



## Abstract Book – Final Online Version

*Any further late changes to this program will be communicated to delegates at the Congress*

We are pleased to welcome over 320 delegates from across the world to the 21<sup>st</sup> Congress of the European Psychiatric Association Section of Epidemiology & Social Psychiatry.

Over our 4-day program, delegates will contribute almost 350 presentations at our Congress, from internationally-renowned plenaries through to the latest research presented as part of themed symposia, parallel oral sessions, or lunchtime posters.

The complete Abstracts can be found overleaf, organised by Session ID and Presentation ID.

For the final version of our Outline and Full Scientific Programs, visit:



<https://www.psychepi.org/congress/epapsyepi24-programs/>

## PLENARIES

### Plenary 1 Social and Occupational Health

Wed. 11 Sept., 17:15-18:45

A1031

Chair: Kerstin von Plessen, CH

#### PL1 "The French Have A Word For It": Reflections on the crisis in occupational mental health

Prof. Sir Simon Wessely<sup>1</sup>

<sup>1</sup>King's College London, UK

We are constantly been told that we are the midst of a mental health crisis. Everyone, everywhere, seems to be affected. Doesn't seem to matter who you are, how old you are, or especially what job you do. So how can we understand it? Is it really something new and unique to our times? And is it possible to have any job that isn't "stressful"? And if you want to find out what is the French word, you will have to come along to find out. All I can promise is that it won't be boring.

#### PL2 Who is the sick man of Europe?

Dr. Sharon Stevelink<sup>1</sup>

<sup>1</sup>King's College London, UK

Mental health problems are becoming one of the leading causes of sickness and disability benefit claims, with the fastest rises observed among younger workers. Historically, musculoskeletal problems were one of the main reasons for claiming such benefits. Global trends have seen a progressive increase in the number of working-age people receiving sickness and disability benefits over the last few decades, despite that evidence consistently shows that safe work is good for health. Since the start of the COVID-19 pandemic, the UK has seen an increase of over 400,000 working-age people who are economically inactive because of long-term sickness. The plenary talk will discuss sickness and disability trends, and their drivers, with a focus on the UK. Using data from a novel data linkage, preliminary results will be presented describing the pathways of how people who access mental healthcare services move in and out of the benefits system in the UK. Finally, national and international interventions will be discussed that have been trialed to improve the health of the workforce, reduce long-term sickness absence and support work participation with varied success.

### Plenary 2 Novel Methods in Psychiatric Epidemiology

Thur. 12 Sept., 10:30-12:00

A1031

Chair: Ian Colman, CA

#### PL3 Is Under- or Over-Diagnosis of ADHD the Problem? Settling the ADHD Controversy with Causal Modelling and Population Registry Data

Prof. Arnstein Mykletun<sup>1</sup>

<sup>1</sup>Haukeland University Hospital, Bergen, NO

**Introduction:** ADHD is a strong risk factor for several adverse outcomes. Medication is expected to mitigate some of the adverse outcomes. There are large between- and within country variations in the prevalence of the diagnosis. This is largely due to variation in attitudes among clinicians to the diagnosis and expectations to the treatment. **Method and analysis:** We link several Norwegian registries covering patients aged 5–18 years, recruited by contact with public sector child and adolescent mental health outpatient services (CAMHS) in 2009–2011, with follow-up data for 10 years in public registries. We used preference-based instrument

variables (IV) analysis based on provider preferences for ADHD diagnosis and ADHD medication. **Results:** We found a 10-fold variation in ADHD diagnosis between Child and Adolescent Mental Health Services (CAMHS) within Norway, despite no variation in ADHD symptoms between catchment areas. With IV analysis, we find some gains of more medication on some outcomes, but a potential negative causal effect of the ADHD diagnosis. **Discussion:** IV analysis may be a powerful tool in psychiatric epidemiology.

#### **PL4 Novel Methods to Measure the Burden of Mental Disorders in Children and Adolescents Worldwide**

Prof. Giovanni Salum<sup>1,2</sup>

<sup>1</sup>Universidade Federal do Rio Grande do Sul, Porto Alegre, BR; <sup>2</sup>Child Mind Institute, New York, USA

In this session, I will address the critical gaps in data on mental disorders among children and adolescents worldwide. The talk will explore the challenges associated with accurately measuring mental health issues in young populations, highlighting the limitations of current methodologies. I will discuss innovative solutions to these problems, with a focus on the development of multicultural assessment tools that are applicable across diverse populations. These tools are part of our ongoing efforts to better understand and address mental health needs in children, adolescents, and young people on a global scale.

#### **Plenary 3 Development of Psychiatric Disorders across Lifespan**

**Fri. 13 Sept., 10:30-12:00**

**A1129 (+A2064 parallel transmission)**

<https://rec.unil.ch/channels/epa-psyepi-2024/>

**Chair:** James Kirkbride, UK

#### **PL5 Brain Development in Relation to Familial Risk for Schizophrenia or Bipolar Disorder in Childhood and Adolescents**

Prof. Neeltje van Haren<sup>1</sup>

<sup>1</sup>Erasmus MC, Sophia Children's Hospital, Rotterdam, NL

Schizophrenia (SCZ) and bipolar disorder (BD) are highly heritable disorders with partially overlapping symptoms and a genetic correlation ( $r_g$ ) of 0.60–0.68. Both disorders are characterized by structural brain abnormalities, with smaller total brain and hippocampal volumes and larger ventricular volumes. Patient's family members are at familial risk for the disorder but do not themselves have confounds (e.g. medication or illness duration) and can therefore provide unique insight into the effect of familial risk for the disorder on the brain. I will present data from several large studies where we meta-analysed the differences in brain structure and white matter integrity between patients with SCZ and BD, their first-degree relatives and controls. Moreover, I will share recent findings from our own and other longitudinal cohorts of child and adolescent offspring of parents with SCZ or BD. This work shows that despite shared genetic liability, familial risk for SCZ or BD show a differential pattern of structural brain abnormalities. This may imply that the neurodevelopmental trajectories leading to brain anomalies in SCZ or BD are distinct.

#### **PL6 The Importance of Longitudinal Birth Cohort Studies to Understand Time Trends and Epidemiology of Mental Disorders in Old Age – Experiences from 50 years with the Gothenburg H70 Birth Cohort Studies**

Prof. Ingmar Skoog<sup>1</sup>

<sup>1</sup>University of Gothenburg, SE

It has been increasingly difficult to receive grants for population studies, including those with long follow-ups. This presentation will show why we will always need new longitudinal population studies to understand mental disorders at the population level. This talk is based on the Gothenburg H70 Birth Cohort Studies, which started in 1971. These are longitudinal population studies of people aged 70 and above. The cohorts are born

1901-02, 1905-06, 1911-12, 1922, 1930, 1944, and 1952-54, and examined from age 70 and followed regularly with comprehensive examinations until death.

The later-born cohorts are considerably better in a number of factors, including cognitive, physical, and sensory functions. In addition, the prevalence and incidence of dementia, depression and psychotic symptoms and neuroticism is considerably lower in later cohorts. We also report how risk factors changes depending on birth cohort and time of follow-up. Subclinical disease is also common, and can only be examined using biological markers in population studies.

The H70 Birth Cohort Studies are one example of the importance to continue doing population studies with long follow-ups as the population changes depending on birth year.

## Plenary 4 Perspectives

Sat. 14 Sept., 11:45-12:30

A1031

Chair: Martin Preisig, CH

### PL7 Shifting the Landscape of Psychiatric Epidemiology in the Next Generation

Prof. Kathleen Merikangas<sup>1</sup>

<sup>1</sup>National Institute of Mental Health (NIMH), Bethesda, USA

The Covid-19 pandemic generated widespread global awareness of the importance of mental health at the level of the general population as well as the alarming lack of adequate care for mental disorders. The concomitant surge in research designed to investigate etiologic mechanisms exposed the limitations in the available "baseline" data, and inadequacies in the diagnostic nomenclature, assessment tools, and risk prediction.

This talk will describe the challenges in the contemporary application of psychiatric epidemiology in the context of its 75-year history. Rapid changes in mobile technology, sampling methods, concepts of mental health/disorder, online assessment tools, and greater insight into the bidirectional influences of biology and environmental factors, will require new concepts and methods with multidisciplinary input. Based on research presented in this meeting and other disciplinary advances, proposed shifts in the aims and methods of population-based mental health research in the next generation of our field will be described.

## EARLY CAREER RESEARCHER PRIZES

### ECR Poster prizes

Sat. 14 Sept., 11:00-11:15

A1031

Chair: Martin Preisig, CH

### ECR1 The Impact of Climate Change on Mental Health in Vulnerable Groups: A Systematic Review

Ridha Mahmood<sup>1</sup>, Philippa Clery<sup>1,2</sup>, Justin Yang<sup>1</sup>, Liying Cao<sup>1</sup>, Jennifer Dykxhoorn<sup>1</sup>

<sup>1</sup>Division of Psychiatry, University College London, London, UK; <sup>2</sup>Camden and Islington NHS Foundation Trust, London, UK

**Aims:** The impact of climate change on mental health disproportionately affects vulnerable groups. We aimed to summarise current evidence regarding the mental health of vulnerable populations exposed to climate events.

**Methods:** We performed a systematic review investigating the association between climate events and mental health outcomes in vulnerable populations. We searched five databases up to July 2023. Data from included studies underwent qualitative summarization and quality assessment, with results presented in a narrative synthesis. PROSPERO registration: CRD42023442489.

**Results:** Of 1,197 articles retrieved, 32 were included. Articles explored acute (n=27), sub-acute (n=2), gradual (n=2), and combined (n = 2) climate events. Vulnerable populations included: low socioeconomic status (n=26), racial and ethnic minorities (n=12), Indigenous populations (n=2), and housing insecure (n=1) groups. Mental health outcomes included: general mental health (n=8), psychological distress (n=6), psychiatric symptoms (n=2), perceived stress (n=1), probable mental illness (n=1), depressive disorder (n=12), anxiety disorder (n=6), post-traumatic stress symptoms/disorder (n=15), and severe mental illness (n=2). Seventeen studies reported worse mental health outcomes in vulnerable groups following climate events, six presented mixed findings, and nine found no evidence.

**Conclusion:** There is evidence that several vulnerable groups exhibit poorer mental health outcomes than the general population following exposure to climate events. However, high-quality evidence is lacking, particularly for: low- and middle-income countries; sub-acute and gradual climate events; and specific groups such as housing insecure and Indigenous populations. Given increasing climate change related events globally, further research to better understand how pre-existing inequalities exacerbate mental health impacts of climate change is needed.

### ECR2 Parental Income and Low Mental Health among Danish Young People: A Cross-Sectional Study of 60,437 High-School Students (15-19 Years)

Magnus Kjærsgaard Tarp<sup>1</sup>, Maja Bramming<sup>2</sup>, Janne Tolstrup<sup>2</sup>

<sup>1</sup>Department of Clinical Epidemiology, Aarhus University Hospital (Aarhus N, DK); <sup>2</sup>National Institute of Public Health

**Aims:** We aimed to investigate the association between parental income and low mental health in youth (15-19 years). Additionally, we investigated whether this association differed between genders and whether the association followed a linear pattern.

**Methods:** We conducted a cross-sectional study by combining data from The Danish National Youth Study on 60,437 high school students aged 15-19 years, with multiple different national registers. Mental health was measured on The Short Warwick-Edinburgh Mental Health Well-being Scale and low mental health was defined as the lowest decile. Parental income was categorised into quintiles. Associations between parental income and low mental health were analysed with multivariable logistic regression, and the linearity of this association was examined using restricted cubic spline regression.

**Results:** Compared with the highest parental income quintile the adjusted odds ratios of low mental health were 1.02 (95% CI: 0.93-1.12), 1.13 (95% CI: 1.03-1.24), 1.20 (95% CI: 1.10-1.32), and 1.24 (95% CI: 1.12-1.37) for Q4, Q3, Q2, and Q1 respectively, with no significant gender differences. Furthermore, the results suggest that the association between parental income and low mental health is non-linear.

**Conclusion:** Higher parental income was associated with higher odds of low mental health during adolescence, indicating a dose-response association. The indication of non-linearity suggests the existence of thresholds from which a decrease in parental income is more strongly associated with a higher odd of low mental health.

## ECR Abstract prizes

Sat. 14 Sept., 11:15-11:45

A1031

Chair: Martin Preisig, CH

### ECR3 Osteoporosis Referral and Treatment among People with Affective Disorders: A Ten-Year Data Linkage Study

Ruimin Ma<sup>1</sup>, Brendon Stubbs<sup>1</sup>, Robert Stewart<sup>1</sup>

<sup>1</sup>King's College London (London, GB)

**Aims:** There is limited evidence on the osteoporosis treatment and referral in people with affective disorder (AD). This study compared these outcomes between people with and without AD using linked primary and secondary care data.

**Methods:** People with AD aged 18+ at diagnosis with both primary and secondary mental healthcare records between 1<sup>st</sup> May 2009 and 30<sup>th</sup> November 2019 from a South London catchment were matched 1:4 to randomly selected controls. Outcomes including prescription of calcium, calcium with vitamin D, bisphosphonates and referrals for osteoporosis screening and treatment were analysed using conditional and multivariable logistic regression analyses.

**Results:** This study included 23,932 people with AD and 76,593 matched non-AD controls. People with AD were more likely to have a recorded prescription of calcium (Odds ratio [OR] = 1.65, 95% confidence interval [CI] 1.41, 1.94) and calcium with vitamin D (OR= 2.27, 95% CI 2.11, 2.44), as well as were more likely to be referred for osteoporosis screening and treatment (OR=1.88, 95% CI 1.77, 1.99) within 2 years after the date of first AD diagnosis, after adjusting for ethnicity, deprivation, Charlson Comorbidity Index, analgesics and hypotensive use after index date. Older age at time of initial AD diagnosis and being female are significant predictors for all osteoporosis management pathways within AD patients.

**Conclusion:** Considering the elevated risk for osteoporosis in this patient group, there is a need for more proactive strategies to identify and manage osteoporosis, therefore subsequently reduce negative consequences, such as falls and fractures, associated with osteoporosis.

### ECR4 Structural Harms and Adolescent Mental Health in Inner London: Police Stops, School Exclusions, and Institutional Racism

Samantha Davis<sup>1-2</sup>, Charlotte Gayer-Anderson<sup>1-2</sup>, Gemma Knowles<sup>1-2</sup>, Kamaldeep Bhui<sup>3-5</sup>, Craig Morgan<sup>1-2</sup>

<sup>1</sup>Health Services & Population Research Department, King's College London (GB); <sup>2</sup>ESRC Centre for Society and Mental Health, King's College London; <sup>3</sup>Department of Psychiatry, University of Oxford; <sup>4</sup>Nuffield Department of Primary Care Health Sciences, University of Oxford; <sup>5</sup>Wadham College, University of Oxford

**Aims:** To examine the (i) extent of police stops and school exclusions among ethnically diverse youth, (ii) relationship between stops and mental health, (iii) interrelationship between exclusion and mental health, and (iv) co-occurrence of stops and exclusion on mental health.

**Methods:** We analysed data from REACH, a large cohort study in London (n=4670; 11-16y; 85% ethnically minoritised). We estimated prevalence of police stops (question/search) and school exclusions (suspensions/expulsions) by social group. Multilevel logistic regressions examined associations between the co-occurrence of stops and exclusions and mental distress. We analysed exclusions and distress using various statistical models including latent growth curves, multinomial logistic regression, and random intercept cross-lagged panel models.

**Results:** By 13-16y, one in six were stopped by police and one in four were excluded from school. Racialised groups were more likely to report stops/exclusions than white groups. Inequalities widened over time e.g.,

Black Caribbean pupils were excluded five times more than White British pupils by 13-16y (vs. three times more by 11-14y). Risk of distress was three times greater among adolescents stopped and excluded (vs. neither). Distress inequities between youth excluded (vs. never) persisted throughout adolescence and exclusions may increase risk of internalising problems and decrease risk of externalising problems.

**Conclusion:** Institutional racism and risk of mental distress underscore the urgent need for vital changes to these measures. Inequalities were unsurprisingly observed due to documented injustices in police powers and school policies. However, the magnitude of these inequalities and the harm these sanctions pose to adolescent health is unacceptable.



## SYMPOSIUM

### S01 Early Risk and Protective Profiles Assessed before the Onset of Psychopathology among Offspring at High Familial Risk of Severe Mental Illnesses

Thurs. 12 Sept., 08:30-10:00

A1031

Chair: Kerstin von Plessen, CH

Co-chair: Caroline Vandeleur, CH

#### ABSTRACT

Studies focusing on the offspring of affected parents utilize the well-established familial aggregation of mood, psychotic and substance use disorders as a powerful tool for the identification of risk factors and prodromes of psychopathology in these offspring. However, data using this approach are still relatively scarce. This symposium will discuss early risk profiles assessed prospectively among offspring at high familial risk. **Prof Neeltje van Haren** will present data from Rotterdam, the Netherlands, on fetal head circumference at birth relative to overall body size among offspring of mothers with psychotic disorders compared to population-based controls. **Prof Anne Thorup** will present results from The Danish High Risk and Resilience Study on a large cohort of children of parents with schizophrenia, bipolar disorder and controls, showing that signs of vulnerability detected at age 7 lead to the onset of disorders already at age 11. **Dr Caroline Vandeleur** will present results from the Lausanne-Geneva high-risk study of mood and substance use disorders which extends over a period of 16 years, focusing on psychopathology detected before age 10 and the subsequent development of psychopathology. **Prof Manon Hilligers** will present findings from three generations of the Dutch Bipolar Offspring Study showing how timing and severity of mood episodes in the second generation impacts the development of psychological problems in their offspring. Finally, **Dr Patricia Camprodon** will discuss the role of cognitive reserve as a protective factor buffering against the development of psychopathology, enhancing psychosocial functioning and cognitive performance in offspring at risk for severe mental disorders.

