symptom Disorder #3, June 10, 2022, 11:45 AM - 1:00 PM

BACKGROUND AND PURPOSE: CFS/ME is a complex illness, involving severe suffering and debilitation. There is no general agreement regarding conceptualisation, etiology, pathophysiology, diagnostics, or treatment. Despite a pessimistic picture of an incurable chronic disease, some patients recover completely, even from the most severe conditions. However, there are scarce studies addressing their experiences. The aim of this study was to contribute to the understanding of healing processes from severe fatigue. MATERIALS AND METHODS: 4 men and 14 women (age 20-78) who had recovered from severe CFS/ME were included. 14 of the participants had been bedridden and in need of assistance with all basic functions for a period of 3 months to 6 years. Median total length of illness was 5 years (2-22). The median length of time since full recovery was 9 years (1-12). Participants were interviewed individually. They were asked to tell their story of being ill and becoming better. Narrative analysis was used to explore their experiences of change while recovering. FINDINGS: We highlight two interdependent change processes: A radical, often rapid, transformation of mindset and a subsequent long-time rehabilitation. Participants developed hope, learned to modify their experiences, and regained their self-agency and bodily trust. Anxiety and distress decreased. Gradually symptoms disappeared. CONCLUSION: Participants experienced healing from severe CFS/ME to be initiated by hope and positive expectations of recovery and further enabled by learning to actively modify their expectations and interpretations of symptoms and their reactions to them. Consolidation of mindset and physical rehabilitation required long-time intensive training.
The interaction between stress and sexual experience and behavior – an ecological momentary assessment study

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Objective: Stress and sexuality are relevant factors in everyday life that affect health and well-being. Associations between stress and sexuality, however, have not yet been sufficiently investigated in daily life. This ecological momentary assessment study examined the bidirectional interaction between psychobiological stress markers and sexual desire/arousal in everyday life.

Methods: Heterosexual healthy women (n= 32) and men (n= 31) (M= 24.51 years old, SD= 2.99, range: 19-32 years old) in a romantic relationship entered data on subjective stress and sexual desire and arousal using an iPod seven times a day and collected saliva samples six times per day for 14 consecutive days. Saliva samples were analyzed for cortisol. Due to the nested data structure, multilevel models were calculated.

Results: Higher subjective stress was associated with lower sexual desire (UC=-0.09, p < 0.001, Pseudo R²= 0.015) and sexual arousal (UC= -0.07, p < 0.001, Pseudo R²= 0.011) at the same time point. Higher cortisol levels in women were associated with lower sexual desire than in men (UC= -0.122, p= 0.016, Pseudo R²= 0.005). Higher sexual desire was associated with lower subjective stress (UC= -0.06, p= 0.011, Pseudo R²= 0.014). No significant effects were found from one time point to the next.

Conclusion: Our findings suggest that individuals with low sexual desire and arousal may benefit from interventions with a stress reducing effect. Future studies should investigate possible beneficial effects of such interventions in healthy samples as well as in a clinical context.
Biopsychosocial correlates of persistent somatic symptoms in patients with chronic kidney disease – results of the Hamburg City Health Study (HCHS)

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Background: Persistent somatic symptoms (PSS) in patients with chronic kidney disease (CKD) are present in all stages and influence the patients’ quality of life, morbidity and mortality. Aim of this study was to unravel interactions between biopsychosocial factors and symptom burden in patients with CKD.

Methods: This cross-sectional study analysed individuals with impaired renal function (GFR <60 mL/min/1.73m2) out of the first cohort (10,000 individuals) of the epidemiological Hamburg City Health Study (HCHS). As primary outcome somatic symptom burden (PHQ-15) was analysed. As potential correlates, biological (e.g., renal function, comorbidities), psychological (e.g., depression, anxiety, quality of life), and sociodemographic factors were analysed in a multivariate prediction model.

Results: Of the cohort, 588 participants (5.9%) had a reduced GFR. Of these, only 159 (27%) were aware of their renal dysfunction. Individuals with reduced GFR reported higher symptom burden compared to healthy controls (mean PHQ-15 (SD): 4.8 (3.9) vs. 5.4 (4.0), p = 0.002, Cohen’s d = 0.15). In individuals with reduced kidney function higher symptom burden correlated with reduced GFR (r = -.17, p < .001). In the multivariate prediction model, GFR was not correlated with symptom burden, which was predicted by depressive symptoms, self-reported coronary heart disease and quality of life.

Conclusions: This shows that symptom burden is only marginally related to renal function, while other biopsychosocial factors might play a more important role. Therefore, it is important to take a biopsychosocial perspective on PSS in CKD.

Keywords
Persistent somatic symptoms, chronic kidney disease, Hamburg City Health Study
Objectives

Inflammation is considered as an important mediator for the relationship between depression and coronary artery disease (CAD). Inflammatory markers are linked to mental conditions and have a causal role in the development of arteriosclerosis. The aim of this analysis is to investigate the interplay between socio-demographic and psychological factors, as well as the inflammatory markers myeloperoxidase (MPO), leptin, and adiponectin in depressed patients with CAD.

Methods

Baseline data collection relies on data from the SPIRR-CAD trial, a prospective, multicenter, randomized, controlled psychotherapy study. 553 depressed CAD patients (437 male, 116 female; mean age 59.1±9.5) provided socio-demographic information (age, sex), psychometric data (HADS, HAMD, DS14, SF36), and levels of inflammatory markers MPO, leptin, and adiponectin.

Results

First analysis revealed higher adiponectin levels in older (p=.002) and female (p<.001) participants, whereas a type-D personality was associated with lower adiponectin levels (p<.001). Women showed significantly higher leptin levels than men (p<.001). A lower physical quality of life was also correlated with higher leptin levels (p<.001). Increased MPO levels could be found in patients with higher depression levels (p=.028). Detailed results will be presented at the conference.

Conclusion

The current analysis of socio-demographic, psychometric and inflammatory parameters revealed encouraging correlations in the context of CAD. Higher adiponectin levels were associated with older age, female sex and the absence of a type-D personality. Higher leptin levels were associated with female sex and a lower physical quality of life. Nevertheless, clinical significance and interpretation of these results need to be further investigated.
What We Have Learned from Two Decades of Epidemics and Pandemics: A Systematic Review and Meta-Analysis of the Psychological Burden of Frontline Healthcare Workers

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COVID-19 and Hospital Staff #2, June 10, 2022, 11:45 AM - 1:00 PM

Objective: Given the ongoing COVID-19 pandemic and future disease threats, a profound comprehension of the impact of epidemics and pandemics on healthcare providers’ mental health is needed to address these current and future global health challenges. Thus, the aim of this study was to quantify psychological and psychosomatic symptoms among healthcare staff working on the frontlines of SARS-CoV-1, H1N1, Ebola, MERS, and SARS-CoV-2.

Methods: We systematically searched four databases and additional literature, including daily search alerts. Two reviewers independently performed all methodological steps, involving a third reviewer in case of dissent. We pooled the overall symptom prevalence rates applying random effects modeling and calculated the I2 to account for statistical heterogeneity.

Results: Of 1995 retrieved records, we assessed 417 full texts for eligibility, and included 86 studies. Frontline providers suffered from various symptoms, like concern about transmitting the virus to family (60.39%, 95% CI 42.53–76.96) and concern about own health (45.97%, 95% CI 31.08–61.23), sleep disturbances (39.88%, 95% CI 27.70–52.72), burnout (31.81%, 95% CI 13.32–53.89), depression (25.72%, 95% CI 18.16–31.46), anxiety (25.36%, 95% CI 17.90–33.64), posttraumatic stress disorder (24.51%, 95% CI 18.16–31.46), and somatization (14.68%, 95% CI 10.67–19.18).

Conclusion: Our findings, based on information from 75,991 participants, highlight the severe psychological effects of epidemics and pandemics on frontline staff. As another COVID-19 wave, driven by Delta and Omicron, puts even more strain on an already exhausted medical system and healthcare providers face aggression and threats from anti-vaccine activists, providing tailored psychological support for the healthcare workforce becomes all the more important.
Euthymia among Italian university students during the COVID-19 pandemic

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Objective: Euthymia is a transdiagnostic construct characterized by the absence of mood disturbances and the presence of an integration of psychic forces, such as psychological flexibility, well-being, resistance to stress. The present study has a cross-sectional design and is aimed at identifying psychological variables associated with euthymia among Italian university students during the COVID-19 pandemic.

Methods: 951 students (77.5% female, mean age: 24.86 ± 5.62 years) were enrolled. The Euthymia Scale (ES), the Depression Anxiety Stress Scales-21 (DASS-21), the Satisfaction With Life Scale (SWLS), the Positive Mental Health Scale (PMH), and the Resilience Scale (RS-11) were administered. Spearman correlation analyses and hierarchical regression analysis adjusted for age and sex (independent variables: DASS-21, SWLS, PMH, RS-11 scores; dependent variable: ES scores) were performed.

Results: Euthymia was negatively correlated with DASS-21 depression (rho=-0.62, p < 0.001), DASS-21 anxiety (rho=-0.41, p < 0.001), DASS-21 distress (rho = -0.55, p < 0.001). Euthymia was positively correlated with SWLS life satisfaction (rho=0.63, p<0.001), PMH positive mental health (rho=0.78, p<0.001), and RS-11 resilience (rho= 0.72, p<0.001). Regression model showed that higher euthymia was associated with lower DASS-21 depression and DASS-21 distress scores, and with higher on SWLS life satisfaction, PMH positive mental health and RS-11 resilience (adjusted R² = 0.73, F=317.64, p<0.001) scores.

Conclusion: Among Italian university students exposed to COVID-19 pandemic, psychotherapeutic interventions aiming to reduce depression, distress and enhancing positive mental health, life satisfaction and resilience may allow to pursue euthymia.
Evaluation of a Mental Health Awareness Program for medical staff in a Pakistani Prison

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COVID-19 and Hospital Staff #2, June 10, 2022, 11:45 AM - 1:00 PM

Objective: Mental health problems in prison settings is a global health priority, however, lack of trained staff and adequate health care provision in prisons in Pakistan is a major concern. The aim of this training program was to raise awareness about mental health problems amongst prison medical staff.

