

Conclusions: The present project could allow the creation of a new operative platform for a better health management system correlating real-time Big Data to specific clinical features of BD.

Disclosure: No significant relationships.

Keywords: bipolar disorder; environment; Big Data; urbanisation

S0003

Climate change and mental health: An overview

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According to the UN Environment Programme “climate change is one of the most pervasive and threatening issues of our time”. “In many places, temperature changes and sea-level rise are already putting ecosystems under stress and affecting human well-being” (1). The presentation wants to give an overview on how climate change can affect mental health. A search was performed on PubMed for the combination of “climate change” and “mental health”. 281 publications were identified, the first being from 2007 (the only one in that year). In 2020, until Dec 22nd, 76 publications were found. The somehow prophetic 2007 publication reviews “natural disasters, climate change and mental health considerations for rural Australia” (2) and pinpoints central aspects of today’s debate, namely anxiety and depression, vulnerability and resilience. In addition to problems of rural areas (2), the impact of urbanicity (3) will be discussed as well as the role of air pollution on psychiatric disorders (4). (1) UN Environment Programme. <https://www.unenvironment.org/explore-topics/climate-change/about-climate-change> Dec 22nd, 2020. (2) Morissey SA, Reser JP. *Aust J Rural Health*. 2007 Apr;15(2):120-5. doi: 10.1111/j.1440-1584.2007.00865.x. (3) Krabbendam L et al. *Psychol Med*. 2020 Mar 11:1-12. doi: 10.1017/S0033291720000355. (4) Kim SY et al. *Sci Total Environ*. 2020 Dec 8;757:143960. doi: 10.1016/j.scitotenv.2020.143960.

Disclosure: No significant relationships.

Keywords: air pollution; climate change; mental health; Urbanicity

Genomic and transcriptome signatures of endophenotypes of major depressive disorder: Recent insights, current challenges and future prospects

S0007

The effect of childhood trauma and trauma-focused psychotherapy on blood expression in patients with major depressive disorder

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The only available genome-wide study (Minelli et al., 2018) indicated an association between the neglect CT and MED22, a transcriptional factor gene. To verify how the dysregulation of MED22 could be affected by environmental and genetic factors, we carried out an analysis on these components and a longitudinal study concerning the effect of trauma-focused psychotherapy in MDD patients that experienced CT. On a large mRNA sequencing dataset including 368 MDD patients we computed the genetic (GReX) and the environmental (EReX) components affecting gene expression in relation to CT. Furthermore, we measured the expression of MED22 in 22 MDD patients treated with trauma-focused psychotherapy. The dissection of MED22 expression profiles revealed an association of neglect with environmental and genetic components ($p=6 \times 10^{-3}$ $p=2.6 \times 10^{-4}$). Furthermore, in an independent cohort of 177 controls, we also observed a significant association between cis-eSNPs of MED22 and higher neuroticism scores (best p-value: 0.00848) that are usually associated with a decreased amount of resilience to stress events. Finally, the results of psychotherapy revealed a reduction of depressive symptomatology ($p<0.001$) and 73% of patients resulted responders at the follow-up visit. MED22 expression during psychotherapy showed a change trend ($p=0.057$) with an interaction effect with response ($p=0.035$). Responder and non-responder patients showed MED22 expression differences at different trauma-focused psychotherapy timepoints ($p=0.15$; $p=0.012$) and at the follow-up ($p=0.021$). Our results provide insights suggesting that some biological and clinical consequences of CT depend on genetic background and environmental factors that could induce vulnerability or resilience to stressful life events.

Disclosure: No significant relationships.