#### S01.01 Fetal Head Growth and Head Circumference at Birth in Offspring of Mothers with Psychotic Disorders and Population-Based Controls

Lisanne van Houtum<sup>1</sup>, Dogukan Koc<sup>1</sup>, Sterna Grundeman<sup>2</sup>, Hanan El Marroun<sup>1</sup>, **Neeltje van Haren**<sup>1</sup>, Hilmar Bijma<sup>2\*</sup>

<sup>1</sup>Erasmus University Medical Center Rotterdam, Department of Child and adolescent psychiatry/psychology (Division Sophia Children's Hospital); <sup>2</sup>Erasmus University Medical Center Rotterdam, Department of Obstetrics and Gynaecology (Division of Obstetrics and Fetal Medicine)

**Aims:** Offspring of parents with psychotic disorders have a >50% increased risk for developing mental health problems themselves. We set out to investigate the association between maternal psychotic illness and fetal head growth.

**Methods:** We collected fetal ultrasonography at 20 and 30 weeks of gestational age (GA) from medical records of N=168 pregnant women with a psychotic disorder and from N=8605 pregnant women who participated in Generation R. Additionally HC was measured in offspring at birth with measuring tape.

**Results:** Preliminary analyses showed no significant group-by-GA interaction effect on fetal HC ( $p=.083$ ). At birth, we found no significant effect of group on HC ( $p=.169$ ). However, HC/birth weight ratio ( $p<.001$ ) and birth weight ( $p<.001$ ) differed significantly between groups.

**Conclusion:** In preliminary analyses we found no indication for aberrant fetal brain development, as reflected in fetal HC growth in offspring of mothers with a psychotic disorder compared to control offspring. However, head size at birth relative to overall body size was found larger in high-risk offspring, giving us directions for possible underlying neural mechanisms related to the intergenerational transmission of mental illness.



## S01.02 The Danish High Risk and Resilience Study – Risk Factors from Early to Late Childhood for Offspring of Parents with Schizophrenia or Bipolar Disorder

**Anne AE Thorup**<sup>1</sup>

<sup>1</sup>Child and Adolescent Mental Health Center, Capital Region of Denmark and University of Copenhagen

**Aims:** We aim to identify early risk markers of later development of severe mental illness, like psychosis and other negative life outcomes with a special focus on early trauma.

**Methods:** The Danish High Risk and Resilience Study – the VIA study is a prospective cohort study of 522 children, 202 of them born to at least one parent diagnosed with schizophrenia, 120 of them born to a least one parent diagnosed with bipolar disorder and 200 of them born to parents without any of these diagnoses. The children were clinically assessed every fourth year – at age 7, (VIA 7), age 11 (VIA 11) and age 15 (VIA 15) with a comprehensive battery comprising psychopathology, home environment, neurocognition, motor skills and social development.

**Results:** Results show that children born to parents with schizophrenia and to some extent bipolar disorder show signs of vulnerability already at age 7 that continue at age 11 compared to controls. Children with a familial risk have higher rates of experienced trauma also in the early years of life and are more likely to be bullied, or to be diagnosed with adjustment disorder or even PTSD at age 11. Preliminary results from age 15 will be presented.

**Conclusion:** Children, who grow up in a family, where a parent has or have had a severe mental disorder are at risk in many ways, both biologically and environmentally. Data from this large, representative cohort document this by pinpointing many areas of increased risk, including trauma in early and late childhood, that is in most cases not recognized or treated.

## S01.03 Psychiatric Disorders, Anxiety Traits and Behavioral Inhibition Before Age 10 as Predictors of the Onset of Disorders among High-Risk Offspring

**Caroline Vandeleur**<sup>1</sup>, Marie Pierre F. Strippoli<sup>1</sup>, Enrique Castelao<sup>1</sup>, Pierre Marquet<sup>1,2</sup>, Martin Preisig<sup>1</sup>

<sup>1</sup>Department of Psychiatry, University Hospital of Lausanne, Prilly, Switzerland; <sup>2</sup>Laval University, Quebec, Canada

**Aims:** Several longitudinal studies of offspring of parents with bipolar disorders (BPD), major depressive disorder (MDD) and substance use disorders (SUD) have shown early psychopathology occurring in adolescence to precede the onset of full-blown disorders in these offspring. However, it still remains elusive whether psychopathology detected before age 10 could already predict the onset of later mood disorders or SUD. Using a prospective cohort study of children of parents with BPD, MDD and SUD, we assessed 1) the prospective association between non mood disorders and symptoms, and 2) the role of anxiety traits or childhood behavioral inhibition reported before age 10 and the onset of later mood disorders or SUD.

**Methods:** Directly interviewed probands with BPD, MDD, SUD and controls, along with a sample of their offspring aged 7-10 years (n=127) were followed-up every 3 years over a mean duration of 14.6 (s.d. 6.6) years.

**Results:** 1) Offspring who reported behavioral disorders (BEHAV) before age 10 were at a 6-fold higher risk of developing alcohol misuse over time. There were no associations between early psychopathology and future mood disorders in offspring. 2) Early anxiety traits and childhood inhibition were not associated with later-onset mood disorders or SUD.

**Conclusion:** The role of early BEHAV in offspring leading to subsequent alcohol misuse needs to be further clarified. In contrast, our data do not support the implication of early psychopathology in the course towards mood disorders, and early anxiety traits and childhood inhibition were not predictive of later mood disorders or SUD.

## S01.04 Intergenerational Transmission of Psychopathology across Three Generation; Dutch Bipolar Offspring Study

**Manon Hillegers**<sup>1</sup>, Esther Mesman<sup>1</sup>, Fleur Helmink<sup>1</sup>, Ylza Xerxa<sup>1</sup>, Annabel Vreeker<sup>1</sup>

<sup>1</sup>Erasmus MC-Sophia Children's Hospital, Rotterdam, the Netherland

**Aims:** Mental illnesses run in families, including often several generations. We present new findings on the transmission of psychopathology across three generations in the Dutch Bipolar Offspring Study (DBOS). We

assessed the impact of timing and severity of parental psychopathology (second generation, G2) on psychological problems in the grandchildren (third generation, G3).

**Methods:** The Dutch Bipolar Offspring Study cohort study is a longitudinal study in children of parents with bipolar disorder established in 1997-1999. All parents with bipolar disorder (G1) were outpatients at the time of recruitment. 140 offspring (G2) from 86 families were examined 1-, 5, 12- and 22-years after baseline. At 22-years follow-up of G2; 108 grandchildren (G3) participated in study with a mean age of 6.8 years (SD: 3.9) We evaluated how timing and severity of mood episodes in parents (G2) (occurring before or after birth) impacts the risk of psychological problems (measured with CBCL; ASEBA questionnaires) in offspring.

**Results:** Internalizing and Total problems score on the CBCL of G3 was associated with mood disorders in the parents (G2), but also related to the severity of mood disorders (recurrences) and the timing (before or after birth of G3). Our DBOS study findings illustrate the impact of timing of exposure and severity of parental psychopathology on the total problems scores (ASEBA) of offspring.

**Conclusion:** This study underscores the importance of examining risk and resilience factors on the psychological well-being of individuals in multiple generations and the need for family support in case of parental mental illness.

### S01.05 Protective Role of Cognitive Reserve on Clinical, Cognitive and Neuroimaging Measures in Offspring of Patients with Schizophrenia or Bipolar Disorder

**Camprodon-Boadas P**<sup>1,2,3</sup>, Ortuño M<sup>1</sup>, De la Serna E<sup>1,2,3</sup>, Baeza I<sup>2,3</sup>, Castro-Fornieles J<sup>1,2,3</sup>, Sugranyes G<sup>1,2,3</sup>

<sup>1</sup>Fundació de Recerca Clínic Barcelona-Institut d'Investigacions Biomèdiques August Pi i Sunyer IDIBAPS; <sup>2</sup>Centro de Investigación Biomédica en Red de Salud Mental- CIBERSAM; <sup>3</sup>Department of Child and Adolescent Psychiatry and Psychology- 2021SGR01319- Institute of Neuroscience, Hospital Clínic de Barcelona.

**Aims:** The concept of cognitive reserve (CR) has been applied to the field of psychiatry, being considered a protective factor against clinical symptoms and cognitive impairment. Our aim is to discuss and disseminate the concept of CR and its protective role applied to children and adolescents at familial high-risk for bipolar disorder or schizophrenia.

**Methods:** We will present a study assessing CR and its association to clinical and cognitive variables in a sample of 151 young offspring of patients with schizophrenia (SzO) or bipolar disorder (BpO) relative to 102 controls (Camprodon-Boadas et al., 2023). New analysis involving a total of 452 structural MRI data acquisitions, which include longitudinal assessments from 52 SzO, 83 BpO, and 98 controls at different time points will also be presented.

**Results:** SzO group showed a significantly lower level of CR compared to both BpO and controls, while BpO exhibited an intermediate level between the other two groups. Higher levels of CR were associated with less lifetime psychopathology, fewer attenuated psychotic symptoms, higher psychosocial functioning, and better cognitive performance in SzO and BpO. Results on the association between CR and structural cortical neuroimaging measures will be presented.

**Conclusion:** Our findings underscore the critical role of CR in mitigating risk-related challenges among SzO and BpO. These findings collectively suggest that bolstering cognitive reserve may serve as a promising avenue for intervention and prevention in vulnerable populations at risk for severe mental disorders.

## S02 The Biological, Psychological and Social Consequences of War. An Update on the UK Military Psychiatric Epidemiology a Decade after the Withdrawal from Afghanistan

Thurs. 12 Sept., 08:30-10:00

2013

Chair: Sharon Stevelink, UK

Co-chair: Daniel Dyball, UK

### ABSTRACT

A comprehensive overview will be presented providing the latest available evidence to date concerning the long-term health and wellbeing of those who served in the UK Armed Forces during the Iraq and Afghanistan era. We will showcase how our findings on the outcomes of UK military personnel who deployed to Iraq/Afghanistan have fed into service provision and targeted strategies directed at improving the outcomes of the UK Armed Forces community at large, as well as the implications of our latest findings for policy, practice, and service delivery. We will present data from the ADVANCE cohort, a cohort of UK military personnel who sustained a physical combat injury along with a matched uninjured group and consider the impact of physical combat injury on mental wellbeing, including mental illness, social support, and psychological thriving. Additionally, we will present the latest scientific updates on moral injury, along with potential treatments. Finally, we will also present data the physical and mental health of female veterans compared to male veterans and female civilian groups, using data from the UK biobank and King's Centre for Military Health cohort. Each presentation will highlight how some of the lessons learned may have wider implications for other occupational groups who may be at an increased risk of poorer outcomes due to workplace hazards. There will be a Q&A discussion after the presentations.

### S02.01 Health and Wellbeing Cohort Study of Serving and Ex-Serving UK Armed Forces Personnel: 20 Years On – An Update

**Marie-Louise Sharp**<sup>1</sup>, Margaret Jones<sup>1</sup>, Simon Wessely<sup>1,2</sup>, Sharon A.M. Stevelink<sup>1</sup>, Nicola T. Fear<sup>1,2</sup> and KCMHR Phase 4 Collaborative<sup>1,2,3,4</sup>

<sup>1</sup>King's Centre for Military Health Research, Department of Psychological Medicine, King's College London, United Kingdom; <sup>2</sup>Academic Department of Military Mental Health, King's College London, United Kingdom; <sup>3</sup>Research Department, Combat Stress, Leatherhead, United Kingdom; <sup>4</sup>Department of Forensic and Neurodevelopmental Science, King's College London, United Kingdom

**Aims:** To investigate the health and wellbeing of UK serving and ex-serving personnel who served during the conflicts of Iraq and Afghanistan, and to assess associations of serving status, deployment status and combat role on mental health and alcohol misuse outcomes.

**Methods:** The King's Centre for Military Health Research (KCMHR) Health and Wellbeing Cohort Study of UK serving and ex-serving personnel has collected data at three previous Phases (Phase 1: 2004-2006, Phase 2: 2007-2009 and Phase 3: 2014-2016.). Cohort members were included in Phase 4 (2022-2023) if they had responded at Phase 3 and had consented to follow-up. The overall adjusted response rate was 54.6% (n=4104).

**Results:** Rates of CMD in serving and ex-serving personnel were 27.8%, probable PTSD 9.4% and alcohol misuse 8.4%. Of those reporting PTSD, the rate of Complex-PTSD (C-PTSD) was 5.7%. Rates of probable PTSD, C-PTSD and alcohol misuse were statistically significantly higher in ex-serving Regular personnel compared to serving Regular personnel. Deployment to Iraq and/or Afghanistan was associated with higher rates of probable PTSD and C-PTSD in ex-serving Regulars, however deployment status was not associated with any outcome in serving Regulars. Deploying in a combat role was associated with higher rates of PTSD and C-PTSD in both serving and ex-serving Regulars.

**Conclusion:** The findings suggest increased rates of CMD and PTSD compared to previous phases, that the majority of PTSD experienced is complex, and that exposures experienced on combat deployments may pose longer term impacts on health, years after conflict or leaving military service.

## S02.02 The ADVANCE Cohort Study-Investigating the Impact of Sustaining a Serious Physical Combat Injury on Mental Health Outcomes

**Dyball Daniel**<sup>1</sup>, Stevelink Sharon<sup>1</sup>, Fear Nicola T<sup>1</sup> and the ADVANCE study collaborative<sup>2,3,4,5</sup>

<sup>1</sup>King's Centre for Military Health Research, King's College London, London, UK; <sup>2</sup>Centre for Blast injuries, Imperial College London, London, UK; <sup>3</sup>National Heart, Lung and Blood Institute, Imperial College London, London, UK; <sup>4</sup>Academic Defence Military Rehabilitation Centre, Ministry of Defence, Loughborough, UK; <sup>5</sup>Bournemouth University, Bournemouth, UK

**Aims:** To assess the association between serious physical combat injury and rates of probable post-traumatic stress disorder (PTSD), Post-Traumatic Growth (PTG), depression, anxiety, and mental health-associated multimorbidity in UK military.

**Methods:** The sample consisted of UK Armed Forces personnel who were deployed to Afghanistan and sustained physical combat injuries and an uninjured group who were frequency matched by age, rank, regiment, deployment, and role on deployment. Participants completed self-report questionnaires alongside a comprehensive health suite of examinations.

**Results:** 579 combat-injured participants (161 with amputation injuries and 418 with non-amputation injuries) and 565 uninjured participants took part. Whilst greater rates of poor mental health outcomes were noted in the injured group compared to the uninjured group, minimal differences were noted in rates of these disorders between the amputation injury subgroup and the uninjured group, whereas up to double the odds were noted for the non-amputation injury subgroup compared with the uninjured group. Greater rates of a large degree of PTG were noted in the amputation injury subgroup compared to both the uninjured comparison group and non-amputation injury subgroup.

**Conclusion:** Serious physical combat injuries were associated with poor mental health outcomes. However, the type of injury sustained influenced this relationship. Regardless of injury, this cohort represents a group who present with greater rates of PTSD than the general population, as well as increased psychological burden from multimorbidity. There is a need to investigate not only how to prevent pathology but also encourage psychological thriving.

## S02.03 The Association Between Perceived Social Support and Mental Health in Male UK Military Personnel with Combat Injuries: Analysis of ADVANCE Study Data

**Laura E. Grover**<sup>1</sup>, Susie Schofield<sup>3</sup>, Howard Burdett<sup>1</sup>, Laura Palmer<sup>1</sup>, Alexander N. Bennett<sup>3, 4</sup>, Nicola T. Fear<sup>1, 2</sup>

<sup>1</sup>King's Centre for Military Health Research, Department of Psychological Medicine, King's College London, United Kingdom; <sup>2</sup>Academic Department of Military Mental Health, King's College London, United Kingdom; <sup>3</sup>Faculty of Medicine, National Heart and Lung Institute, Imperial College London, United Kingdom; <sup>4</sup>Academic Department of Military Rehabilitation, Defence Medical Rehabilitation Centre, United Kingdom

**Aims:** Social support is a key determinant for mental health across multiple populations and contexts. Little is known about social support among combat-injured UK military personnel following deployment to Afghanistan. This study aimed to investigate the level of perceived social support and its association with mental health among injured and uninjured UK military personnel.

**Methods:** Baseline data from the ADVANCE cohort study were analysed. A representative sample of male UK combat-injured personnel were compared with a matched uninjured sample. Validated questionnaires were completed including the Multidimensional Scale of Perceived Social Support (MSPSS). MSPSS score was transformed using linear splines (threshold  $\geq 55$ ). Multivariable logistic regression analyses were conducted to assess for associations between perceived social support and mental health.