Methods: This was a 10-session training program with pre-post assessments, delivered weekly to medical staff, men (n=20) and women (n=20) in, Pakistan (Karachi) prison. Training was provided to medical doctors and medical ward staff that also included prison inmates. Training included a detailed presentation in local language (Urdu) with role play sessions on a simple valid screening tool for each domain: depression, anxiety and phobia, bereavement, bipolar affective disorder, substance abuse disorder, postnatal depression, Post-traumatic-stress-disorder, schizophrenia, self-harm and suicide and basic counseling skills. Screening tools included: Patient Health Questionnaire, Generalized Anxiety Disorder, Mood Disorder Questionnaire, Beck scales for Suicidal Ideation, Impact Event scale, Edinburgh Postnatal Depression Scale.

Results: More than 70% participants from each training batch attended all training sessions. Comparison of pre-post mean score showed significant improvement (p<.001) in knowledge and understanding in all domains (depression 3.9-6.6; anxiety 2.9-4.5, bereavement 2.9-4.5, bipolar disorder 3.6-5.5, substance-abuse-disorder 3.1-4.5, postnatal depression 1.6-4.1, Post-traumatic-stress-disorder 2.7-6.0, schizophrenia 2.8-5.1, self-harm and suicide -4.3-2.7, counseling 2.7-5.1)

Conclusion: The training demonstrates significant improvement in knowledge of mental health in prison staff. The impact of these training programs on care, support and referral of inmates need evaluation.
Depression and heart rate variability in heart failure – Results from the MyoVasc study

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Psycho-Cardiology #2, June 10, 2022, 11:45 AM - 1:00 PM

Objective: Depression is related to worse outcomes in individuals with cardiovascular disease. Reduced heart rate variability (HRV), as a marker for autonomic dysfunction, is proposed to mediate the relation between mental stress and cardiovascular health. This study aims to identify HRV parameters in subjects with HF that are related to somatic and cognitive-affective dimension of depression.

Methods: We examined the association between depressiveness as assessed by PHQ-9 with HRV parameters from 24h Holter ECG recording in the MyoVasc study (NCT04064450; N=3,289), a prospective cohort study on chronic HF. HRV parameters related to PHQ-9 have been selected via elastic net regression. Multivariable linear regression analysis adjusted for age, sex, established cardiovascular risk factors, comorbidities and medication had been performed.

Results: In the analysis sample (HRV analysis in N=1,001), 29.8% had mild depressive symptoms (PHQ-9 = 5-9) and 10.2% had major depressive symptoms (PHQ-9 ≥ 10). In AHA B-D MADRR (β = 0.041, 95% CI: 0.0021, 0.079, p=0.039), ULF (β = -0.038, 95% CI: -0.076, -0.0011, p=0.044) and Max. Lyapunov exponent (r=20) (β = 0.041, 95% CI: 0.0034, 0.079, p=0.033) correlated with somatic dimension of PHQ-9. Cognitive dimension of PHQ-9 in AHA C/D correlated with triangular Index (HRVi) (β = -0.049, 95% CI: -0.099, -0.00026, p=0.049) and Correlation dimension (β= -0.054, 95% CI: -0.10, -0.0035, p=0.037).

Conclusions: HRV parameters were consistently more reduced in individuals with more depressive symptoms. Interestingly, HRV parameters differ regarding the cognitive and somatic dimension of depression in individuals with HF.
Association of recognized and unrecognized myocardial infarction with depressive and anxiety disorders in 125,988 individuals: a report of the LifeLines Cohort Study

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Psycho-Cardiology #2, June 10, 2022, 11:45 AM - 1:00 PM

Background: No previous study examined the role of recognition of myocardial infarction (MI) and the presence of affective disorders in a large population sample. The aim of this study was to investigate the association of recognized MI (RMI) and unrecognized MI (UMI) with depressive and anxiety disorders.

Methods: Analyses included 125,988 individuals enrolled in the LifeLines cohort study. Current affective disorders according to the DSM-IV were assessed with the Mini International Neuropsychiatric Interview. UMI was detected using electrocardiography (ECG) in participants who did not report a history of MI. The classification of RMI was based on self-reported MI history together with either the use of antithrombotic medications or ECG signs of MI. Analyses were adjusted for age, sex, smoking, somatic comorbidities related to MI, and physical health-related quality of life as measured by the RAND 36-Item Health Survey.

Results: Participants with RMI had significantly higher odds of having any depressive and any anxiety disorder as compared with participants without MI (depressive disorder: OR=1.86;95%CI:1.38-2.52;p<.001, anxiety disorder: OR=1.60;95%CI:1.32-1.94;p<.001). Participants with UMI did not differ from participants without MI (depressive disorder: OR=1.60;95%CI:0.96-2.64;p=0.070, anxiety disorder: OR=0.73;95%CI:0.48-1.11;p=0.14). The presence of somatic comorbidities and low physical health-related quality of life explained the association between RMI with any depressive disorder (OR=1.18;95% CI:0.84-1.65;p=0.34), but the association with any anxiety disorder remained statistically significant (OR=1.27;95%CI:1.03-1.57;p=0.027).

Conclusions: Recognition of MI is important for the occurrence of depressive, and especially anxiety, disorders. Therefore, a psychological pathway appears to be responsible for the increased risk of anxiety in patients with MI.
The Transplant Evaluation Rating Scale predicts clinical outcomes one year after lung transplantation: Results of a prospective longitudinal study

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Objectives:
As stipulated in the guideline of the German Medical Association, all candidates for lung transplantation (LTx) undergo pre-transplant psychosocial evaluation for risk assessment. However, psychosocial aspects before transplantation are only important if they correlate with outcomes after transplantation.

Methods:
In this prospective study, we used the Transplant Evaluation Rating Scale (TERS) to evaluate LTx candidates who presented at Hannover Medical School between 2016 and 2018 (n = 352). Clinical outcomes of interest were listing status, post-transplant outcomes (mortality, lung allograft dysfunction, hospitalizations, and renal functioning), behavioral aspects (BMI and adherence), and mental issues (levels of depression, anxiety, and quality of life (QoL)). TERS scores were divided into tertiles and the impact of the two subscale scores—“defiance” and “emotional sensitivity”—was investigated.

Results:
Of the patients who were transplanted (n = 271) and were still alive (n = 251), 240 had already reached their 1-year assessment and were re-evaluated. BMI, adherence scores, levels of anxiety, depression, and QoL one year post-transplantation differed significantly between TERS tertiles, with higher TERS scores predicting less favorable outcomes. The TERS subscale “defiance” was predictive of BMI and adherence whereas the TERS subscale “emotional sensitivity” was predictive of symptoms of anxiety and depression, and QoL 1 year after transplantation.

Conclusion:
Our results show that psychosocial factors as measured by the TERS score are predictors of behavioral and mental outcomes one year after LTx. The TERS allows us to identify psychosocial risk factors of interest that should be addressed before or after transplantation.
The influence of previous SARS-CoV-2 infection and mental health on neurotransmitter precursor amino acids levels

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COVID-19 #3, June 10, 2022, 4:30 PM - 5:45 PM

The research objective was to measure and compare the influence of a survived SARS-CoV-2 infection and psychiatric disorders on the availability of neurotransmitter precursor amino acid levels. We measured neurotransmitter precursor amino acids in 72 individuals who had previously tested positive for SARS-CoV-2 and 114 negatively tested controls either with or without pre-existing mental health alterations. Blood samples were taken on average 134.4 ± SD 56.3 days after patients first tested positive for SARS-CoV-2. Mental health at the time of the study was measured using the hospital anxiety and depression rating scale. Tryptophan, kynurenine, phenylalanine and tyrosine serum levels were determined by high-performance liquid chromatography. Two-way ANOVAs were used for statistical analyses.

Participants’ mean age was 45.7 ± SD 14.1 years, 58.8% were female. All calculations were adjusted for age. Preliminary results indicate that kynurenine/tryptophan is influenced by previous SARS-CoV-2 infection (p=0.017) and also the presence of anxiety (p=0.045) and depression (p=0.030). Interactions of previous SARS-CoV-2 infection and mental health were not significant. The effect of past SARS-CoV-2 infection (p=0.010) and anxiety (p=0.049) on phenylalanine/tyrosine ratio was significant. No significant effect on phenylalanine/tyrosine ratio was found for the depression (p=0.102). Similarly, no significant interaction effect was found for these parameters.

We found an influence of past SARS-CoV-2 infection as well as mental health alterations on neurotransmitter precursor amino acid levels. A possible common pathway for those changes is a persisting low grade inflammation or an individual’s stress level and subsequent stress-induced physical changes.
Symptoms induced by negative affect in functional somatic syndrome patients: What are the underlying brain activation patterns?

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Objective.
Inducing negative affect through picture viewing increases somatic symptom reporting in patients with functional somatic syndromes (FSS). We investigated the neural mechanisms underlying this effect.

Methods.
Patients with FSS (fibromyalgia and/or IBS; N=30;) and healthy controls (HC; N=30) watched blocks of neutral, positive and negative affective pictures during functional MRI scanning. Negative affect and somatic symptoms were rated after every picture block. Whole-brain parcelwise robust GLM analysis was used to compare brain activation during negative vs. neutral picture viewing in FSS patients vs HC. Also activation of the neurologic pain signature (NPS) and the picture-induced negative emotion signature (PINES) were compared for the negative affect vs neutral picture contrast. Mediational patterns were explored.

Results.
During negative (compared to neutral) picture viewing, we observed: (1) higher levels of symptoms, and this effect was stronger in patients compared to HC; (2) stronger activations of somatosensory regions (SI/SII, insular regions) in patients compared to HC; (3) relatively stronger activation of the NPS, but not of the PINES, in patients compared to HC; (4) NPS-mediation of the differences in somatic symptoms between patients and HC.

Conclusion.
Picture-induced negative affect elicits somatic symptom reports in FSS patients as a result of activation of somatosensory and nociceptive brain patterns. Our findings suggest that affect-related changes in processing of bodily signals are a critical mechanism underlying FSS.
Cytokine Storm Induced New Onset Depression in Patient with COVID-19

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Background: Depression appears to be a common complication in patients during and post–COVID-19 infection. Understanding the mechanism of action of cytokines such as interleukin-6, interleukin-10, and others in depression and in cytokine storm syndrome, the core component of COVID-19, could shine a new light on future treatment options for both disorders

Objective: This review demonstrates the role of interleukins in COVID-19 pathogenesis and their role in depression.