Keywords: Blood Expression; childhood trauma; major depressive disorder; psychotherapy

S0008

Telomere attrition and inflammatory load in major depressive disorder

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Patients with major depressive disorder (MDD) present features that suggest the involvement of accelerated aging, such as increased circulating inflammatory markers and shorter telomere length (TL). Here we measured T-lymphocytes TL with quantitative fluorescent in situ hybridization (Q-FISH) and plasma levels of inflammatory markers in a cohort of 37 patients with MDD and 36 non-psychiatric controls (C). TL was shorter in MDD compared to C ($F=8.52$, $p=0.005$). Patients with treatment resistant (TR) MDD

showed higher levels of TNF α compared to non-TR (adjusted $p=0.034$) and C (adjusted $p=0.025$), suggesting that treatment resistance might be associated with increased inflammation compared to non-TR.

Disclosure: No significant relationships.

Keywords: aging; inflammation; telomere length; mood disorders

Recent progress in women's mental health

S0009

Women's mental health: What progress have we made?

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Significant progress is being made in strengthening perinatal mental health support systems and in several related areas of women's mental health. Mental health support for women and families during pregnancy and the first year after birth – the perinatal period – remains a priority in most parts of the world. Mental disorders are among the most common perinatal health problems, with over 25% of women in many scarce resource countries and 10% in wealthy countries experiencing a disorder. There is growing recognition of feasible and effective ways to reduce the harm to women and children and their families through societal as well as health system initiatives. Successful initiatives including training and support for health workers and cross-sectoral work to prevent violence in families are operating in a number of countries. The presentation will consider how psychiatrists and other mental health professionals can contribute to the spread, scope and sustainability of this work, and other related contributions to women's mental health including the prevention of violence in the family.

Disclosure: No significant relationships.

Keywords: perinatal health; women's mental health; violence

S0011

Suicidality in women

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Every year, around 800,000 people die by suicide globally. Whilst suicide mortality rates are higher among men, women typically have higher rates of suicidal ideation and behaviours. Despite this fact, suicidality in women is still of grave concern as 71% of women's violent deaths is accounted for by suicide – a greater percentage than men's. Suicide patterns among women differ between countries and regions. For example, there is a greater

difference in suicide rates between men and women in high-income countries in comparison to low- and middle-income countries. Furthermore, many theories exist to explain women's suicidality. Yet many of the dominant theories have been challenged from studies in both low- to middle-income and high-income countries. Further research that focuses on the context and culture, rather than the individual, is warranted and will be important for preventative efforts of women's suicidal behaviours.

Disclosure: No significant relationships.

Keywords: Theories of women's suicidality; Global suicide patterns; Suicide prevention; Suicidal ideation and behaviours

S0012

Responding to the mental health needs of trafficked women

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Background: Studies suggest a high prevalence of depression and PTSD among survivors of human trafficking in contact with shelter services. However, evidence for interventions to support the recovery of survivors of trafficking is lacking. The broader literature on PTSD and depression indicates that ongoing social stressors can exacerbate and perpetuate symptoms. Advocacy-based, or "casework", interventions, which address current stressors and social support, may represent a promising avenue of enquiry. Objectives (1) Describe risk and protective factors for mental distress among trafficked people; (2) Present a preliminary theory of change describing how advocacy-based interventions may contribute to an improvement in mental health and wellbeing among survivors of human trafficking.

Methods: (1) Survey of adult male and female survivors of trafficking in contact with shelter services in England; symptoms of depression, anxiety, and post-traumatic stress disorder were measured using the PHQ-9, GAD-7, and PCL-C. (2) Theory of change workshop and review of intervention studies that assessed the effectiveness of casework, client support, or advocacy interventions delivered in health or community settings to survivors of trafficking or vulnerable migrants.

Results: 150 survivors of trafficking participated in the survey, 98 women and 52 men. In multivariate analyses, psychological distress was associated with higher number of unmet needs and lacking a confidante, suggesting that practical and social support is important in facilitating mental health recovery. The theory of change identifies common components in advocacy interventions delivered to survivors of trafficking, and proposes pathways by which these components contribute to improved mental health.

Disclosure: No significant relationships.

Keywords: Human trafficking; advocacy; Theory of change