**Results:** In total, 579 combat-injured participants (161 with amputations) and 565 uninjured participants were included. Median MSPSS score was 65 (interquartile range 54-74). Injured/uninjured participants reported similar MSPSS scores, as did amputation-injured/non-amputation-injured participants. An adjusted odds ratio (AOR) of 0.93 (95% confidence interval [CI] 0.91 to 0.96) for post-traumatic stress disorder was observed for each one unit increase in MSPSS score (for scores  $\geq 55$ ). For scores below 55, the AOR was 0.99 (95% CI 0.97 to 1.01). Similar results were observed for depression and anxiety with a decrease in odds of 9% and 6% respectively, for MSPSS scores  $\geq 55$ .

**Conclusion:** Injured and uninjured combatants reported similar levels of perceived social support. Higher scores (of above or equal to 55) were associated with reduced odds for adverse mental health outcomes.

## S02.04 “Man Up and Get On with It”: UK Veterans’ Experiences of Seeking Help for Self-harm, Suicidal ideation and Suicide Attempts

**Charlotte Williamson**<sup>1</sup>, Walter Busuttill<sup>1,2</sup>, Marie-Louise Sharp<sup>1</sup>, Sharon A.M. Stevelink<sup>1,3</sup>

<sup>1</sup>King’s Centre for Military Health Research, King’s College London, London, United Kingdom; <sup>2</sup>Combat Stress, Leatherhead, United Kingdom; <sup>3</sup>Department of Psychological Medicine, King’s College London, London, United Kingdom

**Aims:** A substantial proportion of UK military personnel experiencing mental health problems do not seek professional support. Although promoting help-seeking is a key suicide prevention strategy, little is known about the experiences of UK Armed Forces personnel when accessing support for self-harm and suicide behaviours. This study aimed to explore UK veterans’ experiences of seeking help for self-harm, suicidal ideation, and/or suicide attempts, including those who did not seek help.

**Methods:** Participants were recruited via an existing longitudinal study exploring the health and wellbeing of the UK Armed Forces. Eligibility included being a veteran, experience of self-harm/suicidal ideation/suicide attempts, UK resident, and consented to future contact. Participants completed semi-structured telephone interviews. Interviews were transcribed verbatim and analysed using thematic analysis.

**Results:** 15 interviews were conducted. Analysis is due to be complete by August 2024. Preliminary findings indicate that stress/emotional difficulties and loss of social network were key reasons for engaging in self-harm and suicide behaviours. The ‘military mindset’ and awareness of support played important roles in decision making around seeking help for self-harm and suicide behaviours, including the view that seeking help is a weakness.

**Conclusion:** Initial findings indicate that the ‘military mindset’ is a key barrier for UK ex-serving personnel seeking help for self-harm and suicide behaviours. Understanding the barriers and facilitators faced by the military community when accessing support for self-harm and suicide behaviours may provide a means for helping them to access support sooner, lessen the impact on their health and wellbeing and ultimately save lives.

## S02.05 Restore and Rebuild (R&R) - A Feasibility Study of a Co-designed Treatment for Moral Injury-related Mental Health Difficulties

**Williamson Victoria**<sup>1</sup>, Murphy Dominic<sup>2</sup>, Greenberg Neil<sup>1</sup>

<sup>1</sup>King’s Centre for Military Health Research, King’s College London, London, United Kingdom; <sup>2</sup>Combat Stress, Leatherhead, United Kingdom

**Aims:** Moral injury can significantly negatively impact mental health, but currently no validated treatment for moral injury-related mental health difficulties exists in a UK context. This study aimed to examine whether the Restore and Rebuild (R&R) treatment was feasible to deliver, acceptable and well tolerated by UK military veterans with moral injury related mental health difficulties.

**Methods:** The R&R treatment was delivered to 20 patients who reported distress related to exposure to a morally injurious event(s) during military service. R&R is a 20-session psychotherapy with key themes of processing the event, self compassion, connecting with others and core values. Treatment was delivered online, weekly, one-to-one by a single therapist. Qualitative interviews with patients and the therapist who delivered R&R were conducted to explore acceptability and analysed using thematic analysis.

**Results:** Following treatment, patients experienced a significant reduction in symptoms of post-traumatic stress disorder, depression, alcohol misuse and moral injury related distress. R&R was found to be well tolerated by patients and improved their perceived wellbeing.

**Conclusion:** These results provide evidence that veterans struggling with moral injury related mental ill health can benefit from R&R treatment.



## S02.06 Navigating the Civilian World: Health, Education, and Employment Among Female Veterans

**Alexandria Smith**<sup>1</sup>, Nicola Fear<sup>1,2</sup>, Sharon Stevelink<sup>1,3</sup>, King's Centre for Military Health Research Collaborative<sup>1</sup>  
<sup>1</sup>King's Centre for Military Health Research (KCMHR), King's College London, London, UK; <sup>2</sup>Academic Department of Military Mental Health, King's College London, London, UK; <sup>3</sup>Department of Psychological Medicine, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, UK

**Aims:** Previous research has overlooked the experiences of female veterans, despite their growing numbers in the military. This study aims to understand the potential advantages and disadvantages female veterans face compared to male veterans and civilian females, particularly regarding employment, health, and relationships.

**Methods:** The study utilizes multiple datasets, including UK Biobank data, the King's Centre for Military Health Research (KCMHR) Health and Wellbeing Cohort Study Phase 4, and the UK Office for National Statistics (ONS) Annual Population Survey. The analysis is ongoing, with the UK Biobank data having been completed. Bivariate analyses, such as chi-square tests and t-tests, were employed to examine differences between female veterans, male veterans, and female civilians. Additionally, logistic regression analyses were conducted to investigate these comparisons while controlling for potential confounders.

**Results:** From the UK Biobank, we included 546 female veterans (average service: 5.97±5.51 years, time since transition: 30.07±11.21 years). Compared to civilian women, we found that female veterans were less likely to have a college had higher odds of musculoskeletal disorders, fibromyalgia, chronic fatigue, COPD, depression, and anxiety. Male veterans had a higher odds of diabetes prevalence than female veterans.

**Conclusion:** Preliminary findings highlight unique challenges for female veterans, including specific health conditions, mental health issues, and lower education, necessitating targeted support during civilian transition. Further analyses across datasets will provide a comprehensive understanding.



## S03 Helping People who Experience Social Isolation: New Intervention Models

Thurs. 12 Sept., 08:30-10:00

2055

Chair: Domenico Giacco, UK

Co-chair: Sonia Johnson, UK

### ABSTRACT

The relationships between social isolation and mental health are complex. For example, loneliness can be an antecedent of mental health conditions and/or a consequence of them. When loneliness and mental health conditions occur together, they very often result in poor long-term mental and physical health. Therefore, improving social support is important for people who experience a variety of mental health conditions. In this symposium, **Sonia Johnson** who leads the UK Research and Innovation network on loneliness and social isolation in mental health, will present an umbrella review on relationships between loneliness and functional mental health conditions. **Jochen René Thyrian** will focus on organic mental health conditions, reporting on the findings of a study investigating the association between social support and life expectancy in people with dementia in Germany. **Domenico Giacco** will present findings from the SCENE study, which developed and tested a social coaching intervention for people with psychosis. This is one of the largest international studies addressing social isolation of this group of mental health service users. Finally, **Brynmor Lloyd-Evans** will discuss research on how to support service users with establishing and/or maintaining loving/sexual relationships. This symposium includes some of the largest observational and experimental studies focusing on social isolation and mental health in Europe. We hope that the presentation of results from our studies will engage clinicians with relevant practice experiences to share them. This symposium will be an opportunity for good practice exchange and to develop new collaborations to tackle this important gap in care provision.

### S03.01 Relationships between Mental Health Conditions and Loneliness: What's the Current Evidence

**Sonia Johnson**<sup>1,2,3</sup>, Eiluned Pearce<sup>1,2</sup>, Mary Birken<sup>1,2</sup>, Sarah Ikhtabi<sup>1,2,3</sup>, Brynmor Lloyd-Evans<sup>1,2,3</sup>, Alexandra Pitman<sup>1,2,3</sup>

<sup>1</sup>Division of Psychiatry, University College London, UK; <sup>2</sup>UKRI (UK Research and Innovation) Loneliness and Social Isolation in Mental Health Research Network, Division of Psychiatry, UCL; <sup>3</sup>NIHR UCLH Biomedical Research Centre Loneliness and Social Isolation Network, London UK

**Aims:** Loneliness is a potentially modifiable influence on the onset and course of mental health problems, but so far there are few relevant interventions with a robust evidence base. In the UKRI Loneliness and Social Isolation in Mental Health Research Network, we have investigated the relationship between loneliness and mental health conditions.

**Methods:** Our investigations have included an umbrella review on relationships between loneliness and mental health conditions and several systematic reviews examining relationships with conditions including depression, perinatal depression, "personality disorder" and psychosis. Our qualitative research has focused on pathways to and experiences of loneliness among people with mental health conditions. Findings will be summarised to provide an overview of the relationship between loneliness and mental health.

**Results:** Loneliness has cross-sectional associations with most mental health conditions. There is robust evidence that loneliness is a risk factor for being depressed, but longitudinal evidence is sparse for most other conditions. Qualitative findings suggest some potential causal factors for loneliness are similar to the general population (e.g. losses and transitions), but specific links are also reported between loneliness and mental health. These include direct effects of mental health symptoms, the need to withdraw to cope with mental health problems, and impacts of stigma and poverty.

**Conclusion:** Loneliness is clearly linked with most mental health conditions, but the nature of these connections remains to be clearly established in conditions other than depression. An understanding of factors

underpinning these links is potentially helpful in development of evidence-based interventions targeting loneliness in mental health.

### **S03.02 Social Support Affects Life Expectancy in People with Dementia. What Can We Do About It?**

**Jochen René Thyrian**<sup>1</sup>

<sup>1</sup>German Center for Neurodegenerative Diseases (DZNE), Greifswald, Germany

**Aims:** The aims of this presentation are (a) to investigate the role of support from the social environment for life expectancy in people with dementia beyond well-established individual demographic and clinical predictors over a period of up to 8 years and (b) describe effects of intervention studies targeting social support in multimodal trials.

**Methods:** The analyses are based on (a) data from 500 community-dwelling individuals in Germany who tested positive for dementia and were followed up for up to 8 years. Life expectancy was examined in relation to perceived social support as well as well-established socio-demographic (age, sex) and clinical predictors (cognitive status, functional status, comorbidities), using Cox regressions. (b) a multimodal intervention trial with n=1,015 participants at increased risk of dementia conducted over a period of 24 months in Germany.

**Results:** (a): Greater support from the social environment reduced the risk of mortality (hazard ratio [HR]: 0.78; 95% confidence interval [CI]: 0.63-0.98), with the role of emotional support being particularly important. (b): Lower income, non-usage of public transport, depressive symptoms, cognitive, mobility, and hearing impairment were negatively associated with social activity. The most common social activities were traveling and hobbies with others. Participants have maintained their current level of social activity for several years.

**Conclusion:** We provide novel evidence that less support from the social environment, especially emotional support, is a risk factor for shorter life expectancy. Not only the clinical and caregiving needs but also their psychosocial needs of individuals with dementia should be emphasized.

### **S03.03 Developing a Novel Social Coaching Intervention for People with Psychosis: Findings and Learnings from a 7-year programme of Research**

Agnes Chevalier<sup>1</sup>, **Domenico Giacco**<sup>2</sup>

<sup>1</sup>Unit for Social and Community Psychiatry, WHO Collaborating Centre for Mental Health Services Development, Queen Mary University of London, UK; <sup>2</sup>Warwick Applied Health, Warwick Medical School, University of Warwick, UK

**Aims:** People with psychosis often experience isolation and have fewer social contacts than the general population and other groups of people with mental illness. There is evidence to suggest that encouraging people to expand their social networks through may help to improve outcomes. A large programme of research aimed to address this by developing and testing a novel social coaching intervention in the UK.

**Methods:** The intervention was developed through stakeholder involvement including a cross-sectional survey, focus groups, interviews and case studies. Its clinical and cost effectiveness is currently being established in a randomised controlled trial with a nested qualitative process evaluation.

**Results:** The social coaching intervention incorporates elements of motivational interviewing, solution focused therapy and structured information giving, and can be delivered by a range of different mental health professionals. Findings from the trial along with the experiences of both receiving and delivering the intervention will be presented. We will also discuss some of the challenges of conducting this research during the Covid-19 pandemic, a time when in-person contact was largely discouraged.

**Conclusion:** Interventions to reduce social isolation and improve quality of life among people with psychosis are lacking. Through a programme of research that sought to incorporate stakeholder voices, we developed a social coaching intervention, which addresses this gap. The adaptability of the approach, which can be administered by various professionals, either in-person or remotely, makes it particularly well-suited to the dynamic landscape of mental health services.

**Funding:** UK National Institute for Health and care Research.

### S03.04 Supporting People with Romantic and Intimate Relationships in Mental Health Services

**Brynmor Lloyd-Evans**<sup>1</sup>, Sharon Eager<sup>1</sup>, Angelica Emery-Rhowbotham<sup>1</sup>, Joanna C, Helen Killaspy<sup>1</sup>

<sup>1</sup>Division of Psychiatry, University College London, UK

**Aims:** Positive romantic/intimate relationships are valued by people with mental health problems, can reduce loneliness and support mental health recovery. However, many service users do not have the sort of loving/sexual relationships they want, and often find it hard to talk to mental staff about this, despite wanting support. We will explore what types of conversations and support might be acceptable and helpful in mental health services, to inform future development of resources for practice.

**Methods:** i) Two systematic reviews with qualitative meta-syntheses of staff's and service user's views and experiences of support with romantic/intimate relationships in mental health services; ii) A survey (n=64 respondents) of mental health and social care staff's views on whether, how and by whom conversations and support about intimate/romantic relationships could be offered in services; iii) A qualitative study with 15 mental health social care staff exploring these issues in more depth.

**Results:** Respondents' views vary regarding: the appropriateness of talking about and offering support with romantic/intimate relationships in services; the potential benefits and challenges of offering such support; and the skills, training and organisational support required for staff to work confidently and safely. Potential ways to support people who wish to start romantic/intimate relationships will be discussed.

**Conclusion:** Implications from this research for mental health and social care services will be considered. Plans will be described for a future programme of work developing resources for staff and people using services, supporting conversations about around romantic/intimate relationships in mental health social care.

## S04 Medical Comorbidities in People with Mental Disorder

Thurs. 12 Sept., 08:30-10:00

A2064

Chair: Giovanni de Girolamo, IT

Co-chair: Tamsin Ford, UK

### ABSTRACT

The symposium on medical comorbidities delves into the intricate interplay between mental disorders, physical health conditions, and their treatment, particularly focusing on antipsychotic medications, registry data, vulnerabilities in children with physical long-term conditions (pLTCs) and metabolic syndrome. One presentation explores the "antipsychotic paradox," highlighting how, despite their side effects and associated physical health risks, antipsychotics can lead to delayed mortality in schizophrenia patients, potentially mediated by better adherence to treatment and healthier lifestyles. Another study utilizes Danish registries to provide a comprehensive view of the comorbidity between mental disorders and physical conditions, underscoring the increased mortality and reduced life expectancy in affected individuals, which calls for a multidisciplinary care approach. The examination of risk factors for psychiatric disorders in children with pLTCs reveals specific vulnerabilities, including housing, family structure, parental distress, and peer relationships, indicating potential areas for intervention. Lastly, the BIPCOM project focuses on bipolar disorder (BD) and its link to metabolic syndrome, aiming to identify risk factors, develop clinical profiles, and create a support tool for personalized management of BD. Together, these presentations underscore the complexity of managing comorbid mental and physical health conditions, highlighting the need for holistic approaches to treatment and care.

### S04.01 The Antipsychotic Paradox: Side Effects, Service Use and Mortality

**Marco Solmi**<sup>1</sup>

<sup>1</sup>Director of Research, Psychiatry Department, University of Ottawa, Ottawa, ON, Canada

**Aims:** On one hand, evidence from randomized controlled trials indicate that antipsychotics are associated with side effects, that increase the risk of physical conditions which in turn are associated with increased mortality. On the other hand, antipsychotics are associated with delayed mortality in people with schizophrenia. The aim of this presentation is to explore possible mediators of such an "antipsychotic paradox".

**Methods:** Nationwide cohort studies in Finland, Sweden and Ontario Canada restricted in people with schizophrenia measuring the association between antipsychotics and physical health outcomes, adherence to medications for cardiometabolic health, and mortality. Also, a systematic review and meta-analysis of studies measuring the association between antipsychotics and mortality in people with schizophrenia, also accounting for differences across regions and sex will be presented.

**Results:** Antipsychotics are associated with increased risk of some physical health conditions, yet also with better adherence to cardiometabolic conditions. Differences exist among different antipsychotics classes, and formulation, on the risk of developing physical health conditions. On the protective association against all-cause and natural cause mortality, both in early stage and multiple-episode schizophrenia, according to both cohort studies and the systematic review, differences exist across antipsychotic class, formulation, regions, but no difference emerged based on sex.

**Conclusion:** The apparent paradoxical association between antipsychotics and delayed mortality in people with schizophrenia can probably be mediated by better adherence to cardiometabolic medications, better service use, better functioning and healthier lifestyle. Clinical implications of findings will be discussed.