Methods: We performed a literature review, searching databases for cases of COVID-19 and depression during other pandemics.

Results: We described cases we have treated as an example of the dual role interleukins have in COVID-19 infection and depression and reviewed approximately 70 articles focusing on the role of interleukins in cytokine storm syndrome and depression.

Conclusion: This review highlights the key features of cytokines in both diseases. As the scientific community has more time to recover and process the effect of the current pandemic, we believe that additional research will pave the way to diverse pathways to treat depression in these patients and others.
Teaching Integrated Care to Diverse Learners: The role of the C-L psychiatrist

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Objective
Education and training of physician, trainees, nurses and allied health professionals is a core component of a consultation-liaison (C-L) psychiatrist’s work. This is especially relevant to integrated care which is interdisciplinary by nature. By providing integrated mental health treatments, leading integrated care teams, and educating interdisciplinary teams, CL psychiatrists can play a critical role in improving access to mental health care.

Methods:
Traditional consultation models are not able to meet the increasing need for mental health care and there is increasing demand and expectation from C-L psychiatrist to be able to train the future trainees in this evidence based integrated care model, such as the Collaborative Care Model (CCM). In this symposium I will briefly describe the model, the integrated care curriculum we developed as part of C-L curriculum including didactic teaching for all junior residents and elective opportunities to practice as an integrated care for senior residents and fellows.

Result:
All University of Washington psychiatry residents learn basics about this model through didactics. Since 2010, 45 residents and since 2016 14 C-L and 5 Integrated care program fellows have been clinically trained in this model. Detailed results will be presented.

Conclusion
As more settings implement evidence based integrated care model such as CCM, the C-L psychiatrist role has expanded to include training of integrated care team members. While training and performance assessment for integrated care can differ by the population of learners, it can be effective to utilize C-L psychiatrists as integrated care trainers and educators.
Racial Inequalities in the Organ Transplantation Selection Process – How Can CL Psychiatrists Be Part of the Solution

Sher Y¹, Hussain F¹, Maldonado J¹
¹Stanford University

CL Psychiatry, June 10, 2022, 4:30 PM - 5:45 PM

Objectives:
- To review psychosocial transplant evaluation domains
- To review the research on race/ethnicity and important transplantation milestones
- To discuss the role of CL psychiatrists as advocates for equitable care for our most vulnerable patients

Methods:
- Review of literature

Results and Outcomes:
Transplantation offers a chance for patients with end-stage organ failure to prolong and improve the quality of their lives. Along with medical evaluation, psychosocial evaluation has been found to be an important predictor of post-transplant outcomes. However, especially in the current US climate of increased awareness of racial and ethnic inequality, it behooves us to reflect on how racial and ethnic inequality influences the transplant selection process.

Emerging evidence raises important questions. After controlling for other variables, Black patients with end-stage liver disease were less likely to be listed for a liver transplant (Jesse et al, 2019). For lung transplant recipients, it took longer for non-white patients to be listed (Mooney et al, 2018). Race and ethnicity are intertwined with other psychosocial variables (e.g. stigma towards mental health, socioeconomic status, social support availability). These inequalities will translate into the final outcomes of our psychosocial evaluation.

In this workshop, Dr. Maldonado will evaluate the evidence for suggested domains of transplant psychosocial evaluation. Dr. Sher will discuss the influence of race/ethnicity in the transplantation referral, evaluation and outcomes. Dr. Hussain will moderate a discussion as to how CL psychiatrists can advocate for marginalized patients throughout the various stages of the transplantation.
Understanding persistent physical symptoms after COVID-19 – lessons from functional dyspnea and dizziness

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With Sars-CoV-2 infections still on the rise, more and more people will contract COVID-19 and are at risk of developing persistent physical symptoms, i.e., Long-COVID syndrome. Structural findings are so far mostly unable to fully explain patients' suffering. It is therefore important to investigate these symptoms in line with our current understanding of chronic body symptoms, i.e., that symptoms can be debilitating and real when organic structure is intact, but CNS information processing due to bio-psycho-social factors is impaired. Here we propose to examine dyspnea, fatigue and dizziness in Long-COVID patients with two already established paradigms that were validated in functional symptoms. For Long-COVID dizziness, we will conduct an eye-head coordination paradigm that has shown measurable head and gaze instability indicating aberrant sensorimotor processing in patients with functional dizziness. For Long-COVID dyspnea and fatigue, we will measure patients with a rebreathing paradigm that has shown context dependent perception of dyspnea that was uncoupled from sensory input in patients with functional dyspnea and chronic fatigue. We will combine this experimental approach with computational modelling to further elucidate the site of a possible dysregulation in information processing. This is a promising starting point for understanding three of the most important long-COVID symptoms and for future therapeutic interventions.
Innovations in Consultation Liaison didactic curriculum- Pivoting during the pandemic

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Introduction:
The pandemic has disrupted medical education delivery. Training programs have had to adapt. Here we describe the current landscape and use our experience to describe successful changes and implications.

Objectives:
1) Describe the pandemic related challenges in medical education and solutions (Dr. Sher)
2) Review the adaptations made to the consultation liaison didactic curriculum at a large university hospital (Dr. Hussain)
3) Discuss Implications of current learning for future applications (Dr. Maldonado)

Methods:
Review of literature and narrative description using one of our award-winning lecture series as an example. Dr. Hussain will describe the adaptations to the Stanford Immersion lecture series, a collection of invited talks by medical colleagues, on topics germane to clinical work of a consultation liaison psychiatry fellow.

Results:
Following up on trainee feedback from the first year of the pandemic, we adjusted the “Immersion into Consultation Liaison Psychiatry” lecture series. An online video platform with recording capabilities allowed for synchronous and asynchronous learning. Other features of the video platform helped make talks more engaging as did adding case examples for trainees to work through. Trainees preferred speakers who were natural story tellers rather than slide readers.

Conclusions:
The pandemic has created unique challenges for patient care as well as all modes of teaching, in response training programs are adapting pedagogical approach. The implications for innovation in this sphere are far reaching, creating an online repository of lectures for asynchronous learning as well as bridging gaps in knowledge in underserved or developing medical education systems.
‘One step at a time’. Internet-delivered treatment for patients with bodily distress syndrome (BDS): Protocol for a randomized controlled trial

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Objective: Bodily distress syndrome (BDS) or Functional Somatic Syndromes (FSS) are conditions in which the patients suffer from impairing bodily symptoms from various bodily systems. Multi-organ BDS affects an estimated 1% of the general population and represents patients moderately to severely impaired by multiple FSS. The course of multi-organ BDS is often chronic as only few patients receive treatment. Thus, there is a need for treatment programs which are accessible, feasible, and effective and which can be provided on a larger scale. Assisted internet-delivered treatment programs, in which patients are offered access to an online treatment program supported by a therapist, provide an opportunity to offer treatment to a wider range of patients in a more flexible format.

At The Research Clinic for Functional Disorders and Psychosomatics we have developed the first internet-delivered treatment to patients with multi-organ BDS. The aim of this study was to test the feasibility of the treatment and study set-up by investigating patient satisfaction and key measures of physical and psychological quality of life.

Methods: 24 patients were included in an uncontrolled pilot study and answered questionnaires like SF-36 and Whitely-6 before treatment, at end-of-treatment, and at 3 month follow-up.

Results: To date, the preliminary results indicate a positive change over time on key measures of quality of life and high patient satisfaction.

Conclusion: Since data is still being collected, the final results will be presented and discussed at the conference.
Patient-reported outcome measures (PROMs), quality of life, and functional capacities as characteristics and prognostic factors in patients presenting with functional disorders: a prospective cohort study (the Sympa Cohort Study)

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Objective
To describe preliminary findings of the patient-reported outcomes (PROMs) for patients in a newly established Clinic for Functional Disorders (FD). To report first findings of patients’ prognoses and the changes in PROMs during the 6 month follow-up.

Methods
The Sympa Cohort Study is a prospective, single-site cohort study consisting of administering PROMs questionnaires to patients of the Clinic for Functional Disorders at Helsinki University Hospital (HUS). The questionnaires are handed out to the study population within the seven days preceding their first visit to the clinic, and then at the three, six, and 12-month marks following the visit. The study population consists of consecutive adult patients referred to the clinic from either other hospital units or primary care. The collected data will later be linked with national registries on diagnoses, medication use, and work ability. The Sympa Cohort Study also forms a quality register for the clinic and characterizes the first systematic collection of PROMs related to these disorders in Finland.

Results
In this presentation we will report the preliminary findings of the changes in quality of life as measured by EUROHIS and in functional capacity as measured by WHODAS2.0 in 6 months follow up.

Conclusions
We will make conclusions on the changes in quality of life and functional capacities in patients treated at Clinic for Functional Disorders are Helsinki University Hospital.
Fear and somatic burden during the COVID-19 pandemic: the mediating role of cyberchondria, but not protective behavior

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COVID-19 #3, June 10, 2022, 4:30 PM - 5:45 PM

Objective. There is extensive available research on the relationship between fear of COVID-19 pandemic and physical symptoms. This study was the first to examine the cyberchondria and COVID-19 protective behavior as mediators of this relationship.

Methods. A cross-sectional study was conducted from October to December 2021, during the fourth wave of the COVID-19 pandemic in Russia. The participants were 2,011 Russian-speaking volunteers aged 18 years and older. They completed questionnaires on somatic burden, cyberchondria, COVID-19 protective behavior, and fear of COVID-19 pandemic. Supplementary items included the study participant’s age, gender, marital status, education background, experience of coronavirus infection, and refusing or choosing vaccination against SARS-CoV-2 infection.

Results. Fear of COVID-19 positively predicted somatic burden, cyberchondria, and COVID-19 protective behavior. Mediation analysis showed that the relationship between fear of COVID-19 pandemic and somatic burden was mediated by cyberchondria, but not COVID-19 protective behavior.

Conclusion. The findings suggest that cyberchondria has negative effects on somatic burden during the COVID-19 pandemic. The knowledge of the mediating role of cyberchondria may be used by healthcare workers when consulting persons with physical health complaints and psychosomatic disorders.
Doctor-assessed illness belief as a prognostic factor for rehabilitation in patients with bodily stress syndrome

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Bodily distress syndrome, June 10, 2022, 4:30 PM - 5:45 PM

Objective
Bodily stress syndrome includes fibromyalgia, chronic fatigue syndrome, irritable bowel syndrome, and neurological and other functional symptoms; disorders which often overlap and persist. Various susceptibility, triggering and maintaining factors may be identified, but minimal findings in medical investigations. Although the symptomatologies harbor a reversible nature, the success in rehabilitation ranges from none to full recovery.

Materials
The cases are consecutive adult patients at the first Outpatient Clinic for Functional Disorders at Helsinki University Hospital referred from other hospital units and primary care. Before their first visit, the patients fill questionnaires incl. self-report on the belief of the cause of their illness. Based on the first 2h doctor visit, the MD evaluates patients’ acceptance of the functional mechanism vs. an external cause for their disorder, and rate it with a 5-scale measure, no to full acceptance. The evaluation is compared with measures of recovery in those who have finished their treatment and rehabilitation, some with 6 and 12-month follow-up.

Results
The demographics and the type of functional disorder of ca. 500 consecutive patients (from April 2019 to Feb 2022), incl. 300 patients who have finished their period of care, will be presented. The correlation between patients’ acceptance of the functional mechanism and success in recovery will be shown.

Conclusions
Patients’ acceptance of the functional mechanism associate with success in recovery.
Can the unifying diagnostic construct of bodily distress syndrome (BDS) be used to assess functional disorders in adolescence?

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Objective:
Functional Somatic Symptoms are prevalent in clinical and non-clinical adolescent populations and may develop into functional disorder (FD) in severe cases. Diagnosing FD at this younger age has been complicated because the developmental context is often unaccounted for. 'Bodily Distress Syndrome (BDS)' is suggested as a diagnostic concept for FD in adults, considering symptoms within four clusters (i.e. 1) cardiopulmonary, 2) gastrointestinal, 3) musculoskeletal 4) general symptoms). This study aims to assess the utility of the BDS diagnosis in adolescence by exploring fit of BDS symptom cluster patterns to adolescent's symptom profiles. Furthermore, we will investigate how adolescents could be classified into illness groups, and explore associations with levels of functioning (i.e. psychological adjustment) and sociodemographic variables.

Methods:
Data from the 16/17-age follow-up (N=2462) of the general population Copenhagen Child Cohort (CCC2000) will be utilized. Self-reported questionnaire data on functional somatic symptoms (BDS-25 checklist), health-related quality of life (KidScreen), emotional distress (Spence Children’s anxiety Scale; The Mood and Feelings Questionnaire) and illness worry (Whiteley-6 Index), and socio-demographic data from Danish national registers will be employed. Factor analyses will be used to explore BDS symptom clusters. To examine illness groups and associations with psychosocial and sociodemographic variables, Latent Class Analysis and mean comparisons will be performed.

Results:
Statistical analyses are currently being conducted. Results will be presented at the conference.

Conclusion:
This study may advance knowledge on developmental aspects of a unifying diagnostic functional disorder concept, which could prove useful across clinical settings.
Objective: Current eHealth enable integration of artificial intelligence (AI) and the Internet of Things (IoT)- devices to optimize health behaviors for prevention of incident and recurrent cardiovascular disease, including coronary artery disease (CAD). These novel eHealth interventions can be used to augment the availability and effectiveness of cardiac rehabilitation (CR) in patients with CAD. The TIMELY project is an AI-driven eHealth approach aiming to promote targeted and personalized lifestyle intervention. (funded by European Commission Horizon2020 (#101017424)).

Methods: TIMELY is a patient-centered, modular platform using a Living Lab approach for iterative and participatory design. The intervention is based on a (mobile) app complemented by adaptive chatbots for the management of CR-relevant components. The IoT-devices include self-applicable ECG devices, activity trackers and hemodynamic monitors. In-time risk prediction and AI behavioral change agents are used to support long-term lifestyle changes in a multi-national RCT (http://timely-project.eu).

Results: Since initiation of the project in 2021, the TIMELY platform has been developed based on an integrative database including data from IoT-devices, patient communication and data sharing. Evaluation of Living Lab guided interviews indicated good acceptance of the proposed eHealth solution, with high acceptance of the eHealth solution, including motivational messages, progress updates, and patients reported that communication by adaptive chatbots was acceptable.

Conclusion: The TIMELY eHealth platform will be the first AI-powered multimodal intervention system supporting CAD patients to achieve long-lasting lifestyle changes. TIMELY has the potential to be applied in different European health care settings to coordinate a multidisciplinary care team to provide targeted interventions.
Somatic symptom disorder: a scoping review on the empirical evidence of a new diagnosis

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Background.
In 2013, the diagnosis of somatic symptom disorder (SSD) was introduced into the DSM-5. This review aims to comprehensively synthesize contemporary evidence related to SSD (Löwe et al. Psychol Med, 2021).

Methods.
A scoping review was conducted using PubMed, PsycINFO, and Cochrane Library. The main inclusion criteria were SSD and publication in the English language between 01/2009 and 05/2020. Systematic search terms also included subheadings for the DSM-5 text sections; i.e., diagnostic features, prevalence, development and course, risk and prognostic factors, culture, gender, suicide risk, functional consequences, differential diagnosis, and comorbidity.

Results.
Eight hundred and eighty-two articles were identified, of which 59 full texts were included for analysis. Empirical evidence supports the reliability, validity, and clinical utility of SSD diagnostic criteria, but the further specification of the psychological SSD B-criteria criteria seems necessary. General population studies using self-report questionnaires reported mean frequencies for SSD of 12.9% [95% CI, 12.5–13.3%], while prevalence studies based on criterion standard interviews are lacking. SSD was associated with increased functional impairment, decreased quality of life, and high comorbidity with anxiety and depressive disorders. Relevant research gaps remain regarding developmental aspects, risk and prognostic factors, suicide risk as well as culture- and gender-associated issues.

Conclusions.
Strengths of the SSD diagnosis are its good reliability, validity, and clinical utility, which substantially improved on its predecessors. SSD characterizes a specific patient population that is significantly impaired both physically and psychologically. However, substantial research gaps exist, e.g., regarding SSD prevalence assessed with criterion standard diagnostic interviews.
Alexithymia and cognitive dysfunction in patients with somatic symptom and related disorder: The role of depressive symptoms

de Vroegel, Vergeest A, Kop W

Somatic Symptom Disorder: New Challenges, June 10, 2022, 4:30 PM - 5:45 PM

Background: Cognitive dysfunction is common in patients with somatic symptom and related disorders (SSRD), particularly reduced information processing speed. Depression contributes to cognitive dysfunction in SSRD. However, the role of impaired emotion perception and emotion experiences (alexithymia), which is common in patients with SSRD, is not known.

Methods: Neuropsychological assessments and questionnaires were administered in 325 patients with SSRD. We focused on the Digit Symbol Substitution Task (DSST) for the assessment of information processing speed, the Bermond-Vorst Alexithymia Questionnaire (BVAQ) for alexithymia and the Patient Health Questionnaire -9 (PHQ-9) for depression, using Spearman’s Correlation (rho) and Multiple Regression Analyses.

Results: A significant correlation between the BVAQ and the DSST was found (rho = -.207, p < .001). In addition, significant correlations were observed for the BVAQ fantasizing subscale (r = -.181, p = .001) and the BVAQ analyzing subscale (r = -.188, p < .001) with DSST scores. When adjusting for age, sex, and educational level, the BVAQ total score remained negatively associated with the DSST scores (β = -.110, t = -2.315, p = .021). When adding depression to the model, only depression was significantly associated with the DSST (β = -.201, t = -4.278, p < .001).

Conclusion: These findings indicate that alexithymia might be an important background factor for the development of cognitive dysfunction in patients with SSRD. However, depressive symptoms are likely to play a more direct role in explaining these cognitive problems. It is important to consider information processing speed problems as a focus of intervention.
Proactive Psychiatric Consultation- An Examination of Time and Quality Measures over Four Years

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Aims: Proactive psychiatric consultation has been shown to be an effective approach for early detection of psychiatric need on hospital wards. The approach has been linked with shorter time to consultation, shorter length of stay, physician and nursing staff satisfaction with resources, and recently with positive impact on nursing turnover rates. Our aim is to examine the effects of proactive, embedded teams compared to the traditional consultation model on time measures, total encounters, disposition differences, and nursing retention.

Methods: Four years of data were collected, beginning with the first year of having two proactive embedded teams in our academic medical center. We are comparing all patient encounters for the four year period, examining demographics, patient encounters or "touches" by the teams, disposition, and other quality measures. Data on nursing retention on units were also collected.

Results: Preliminary data show the embedded proactive teams saw patients earlier during their hospitalization and had shorter length of stay. Initial data also show more patient contacts during a hospitalization and a higher volume of transfers to psychiatry. Examination of nursing retention has not shown significant differences.

Conclusion: Our study confirms prior studies of positive impact on earlier consultation and overall shorter length of stay with the proactive model. The proactive teams also had more patient contact during a patient's stay and there was a trend toward greater transfers to psychiatry, suggesting improved case-finding. There was no notable improvement in nursing retention in either cohort during a four-year period.
Helpful explanatory models for persistent somatic symptoms: a randomized controlled pilot study (HERMES)

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Background: The HERMES pilot study aimed to translate etiological models of persistent somatic symptoms (PSS) into an explanatory model for patients and practitioners, to transfer this model into an animated video, and to test the efficacy of this intervention.

Methods: Psychosomatic outpatients with PSS were randomized to watch one of three 15-minute videos (explanatory model vs. personalized explanatory model vs. control group with information on PSS guidelines) and answered self-report measures on their somatic (PHQ-15), and psychological symptom burden (SSD-12), quality of life (SF-12), usefulness of the intervention (USE), and other variables before and one month after the respective intervention.

Results: Participants (N = 75, 44.2 ± 13.3 years, 56% female) reported improvements in the outcome variables at one-month follow-up. These differed significantly regarding quality of life in the control compared to the explanatory model group without personalization (Mdiff = 7.50; 95%CI 0.43; 14.56). The intervention groups did not differ significantly from the control group in terms of changes at follow-up in somatic (p = .575), and psychological symptom burden (p = .849), and cognitive (p = .204), emotional (p = 0.068), and behavioral usefulness (p = .515).