## S04.02 Exploring Comorbidity between Mental Disorders and Physical Conditions in the Danish Registers

**Natalie C. Momen**<sup>1</sup>, John J. McGrath<sup>2,3,4</sup>, Henrik T. Sørensen<sup>1</sup>, Oleguer Plana-Ripoll<sup>1,2</sup>

<sup>1</sup>Department of Clinical Epidemiology, Aarhus University and Aarhus University Hospital, Aarhus, Denmark; <sup>2</sup>National Centre for Register-based Research, Aarhus University, Aarhus BSS, Aarhus, Denmark; <sup>3</sup>Queensland Brain Institute, University of Queensland, St Lucia QLD 4072, Australia; <sup>4</sup>Queensland Centre for Mental Health Research, The Park Centre for Mental Health, Queensland, Australia

**Aims:** Evidence suggests a high rate of comorbidity between mental disorders and physical conditions. Additionally, those with mental disorders have higher rates of mortality, partly due to comorbid physical conditions. However, most evidence comes from cross-sectional studies, surveys and retrospectively collected data. Through several nationwide register-based studies among individuals residing in Denmark, we aimed to investigate mental disorder-physical condition comorbidity.

**Methods:** We investigated the rate and cumulative incidence of diagnosis with nine physical condition categories between those exposed and unexposed to ten groups of mental disorders; and vice versa. Additionally, we calculated mortality rate ratios and differences in life expectancy.

**Results:** Our studies included at least 5.9 million individuals. For the majority of pairs, having a mental disorder increased the risk of subsequent physical condition diagnoses. Additionally, most physical conditions carried a higher risk of a subsequent mental disorder. However, there were some exceptions. Mortality rates for people with both mental and physical conditions were higher than for those with neither for all 90 disorder pairs. The mean mortality rate ratio was 5.90. Life expectancy was reduced by a mean of 11.4 years.

**Conclusion:** We provide a comprehensive picture of mental disorder-physical condition comorbidity in Denmark. Some associations might be causal, and others might be explained by shared risk factors or mechanisms, which warrant further investigation. While clinicians will frequently observe comorbidity in practice, our results may increase awareness of typical patterns and highlight the need for multidisciplinary care of patients with mental disorders.

## S04.03 The Prevalence and Predictors of New Onset and Persistent Psychiatric Disorder among Children and Young People with Long Term Physical Health Conditions from the English National Survey of Mental Health

**Tamsin Ford**<sup>1</sup>

<sup>1</sup>Professor of Child and Adolescent Psychiatry, Head of Department of Psychiatry, Fellow of Hughes Hall, University of Cambridge, UK

**Aims:** We explored risk factors for new onset and persistent psychiatric disorders in CYP with pLTCs compared to CYP without pLTCs. This 3-year follow-up study involved a UK representative sample of CYP from the British Child and Adolescent Mental Health Surveys (N = 7804).

**Methods:** We examined potential baseline predictors of new onset and persistent psychiatric disorders at follow-up in four groups of children based on the presence of any physical and/ or any psychiatric conditions at baseline. Psychiatric disorders were assessed using standardised multi-informant diagnostic assessment. Separate multivariable binary logistic regressions were conducted for each group.

**Results:** In CYP with pLTCs, rented housing (aOR = 1.42, 95% CI 1.01 to 1.99), non-traditional family structure (aOR = 2.08, 95% CI 1.42 to 3.05), increased parental distress (aOR = 1.09, 95% CI 1.04 to 1.14), and greater peer relationship difficulties (aOR = 1.29, 95% CI 1.19 to 1.39) predicted future psychiatric disorder. Only peer relationship difficulties predicted persistent disorder (aOR = 1.27, 95% CI 1.17 to 1.38) in this group. A greater number of factors predicted the onset of psychiatric disorder in CYP with pLTCs compared to physically healthier peers and similarly, a higher number of factors predicted persistent disorder in CYP without pLTCs.

**Conclusion:** CYP with pLTCs might comprise a group with different vulnerabilities, some of which are potentially tractable and may be useful indicators of patients who require preventable or management interventions.

## S04.04 Metabolic Syndrome in People with Bipolar Disorder: the BIPCOM Project

**Giovanni de Girolamo**<sup>1</sup>, Elisa Caselani<sup>1</sup>, Marta Magno<sup>1</sup> for the BIPCOM consortium

<sup>1</sup>IRCCS Fatebenefratelli, Brescia, Italy

**Aims:** BIPCOM aims to (1) identify medical comorbidities in people with Bipolar Disorder (BD); (2) examine risk factors and clinical profiles of Medical Comorbidities (MC) in this clinical group, with a special focus on Metabolic Syndrome (MetS); (3) develop a Clinical Support Tool (CST) for the personalized management of BD.

**Methods:** The BIPCOM project aims to investigate MC, specifically MetS, in individuals with BD using various approaches. Initially, prevalence rates, characteristics, genetic and non-genetic risk factors, and the natural progression of MetS among individuals with BD will be assessed. This will be accomplished by analyzing Nordic registers, biobanks, and existing patient datasets from five sites. Subsequently, a clinical study involving 400 participants from five sites will be conducted to examine the clinical profiles and incidence of specific MetS risk factors over one year. Baseline assessments, one-year follow-ups, biomarker analyses, and physical activity measurements with wearable biosensors will be performed. Using this comprehensive data, a CST will be developed to enhance the prevention, early detection, and personalized treatment of MC in BD, by incorporating clinical, biological, and genetic information. Gender-related differences in comorbidity prevalence, course, and outcomes will also be considered.

**Results:** BIPCOM's data collection enhances BD patient care with personalized strategies, improving quality of life and reducing costly interventions. It prevents comorbidity-related complications, hospitalizations, and emergency visits, resulting in substantial healthcare cost savings.

**Conclusion:** The BIPCOM project employs a multifaceted approach that will enhance the identification of emerging MC, will clarify their progression, and will aid in identifying potential risk factors. In conclusion, the BIPCOM project is a commendable effort to address the complex issue of comorbidities in individuals with BD.



**S05 Dimensions of Inequality in Mental Health****Thurs. 12 Sept., 14:00-15:30****A1031****Chair:** Jonas Kitisu, UK**Co-chair:** Thai-Sha Richards, UK**ABSTRACT**

This symposium showcases longitudinal, cross-cohort, spatial and qualitative work by researchers from King's College London and New York University. It includes a significant amount of work from early career researchers. Vast mental health inequalities exist in the world, across multiple, intersecting dimensions. Our symposium aims to illuminate the inequalities that exist, and also to better understand how structural forces contribute to these inequalities. Paper one examines the context-dependent nature of gender inequalities in adolescent mental health. Paper two investigates the association between individual-level and structural adversity and psychotic experiences, looking to better understand how psychosis is inequitably distributed across minoritized groups in the US. Paper three uses qualitative methods to examine the experience of refugees, asylum seekers and undocumented migrant mental healthcare in the UK. Paper four examines the association between the workplace treatment of ethnically minoritized groups in the NHS and their mental health. Paper five examines inequalities in depression trajectories of sexual minority youth in Tokyo and London. Paper six looks to examine how school and home neighborhood factors, including the journey to school, are associated with mental health in adolescents in London. This will be brought together by the co-chairs Jonas Kitisu and Thai-Sha Richards, two young people from the young person's advisory group at the ESCR Centre for Society and Mental Health at King's, who have played a vital role in the research there. Adna Hashi will appear as a co-presenter on paper one, and Niiokani Tettey will appear as a co-presenter on paper 6.

**S05.01 Gender Inequalities in Depressive Symptom Trajectories among Young People in London and Tokyo: A Longitudinal Cross-cohort Study**

**Gemma Knowles**<sup>\*1,2</sup>, Daniel Stanyon<sup>\*1,2,3</sup>, REACH cohort Team<sup>1</sup>, TTC team<sup>3</sup>, Craig Morgan<sup>\*\*1,2</sup>, Atsushi Nishida<sup>\*\*3</sup>. \*Joint first author \*\*Joint last author

<sup>1</sup>ESRC Centre for Society and Mental Health, King's College London, London, UK; <sup>2</sup>Health Service and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, UK; <sup>3</sup>Research Center for Social Science and Medicine, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan

**Aims:** Emerging research suggests gender inequalities in mental health are context-dependent, varying in size and possibly direction from place-to-place. However, most evidence is cross-sectional, relates to adults, doesn't account for potential measurement non-equivalence across contexts/groups. We tested the hypothesis that gender inequalities depressive symptom trajectories in adolescence are larger in London than in Tokyo, and not due to incomparable measurement.

**Methods:** We analysed three waves of data from representative adolescent cohorts in Tokyo (TTC; n, 2813) and London (REACH; n, 4287) (n, 7100). We used multigroup and longitudinal confirmatory factor analysis to examine measurement invariance of the 13-item self-report Short Mood and Feelings Questionnaire (SMFQ) across cohorts, genders, and ages. We used latent growth models to estimate and compare depressive symptom trajectories from age 11-to-16 years in boys and girls in Tokyo and London.

**Results:** Scalar invariance of the SMFQ was well supported. In London, gender inequalities in depressive symptoms were evident at age 11 (0.8 [95% CI: 0.3, 1.2] points higher in girls); in Tokyo, the disparity emerged between age 11-to-14. In both places, the disparity between boys and girls widened year-on-year but was around twice as large in London than in Tokyo by age 16. Annual rate of increase was around four times steeper among girls in London than girls in Tokyo (1.1 [0.9, 1.3] vs. 0.3 [0.2, 0.4]).

**Conclusion:** There is a pressing need to understand the social/structural conditions that cause and exacerbate—and those that prevent and mitigate—the onset of gender inequalities in mental health.

**S05.02 --- WITHDRAWN ---**

### S05.03 Structural Barriers to Refugee, Asylum Seeker and Undocumented Migrant Healthcare Access

Zara Asif<sup>1</sup>, Hanna Kienzler<sup>2</sup>

<sup>1</sup>ESRC Centre for Society and Mental Health, King's College London, Melbourne House 44-46 Aldwych, London, WC2B 4LL, UK;

<sup>2</sup>Department of Global Health and Social Medicine, King's College London, Bush House (NE) 1540 Aldwych, London, WC2B 4BG, UK

**Aims:** Reports have highlighted that refugees, asylum seekers and undocumented migrants face major difficulties accessing public and specialist healthcare in the UK. This has been linked to so-called 'hostile environment' policies. These policies have been shown to have direct and indirect effects on refugees' mental health. We explored how these populations experience healthcare access in the UK from the perspective of caseworker volunteers and through the assessment of policy regulations, and the impact on mental health.

**Methods:** Semi-structured interviews with caseworkers volunteering at Doctors of The World (DOTW) in their East London clinic were conducted. FOIs were made to 30 NHSE England trusts to investigate the protocols being followed by each trust in relation to charging guidelines.

**Results:** We found that deterrents like charging regulations and refusal to register patients at GP practices lead to risky help and health seeking (or lack thereof) and worse mental and physical health among these populations. DOTW caseworkers perceived such policies to be unjust - they plunge patients into significant debt and worsen mental and physical health problems. Difficulties related to immigration policies, social isolation and unemployment can significantly affect their mental health.

**Conclusion:** There's a need to tackle the underlying causes of ill health and mental health, including discriminatory policies, racism, and exclusion; and providing meaningful and culturally sensitive healthcare and social psychosocial support. Caseworkers suggest creating an empathetic health system that addresses the unmet mental health and psychosocial needs of these populations and allows them to access healthcare without restriction or fear.

### S05.04 Ethnic Inequalities among NHS Staff in England: Workplace Experiences during the COVID-19 Pandemic

Rebecca Rhead<sup>1</sup>, Lisa Harber-Aschan<sup>1,2</sup>, Sharon AM Stevelink<sup>1,3</sup>, Simon Wessely<sup>1,3</sup>, Charlotte Woodhead<sup>1,4</sup>, Stephani L Hatch<sup>1,4</sup>

<sup>1</sup>King's College London Institute of Psychiatry Psychology & Neuroscience, Psychological Medicine, London, UK; <sup>2</sup>Stockholm University, Stockholm University Demography Unit, Stockholm, SE; <sup>3</sup>King's College London, King's Centre for Military Health Research, London, UK;

<sup>4</sup>King's College London - Strand Campus, ESRC Centre for Society and Mental Health, London, UK

**Aims:** Determine how workplace experiences of NHS staff varied by ethnicity during the COVID-19 pandemic and how these experiences are associated with mental and physical health at the time of the study.

**Methods:** An online Inequalities Survey was conducted by the TIDES study (Tackling Inequalities and Discrimination Experiences in health Services) in collaboration with NHS CHECK. This Inequalities Survey collected measures relating to workplace experiences (such as personal protective equipment (PPE), risk assessments, redeployments, and discrimination) as well as mental health (PHQ-9, GAD-7), and physical health (PHQ-15) from NHS staff working in the 18 trusts participating with the NHS CHECK study between February and October 2021 (N=4622).

**Results:** Regression analysis of this cross-sectional data revealed that staff from Black and Mixed/Other ethnic groups had greater odds of experiencing workplace harassment (adjusted odds ratio (AOR) = 2.43 [1.56-3.78] and 2.38 [1.12-5.07], respectively) and discrimination (AOR = 4.36 [2.73-6.96], and 3.94 [1.67-9.33], respectively) compared to White British staff. Staff from Black ethnic groups also had greater odds than White British staff of reporting PPE unavailability (AOR = 2.16 [1.16-4.00]). Such workplace experiences were associated with negative physical and mental health outcomes, though this association varied by ethnicity. Conversely, understanding employment rights around redeployment, being informed about, and having the ability to inform redeployment decisions were associated with lower odds of poor physical and mental health.

**Conclusion:** Structural changes to the way staff from ethnically minoritised groups are supported, and how their complaints are addressed by leaders within the NHS are urgently required.

## S05.05 Investigating Inequalities in Depression among Sexual Minority Youth in Tokyo & London

**Daniel Stanyon**<sup>\*1,2,3</sup>, Gemma Knowles<sup>\*1,2</sup>, REACH cohort Team<sup>1</sup>, TTC team<sup>3</sup>, Craig Morgan<sup>\*\*1,2</sup>, Atsushi Nishida<sup>\*\*3</sup>. \*Joint first author \*\*Joint last author

<sup>1</sup>ESRC Centre for Society and Mental Health, King's College London, London, UK; <sup>2</sup>Health Service and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, UK; <sup>3</sup>Research Center for Social Science and Medicine, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan

**Aims:** Sexual minority youth experience greater risk of mental health problems compared with their peers. However, most evidence is cross-sectional and from older adolescents/young adults (~16-24 years) and majority-White communities. We aimed to determine the age at which these mental health inequalities emerge, and how mental health trajectories of sexual minority youth differ across societies with varying levels of equity (based on formal metrics) for LGBTQ+ communities.

**Methods:** We analysed three waves of data from community-based cohorts of young people in Tokyo (Tokyo Teen Cohort; n=2,318) and London (Resilience, Ethnicity and AdolesCent Mental Health; n=1445). We used latent growth curve models to compare trajectories of depressive symptoms from 11-16 years in sexual minority/majority youth in Tokyo and London.

**Results:** In London, mean depressive symptoms at age 11 (i.e., intercept) were around 3.0 points higher (95% CI: 1.8-4.3) and mean rate of increase (i.e., slope) around 0.8 points higher (95% CI: 0.3-1.4) in LGBTQ+ vs. non-LGBTQ+ youth. In Tokyo, the mean intercept was around 2.1 points higher (95% CI: 1.3, 2.9) and mean rate of change around 0.6 points higher (95% CI: 0.3, 0.9) in LGBTQ+ youth. We found no evidence to suggest the magnitude of inequality varied across contexts (sexuality\*cohort interaction: intercept, p=0.253; slope, p=0.468).

**Conclusion:** Inequalities in depressive symptoms between LGBTQ+ and non-LGBTQ+ youth emerge early in the lifecourse – before age 11 – and worsen through adolescence. The magnitude of the disparity by age 11 is striking and requires greater attention in research and policy.

## S05.06 School and Home Neighborhood: Spatial Inequalities in Behavioral and Emotional Difficulties Among Young People in London

**Silvia Mills**<sup>1,2</sup>, Charlotte Gayer-Anderson<sup>1,2</sup>, REACH cohort team<sup>1,2</sup>, REACH cohort community champions<sup>1,2</sup>, Gemma Knowles<sup>1,2</sup>, Craig Morgan<sup>1,2</sup>

<sup>1</sup>ESRC Centre for Society and Mental Health, King's College London, London, UK; <sup>2</sup>Health Service and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, UK

**Aims:** The places and spaces that young people grow up in may be essential to understanding mental health inequalities. This study aimed to better understand how neighbourhood and school location, including perceptions of these, are related to emotional and behavioural problems in adolescence.

**Methods:** We analysed three waves of data from REACH (Resilience, Ethnicity, and AdolesCent Mental Health), a cohort study following >4000 secondary school students in South London. We used multi-level regression to examine associations between variables related to perceptions of neighbourhood, school journey time, and area-level deprivation, and SDQ internalising and externalising scores. Here, we report initial analyses that have been carried out at baseline using as-the-crow-flies distance between home and school, deprivation indices, and neighbourhood perceptions.

**Results:** We found no evidence that as-the-crow-flies distances from school to home were associated SDQ scores. We found evidence of a crude association between all neighbourhood perceptions and SDQ scores. For example, those who strongly agreed that their neighbourhood was violent had an externalising SDQ score 2.24 points higher than those who strongly disagreed. Those who perceived their neighbourhood to be safe from crime had an externalising SDQ score of 2.19 points lower than those who perceived it to be unsafe. This did not translate to the crime deprivation measure at the LSOA level, where no evidence of an association was found.