Conclusion: We developed three time-efficient video-animated explanatory models of PSS. Their presentation resulted in improvements in the examined target variables, without superiority of the active interventions compared to the control group. Future studies should examine the acceptance and effectiveness of the HERMES psychoeducational materials in the GP and other settings to improve the early treatment of PSS in the long term.
Associations between symptoms and of symptoms with activity in long covid: an intensive longitudinal study

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Long COVID, June 10, 2022, 4:30 PM - 5:45 PM

Long covid (post-acute covid syndrome) is a common consequence of SARS-CoV-19 regardless of initial illness severity. Affected individuals describe multiple symptoms which vary between and within individuals. Few studies of long covid have addressed current models of interoception such as the Embodied Predictive Interoceptive Coding (EPIC) model of symptoms.

Objectives:
To examine the extent, patterns and correlations of within-person variation in symptoms. We hypothesised that weak or inconsistent correlations between symptoms would be indicative of disordered interoception.

Methods:
Intensive longitudinal study of 74 adults with self-reported long covid for more than 6 months. Data collection involved a smartphone app with 5 daily entries over 14 days and continuous wearing of a wrist accelerometer. Data items included 7 symptoms (visual analog scales) and perceived demand in the preceding period (Likert scales). Analysis used within-person correlations of symptoms pairs and personal symptom networks derived from graphical vector autoregression.

Results:
Physical symptoms showed substantial within-person variability. Fatigue and overall unwellness were strongly correlated in all participants, but other correlations varied substantially between individuals. There were no consistent clusters of correlation patterns. Fatigue and unwellness showed weak relationships to subjective demand and no relationship to objective physical activity. Symptom networks showed low autocorrelation between symptoms, inconsistent contemporaneous associations between individuals and very few directed (temporal lagged) associations.

Conclusion:
Symptoms of long covid vary within individuals over short time scales, with little apparent relationship to activity, and few common patterns of symptom correlation. This suggests that disturbed interoception may be compounding other pathophysiological mechanisms.
Subjective cognitive complains and neuropsychological performance at six months post COVID-19.

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Objective: Reports of cognitive late effects from Covid-19 survivors are increasing, based on both self-reported subjective cognitive deficits (SCD) and formal performance-based objective cognitive assessment. As few studies have included both methods, the present study aims to combine self-report and performance-based cognitive assessment to explore the magnitude of cognitive deficits and to examine the degree of coherence or discrepancy between self-reported and objective cognitive function.

Methods: Sixty patients with confirmed Covid-19 infection and neurological symptoms were recruited from a national multicenter study. At 6 months post-covid infection, they completed a neuropsychological examination covering motor function, processing speed, attention/working memory, word fluency, verbal, and visual memory. To assess SCD, items expressing cognitive function were extracted from an extended version of the Giessner Beschwerde Bogen (GBB) questionnaire.

Results: Compared to normative mean, by one-sample t-tests, cognitive domains including verbal memory and word fluency were significantly reduced. There were no significant associations between cognitive functions and illness severity defined as need of hospitalization or mechanical ventilation. GBB items expressing subjective memory and language problems were modestly correlated with test performance within attention, processing speed, verbal memory, and executive function, with no p-values surviving correction for multiple comparisons.

Conclusion: Verbal memory and word fluency performance were significantly reduced at six months in Covid-19 survivors. However, performance-based cognitive impairment was only modestly associated with subjective cognitive complains, suggesting a more multidimensional model including both premorbid and post-covid developed psychiatric, cognitive, and medical conditions to account for Covid-19 related cognitive impairment.
Who is at risk of poor mental health following COVID-19 outpatient management?


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Long COVID, June 10, 2022, 4:30 PM - 5:45 PM

Background: COVID-19 convalescents are at risk of developing a de novo mental health disorder or worsening of a pre-existing one. The objectives of our study was to phenotype individuals at highest risk of mental health disorders among COVID-19 outpatients.

Methods: We conducted a binational online survey study with adult non-hospitalized COVID-19 convalescents (Austria/AT: n=1157, Italy/IT: n= 893). Primary endpoints were positive screening for depression and anxiety (PHQ-4, Patient Health Questionnaire) and self-perceived overall mental health and quality of life (Likert scales). Multi-parameter random forest and serial univariable modeling was used for analysis. Mental disorder risk subsets were defined by self-organizing map and hierarchical clustering algorithms.

Results: At a median of 79 days (AT)/96 days (IT) post COVID-19 onset, 12.4 (AT)/19.3(IT)% of subjects were positive for anxiety and 17.3 (AT)/23.2(IT)% for depression. Over one-fifth of the respondents rated their overall mental health (AT: 21.8%, IT: 24.1%) or quality of life (AT: 20.3%, IT: 25.9%) as fair or poor. In both study collectives, psychosocial stress, high numbers of acute and persistent COVID-19 complaints and the presence of acute neurocognitive symptoms were the strongest correlates of deteriorating mental health and poor quality of life. In clustering analysis, these variables defined a ‘high risk’ subset with particularly high propensity of post-COVID-19 mental health impairment and decreased quality of life.

Conclusion: We put forward specific acute symptoms of the disease as ‘red flags’ of mental health deterioration which should prompt general practitioners to identify COVID-19 patients who may benefit from early psychological and psychiatric intervention.
Coping strategies in IBS: a systematic review

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BACKGROUND AND AIM: Irritable bowel syndrome (IBS) is associated with risk for psychopathologic comorbidities and interferes with adherence to treatment regimens and quality of life. Coping strategies with stress used by IBS patients were never comprehensively reviewed. Therefore, this systematic review aimed to summarize the coping strategies used by IBS patients and identify which tools are used most frequently to measure coping strategies.

MATERIALS AND METHODS: According to PRISMA guidelines, we searched for articles indexed in PubMed, EBSCOhost, EMBASE and Cochrane Library. The search terms included: (coping OR coping strategies OR coping mechanism) AND (irritable bowel syndrome OR IBS).

RESULTS: Twenty-one articles using fifteen coping instruments and six measures of quality of life were found. One was interventional, one longitudinal, and the rest were cross-sectional studies. One study was qualitative, while the rest used quantitative measures. Emotion-focused coping was associated with worse psychological outcomes, while the effect of problem-focused coping was not regularly associated with better psychological outcomes. Catastrophizing was negatively associated with health-related quality of life. Psychological distress (anxiety, depression) was significantly related to the impairment of HRQOL.

CONCLUSION: IBS patients utilize a wide variety of coping strategies, and the types of strategies used may have implications for their psychological well-being. Our results suggest that among patients with IBS, the use of avoidance-oriented coping and catastrophizing predict a poor health outcome. The results regarding active coping strategies are inconclusive.

Keywords: Irritable bowel syndrome; IBS; coping strategies; coping mechanisms; systematic review.
Addressing violence during medical training

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Workshop, June 11, 2022, 10:00 AM - 11:15 AM

Objectives: From 72-96\% of psychiatry trainees experience verbal threats and up to 64\% physical assault. Despite this, there is little data regarding the incidence of violence during training as well as approaches to violence prevention training.

Methods: We will review the existing literature on violence during training as well as review existing approaches to violence prevention. We will also discuss the current national accreditation standards (which the authors participated in writing) for ensuring a safe workplace and teaching violence prevention. Finally, we will explain efforts to improve violence prevention training in our program.

Results: little data exists on the prevalence of workplace violence during training. Several centers have initiated training programs, although the results to date are mainly anecdotal. In our program, we have concentrated on the sequelae of violence; however, we have begun efforts to improve the quality of our training in workplace violence.

Conclusion: There is a need for improved training in workplace violence during residency training. Such education is particularly important in light of the new national guidelines for residency training which focus on resident safety.

ref:

Anxiety Symptoms Modify the Association Between Type 2 Diabetes and Cognitive Decline: Findings from the prospective KORA-Age study

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Psychodiabetology: Updates in Mental Health and Type 2 Diabetes Mellitus, June 11, 2022, 10:00 AM - 11:15 AM

Objective: Both type 2 diabetes mellitus (T2DM) and anxiety symptoms appear to be independently associated with cognitive impairment. However, it is unclear whether anxiety symptoms may amplify the association between diabetes and lower cognitive performance in the older population.

Methods: Anxiety symptoms, T2DM, and covariates were assessed at baseline in a standardized interview and clinical examination of the population-based KORA Age Study (N=737, mean age=74.6±6.2 years). Cognitive score (determined by Telephone Interview for Cognitive Status, TICS-m) was recorded at baseline and 3 years later. The interaction between anxiety symptoms (assessed by General Anxiety Disorder (GAD)-7) and T2DM on cognitive decline was assessed by linear regressions analyses adjusted for sociodemographic, lifestyle, cardiometabolic, and psychosocial risk factors.

Results: At baseline, 82.7% (n = 610) of participants had normal cognitive status, 13.6% (n = 100) with mild cognitive impairment (MCI) and 3.7% (n = 27) with probable dementia. The sample also includes 15.7% (N=116) and 6.8% (N=50) participants with T2DM and anxiety symptoms at baseline, respectively. In the fully adjusted models, anxiety symptoms and T2DM were not significantly associated with cognitive decline (anxiety symptoms: β=-0.60,SE=0.66,P=0.32; T2DM: β=-0.47,SE=0.47,P=0.32). However, driven by a significant interaction between anxiety symptoms and T2DM (P=0.04), stratified analyses demonstrated that T2DM was significantly associated with cognitive decline in individuals with anxiety symptoms (β=3.14,SE=1.46,P=0.04), but not in those without (β=-0.60,SE=0.48,P=0.21).

Conclusion: In older adults, anxiety symptoms may amplify the association between T2DM and cognitive decline, highlighting the stress-induced link between diabetes and cognitive decline.
Anxiety disorders are often comorbid with medical conditions such as cardiovascular disease, diabetes, and autoimmune disorders such as rheumatoid arthritis. Chronical pain is widely common in this disease. Disability is increased when anxiety disorders are present in combination with the medical condition, as compared with the situation when the medical condition is present alone. Patients with rheumatoid arthritis (RA) exhibit significantly increased levels of IL-17, TNF-α, and IL-6 compared to healthy individuals.

**Methods:** Literature search across PubMed, PsycINFO, and MEDLINE was performed for scientific research studies published in the previous ten years (2007–2017). Observational study of GAD and panic disorder patients (n= 45).