**Conclusion:** There appear to be associations between neighbourhood perceptions and SDQ scores. In further analyses, we will examine in more detail the relationships between neighbourhood and SDQ scores.

## S06 Experiences of Violence and Adversity, and Implications for Mental Health Service Use

Thurs. 12 Sept., 14:00-15:30

2013

Chair: Sally McManus, UK

Co-chair: Ladan Hashemi, NZ/UK

### ABSTRACT

In this symposium we consider a range of forms of violence and adversity. The six presentations span geographic locations and stages of the life-course and describe what experiencing violence and adversity can mean for the extent and nature of people's mental health needs and service contacts. **Emma Soneson** and **Maryam Ghasemi** each examine associations between different adverse childhood experiences and different childhood outcomes, including mental health and engagement with schools and services. Emma considers young people in a UK sample and Maryam draws on a longitudinal sample of young people in New Zealand. **Sian Oram** and **Anjuli Kaul** each focus on experiences of mental health services among adults who have been exposed to sexual violence. Anjuli considers this group as a whole, while Sian focuses specifically on minoritized sexual violence survivors. **Ladan Hashemi** and **Sally McManus** describe the mental health service needs of two groups often missing from research. Ladan highlights the seldom-heard voices of Iranian women, comparing those with and without experience of forced sex and forced marriage. Sally highlights the mental health needs of 'indirect' victims of violence, focusing on the relatives of serious assault victims.

### S06.01 Access to and Perceived Unmet Need for Mental Health Support among UK Adolescents with and without Experience of Childhood Adversity

**Emma Soneson**<sup>1</sup>, Simon R. White<sup>2</sup>, Emma Howarth<sup>3</sup>, Tamsin Ford<sup>2</sup>, Mina Fazel<sup>1</sup>, Peter B. Jones<sup>2</sup>

<sup>1</sup>Department of Psychiatry, University of Oxford, Oxford, UK; <sup>2</sup>Department of Psychiatry, University of Cambridge, Cambridge, UK; <sup>3</sup>School of Psychology, University of Sussex, Falmer, UK

**Aims:** To determine whether adverse childhood experiences (ACEs) are associated with mental health help-seeking amongst adolescents.

**Methods:** We used multi-level logistic regression to analyse data from the 2020 OxWell Student Survey (a community sample of English adolescents). We assessed whether ACEs were associated with (1) prior access to mental health support and (2) perceived unmet need for mental health services. We assessed ACEs as a cumulative score from the Center for Youth Wellness ACE Questionnaire and accounted for current mental health difficulties as measured by the 25-item Revised Children's Anxiety and Depression Scale (RCADS).

**Results:** Our analysis included 2018 adolescents, of whom 29.9% (598/2002) reported prior access to support. Of those remaining, 34.1% (469/1377) reported a perceived unmet need for services. Adolescents who had experienced adversity were more likely to have previously accessed support (adjusted OR (aOR) per ACE = 1.25; 95% CI: 1.17–1.34, with a significant interaction between RCADS and ACE scores, aOR = 0.88; 95% CI: 0.84–0.93) and to perceive an unmet need for services (aOR per ACE = 1.32; 95% CI: 1.21–1.43, with a significant interaction between RCADS and ACE scores, aOR = 0.85; 95% CI: 0.78–0.91).

**Conclusion:** Although it is encouraging that adolescents with experience of adversity are more likely to have accessed support, there remains a concern that those who *have not* are more likely to perceive an unmet need for it. Mental health support must be available, accessible and acceptable to all who need it, especially for more marginalised and vulnerable populations.

### S06.02 Depression as a Mediator of Associations between ACEs and School Engagement

**Maryam Ghasemi**<sup>1</sup>, Ladan Hashemi<sup>2,3</sup>, Kane Meissel<sup>1</sup>

<sup>1</sup>Faculty of Education and Social Work, University of Auckland, Auckland, Auckland, New Zealand; <sup>2</sup>Faculty of Medical and Health Sciences, University of Auckland, Auckland, Auckland, New Zealand; <sup>3</sup>Violence and Society Centre, City, University of London, London, UK

**Aims:** This study aimed to examine the longitudinal association between exposure to ACEs up to age 8 and school engagement in early adolescence (at age 12). Additionally, the study explored pathways linking ACEs and school engagement by investigating the mediating role of depression in this association.

**Methods:** Data was from 4056 children and their mothers in the "Growing Up in New Zealand" study. ACEs were measured prospectively using a multi-method approach (child report, parent report, standardised questionnaires). Structural Equation Modelling (SEM) was applied to investigate the potential mediating role of depression in the association between ACEs and school engagement.

**Results:** ACEs had a significant direct effect on both depression (0.27,  $P < 0.001$ ) and school engagement (-0.05,  $P < 0.01$ ). Depression showed a significant direct effect on school engagement (-0.18,  $P < 0.01$ ). ACEs had a significant indirect effect on school engagement through depression (-0.05,  $P < 0.001$ ).

**Conclusion:** This study highlights the significant longitudinal association between exposure to ACEs up to age 8 and decreased school engagement in early adolescence at age 12. The findings underscore the mediating role of depression in this relationship, suggesting that depression plays a critical role in linking ACEs to lower school engagement. These results emphasise the importance of early intervention and support strategies targeting both ACEs and associated mental health outcomes to promote positive educational outcomes in adolescents exposed to multiple adversities.

### S06.03 Sexual Violence in Mental Health Service Users

**Anjali Kaul**<sup>1</sup>, Laura Connell-Jones<sup>1</sup>, Sharli Anne Paphitis<sup>1</sup>, Sian Oram<sup>1</sup>

<sup>1</sup>Institute of Psychiatry Psychology & Neuroscience, King's College London, London, UK

**Aims:** This study aimed to estimate the prevalence and odds of sexual violence victimization among mental health service users by (a) sex; (b) mental health setting (i.e., inpatient, outpatient, mixed).

**Methods:** Systematic review and meta-analysis. The search strategy comprised searches of MEDLINE, EMBASE, and PsycINFO, plus citation tracking and reference list screening of included studies. Inclusion criteria required that studies were peer-reviewed; published in English; included mental health service users aged 18 years or old; and measured the prevalence and/or relative risk of adult lifetime and/or past year sexual violence victimization. The Newcastle-Ottawa Scale was used to appraise study quality. Overall effect sizes and 95% confidence intervals were calculated. Sex-specific random effects meta-analysis were conducted for past year and adult lifetime sexual violence where estimates were available from at least three studies.

**Results:** The review included 26 studies: 14 measured adult lifetime sexual violence, 6 past year sexual violence, and 4 both. The pooled prevalence of past year sexual violence among female mental health service users was 13% (95% CI 8%-18%); for male mental health service users it was 3% (95% CI 2%-5%). The pooled prevalence of lifetime sexual violence for female mental health service users was 29% (95% CI 23%-35%); for male mental health service users it was 9% (95% CI 5%-12%).

**Conclusion:** Prevalence of sexual violence victimization is high among mental health service users, including recent violence. Mental health practitioners should be trained to identify and respond appropriately, including in coordination with other sectors and services.

### S06.04 Mental Health Treatment Experiences of Minoritised Sexual Violence Survivors

Gilda Spaducci<sup>1</sup>, **Sian Oram**<sup>1</sup>, Ravi Thiara<sup>2</sup>, Debbie Robson<sup>1</sup>, Siofra Peeren<sup>1</sup>, Annie Gibbs<sup>3</sup>, Kylee Trevillion<sup>1</sup>

<sup>1</sup>Institute of Psychiatry Psychology & Neuroscience, King's College London, London, UK; <sup>2</sup>University of Warwick, Coventry, UK; <sup>3</sup>Amour Destine, London, UK

**Aims:** This study aimed to understand the needs, experiences, and expectations of minoritized women who use mental health and substance use services and who have been subjected to sexual violence.

**Methods:** Systematic review and qualitative meta-synthesis. The search strategy comprised searches of 12 databases (including MEDLINE, EMBASE, PsycINFO, ETHOS and ProQuest) and of relevant organizational websites (including Rape Crisis and Women's Aid), plus citation tracking and reference list screening of included studies. Papers were included if they used a qualitative study design and included women or girls (of any age) who were racially and/or ethnically minoritized, had experienced sexual violence, and had received treatment from statutory mental health and/or substance use services. Quality was assessed using the Joanna Briggs Institute checklist for qualitative research. Reciprocal translation was used to synthesis the findings of studies, and overarching themes generated.



**Results:** Fourteen papers, theses, and reports were included, reporting on 121 women across five countries. Key findings were that (1) treatment should consider intersectional contexts and experiences of racial trauma; (2) minoritized women need opportunities to disclose their experiences within safe, empathetic, and non-judgmental provider relationships; (3) minoritized women want opportunities to connect with other minoritized women who have experienced sexual violence to facilitate healing.

**Conclusion:** Mental health and substance use services should acknowledge the intersecting traumas experienced by minoritized women and avoid recreating trauma dynamics in treatment settings. Providing culturally safe and trauma-informed care within anti-racist frameworks may help improve responses to minoritized women who have experienced sexual violence.

## S06.05 Mental Health Associations with Forced Marriage and Sex

Ladan Hashemi<sup>1</sup>, Fateme Babakhani<sup>2</sup>, Sally McManus<sup>1</sup>

<sup>1</sup>Violence and Society Centre, City, University of London, London, United Kingdom; <sup>2</sup>Mehre Shams Afarid, Domestic Violence Safehouse, Urmia, Iran

**Aims:** Forced marriage and sex are distinct yet interconnected forms of violence against women that have severe and long-lasting consequences. There is a significant gap in research concerning these forms of abuse in low-middle income countries like Iran, where they are prevalent and often not criminalised. We report on the experiences of these among a sample of abused women in Iran and the repercussions for their mental health and marital satisfaction.

**Methods:** Data was gathered from 453 Iranian women aged 14-59, who responded to an Instagram-based study on women's health and exposure to violence (2020-2022). A series of two-sample t-tests were performed to compare patterns of depression, suicidal ideation, and marital satisfaction in those who reported forced marriage and sex with those who did not report such experiences.

**Results:** Nearly all participants (97%) reported abuse by male relatives or strangers, with 11% reporting forced marriage and 35% reporting undisclosed forced sex. Fear and honour were significant reasons for nondisclosure of forced sex. Those reporting forced marriage and sex showed higher levels of depression ( $t = 2.79$ ,  $t = 2.73$ ) and suicidal ideation ( $t = 3.56$ ,  $t = 3.29$ ) and lower level of marital satisfaction ( $t = -3.55$ ,  $t = -1.91$ ) than those without such experiences ( $p$ -values  $< 0.05$ ).

**Conclusion:** The findings reveal significant mental health implications and reduced marital satisfaction among victims of forced marriage and forced sex in Iran, where these pervasive issues remain largely unaddressed, highlighting the critical need for comprehensive support services and targeted interventions to protect and mitigate the impact on survivors.

## S06.06 Indirect Victims of Violence: Mental Health and the Relatives of Serious Assault Victims in England

Elizabeth Cook<sup>1</sup>, Sally McManus<sup>1,2</sup>

<sup>1</sup>Violence and Society Centre, City University of London, London, UK; <sup>2</sup>National Centre for Social Research, London UK

**Aims:** The mental health harms of being a *direct* victim of serious assault are well established. However, little is known of the mental health of indirect victims. This study aimed to examine the mental health of adults who reported being closely related to a victim of violence.

**Methods:** Weighted analyses of the 2014 Adult Psychiatric Morbidity Survey, a face-to-face, cross-sectional probability-sample survey of 7519 adults (16+) in England. Multivariable regression analyses adjusting for complex survey design and potentially confounders tested whether being the relative of a victim of violence was associated with higher odds of feeling unsafe in their neighbourhood, common mental disorder (CMD), post-traumatic stress (PTS), and suicidality.

**Results:** One adult in twenty (4.5%,  $n=345$ ) was closely related to someone who's experienced a serious assault (95% confidence interval (CI): 4.0-5.2%). Relatives were more likely than the rest of the population to have been direct victims of violence themselves, to have experienced multiple other adversities, and to live in deprived neighbourhoods. While their own experience of direct victimisation largely accounted for their elevated rates of PTSD and suicidality, adjustment did not fully explain their higher odds of feeling unsafe (AOR: 2.36: 1.26-4.44) and CMD (AOR: 1.37: 0.99-1.90).



**Conclusion:** When someone experiences a violent assault, this may contribute to other members of their family experiencing fear, anxiety and depression. The mental health harms experienced by indirect victims should be included in costings of violence. Victim support services should include support for victims' families.

## S07 Researching Innovative Practice in Community Mental Health Care in England and Germany

Thurs. 12 Sept., 14:00-15:30

2055

Chair: Sonia Johnson, UK

Co-chair: Ulrich Reininghaus, DE

### ABSTRACT

Outcomes for people with significant mental health problems living in the community have shown relatively little evidence of change in recent decades despite investments in mental health research, and there are reports from many countries of difficulties meeting needs for mental health care and dissatisfaction with what is offered. There is thus an important role for developing and testing innovations in mental health care that meet needs identified by service users and that have potential to improve outcomes. In this symposium, we will focus on several areas identified as priorities by policy makers and service users. These are meeting needs for social connection (**Lloyd-Evans**) and purposeful activity (**Jäckel**), delivering effective and acceptable care for autistic people in mainstream mental health services (**Barnett**), providing rapid access to flexible early intervention in mental health problems for young people (**Appleton**) and harnessing the potential of peer support (**Grundy**) and of digital innovations (**Reininghaus**) to improve community mental health care. We will describe research studies and evidence syntheses from England and Germany that contribute to establishing a clear evidence base for wider implementation of such approaches internationally.

In our presentations, we will highlight (i) the role played in the research presented by co-production involving researchers with relevant lived experience collaborating with academic researchers and clinicians, (ii) how relevant research questions and methodologies have been developed where innovative models have already begun to be part of routine practice, and (iii) strategies for ensuring research has impacts on policy and practice.

### S07.01 Peer Support Interventions to Improve Quality and Experiences of Community Mental Health Care: Strategies for Integration into Mental Health Care Systems

**Andrew Grundy**<sup>1</sup>, Una Foye<sup>2</sup>, Ruth Cooper<sup>2</sup>, Alan Simpson<sup>2</sup>, the NIHR MHPRU Team and Lived Experience Working Group

<sup>1</sup>Division of Psychiatry, University College London, UK; <sup>2</sup>Department of Health Service and Population Research, Institute of Psychiatry, Psychology and Neuroscience, London, UK

**Aims:** Peer support workers who use their lived experience of mental distress to benefit others are a recommended intervention in community mental health services in many countries. Evidence is crucial on how best to embed such roles in mental health services to benefit both service users and peer support workers. There has been limited qualitative research exploring peer support workers' perspectives and experiences of peer roles in services. In this study conducted by the NIHR Policy Research Unit in Mental Health, we aimed: 1) To develop an understanding of the roles and experiences of peer support workers across the mental health system throughout England; 2) To explore the barriers and facilitators to integrating peer support workers into community mental health services.

**Methods:** We conducted qualitative interviews with a diverse range of peer support workers (n=35) across different mental health settings. All interviews were conducted by Lived Experience Researchers with relevant personal experience. Data were reflexively analyzed using Thematic Analysis, with themes then organized into micro-, meso-, and macro-levels.

**Results:** At the micro-level, the role involves 'having a shared experience', modelling hope, and being empowering, underpinned by core values. At the meso-level, workers navigate a unique 'role' within a wider team, which requires support and supervision. At the macro-level, there needs to be adequate funding and resources for peer-support to work as an effective intervention, and pay and progression that recognizes the unique skills of peer-support workers.

**Conclusion:** The role of peer-support workers allows for more person-centered approaches, but constraints resulting from the structure and functioning of teams, organisations and wider systems need to be addressed for effective integration across the mental health care system.

### S07.02 Improving the Quality of Community Mental Health Care for Autistic People: Current Evidence

**Phoebe Barnett**<sup>1</sup>, Tamara Pemovska<sup>2</sup>, Sonia Johnson<sup>1</sup>, MHPRU research team and Lived Experience Working Group

<sup>1</sup>Division of Psychology and Language Sciences, University College London; <sup>2</sup>Division of Psychiatry, University College London

**Aims:** Autistic people are at considerably increased risk of experiencing mental health difficulties, but face multiple barriers to accessing and benefiting from mental health care from mainstream services. We aimed to identify strategies to improve and individualise mental health care delivered in community settings for autistic people, and to examine evidence on their acceptability, feasibility, and effectiveness.

**Methods:** We conducted two co-produced systematic reviews, one focusing on autistic adults and one on children and young people (CYP), including all studies reporting acceptability/feasibility or quantitative effectiveness outcomes for strategies for improving mental health care. We used narrative synthesis and meta-analysis to summarise results and piloted an assessment of autism-inclusive research, developed by a researcher with lived experience.

**Results:** We found 30 and 57 studies exploring strategies for autistic adults and CYP, respectively. These included adapted mental health interventions (primarily CBT-based), service-level improvements, and some bespoke mental health interventions specially developed for autistic people. Most strategies were acceptable and feasible, although methodological limitations tended to impede clear overall conclusions about effectiveness. Very few studies in either review involved autistic people or their families and supporters in the research process.