**Results:** In regard to T-cell profiles, statistically decreased T-cell proliferation has been found in GAD patients compared to controls. Alterations in C-reactive protein (CRP) levels have also been exhibited in patients diagnosed with GAD. Decreased hair cortisol levels have further suggested the role of the HPA axis in anxiety disorders and specifically in GAD.

Cytokines, such as IL-6 and TNF-α, have been a central focus in psychoneuroimmunology, and are increased in anxiety disorders such as OCD.

These findings provide further support for the role of the immune system and potentially the need for treatment options directly targeting these biomarkers, including a global view of the patient through psychotherapy and health promotion measures.
Structured Behavioural Observations for providing Precision Medicine.

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Workshop, June 11, 2022, 10:00 AM - 11:15 AM

Aim. To present a framework in which video observations of sleep/wake behaviours can and should be used, and to provide a guideline for reviewing and analyzing disruptive behaviours of individuals with neurodevelopmental and mental health disorders (ND-/MHD).

Summary. Behavioural analyses have always been of interest, but video technology has activated widespread research and analysis concepts, which have supported new clinical understandings. The rise of user-friendly smartphones and tablets means that access to video technology is more accessible than ever. Parents/caregivers approach clinicians with various video clips of their child’s disruptive behaviours. In this innovation workshop, we are utilizing videos of the Video Working Group of Children’s Sleep Network, which will help interested professionals to review behavioural patterns associated with hyper-motor-restlessness, hyper- and hypo-arousability from a sleep/wake-behavioural medicine perspective. Our observation has been that missing Gestalt for sleep/wake-behaviours affects comprehension and differential-diagnostic interpretations, which may result in iatrogenic harm.

Clinicians who are interested in presenting their own video-recordings and combining that with clinical questions will get free-downloadable annotation software to upload and annotate their clips. This way, presentation of recorded characteristics will focus on periods and regions of interest at various speeds and with zooming in and out options. We will present a framework for the use of video recordings of disruptive sleep & wake behaviours of children/adolescents/adults with ND-/MHD in clinical assessments and provide a guideline for reviewing and analyzing recordings. The session will be presented in a seminar format.
A Psychosomatic Medicine Immersion Series for the Pandemic Age – Safe & Distanced Advanced Medical Knowledge

Maldonado J¹, Hussain F¹, Sher Y¹
¹Stanford University

Workshop, June 11, 2022, 10:00 AM - 11:15 AM

Objectives:
1) Describe the pandemic related challenges in medical education and solutions (Dr. Sher)
2) Review the adaptations made to the consultation liaison didactic curriculum at a large university hospital (Dr. Hussain)
3) Discuss Implications of current learning for future applications (Dr. Maldonado)

Methods:
Finally, Dr. Maldonado will discuss how an online video platform with recording capabilities lends to creation of asynchronous learning opportunities and how online capabilities can improve access to quality education for underserved or developing medical systems.

Results:
Following up on trainee feedback from the first year of the pandemic, we adjusted the “Immersion into Consultation Liaison Psychiatry” lecture series. An online video platform with recording capabilities allowed for synchronous and asynchronous learning. Other features of the video platform helped make talks more engaging as did adding case examples for trainees to work through. Trainees preferred speakers who were natural story tellers rather than slide readers.

Conclusions:
The pandemic has created unique challenges for patient care as well as all modes of teaching, in response training programs are adapting pedagogical approach. The implications for innovation in this sphere are far reaching, creating an online repository of lectures for asynchronous learning as well as bridging gaps in knowledge in underserved or developing medical education systems.
Objective:
Takotsubo syndrome (TTS) is an acute heart failure syndrome. The clinical phenotype of TTS mimics acute myocardial infarction. There is an increasing body of evidence which links the occurrence of TTS to an overstimulation of the autonomic nervous system and alterations within the brain-heart-axis. However, the underlying mechanisms leading to TTS are unknown. Therefore, we studied the stress reactivity in monozygotic twin sisters, of whom only one of the twins experienced TTS.

Methods: The 60 years old Caucasian monozygotic twins, one with and one without a previous episode of TTS, were recruited at the University Hospital Zurich, Switzerland. We applied the Trier Social Stress Test (TSST) to investigate stress reactivity. Hemodynamic measures (heart rate, blood pressure) and heart rate variability (HRV), indexed by RMSSD (vagal activity) were obtained immediately before and after the TSST, as well as 15, 45, and 90 minutes after TSST.

Results: The monozygotic twins differed in their hemodynamic and vagal stress response with the TTS twin showing a blunted blood pressure, heart rate and HRV response. At baseline, all hemodynamic measures were lower in the TTS twin compared to her healthy sister. During the stress recovery period, HRV levels of the TTS twin increased showing higher HRV at 90 min after stress.

Conclusion: In addition to genetic components, the results indicate hemodynamic hypoactivity and vagal withdrawal during psychosocial stress along with a compensatory increase in vagal function during recovery. Whether this physiology helps to explain the underlying pathogenesis of TTS needs to be explored further.
Structured Behavioural Observations for providing Precision Medicine

Kloesch G1, Ipsiroglu O2

1Department of Neurology, Medical University of Vienna, 2BCCH Research Institute, Department of Pediatrics, University of British Columbia

Workshop, June 11, 2022, 10:00 AM - 11:15 AM

Aim: To present a framework in which video observations of sleep/wake behaviours can and should be used, and to provide a guideline for reviewing and analyzing disruptive behaviours of individuals with neurodevelopmental and mental health disorders (ND-/MHD).

Summary. Behavioural analyses have always been of interest, but video technology has activated widespread research and analysis concepts, which have supported new clinical understandings. The rise of user-friendly smartphones and tablets means that access to video technology is more accessible than ever. Parents/caregivers approach clinicians with various video clips of their child’s disruptive behaviours. In this innovation workshop, we are utilizing videos of the Video Working Group of Children’s Sleep Network, which will help interested professionals to review behavioural patterns associated with hyper-motor-restlessness, hyper- and hypo-arousability from a sleep/wake-behavioural medicine perspective. Our observation has been that missing Gestalt for sleep/wake-behaviours affects comprehension and differential-diagnostic interpretations, which may result in iatrogenic harm.

Clinicians who are interested in presenting their own video-recordings and combining that with clinical questions will get free-downloadable annotation software to upload and annotate their clips. This way, presentation of recorded characteristics will focus on periods and regions of interest at various speeds and with zooming in and out options. We will present a framework for the use of video recordings of disruptive sleep & wake behaviours of children/adolescents/adults with ND-/MHD in clinical assessments and provide a guideline for reviewing and analyzing recordings. The session will be presented in a seminar format.
Patients with diabetes in outpatient psychotherapy in Germany – a representative population-based study

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Psychodiabetology: Updates in Mental Health and Type 2 Diabetes Mellitus, June 11, 2022, 10:00 AM - 11:15 AM

Objective: Diabetes is one of the most common non-communicable diseases affecting almost 9 million people in Germany in 2020. Diabetes is often accompanied by severe psychological burden such as depression or diabetes-related distress, resulting in an essential need for access to psychotherapy and adequate care. However, there is hardly any representative data on patients trying to make use of outpatient psychotherapeutic care. As part of the ES-RiP project, we therefore investigated the prevalence of patients with diabetes already in psychotherapy or attempting to gain access to psychotherapeutic care. In addition, we aimed to gain insights on access barriers, waiting times and reasons for psychotherapeutic need in comparison to participants without a chronic physical condition.

Methods: The analyses are based on self-report data representative for the German population with contact to the health care system regarding psychotherapeutic needs. The survey was conducted in 2021 by the independent research institute USUMA GmbH. Amongst others, outcomes were access barriers, waiting times, reasons for psychotherapeutic need, or patients’ satisfaction with psychotherapy.

Results: The total sample comprised N=1,992 participants who tried to make use of outpatient psychotherapy (at least one contact to a psychotherapist). 63.4% (n=1,263) reported no long-term physical condition whilst among those with at least one self-reported long-term physical condition 6.5% (n=129) referred to having a diagnosed diabetes. Further in-depth analyses will be presented.

Conclusion: We give a detailed overview of patients with diabetes and their experiences and needs regarding outpatient psychotherapy, and compare them to those without a long-term physical condition.
How to establish effective patient-centered care integrated in multidisciplinary teams during treatment for breast cancer patients

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Psycho-Oncology, June 11, 2022, 10:00 AM - 11:15 AM

Objective: Most patients adjust well after a breast cancer (BC) diagnosis, irrespective of type of primary treatment, but a minority is at risk for persistent or recurrent distress (see Kant et al; Czisch et al.). By now, no established clinical pathways exist to ensure early identification of these women at reasonable risk and to provide effective patient-centered support during cancer treatment and beyond.

Problems
- Problems exist with identifying relevant distress: neither initial distress levels nor cancer-treatment-related predictors reliably identify those at-risk patients, leaving a substantial minority at risk going undetected and undertreated.
- Context factors have an impact on BC patients’ adjustment to illness and treatment, and on their openness to accept psychosocial care. BC treatment is demanding, patients are exposed to varying, ever-changing health care teams that are poorly communicating, with ensuing discontinuity of care, adding preventable burden to patients.
- Although required in treatment guidelines, interdisciplinary distress monitoring, when performed, rarely is followed by targeted patient-centered support, provided by collaborating teams.

Solutions
Reliable measures to clinically capture patients’ distress and needs during a short patient-centered interaction are available.
A collaborative approach, aiming to enhance detection of at-risk individuals and providing adequate support should be integrated in multiprofessional teams.
Cancer patients substantially benefit from self-efficacy- & resilience-enhancing interventions during treatment, added by symptom-oriented support as needed.
These topics will be addressed by our invited speakers:
Jane Walker, Oxford UK
Inge Henselmans, Amsterdam NL
Benefits and Challenges of Interdisciplinary Co-Therapy Team in Psychosomatic Medicine

Skorunka D¹, Fialová D²

¹Faculty of Medicine, Charles University, ²Psychology and Psychotherapy Outpatient Clinic

Workshop, June 11, 2022, 10:00 AM - 11:15 AM

BACKGROUND: Recent development in psychosomatic medicine speaks in favour of interdisciplinary collaboration and integrated care. Given the bio-psycho-social complexity, a collaboration between various specialists and/or representatives of different professions is sometimes necessary for therapy with individuals, couples, and families with a combination of physical, mental, and behavioural problems.

OBJECTIVES: In the presentation, we will introduce specific forms of close collaboration in a partly integrated system, which we developed together in our outpatient clinical practice. We will describe a collaboration between a psychotherapy-informed psychiatrist, who is trained in both systemic family therapy and narrative approaches, and a clinical psychologist and psychotherapist, who is trained in experiential and emotion-focused approaches.

METHODS: We will discuss two forms of close collaboration: a) a paralleled therapy with regular interdisciplinary consultations; b) systematic co-therapy team collaboration with couples and families with both mental and physical problems. We will share our experience about how paralleled therapy with regular interdisciplinary consultations between two specialists with different training and psychotherapy approach affect therapy process. Then we will focus on the specifics, advantages and challenges of the male and female co-therapy team. Various aspects of therapy process and the intricacies of co-therapy will be demonstrated with a single case study.

CONCLUSION: In general, interdisciplinary collaboration is promising, and sometimes necessary, approach in psychosomatic medicine. Various forms of closed collaboration between different specialists/therapists, particularly the male and female co-therapy team, may be useful in integrative couple/family therapy for mental and physical problems in the context of developmental issues and relationship dynamics.
Challenges to Maintaining Wellness in Stressful Times: How to Cope

Schwartz K¹, Madan R¹

¹Baycrest

Workshop, June 11, 2022, 10:00 AM - 11:15 AM

Objective:

Who helps the healthcare provider? Even the strongest and healthiest of us can struggle to maintain wellness in unsupportive healthcare and societal environments. A tripartite model to facilitate wellness strategies to improve coping with the stresses of work, personal life and society is described. Participants will be encouraged to identify a challenging situation that has led them to consider the state of their wellness in these stressful times and what steps can be taken to help oneself and others.

Methods:

A tripartite model of coping is presented and focuses on the importance of sharing emotions, taking action to solve problems, and finding meaning in our work while encountering personal, work and societal stresses exacerbated by the pandemic. The consequences of not doing so leading to distress, possible burnout and poorer patient outcomes will be demonstrated. Vignettes relating to work and personal life situations will be presented.

Results:

Evidence showing connections between wellness of healthcare practitioners, patient outcomes, improved team functioning and quality of life will be demonstrated. Evidence shows that burnout is common with few taking action and seeking help. Feelings are kept to oneself only to remain “the elephant in the room”.

Conclusions:

The secret of care for patients is caring for both patients and healthcare providers. Effective ways of identifying the need for action and the steps in achieving a healthier work-life balance will be modelled to help the healthcare provider help themselves, colleagues, patients and their families.
TEACHING INTEGRATED CARE TO DIVERSE LEARNERS: THE ROLE OF THE CL PSYCHIATRIST

Bhat A

University of Washington

Workshop, June 11, 2022, 10:00 AM - 11:15 AM

Objective
Educating a variety of health professionals is a core component of a consultation-liaison (C-L) psychiatrist’s work. This is especially relevant to integrated care, which is interdisciplinary by nature. By providing integrated mental health treatments and leading integrated care teams and education efforts, C-L psychiatrists play a critical role in improving access to mental health care. We describe how C-L psychiatrists lead training of three different populations: Public health home visiting, psychiatry trainees, and psychiatrists participating in a community based integrated care fellowship.

Methods
In examining the potential of integrated care in a home visiting public health nurse program, we report depression screening and referral rates in a population of first-time low-income mothers, and nurse and client perception of barriers to mental health treatment using surveys, interviews and focus groups.

Results
The rate of positive depression screen was 25.6%, and 41.7% of mental health referrals were completed. Qualitative data found that nurses and clients perceived barriers to mental health access to be transportation, stigma and insurance concerns. These data informed the development of a mental health access program within home visiting. Detailed results will be presented.

Conclusion
Evidence-based treatments for common mental disorders can be delivered using integrated care. As more settings implement this model, the C-L psychiatrist role has expanded to include training of integrated care team members. While training and performance assessment for integrated care can differ by the population of learners, it can be effective to utilize C-L psychiatrists as integrated care trainers and educators.
The modifying role of Loneliness on the Associations of Diurnal Cortisol Patterns with Glycaemia and Incident Type 2 Diabetes

Johar H1,2, Atasoy S2,3,4, Bidlingmaier M5, Peters A2,6, Kruse J4, Ladwig K3,6
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Psychodiabetology: Updates in Mental Health and Type 2 Diabetes Mellitus, June 11, 2022, 10:00 AM - 11:15 AM

Objective: To examine the association of diurnal cortisol secretion patterns with increases in glycemia and incident type 2 diabetes mellitus (T2DM) and the potential impact of loneliness on these associations.

Methods: A prospective analysis was conducted among 616 participants (281 men; 298 women) with a mean age of 74.7 (±6.2) years of the population-based KORA (Cooperative Health Research in the Region of Augsburg)-Age study. Cortisol (Cortisol Awakening Response (CAR), late-night (LNSC), diurnal cortisol slope (DCS), UCLA Loneliness Scale and covariates were assessed at baseline. Multivariable-adjusted regression models were used to assess the associations of baseline cortisol with changes in HbA1c levels (at 3-year follow up) and incident T2DM (6-year follow up), adjusting for important confounders.

Results: In the total sample, a steeper baseline DCS was significantly associated with reduced odds of developing T2DM (adjusted OR (95% CI) 0.53, 0.30-0.95, p=0.03). Further multivariable-adjusted linear regression models also showed that a flattened DCS and higher LNSC levels at baseline were significantly associated with increases in HbA1c levels (DCS: ß=-0.05, SE=0.02, p=0.01; LNSC: ß = 0.07, SE=0.04, p=0.004). Stratified analyses due to significant interaction by loneliness revealed that a flattened DCS was associated with increases in HbA1c levels, particularly among lonely individuals (ß=-0.18, SE=0.06, p=0.006) but not in less lonely individuals (-0.03, 0,02, 0.15).

Conclusion: Dysregulated diurnal cortisol secretion is associated with increases in glycemia and incident T2DM in this old-aged population. These findings highlight a detrimental effect of dysregulated cortisol secretion contributing to glycemia, particularly among individuals with loneliness.
Loneliness as a risk factor for suicidal ideation and anxiety in cancer survivor populations

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Psycho-Oncology, June 11, 2022, 10:00 AM - 11:15 AM

Background/Objective: Loneliness has been increasingly considered a major risk for mental and somatic health, particularly in vulnerable populations. Among them are long-term childhood cancer survivors (CCS). They are at risk for adverse late effects including psychosocial difficulties. In a large cohort from a cancer registry, we assessed the prevalence of loneliness and its impact on psychological symptoms over time.

Method: A registry-based sample of N = 633 adult long-term CCS underwent medical and psychological assessments and took part in a follow-up survey 2.5 years later. Psychological symptoms (somatic, anxiety, depression symptoms, and suicidal ideation) were measured using the Patient Health Questionnaire. We calculated linear regression models of symptoms at follow-up to investigate the impact of loneliness over time (controlling for symptoms at baseline and relevant confounders).

Results: Loneliness was reported by 17.70% of CCS. In multivariate linear regression analyses, loneliness was still predictive of more severe anxiety symptoms and suicidal ideation over two years later. Loneliness did not predict somatic and depression symptoms at follow-up (which increased with age).

Conclusions: Loneliness affected a significant number of CCS and was a risk factor for persistent anxiety symptoms and suicidal ideation. Findings of a heightened vulnerability in this group of cancer survivors are consistent with an additional representative survey in the general population (N=2500) during the ongoing pandemic in which we found an increased risk for anxiety, suicidal ideation and loneliness among cancer survivors.
Emotion Regulation Patterns among Colorectal Cancer Survivors: Clustering and Associations with Personal Coping Resources

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Psycho-Oncology, June 11, 2022, 10:00 AM - 11:15 AM

Objective: Different patterns of emotion regulation have been proposed for dealing with the intense emotions elicited while coping with cancer. The relationships between these different emotion regulation patterns have not yet been studied. This study examined the usage levels of different emotion regulation patterns (repression, suppression, experiential avoidance and cognitive reappraisal), the intercorrelations and clustering of these patterns and their associations with personal coping resources (personal resilience and self-compassion) in a sample of colorectal cancer survivors.

Methods: This was a cross-sectional study in which 153 colorectal cancer survivors, stages II–III, (47% female, 53% male), aged 26–87, completed the Marlowe-Crowne Social Desirability Scale, the State-Trait Anxiety Inventory-6, the Emotion Regulation Questionnaire, the Acceptance and Action Questionnaire, the Resilience Scale-14 and the Self-Compassion Scale-Short Form.

Results: The four emotion regulation patterns were found to be distinct from each other (i.e., low to moderate correlations). Cognitive reappraisal was negatively related to suppression and experiential avoidance and positively associated with self-compassion. Two-step cluster analysis revealed three distinct clusters: Cluster 1—the suppression-avoidance dominant cluster; Cluster 2—the cognitive reappraisal dominant cluster; and Cluster 3—the repression dominant cluster.

Conclusion: Repression, suppression, experiential avoidance and cognitive reappraisal were found to differ from each other but able to be organized into distinct clusters of survivors. Healthcare professionals should be aware of these different emotion regulation patterns and the need to identify the patterns used by each survivor.
Improving individual biopsychosocial knowledge using a 24-hour heart rate variability color spectrograph

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Psychophysiology of Stress, June 11, 2022, 10:00 AM - 11:15 AM

Objective:
There is a need for tools that help to communicate the biopsychosocial idea of health consisting of adequate interaction between mind, body, and environment. A visualization of a time series of 24h heart rate variability (HRV) combined with a diary provided the basis to feedback the individual biopsychosocial interactions.

Methods:
One hundred managers were recruited from a metal-processing company in Southern Germany and randomized into intervention and waiting control group (IG/CG). The managers underwent a 24h-ECG measurement to derive an HRV color spectrograph, recorded the day’s events in a diary and completed a questionnaire. These data were used as the basis for a 50-min consultation at baseline and after three months. The consultation addressed the interaction between feelings, thoughts, protocolling situations and HRV. Differences in changes of the primary outcome (notice of interactions between thoughts, feelings and bodily reactions in everyday life, single item) were tested using repeated measurement ANOVA.