**Conclusion:** There are many strategies for improving mental health care for autistic people which are acceptable and can be readily implemented in services. These have the potential to make mental health support more suitable to the needs of autistic people, encouraging more tailored approaches. However, important research gaps remain, and more co-produced primary research evaluating outcomes is needed to strengthen the evidence base.

### S07.03 Effectiveness of Individual Placement and Support (IPS) for Employment, Education, and Training in Young Adults with Early Psychosis: Results of a Randomised Controlled Trial

**Dorothea Jäckel**<sup>1,2</sup>, Andreas Bechdolf<sup>1,2,3</sup>, Karolina Leopold<sup>1,4</sup>

<sup>1</sup>Department of Psychiatry, Psychotherapy, and Psychosomatics incorporating FRITZ am Urban and soulspace, Vivantes Hospital am Urban and Vivantes Hospital im Friedrichshain, Berlin; <sup>2</sup>Department of Psychiatry and Psychotherapy, CCM, Charité - Universitätsmedizin Berlin, corporate member of Freie Universität Berlin and Humboldt-Universität zu Berlin; <sup>3</sup>German Center for Mental Health (DZPG), Berlin-Potsdam site; <sup>4</sup>Department of Psychiatry and Psychotherapy, Carl Gustav Carus University Hospital, Technische Universität Dresden

**Aims:** Individual Placement and Support (IPS), involving first helping people with mental health problems to find competitive employment and then supporting them and their employers, has demonstrated effectiveness in improving vocational outcomes for community mental health service users. However, evidence is limited on its integration with specific service models and interventions: such investigations are important for further implementation of IPS in routine community settings. Early intervention (EI) in the early phase of psychosis (EP) has demonstrated short-term effectiveness and has the potential to alter the long-term course of the illness. The aim of the current study was to investigate the effects on obtaining and maintaining competitive employment, education or training (EET) of embedding in EI a combination of IPS and Adherence Therapy (AT), not previously investigated in this context.

**Methods:** Monocenter, parallel randomised controlled, open-label trial in young people with EP (18 - 35 years) comparing IPS and AT and Treatment As Usual (TAU) for 12 months to TAU alone. Primary outcome was the EET rate at 12 months.

**Results:** Outcomes for ninety participants (n=46 in IPS+AT+TAU, n=44 in TAU, mean age 26.5 (SD 5.0), NEET at baseline (N=61, 67.8%) were analyzed. EET rate for at least 15 hours per week, EET rates for at least one day and wages at 12 months were significantly higher in IPS+AT+TAU than in TAU alone.

**Conclusion:** IPS and AT combined is an effective intervention to improve EET in young adults with early psychosis receiving routine community care from EIS.

### **S07.04 Improving Outcomes through Social Connection: the Community Navigator Programme for People with Treatment Resistant Depression**

**Brynmor Lloyd-Evans**<sup>1</sup>, Maev Conneely<sup>1</sup>, Sonia Johnson<sup>1</sup> and Community Navigators Trial Team

<sup>1</sup>Division of Psychiatry, University College London, UK

**Aims:** Available treatment strategies for people receiving community mental health care for treatment-resistant depression are limited. Loneliness is associated with poorer outcomes in depression and is thus a potential target for innovative strategies to improve outcomes in severe depression. The Community Navigator Trial is designed to test the effectiveness and cost effectiveness of an intervention for people with treatment resistant depression aimed at reducing loneliness.

**Methods:** An individual, researcher-blind, 1:1 randomised controlled trial. Participants: 306 adults meeting criteria for treatment resistant depression and loneliness, recruited from community mental health services in six areas of England. Intervention: Treatment group participants have been offered the Community Navigator Programme over an 8-month period, in addition to usual care. This has been developed by a co-production process, and preliminary testing completed through a feasibility trial. It involves up to ten individual meetings with a non-clinical Community Navigator, who helps participants to map their social world and plan personalised goals to enhance social connections. They offer practical, informational and emotional support to achieve these goals. Group meet-ups and modest financial support for activities are also offered. Outcomes: The primary outcome is depression, measured using PHQ-9 at end-of-treatment and 8-month follow-up. Secondary outcomes include loneliness, anxiety, and personal recovery. The cost-effectiveness of the programme will be evaluated using service use data and health-related quality of life questionnaires.

**Results:** Intervention development and trial progress, including recruitment and follow-up and intervention engagement, will be presented.

**Conclusion:** The Community Navigator trial tests a novel social intervention for a clinical group – people with treatment-resistant depression – who are under-researched and gain limited benefit from usual care. Potential implications for policy and practice will be discussed.

### **S07.05 Early Support Hubs to Improve Access and Quality of Mental Health Care in the Community for Young People: a Research Programme**

**Rebecca Appleton**<sup>1</sup>, Kylee Trevillion<sup>2</sup>, Brynmor Lloyd-Evans<sup>1</sup>, Sonia Johnson<sup>1</sup>, NIHR PRU Team and Lived Experience Working Group

<sup>1</sup>Division of Psychiatry, University College London, UK; <sup>2</sup>Department of Health Service and Population Research, Institute of Psychiatry, Psychology and Neuroscience, London, UK

**Aims:** Early support hubs are a mental health care model providing open access, flexible, early support for young people under 25 in their communities. They are a promising model for early intervention for young people, potentially improving access, reducing pressure on other community services and diversifying available treatments. However, evidence on impacts and best practice remains limited. The Department of Health and Social Care (DHSC) is commissioning enhanced investment in 24 early support hubs in England and has commissioned the NIHR Policy Research Unit in Mental Health to investigate this initiative. We aim to explore the effectiveness of this model of support and establish what an optimal early support hub should look like.

**Methods:** We are conducting a multi-component evaluation, comprising synthesis of existing evidence, qualitative studies with staff and service users, and a quantitative study examining mental health, wellbeing and social outcomes of young people who attend these early support hubs. Young people with lived experience of mental health problems are involved in all aspects of the project.

**Results:** We will summarise key findings from our systematic review of evidence for innovations in early intervention for young people with common mental health problems and themes emerging from our qualitative interview studies.

**Conclusion:** Whilst several mental health charities in the United Kingdom have campaigned for a widespread roll out of early support hubs, there is currently little evidence regarding the effectiveness of this model of mental health support. This evaluation will therefore provide novel evidence which can be used to inform policy in this area.

### **S07.06 Recent Advances in Developing, Evaluating and Implementing Ecological Momentary Interventions for Improving Mental Health in Real-World Community-Based Settings**

**Ulrich Reininghaus**<sup>1,2,3</sup>

<sup>1</sup>Department of Public Mental Health, Central Institute of Mental Health, Medical Faculty Mannheim, Heidelberg University, Mannheim, Germany; <sup>2</sup>Centre for Society and Mental Health, Health Service and Population Research Department, Institute of Psychiatry, Psychology & Neuroscience, King's College London, London, UK; <sup>3</sup>German Centre for Mental Health (DZPG), partner site Mannheim, Germany

**Aims:** In recent years, the field of digital mental health has received increasing attention in national and international research. However, a key challenge remains to harness more fully the translational chain from bench to bedside or, much rather, to living environments and real-world community-based settings. This appears ever more important, given that transferability, uptake, scalability, sustainability and, hence, public health impact of evidence-based digital innovations in mental health research remains limited.

**Methods:** This talk will provide an overview of new developments and challenges in ecological translation of digital interventions in public mental health provision, with a particular view to developing, evaluating, and implementing adaptive ecological momentary interventions in youth as a priority target population. Ecological translation pursues the strategy of a) identifying momentary risk and protective mechanisms in diverse socio-environmental contexts and settings across the continuum of mental health and, b) translating this into novel digital interventions and services – ecological momentary interventions (EMI) in particular – that target these mechanisms, contexts and settings in real time and in individuals' living environments.

**Results & Conclusion:** Digital interventions, including EMI-based interventions, show some promise and potential for translation into routine community mental health settings. However, particular attention needs to be paid to configuring ecological momentary interventions in such a way as to include, rather than marginalize further, vulnerable populations, and reduce, rather than accelerate, social and ethnic inequalities in health. Research involving co-production with people with relevant lived experience has a potentially significant role in achieving this. This and other challenges will be discussed in relation to directions for future research.

## S08 Children of Parents with Mental Disorders: Lessons from International Research

Thurs. 12 Sept., 14:00-15:30

A2064

Chair: Giovanni de Girolamo, IT

Co-chair: Anne A.E. Thorup, DK

### ABSTRACT

The symposium on the intergenerational transmission of psychopathology and its implications for early detection and intervention in families showcases pioneering research into the complex dynamics of mental health disorders across generations. This multi-faceted exploration includes a longitudinal study from Canada, examining bipolar-related mood disorders within families to understand individual risk factors, pathophysiology, and effective treatment strategies. Concurrently, the Danish High Risk and Resilience Study VIA series delves into how parental mental illness impacts children's psychopathology, neurocognition, and the family environment, emphasizing the need for specialized, family-based interventions. Another study highlights the significance of brain developmental trajectories in offspring of parents with severe mental illnesses, suggesting potential biomarkers for early diagnosis and management. Lastly, research from the Generation R and Dutch Bipolar Offspring Study investigates the intergenerational transmission of psychopathology, underscoring the protective role of social support and the critical influence of the timing and severity of parental psychopathology on children's mental health. Collectively, these presentations underscore the importance of understanding genetic, environmental, and social factors in the transmission and manifestation of mental disorders, aiming to enhance early detection, intervention, and support for affected families across multiple generations.

### S08.01 What Studying Families Can Tell Us about the Risk, Onset and Treatment of Bipolar-Related Mood Disorders

**Anne Duffy**<sup>1</sup>

<sup>1</sup>Queen's University, Kingston Ontario, Canada & Department of Psychiatry, University of Oxford, UK

**Aims:** Bipolar disorder is phenotypically and genetically heterogeneous and associated with high heritability. The genetic underpinnings appear complex with many variants of small effects interacting with environmental exposures.

**Methods:** This presentation will provide an overview of the 25-year Canadian Flourish Longitudinal High-Risk Offspring study discussing the importance of careful clinical characterization of the affected and other parents and longitudinal mapping of psychopathology to developmental stage and environmental exposures and biological changes.

**Results:** Differences in offspring course identified from parents who responded and did not respond to a trial long-term lithium treatment will be highlighted along with the important implications for studies of aetiology and to improve treatment outcome by using the clinical profile of the family and patient.

**Conclusion:** Studying families identified by a bipolar parent is an important way to advance understanding of the individual risk, underlying pathophysiology, and antecedents suitable for prevention and onset to improve early identification and effective treatment.

### S08.02 Parental Mental Illness Affects the Whole Family – From Parenting, Home Environment and Social Factors to Psychopathology. Results from the VIA Studies

**Anne A.E. Thorup**<sup>1</sup>

<sup>1</sup>Department of Clinical Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, Denmark

**Aims:** For decades familial high-risk studies have informed us about genetic and environmental risk factors for schizophrenia and bipolar disorder. Results from familial high-risk studies can help inform us about



developmental psychopathology, early markers of mental illness and possible protective factors and resilience.

**Methods:** The Danish High Risk and Resilience Study – VIA 7 is a prospective cohort study of 522 children, 202 of them born to at least one parent diagnosed with schizophrenia in the Danish registries, 120 of them born to a least one parent diagnosed with bipolar disorder and 200 of them born to parents without any of these diagnoses. The cohort was examined every fourth year with a comprehensive battery combining assessments from several domains for both parents and children. Assessments were made when the children were 7, 11 and 15 years of age.

**Results:** Retention rates were approx. 89% at both follow-ups. Results show that children born to parents with schizophrenia and to some extent bipolar disorder show signs of vulnerability that may influence their daily functioning already at age 7 and also at age 11 compared to controls. Results concerning psychopathology, neuro-cognition, motor functioning and language development will be presented including results about the home environment. Preliminary results from the VIA 15 assessment will be presented.

**Conclusion:** Results from the VIA 7 and the VIA 11 studies indicate that many children and families have unmet needs and problems. This unique cohort will be followed up in the future, next time at age 19 and simultaneously we have evolved an early, integrated, specialized and family-based intervention, called VIA Family, aiming to prevent or ameliorate the development of mental health problems in individuals born to parents with severe mental illnesses. Perspectives and first experiences will be discussed.

### S08.03 Clinical Relevance of Brain Developmental Trajectories in Child and Adolescent Offspring of Parents with and without Schizophrenia or Bipolar Disorder

Simon Poortman<sup>1</sup>, Jakub Jamarik<sup>1</sup>, Louise ten Harmsen van der Beek<sup>1</sup>, Nikita Setiaman<sup>1</sup>, Manon Hillegers<sup>1</sup>, **Neeltje van Haren<sup>1</sup>**

<sup>1</sup>Child and Adolescent Psychiatry and Psychology, Erasmus University Medical Center, Rotterdam, The Netherlands

**Aims:** Early diagnosis and intervention are essential for managing and improving long-term outcomes of severe mental illness, highlighting the need for reliable early biomarkers. This longitudinal study explores whether the development of the brain during childhood and adolescence differs between offspring of parents with and without schizophrenia or bipolar disorder, with a focus on age-dependent change over time in cortical gyrification and sulcal morphology and how such changes are related to the presence and severity of psychiatric symptoms and level of IQ.

**Methods:** We obtained 286 T1-weighted MRI scans of 184 offspring (aged 8–18 years at baseline) of at least one parent diagnosed with bipolar disorder (n=78) or schizophrenia (n=52) and offspring of parents without severe mental illness (n=54); 102 offspring underwent a follow-up scan (on average 3.9 years between scans). Groups were compared with (non)linear mixed-effects models. To correct for multiple comparisons, we applied a Benjamini-Hochberg false discovery rate (FDR) correction (q=0.05).

**Results:** As expected, a significant effect of age was found on the gyrification index, sulcal depth, length and width in the total sample. No significant deviations in trajectories of gyral and sulcal metrics were found in offspring of parents with schizophrenia or bipolar disorder. The associations with clinical and cognitive measures will be discussed.

**Conclusion:** The findings emphasise how brain development changes with age and call for further investigation into age-related brain developmental changes that could precede the onset of schizophrenia or bipolar disorder.

### S08.04 Intergenerational Transmission of Psychopathology across Three Generations: the Impact of Social Support and Timing of Exposure

**Manon Hillegers<sup>1</sup>**, Esther Mesman<sup>1</sup>, Ylza Xerxa<sup>1</sup>, Fleur Helmink<sup>1</sup>, Pauline Jansen<sup>1</sup>

<sup>1</sup>Child and Adolescent Psychiatry and Psychology, Erasmus University Medical Center, Rotterdam, The Netherlands

**Aims:** Mental illnesses run in families often including several generations. Here were present new data on the transmission of psychopathology across three generations, which is studied rarely. The first study assessed the intergenerational transmission of psychopathology risk across three generations in Generation R, a multi-ethnic population-based cohort from fetal life onwards in the Netherlands. The extent to which social support

factors may protect against transmission of psychopathology from (grand)parents to their offspring was investigated. The second study assessed the impact of timing and severity of parental psychopathology on psychological problems in the grandchildren, using 22-year follow-up data from the Dutch Bipolar Offspring Study (DBOS)

**Methods:** Within Generation R, lifetime psychiatric disorders of (grand)parents were evaluated and offspring psychopathology (ages 10 and 14) was assessed with Brief Problem Monitor. Maternal and child social factors were assessed using questionnaire measures and a computerized peer nomination assessment. Additive interaction analysis was used to study the independent effect of each generation in the transmission of psychopathology by examining whether the observed joint effects of the exposures are greater or less than expected as compared to single risk or resilient factors. In the DBOS we evaluated how the timing and severity of mood episodes in parents (occurring before or after birth) impact the risk of psychological problems (measured with ASEBA questionnaires) in offspring.

**Results:** The generation R data revealed that effects of (grand)parental psychopathology in combination with the three maternal and child social support factors was 13% (95% CI: 08; 17) less than expected based on the risk transmission. Our DBOS study findings illustrate the impact of timing of exposure and severity of parental psychopathology on the total problems scores (ASEBA) of offspring.

**Conclusion:** These studies not only expand our knowledge of the familial transmission of mood disorders but also underscores the importance of examining risk and resilience factors and its broader impact on the psychological well-being of individuals in multiple generations. Through these studies we may contribute to the development of strategies for early detection, intervention, and support in families affected by mood disorders across generations.

## S09 Examining the Short, Mid and Long-term Outcomes of People with First Episode of Psychosis: Findings from 4 European Longitudinal Cohorts

Thurs. 12 Sept., 16:00-17:30

A1031

Chair: Luis Alameda, CH

Co-chair: Philippe Golay, CH

### ABSTRACT

Little is known about the long-term evolution of patients with psychotic disorders who received treatment of a first episode of psychosis (FEP). In the current symposium we aim to gain insight into the clinical profile and evolution of people with psychosis from early stages to very long term follow up, up to 20 years, gather various longitudinal data sets of people with psychosis across the lifespan (from prodrome to chronic stages). **Luis Alameda** will present data from the AMP-SCZ multicentric study, based on those at risk for psychosis (CHR-P), and from the European multicentric study EUGEI exploring the role of abuse and on baseline clinical profile; **Philippe Golay** will provide insights into patients' trajectories followed-up for three years based on the Swiss Treatment and Early Intervention in Psychosis program (Tipp), exploring various predictors of outcome, and addressing various methodological considerations that can help translating such findings into clinical implications. **Rosa Ayesa** will present data on positive outcomes for first-episode psychosis patients over a 10-year follow-up, from the PAFIP data set in Cantabria, Spain; lastly **Manuel Cuesta** will present results from the 21 years follow-up study SEGPEPs in Pamplona, Spain.

### S09.01 Exploring the Role of Abuse and Neglect in the Clinical and Functional Profile of those at Risk for Psychosis and with a First Episode: Results from AMP-SCZ and EUGEI

**Luis Alameda**<sup>1,2</sup>, Victoria Rodriguez<sup>2</sup>, Giulia Trotta<sup>3</sup>, Monica Aas<sup>3</sup> PRESCIENT AMP-SCZ Consortium, EUGEI WP2 Consortium

<sup>1</sup>Department of Psychiatry Lausanne University Hospital, Lausanne, Switzerland; <sup>2</sup>Psychosis Studies Department, Kings College London Institution, UK; <sup>3</sup>SGDP, Kings College London Institution, UK

**Aims:** To provide a comprehensive overview of the nature of the association between childhood trauma in the form of abuse and neglect and the psychopathological and functional profile in people at risk for psychosis and with a first episode of psychosis (FEP), and explore potential mechanism and factors involved.

**Methods:** The nature of the association between abuse and neglect and the psychopathological (positive, depressive, negative, anxiety and manic symptoms) will be examined using meta-analytical data as well as data from the 42-center consortium AMP-SCZ (clinical hi-risk patients) and the 16-center consortium EUGEI. Potential mechanisms such as the role of polygenic risk scores, epigenetic and other psychological factors will be discussed. How social context (injustice, being an ethnic minority, disadvantage) modulate the association between trauma and psychosis profile will be also explored.

**Results:** Results will be presented including unpublished data and data that has not yet been analyzed (for example from the AMP-SCZ consortium).

**Conclusion:** This talk will provide a good summary of the nature of the association between childhood trauma, genes, epigenetics, context and the clinical profile of patients at risk for psychosis and with a first episode.

## S09.02 Statistical Implication Analysis, a Novel Approach to Examine Functional Outcomes in First Episode of Psychosis: Data from the Three years Prospective TIPP Study

**Philippe Golay**<sup>1</sup>, Lilith Abrahamyan Empson<sup>1</sup>, Nadir Mebdouhi<sup>1</sup>, Caroline Conchon<sup>1</sup>, Philippe Conus<sup>1</sup>

<sup>1</sup>General Psychiatry Service, Treatment and Early Intervention in Psychosis Program (TIPP–Lausanne), Lausanne University Hospital and University of Lausanne, Lausanne, Switzerland

**Aims:** Patients can respond differently to intervention in the early phase of psychosis. Diverse symptomatic and functional outcomes can be distinguished and achieving one outcome may mean achieving another, but not necessarily the other way round. The present study's goal was to evaluate implicative relationships between diverse outcomes to better understand their reciprocal dependencies by using Statistical Implication Analysis (SIA).

**Methods:** Early psychosis patients of a specialized early intervention programme (Treatment and Early Intervention in Psychosis Program; TIPP) were evaluated for different outcomes (symptomatic response, functional recovery, working and living independently) after 36 months of treatment. SIA was used to highlight which positive outcomes implied other positive outcomes.

**Results:** Two hundred and nineteen recent onset patients with early psychosis were assessed. Results at the end of the three-years in TIPP showed that working independently statistically implied achieving all other outcomes. Symptomatic and functional recovery reciprocally implied one another. Living independently weakly implied symptomatic and functional recovery and did not imply independent working.

**Conclusion:** The concept of implication is an interesting way of evaluating dependencies between outcomes as it allows us to overcome the tendency to presume symmetrical relationships between them. We argue that a better understanding of reciprocal dependencies within psychopathology can provide an impetus to tailor-made treatments.

## S09.03 Positive Outcomes for First-Episode Psychosis Patients over a 10-year Follow-up in PAFIP Cohort

**Rosa Ayesa-Arriola**<sup>1,2</sup>, Javier Vazquez-Bourgon<sup>1,2</sup>, Benedicto Crespo-Facorro<sup>2,3</sup>, PAFIP-GROUP

<sup>1</sup>Marqués de Valdecilla University Hospital-IDIVAL, Santander, Spain; <sup>2</sup>CIBERSAM, Madrid, Spain; <sup>3</sup>Virgen del Rocío University Hospital, Seville, Spain

**Aims:** Over the last 30 years, thanks to research, the knowledge of first-episode psychosis (FEP) have evolved significantly, leading to advances in understanding, diagnosis, treatment, and support for patients and their families. Early intervention (EI) programs with follow-up designs have provided critical insights into the long-term course and outcomes, informing both clinical practice and service provision.

**Methods:** PAFIP, which stands for “Programa de Atención a Fases Iniciales de Psicosis”, is one of those EI programs designed to provide specialized care and support to individuals experiencing their FEP in Cantabria (Spain). Between 2001 and 2018, 668 FEP patients enrolled PAFIP. A total of 209 were clinically, cognitively and functionally reassessed 10 years after the first contact. Multiple baseline and 10-year follow-up variables have been explored.

**Results:** Cluster analysis showed the existence of six independent outcomes. In the extremes, one cluster was formed by 42.16% of FEP patients that presented a normal function, while 9.63% formed a cluster with severe instrumental and interpersonal deficits. Cluster comparisons showed that several baseline and follow-up factors were differentially involved in outcomes. The significance of premorbid adjustment, particularly in terms of education and cognitive reserve, warrants special attention, especially among women.

**Conclusion:** Overall, PAFIP represents a pioneering effort in the field of EI for psychosis in Spain. Looking backward, significant progress have been made, with a growing focus on personalized care and recovery-oriented approaches. Looking forward, despite advancements, ongoing efforts are needed, underscoring the importance of gender-specific factors in EI and treatment strategies.

## S09.04 The LONG-Term Follow-up TIPP Project: LOFT Study Protocol, a 20-year Prospective Study of Early Psychosis Patients

**Teya Petrova**<sup>1</sup>, Philippe Golay<sup>1,2,3</sup>, Paul Klauser<sup>4,5</sup>, Sandra Vieira<sup>1,6,7,8</sup>, Inès Lepreux<sup>1</sup>, Boshra H. Razavi<sup>1</sup>, Raoul Jenni<sup>5</sup>, Nadir Mebdouhi<sup>1</sup>, Martine Cleusix<sup>1</sup>, Caroline Conchon<sup>1</sup>, Lilith Abrahamyan Empson<sup>1</sup>, Philippe Conus<sup>1</sup>, Luis Alameda<sup>1,6,9</sup>

<sup>1</sup>Treatment and Early Intervention in Psychosis Program, Service of General Psychiatry, Lausanne University Hospital and University of Lausanne, Lausanne, Switzerland; <sup>2</sup>Community Psychiatry Service, Department of Psychiatry, Lausanne University Hospital and University of Lausanne, Lausanne, Switzerland; <sup>3</sup>Institute of Psychology, Faculty of Social and Political Science, University of Lausanne, Lausanne, Switzerland; <sup>4</sup>Service of Child and Adolescent Psychiatry, Department of Psychiatry, Lausanne University Hospital and the University of Lausanne, Lausanne, Switzerland; <sup>5</sup>Center for Psychiatric Neuroscience, Department of Psychiatry Lausanne University Hospital and the University of Lausanne, Lausanne, Switzerland; <sup>6</sup>Department of Psychosis Studies, Institute of Psychiatry, Psychology and Neuroscience, King's College of London, London, UK.; <sup>7</sup>Department of Radiology, Lausanne University Hospital and University of Lausanne, Lausanne, Switzerland; <sup>8</sup>Center for Research in Neuropsychology and Cognitive Behavioral Intervention, Faculty of Psychology and Educational Sciences, University of Coimbra, Coimbra, Portuga; <sup>9</sup>Centro investigación Biomedica en Red de Salud Mental (CIBERSAM); Instituto de Biomedicina de Sevilla (IBIS), Hospital Universitario Virgen del Rocio, Departamento de Psiquiatria, Universidad de Sevilla, Sevilla, Spain

**Aims:** Early intervention Services (EIS) in psychosis are the gold standard to treat patients after a first episode of psychosis (FEP). However, the understanding of the evolution and the long-term effects of such type of intervention is limited. This study aims to gain insight into the long-term evolution of physical and mental health, as well as the neurobiological outcomes of the patients treated for a FEP.

**Methods:** The Long-term Follow-up of TIPP (LOFT) is an up to 20-year study within a cohort of patients who completed a three-year EI treatment at Treatment and early Intervention in Psychosis Program (TIPP, in Lausanne, Switzerland) and went through a deep phenotyping prospective multimodal assessment. 720 patients will be contacted and asked to participate in LOFT. Once they are assessed they will be allocated to a timepoint at either 5(+2), 10(±2), 15(±2), and 20(-2) years after TIPP entry. A follow-up visit will be proposed every 5 years. All participants will be evaluated on psychopathological, functional, and physical health outcomes including metabolic disturbances. A subsample of the patients who previously took part in a biomarker research program (n = 168) whilst at TIPP will be invited to undergo additional assessments (cognition, brain imaging, biofluids collection). Both traditional group level and machine learning analyses will be conducted.

**Conclusion:** Ethical approval has been obtained and recruitment started in 2024. LOFT will help reshape and redefine current interventions for subgroups of patients at risk of poorer long-term outcome and to understand the underlying neurobiological mechanisms influencing psychosis evolution.

**S10 Stress Exposure, Chronic Pain and Mental Health****Thurs. 12 Sept., 16:00-17:30****2013****Chair:** Isabelle Rouch, FR**Co-chair:** Caroline Vandeleur, CH**ABSTRACT**

Exposure to stress has been associated with physical and mental health problems in many studies. However, a certain number of questions remain debated: may early-life stress have consequences on the development of health problems, namely chronic pain (CP) or mental disorders, decades later? Does emotional reactivity to daily stressors depend on age and gender? Is stress reactivity influenced by transgenerational post-traumatic stress symptoms transmission? Finally, which brain areas underlie the effects of stress on CP and mental health, and are there common cerebral patterns underlying these two types of manifestations? The three first presentations will be based on CoLaus|PsyCoLaus study, a large population-based cohort in Lausanne (Switzerland). **Isabelle Rouch** will first assess the longitudinal relationship between adverse childhood events (ACEs), parental bonding and CP course in adulthood. **Caroline Vandeleur** will present results on ACEs, family dysfunction, and psychiatric disorders, according to socio-demographic determinants. **Mathilde Husky** will then assess age and sex differences in emotional reactivity to daily stressors using Ecological Momentary Assessment (EMA). **Bérangère Guillery** will investigate the neurocognitive profile of adolescents with Post-traumatic stress disorders (PTSD) and the vulnerability factors associated with parental exposure to trauma, by combining psychological, neurophysiological, cognitive and neuroimaging data from the "13-november Program" cohort. Finally, **Bernard Laurent** will examine the neuroanatomical basis of experimental pain perception as a function of emotional context, and discuss common patterns of brain changes observed in CP and post-traumatic stress.

**S10.01 Early Adversity and Parental Bonding Predict Chronic Pain Course in Adult Community-Dwellers**

**Isabelle Rouch**<sup>1,2</sup>, Marie-Pierre F. Strippoli<sup>3</sup>, Bernard Laurent<sup>1,5</sup>, Setareh Ranjbar<sup>3</sup>, Caroline Vandeleur<sup>3</sup>, Armin von Gunten<sup>4</sup>, Martin Preisig<sup>3</sup>

<sup>1</sup>Memory Clinical and Research Center of Saint Etienne (CMRR) Neurology Unit, University Hospital of Saint Etienne, Saint Etienne, France; <sup>2</sup>INSERM, U1219, ACTIVE team, Bordeaux Population Health Center, University of Bordeaux, Bordeaux, France; <sup>3</sup>Department of Psychiatry, Psychiatric Epidemiology and Psychopathology Research Center, Lausanne University Hospital and University of Lausanne, Prilly, Switzerland; <sup>4</sup>Service of Old Age Psychiatry (SUPAA), Department of Psychiatry, Lausanne University Hospital and University of Lausanne, Prilly, Switzerland; <sup>5</sup>INSERM, U1028; CNRS, UMR5292; Neuropain team, Lyon Neuroscience Research Center, Lyon, France

**Aims:** Adverse childhood events (ACEs) have been linked to widespread chronic pain (CP) in various cross-sectional studies, mainly in clinical populations. Likewise, insecure attachment is a possible risk factor for pain characteristics in these patients. However, few longitudinal studies have addressed these issues in the general population. Accordingly, our study aimed to prospectively assess the associations between specific types of ACEs and parental bonding with the course of CP in a large population-based cohort.

**Methods:** Data stemmed from CoLaus|PsyCoLaus, a large prospective cohort study conducted on adults (35-75 years at baseline) in the general population of Lausanne, Switzerland. Diagnostic criteria for ACEs were elicited using semi-structured interviews, Parental bonding was assessed with the Parental Bonding Instrument (PBI) and CP with self-rating questionnaires. Logistic regressions analyzed the relationship between the different ACEs, PBI and CP course during the follow-up.

**Results:** Participants with a history of parental separation in childhood had an increased risk of developing multisite CP in adulthood, preponderantly for nociplastic CP. Regarding parental bonding, higher denial of autonomy by the father were associated with a higher risk of having persistent CP.

**Conclusion:** Our results suggest that early psychological factors may contribute to the future risk of CP course in the general population. These results highlight the importance of a multidimensional approach integrating the patient's autobiographical background, in the management of people experiencing CP.



## S10.02 Childhood Adversity Patterns Differentially Cluster with Mental Disorders and Socioeconomic Indicators in a Large Swiss Community Sample

Yanhua Xu<sup>1</sup>, Vladeta Ajdacic-Gross<sup>1</sup>, Marie-Pierre F. Strippoli<sup>2</sup>, Martin Preisig<sup>2</sup>, **Caroline L. Vandeleur**<sup>2</sup>

<sup>1</sup>University Hospital of Zurich, Department of Psychiatry; <sup>2</sup>University Hospital of Lausanne, Department of Psychiatry

**Aims:** Exposure to childhood adversities (CHAD) has been found to be strongly intra-individually associated with mental health and social development. Recently, it has been suggested that certain CHAD patterns exist in the population, which are more closely related to later mental health than the summation of adversities. The current study aims to 1) establish CHAD patterns based on self-reported child abuse and family dysfunction and, to 2) assess their associations with sex, mental disorders and sociodemographic indicators reported in adulthood.

**Methods:** The data were derived from the representative CoLaus/PsyCoLaus population-based cohort (N = 5111, 35 to 88 years). Latent class analysis was conducted for the identification of CHAD patterns, while their associations with mental disorders and socioeconomic achievements (e. g. education and income) were investigated using correspondence analysis.

**Results:** Four qualitatively distinguishable CHAD patterns emerged. While the majority (70.7%) of the sample showed an overall low adversity pattern (c1), 13.6% had not been raised by both of their biological parents due to divorce or due to being placed in foster home (c2), 11.0% had been raised by conflictive / dysfunctional / abusive parents (c3), and 4.7% showed high overall adversities (c4). Patterns c3 and c4 were most strongly associated with mental disorders, especially c3 with anxiety disorders, while pattern c2 was related to lower educational achievement.

**Conclusion:** Four patterns of CHAD characterised by varying levels of abuse and family dysfunction existed in this sample. This highlights the need to assess specific CHAD configurations for prevention and treatment of mental disorders.

## S10.03 Sex Differences in Stress Reactivity in Daily Life in Adults with Mood Disorders

**Mathilde Husky**<sup>1</sup>, Jennifer Glaus<sup>2</sup>, Setareh Ranjbar<sup>2</sup>, Martin Preisig<sup>2</sup>

<sup>1</sup>University of Bordeaux, Bordeaux Population Health Research Center, University of Bordeaux; <sup>2</sup>Department of Psychiatry, Lausanne University Hospital and University of Lausanne, Switzerland

**Aims:** The objective of the study is to investigate age and sex differences in emotional reactivity to daily stressors using Ecological Momentary Assessment (EMA) in a general population sample of adults.

**Methods:** Data will be drawn from the CoLaus|PsyCoLaus study, a prospective study conducted in a representative sample of the population aged 35-75 years living in Lausanne, Switzerland. A total of 1410 participants completed EMA for a period of 7 to 14 consecutive days with 4 prompts per day. At each assessment, participants reported their current affective state (sad/happy, anxious/calm, active/inactive, tired/excited) and their exposure to stressors in their daily life, recording the type of event that affected them the most and its positive or negative valence.

**Results:** First, we will examine the types of positive and negative events reported. Second, we will investigate changes in mood states or emotional reactivity following exposure to positive and negative events. We will do so by age and sex and will investigate age X sex interactions.

**Conclusion:** Despite the known role of sex as a factor associated with exposure to life events and reactivity to life events, most studies investigating stress reactivity have not examined sex X age interactions. Relying on one of the largest community-based EMA studies, the present investigation would provide important insights regarding age and sex differences in stress reactivity in naturalistic settings among adults.