Results:
Included managers were primarily male (N=76, 94%) with an average age of 48±8.6 years. Compared to CG, participants of the IG reported significantly more often to notice interactions between thoughts, feelings and bodily reactions in their everyday life (IG: M=5.65±SD=2.28 pre, M=6.40±SD=1.75 post; CG: M=5.54±SD=2.20 pre; M=5.37±SD=2.10 post; F=4.77, p=.032).

Conclusions:
The consultation based on a 24h-HRV color spectrograph combined with diary information with a biopsychosocial focus appeared to be a feasible and effective approach to help individuals to improve their knowledge about individual biopsychosocial interactions.
Psychological Intervention for a Gastrointestinal Disorder: A Randomised Clinical Trial of Mindfulness-Based Cognitive Therapy for Irritable Bowel Syndrome

Martin M¹
²University Of Oxford

Objective
To examine the effectiveness of Mindfulness-Based Cognitive Therapy (MBCT) for Irritable Bowel Syndrome (IBS) and draw out the implications of the results for both theoretical models of IBS and treatment options. The UK prevalence rate is approximately twice as high in women as in men (23% vs 11%) and thus the issues were examined first among women.

Methods
IBS patients were randomly assigned to a Mindfulness group (who received a course of MBCT treatment) or to a Waitlist group as control condition. Treatment consisted of weekly sessions delivered by clinical psychologists and each lasting two hours, with daily practice of up to one hour. Patients completed a set of standardised self-report measures whose assessments included IBS symptom severity, IBS quality of life, maladaptive illness cognitions (catastrophizing, visceral anxiety sensitivity) and mindfulness at baseline. Self-referential processing of illness and health was assessed by a reaction time task, the Implicit Association Test (IAT). Assessments were carried out after two treatment sessions, at post-treatment and at six-week follow-up.

Results
Compared to the Waitlist group, the Mindfulness group experienced significantly reduced IBS symptoms and improved quality of life. At the post-treatment stage the overall severity of IBS was reduced relative to baseline by 13%, and at the six-week follow-up stage the reduction had increased to 28%. Further analyses identified significant mediators of this reduction.

Conclusion
MBCT adapted for IBS delivered significant and sustained amelioration of the condition. Identification of mediating factors suggested underlying processes and particular directions in which to refine treatment further.
Event-correlated trajectories of bio-psycho-social distress in breast cancer and its predictors

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Psycho-Oncology, June 11, 2022, 10:00 AM - 11:15 AM

Objective: The treatment pathway of breast cancer (BC) patients is increasingly complex, multidisciplinary and intersectoral. The aim of the study was to identify the trajectory of psychological distress as well as symptom burden and its impact on daily life of BC patients in dependence of the treatment modality and their individual treatment path. Second aim was to identify predictors of increased bio-psycho-social distress of BC patients.

Methods: In a prospective study bio-psycho-social distress was investigated in 160 newly diagnosed BC patients over four event-correlated time points, from diagnosis to short-term survival. Psychological distress, symptom burden and impairment of daily life were assessed using the GHQ and MDASI I&II, respectively.

Results: Psychological distress shows a regressive course in all therapy modalities; however, continuously above the clinically relevant limit. While the psychological burden is constantly decreasing, the bio-social burden increases during the primary treatment and decreases afterwards. Patient-related factors were identified as predictors of bio-psycho-social distress, as well as treatment modality for perceived symptom burden.

Conclusion: A substantial proportion of BC patients show persistent elevated distress levels. Temporal patterns for the course of bio-psycho-social distress were identified. The increased psychological distress results mainly from the diagnostic shock of the recent cancer diagnosis, while the physical symptom distress is a consequence of the cancer treatment. Patient-related factors influence bio-psycho-social distress of BC patients more than cancer/treatment-related factors. The results underline the need for psycho-oncological care of patients beyond the time of diagnosis into short-term survival.
Predictors of Somatic Symptom Persistence in Patients with Chronic Kidney Disease (SOMA.CK). Project 3 of the SOMACROSS research unit

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Somatic Symptom Disorder #4, June 11, 2022, 10:00 AM - 11:15 AM

Background: Seven of ten patients with chronic kidney disease (CKD) experience burdensome persistent somatic symptoms (PSS) in early stages of renal dysfunction. Despite their prevalence and relevance for quality of life, disease progression, and mortality, the pathogenesis of PSS in early-stage CKD remain poorly understood. The aim of the SOMA.CK study is to investigate biopsychosocial predictors and their interactions for PSS in early-stage CKD and to develop a multivariate prognostic prediction model for PSS.

Methods: SOMA.CK is part of the collaborative research unit ‘Persistent SOMAtic Symptoms ACROSS Diseases’ (SOMACROSS). A mixed methods cohort study with assessments at baseline, 6, and 12 months will explore biopsychosocial predictors of PSS in 330 patients with CKD stages 2-4. Primary outcome will be CKD-specific somatic symptom burden. Predictors based on the SOMACROSS working model include biomedical (e.g., epigenetic mechanisms), treatment-related (e.g., side effects), and psychosocial variables (e.g., expectations). Longitudinal structural equation models, latent class growth and cross-lagged panel analyses will be applied. In an embedded mixed methods approach, we will test mechanisms of symptom perception in an experimental study. We will further explore mechanisms of symptom development after new CKD diagnosis in a longitudinal qualitative study.

Results: The study protocol and results from our pilot investigations will be reported.

Conclusions: Focussing on subjective symptom burden instead of objective disease markers will fundamentally broaden our knowledge on PSS in CKD. Our results will contribute to SOMACROSS’ goal to identify mechanisms of PSS across diseases and inform the future development of mechanism-based tailored interventions in CKD.
Depressive Symptoms Amplify the Association Between Inflammatory Marker C-reactive Protein and Onset of Type 2 Diabetes

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Psychodiabetology: Updates in Mental Health and Type 2 Diabetes Mellitus, June 11, 2022, 10:00 AM - 11:15 AM

Objective: Although depressive symptoms and inflammatory marker C-reactive protein (CRP) have been independently shown to increase the onset of type 2 diabetes (T2DM), whether depressive symptoms modify the effect of inflammatory marker CRP on the onset of T2DM is unknown.

Methods: In a sample of 3,447 participants (25 years old to 74 years old) followed for a mean of 16.7 (±6.1) years (57,540 person-years) from the MONICA/KORA German population-based cohort, we investigated the modification effect of depressive symptoms on the association between standardized highly sensitive CRP levels (mg/L; measured from non-fasting venous blood) and the risk of clinically validated T2DM using stratified Cox Proportional Hazards models adjusted for sociodemographic, lifestyle, metabolic and psychosocial risk factors.

Results: In the total sample, 13.4% participants developed type 2 diabetes during the follow-up period. In the fully adjusted models, depressive symptoms and increasing CRP levels were independently associated with 1.25 (95% CI = 1.01 - 1.54, p = 0.04) and 1.08 (95% CI = 1.01 - 1.16, p = 0.02) of increased risk of T2DM, respectively. However, following a significant interaction between depressive symptoms and CRP levels (p=0.02), analyses stratified according to depressive symptoms revealed that participants with depressive symptoms had an 11% (HR 1.11; 95% CI 1.01-1.19; p<.001) increased risk of T2DM, whereas participants without depressive symptoms did not reach significance in their risk of T2DM onset (HR 0.99; 0.89-1.07; p=0.83).

Conclusion: The risk of increasing CRP levels on incident T2DM are more pronounced in participants who have depressive symptoms.
Associations between fatigue and endocrine functioning in chronically stressed individuals


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Psychophysiology of Stress, June 11, 2022, 10:00 AM - 11:15 AM

Background: Individuals suffering from chronic fatigue have been found to experience significantly more stress compared to healthy individuals. However, not everyone experiencing chronic levels of stress becomes fatigued, indicating that inherent individual differences exist in stress sensitivity, and risk for fatigue. While both chronically stressed and fatigued patients show hypoactivity of the hypothalamic-pituitary-adrenal (HPA) axis, it is not known whether differential patterns of HPA axis dysfunction exist in chronically stressed individuals with varying levels of fatigue.

Methods: 61 chronically stressed (CS; 38.31±14 years) and 55 low-stress (LS; 37.90±14.37 years) women, were exposed to a psychosocial laboratory stressor. Salivary cortisol measures were assessed throughout the study. Fatigue was assessed using the Multidimensional Fatigue Inventory.

Results: The results revealed that CS had overall significantly lower cortisol levels and higher fatigue, compared to LS (p < .05). Within the CS group, increasing levels of fatigue were not associated with changes in cortisol. In the LS group, however, there was an inverse relationship between fatigue and cortisol, with increasing levels of fatigue associated with lower cortisol (p < .05).

Conclusion: Our findings indicate that in CS, stress-related hypoactivity of the HPA axis may have resulted in a floor effect for cortisol, such that increasing levels of fatigue, in addition to existing chronic stress, do not have cumulative effects on the already blunted HPA axis. This was in contrast to the LS group in which fatigue had important effects on the HPA axis functioning, such that decreases in cortisol were observed as fatigue levels increased.
Objective
Negative beliefs about stress (e.g., “stress is bad”) have been demonstrated to be independent risk factor for morbidity and mortality. One potential underlying mechanism are altered responses to acute stress. The aim of this study was to investigate whether a brief intervention targeting stress beliefs is capable of a) reducing negative beliefs about stress, and b) facilitating adaptive emotional and endocrine stress responses.

Methods
N=77 healthy male students were randomised to an intervention (changing beliefs about stress; C-BAS) and a placebo-control group. The C-BAS group received a five-minute psychoeducation about stress, including information about the positive aspects of the body’s acute stress response, whereas the control group received neutral information. All participants subsequently underwent the Trier Social Stress Test (TSST). Stress beliefs were measured before and after C-BAS/the control condition. Perceived stress and cortisol were assessed before, during, and after the TSST.

Results
There was a decrease in negative stress beliefs (p<.001) in participants receiving C-BAS, whereas no changes were observed in the participants receiving the neutral information. The participants receiving C-BAS had more pronounced emotional stress responses while at the same time also showing more pronounced recoveries (p=.024). The C-BAS group also showed comparably faster cortisol recoveries (p=.007).

Conclusions
Our intervention (C-BAS) was capable of modifying stress beliefs for the better and to induce faster emotional and endocrine recoveries from acute stress. These findings attest to a potential mechanism translating negative stress beliefs into ill health while at the same time highlighting the potential of psychological interventions.