## S10.04 Vulnerability in Adolescence: From Transmission to PTSD

**Bérengère Guillery**<sup>1</sup>, Jacques Dayan<sup>1</sup>, Fabian Guérolé<sup>1</sup>, Francis Eustache<sup>1</sup>

<sup>1</sup>Normandie Université, UNICAEN, PSL Research University, EPHE, INSERM, U1077, CHU de Caen, Neuropsychologie et Imagerie de la Mémoire Humaine, 14000 Caen, France

**Aims:** More than half of all children are exposed directly, or indirectly through their parents, to potentially traumatic event(s). In the last few years, we have conducted a series of studies to characterize the neurocognitive profile of adolescents with PTSD. It is only very recently that we have been interested in the

vulnerability factors that could be linked to parental exposure to trauma, raising the question of transmission with a protocol we are currently conducting.

**Methods:** To specify the neurocognitive profile of adolescents with PTSD we combined psychological, cognitive and neuroimaging data, including specific anatomical sequences and functional analyses at rest using a network neuroscience framework. We follow the same approach for the intergenerational transmission project combining psychological, cognitive, family, neurophysiological and neuroimaging dimensions on a large corpus of data, 120 exposed families compared to 120 non exposed controls selected mainly from the "13-11 Program" cohort (<https://www.memoire13novembre.fr/>).

**Results:** First, we found modifications of identity and memory in the subgroup of adolescents with PTSD associated with hippocampal subfields abnormalities and functional disorganization at rest, with a bimodal organization between unimodal (sensory) and transmodal (association) regions. We will pursue these studies by considering these profiles in regard to parental characteristics.

**Conclusion:** As a result, by confronting psychological, cognitive, family, neurophysiological and neuroimaging dimensions, we will elaborate a biopsychosocial model of the transmission of acute stress with new perspectives for support and care.

### S10.05 From Pain to Suffering: Experimental

**Bernard Laurent**<sup>1</sup>, Roland Peyron<sup>1</sup>, Maud Frot<sup>1</sup>, H  l  ne Bastuji<sup>1</sup>, Luis Garcia-Larrea<sup>1</sup>

<sup>1</sup>Neuropain team, Lyon Neurosciences Research Center, INSERM U1028, Lyon

**Aims:** To investigate the neuroanatomical underpinnings of experimental pain perception as a function of emotional context, using functional magnetic resonance imaging (fMRI) and intracerebral recordings (ICR).

**Methods:** We report 2 experiments with functional magnetic resonance imaging (fMRI) or intracerebral recordings (IRC) conducted on normal subjects (fMRI) and epileptic patients (ICR). (1) Experimental thermal pain was assessed by modifying the empathetic context (empathetic or neutral comments were made to the subjects during the pain experiment). (2) Anterior insula recording during observation of painful faces versus other emotional faces.

**Results:** (1) The pain perception score was lower in an empathetic environment, with less activation of the perigenual ACC, orbitofrontal cortex, DLPC and ventral striatum, corresponding to the emotional and cognitive parts of the *pain matrix* (which corresponds to a *correlative picture of brain activity during pain*). (2) Responses to painful and fearful faces recorded in the anterior insula, connected to the frontal, limbic and cingulate regions, were higher than those observed with sadness, disgust or surprise; other responses in the posterior insula and fusiform gyrus are insensitive to pain and fear characteristics.

**Conclusion:** A part of the pain matrix, including the anterior insula, middle anterior cingulate, prefrontal cortex and perigenual cortex is activated by both nociception and emotional distress. We will also discuss the similarity of cerebral modifications observed in chronic pain and post-traumatic stress disorders: the control of the prefrontal cortex over the amygdala and hippocampus is modified in both situations.

## S11 Psychiatric Epidemiology and Community Mental Health Services of Bharat (India): Evolution and Findings

Thurs. 12 Sept., 16:00-17:30

2055

Chair: Sydney Moirangthem, AU

Co-chair: Suresh Bada Math, IN

### ABSTRACT

The symposium highlights the transformative changes in psychiatric epidemiology and mental health services in 21<sup>st</sup>-century India. It begins with an analysis of pre-2016 psychiatric epidemiological studies, emphasizing the diversity in prevalence rates and the importance of historical research insights. Delving into the treatment gap within psychiatric disorders using National Mental Health Survey (2016) data, the symposium proposes a refined definition for future surveys. Next, categorizing the epidemiology of psychiatric disorders from NMHS 2016 from a public health perspective. From a public health perspective, authors categorised the psychiatric disorders into common mental disorders (CMDs), severe mental disorders (SMDs), and substance use disorders (SUDs). Nearly 93.5% of psychiatric disorders in India, as per NMHS 2016, are comprised of CMDs and SUDs. This offering vital information for policymakers to target interventions and allocate resources effectively. Shifting to an exploration of psychiatric disorders in mega cities survey of India, presenting the prevalence of psychiatric disorders and impact in Bengaluru city survey, it stresses the urgent need for tailored urban mental health policies. In its final segment, the symposium briefs on two community mental health programs: the Yuva Spandana program addressing youth mental health challenges across Karnataka and the integration of mental health care into organized sector workplaces in India. These insights underscore the necessity for policy support, adequate resources, and ongoing evaluation in the realm of occupational mental health.

### S11.01 Psychiatric Epidemiology from Studies prior to 2016: Learning from History

**Suresh Bada Math**<sup>1</sup>, Narayana Naik Manjunatha<sup>1</sup>, C Naveen Kumar<sup>1</sup>

<sup>1</sup>Department of Psychiatry, National Institute of Mental Health and Neuro Sciences, Bengaluru, India

**Aims:** Is to analyse epidemiological studies in India prior to 2016.

**Methods:** An analysis of epidemiological studies from India on psychiatric disorders especially systemic studies and metanalysis prior to 2016.

**Results:** Revealed prevalence rates for psychiatric disorders ranging from 9.5 to 370 per 1000 population.

**Conclusion:** These diverse rates are not unique to Indian studies but are consistent with international findings. Despite variations in study design, available data from Indian studies suggest that approximately 20% of the adult population in the community experiences some form of psychiatric disorder.

### S11.02 Treatment Gap of Psychiatric Disorders in India: Findings from National Mental Health Survey (NMHS) 2016 and Learnings for the Future

**Channaveerachari Naveen Kumar**<sup>1</sup>, Narayana Naik Manjunatha<sup>1</sup>, Suresh Bada Math<sup>1</sup>

<sup>1</sup>Department of Psychiatry, National Institute of Mental Health and Neuro Sciences, Bengaluru, India

**Aims:** The National Mental Health Survey of India (NMHS) in 2016 pegs the treatment gap across psychiatric disorders to 83%. The aim of current presentation is to analyse the definition of treatment gap used in NMHS 2016 and propose a revised definition

**Methods:** The 'gap' as per NMHS-1 is assessed by only one question [6A1] 'Are you currently on treatment for one or more Mental health problems / Epilepsy that you have just reported earlier in this interview with a formal / trained health care provider' with responses as 'YES / NO'.

**Results:** A single question based assessment of treatment gap in NMHS 2016 is deemed inadequate. As this has not taken into account several contextual and socio cultural aspects of treatment seeking, particularly for mental disorders.

**Conclusion:** There is a need for a revised operational definition of treatment gap in further surveys.

### S11.03 Burden of Mental Disorders in an Indian Mega City-Highlights the Need for Urban Mental Health Program in India

**Arvind B A Banavaram**<sup>1</sup>, Gautham M Sukumar<sup>1</sup>, Pradeep Banandur<sup>1</sup>

<sup>1</sup>Department of Epidemiology, National Institute of Mental Health and Neuro Sciences, Bengaluru, India

**Aims:** Firstly, to comprehensively assess the prevalence of various mental disorders in Bengaluru. Secondly, to understand the socioeconomic impact of the mental disorders and to assess the health care utilization behavior for mental disorders among the study population.

**Methods:** A cross sectional survey was undertaken using multi-stage, stratified, random cluster sampling technique, with random selection of clusters based on Probability Proportionate to Size. A total of 3605 adults were interviewed and mental disorders were assessed using Mini International Neuropsychiatric interview schedule version 6 along with other standard study instruments.

**Results:** The current prevalence of any mental disorder is 10.9% in Bengaluru. The prevalence of psychoactive substance use disorder, mood disorder and neurotic & stress related disorder is 10.2%, 4.0% and 2.8% respectively. However, the current prevalence of schizophrenia and other psychotic disorder is relatively low (0.02%). The socioeconomic impact of mental disorders in the studied mega city is considerably high.

**Conclusion:** The prevalence and burden of mental disorders in a mega city in India is a high priority public health concern. Present finding provides evidence to implement and strengthen the urban specific mental health policies and program in India.

### S11.04 The Differential Prevalence of Psychiatric Disorders from Public Health Perspective

**Narayana Naik Manjunatha**<sup>1</sup>, C Naveen Kumar<sup>1</sup>, Suresh Bada Math<sup>1</sup>

<sup>1</sup>Department of Psychiatry, National Institute of Mental Health and Neuro Sciences, Bengaluru, India

**Aims:** From a public health perspective, authors categorised the psychiatric disorders into common mental disorders (CMDs), severe mental disorders (SMDs), and substance use disorders (SUDs). This classification informs policymakers for data-driven fund allocation and intervention programs in the population. To assess the varying prevalence of psychiatric disorders (CMDs, SMDs, and SUDs) based on data from the National Mental Health Survey of India 2016 (NMHS 2016).

**Methods:** NMHS 2016 was a nationally representative household survey involving 34,802 respondents aged 18 years and older from 12 states in India. The study utilized a multistage, stratified, random cluster sampling technique, with random selection based on Probability Proportion to Size at each stage. Psychiatric disorders were diagnosed using the Mini-International Neuropsychiatric Interview 6.0.0. Data from NMHS 2016 were analyzed.

**Results:** Among all psychiatric disorders, 47.2% were CMDs, 46.29% were SUDs, and 6.48% were SMDs.

**Conclusion:** Nearly 93.5% of psychiatric disorders in India, as per NMHS 2016, are comprised of CMDs and SUDs. This underscores the importance of planning fund allocation and intervention programs in psychiatry accordingly.

### S11.05 Yuva Spandana: A Youth Mental Health Promotional Program

**Pradeep Banandur**<sup>1</sup>, Arvind B A Banavaram<sup>1</sup>, Gautham M Sukumar<sup>1</sup>

<sup>1</sup>Department of Psychiatry, National Institute of Mental Health and Neuro Sciences, Bengaluru, India

**Aims:** In response to the complex challenges faced by today's youth in India, large-scale surveys in Himachal Pradesh and Kolar aimed to understand their issues. This led to the inception of Yuva Spandana, a unique youth mental health promotion program implemented across all 31 districts of Karnataka since 2016.

**Methods:** Yuva Spandana, running from 2016 to 2023, involves training Yuva Parivarthakas for awareness and Yuva Samalochakas for guidance on youth mental health issues. A 6-day training program focuses on the 10 life skills domains defined by WHO. NSS officers, Coordinators, and teaching faculty undergo experiential learning to bring about attitude changes. Trained officers then sensitize youths, offering life skills to tackle challenges and identifying those needing support. Yuva Spandana functions as a hub and spoke model, empowering youth at district levels.

**Results:** As of December 2023, 136 training programs sensitized 91,42,212 youths, providing guidance to 33,784. Additionally, 3826 NSS officers, coordinators, and faculty were trained in life skills.

**Conclusion:** Trained officers sensitize youth about life skills and Yuva Spandana services, bridging the gap between youth, families, and society. This initiative aims to facilitate a smooth transition for youth in an ever-changing society.

## **S11.06 Facilitating Integration of Mental Health Care in Occupational Health Systems in India**

**Gautham M Sukumar**<sup>1</sup>, Arvind B A Banavaram<sup>1</sup>, Pradeep Banandur<sup>1</sup>

<sup>1</sup>Department of Psychiatry, National Institute of Mental Health and Neuro Sciences, Bengaluru, India

**Aims:** To describe series of studies undertaken to epidemiology of mental disorders in workplaces and to strengthen policy, tools, resources and pilots for integrating mental health care in organized sector workplaces in India.

**Methods:** Multiple projects were implemented between year 2019 to 2023 aimed to develop evidence, policy brief, advocacy tools, resources and pilots in different workplaces in India. Screening tool for NCD risk factors, stress, common mental disorders was developed and integrated into periodical medical examination in selected industries. Tool to assess and classify work related stress (TAWS-16) was developed and is used by many industries. Advocacy meetings were held with concerned ministries following which operational guidelines and capacity building courses were conducted in NIMHANS.

**Results:** Our efforts have resulted in highlighting the need for integrating mental health care in workplaces, provided necessary resources are available.

**Conclusion:** However, further evaluation of effectiveness is needed along with political will to integrate mental health care in the organized sector.

## S12 Causal Inference Methods in Psychiatric Epidemiology

Fri. 13 Sept., 08:30-10:00

A1129

Chair: Ioannis Bakolis, UK

Co-chair: Moritz Herle, UK

### ABSTRACT

Associations between protective and harmful risk factors and common psychiatric disorders have widely informed prevention strategies and policies, but its application could be hazardous due to issues such as residual confounding. To fill this gap in knowledge, the last couple of years have seen a considerable uptake in the application of causal inference methods in psychiatric epidemiology. Historically, researchers have employed randomised controlled trials, natural experiments to evaluate the effectiveness of population mental health interventions and policies and classic longitudinal designs and structural equation models to study the developmental course and outcomes of psychological and psychiatric phenotypes. Due to ethical considerations and lack of generalisability of RCTs we now see a new wave of researchers applying causal inference methods to ask causal questions in psychiatry, analysing biological, genetic, and other routinely collected data such as electronic health records. In this symposium we aim to showcase four current examples and discuss future directions in this area. The different talks will cover: 1. Using Bayesian quasi-experimental designs to evaluate national policy impacts on population mental health (**AJ**) 2. Applying a regression discontinuity in time combined with a difference-differences approach to evaluate a city-wide intervention on population mental health (**IB**) 3. Using propensity score matching to evaluate a community-based intervention in relation to mental health service use (**AR**) 4. Applying the health disparity framework to estimate the extent to which interventions can mitigate risks conferred from polygenic risk scores (**MH**).

### S12.01 The Effect of UK Immigration Policy Reform on Psychosis Outcomes for People from Minoritised Ethnic Backgrounds

Annie Jeffery<sup>1</sup>, Connor Gascoigne<sup>2</sup>, Sara Geneletti<sup>3</sup>, Marta Blangiardo<sup>2</sup>, Gianluca Baio<sup>1</sup>, James Kirkbride<sup>1</sup>

<sup>1</sup>Division of Psychiatry, University College London, London, UK; <sup>2</sup>Department of Epidemiology and Biostatistics, Imperial College London, London, UK; <sup>3</sup>Department of Statistics, London School of Economics and Political Science, London, UK; <sup>4</sup>Department of Statistical Science, University College London, London, UK

**Aims:** We aimed to investigate the effect of UK immigration policy reform on the following psychosis outcomes for people from minoritised ethnic backgrounds: first episode psychosis, inpatient admissions, crisis episodes, emergency referrals, and involuntary detentions.

**Methods:** We used anonymised electronic health record data from a mental health service covering the inner London boroughs of Camden and Islington from 1 January 2009 to 22 March 2020. We included 11,128 patients with a diagnosis of psychosis. We calculated population incidence rates of first episode psychosis using census data to estimate local area populations. We calculated person-level rates of inpatient admissions, crisis episodes, emergency referrals and involuntary detentions amongst individuals with psychosis. We performed a Bayesian interrupted time series analysis, accounting for fixed effects of measured confounders (sex, age, deprivation), and random effects for residual temporal and spatial confounding. We compared rates and 95% credible intervals (CrIs) for each outcome among people from minoritised ethnic groups relative to people of White ethnicity during three time periods: before the Immigration Act 2014, after the Immigration Act 2014, and after the resulting Windrush Scandal media coverage in 2017.

**Results:** We saw an increase in crisis episodes, emergency referrals and involuntary detentions in some minoritised ethnic groups, after UK immigration policy reform, relative to people from White ethnic backgrounds. We did not see a difference in first episode psychosis or inpatient admissions.

**Conclusion:** Our study shows a causal effect between UK immigration policy reform and more severe psychosis outcomes in minoritised ethnic groups.



## S12.02 The Impact of Ultra Low Emission Zones (ULEZ) on Mental Health Service Use, Mortality, and Hospitalisations: A Regression Discontinuity in Time Design

**Ioannis Bakolis**<sup>1,2</sup>, Samantha Cross<sup>2</sup>, Rosanna Hildersley<sup>3</sup>, Jay Das Munshi<sup>3,4,5</sup>, Rob Stewart<sup>3,4</sup>, Sabine Landau<sup>2</sup>  
<sup>1</sup>King's College London, Health Services and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, London, United Kingdom; <sup>2</sup>King's College London, Department of Biostatistics and Health Informatics, Institute of Psychiatry, Psychology and Neuroscience, London, United Kingdom; <sup>3</sup>King's College London, Department of Psychological Medicine, Institute of Psychiatry, Psychology & Neurosciences, London, United Kingdom; <sup>4</sup>South London & Maudsley NHS Foundation Trust, London, United Kingdom; <sup>5</sup>ESRC Centre for Society and Mental Health, King's College London, London, United Kingdom

**Aims:** We aim to assess the effect of Ultra Low Emission Zone (ULEZ) on health service use, mortality, and hospitalisations amongst mental health service users. The ULEZ was introduced in central London in April 2019 and there is strong evidence that the intervention has led to substantial air quality improvements, but no prior analysis has been conducted on their population mental health impacts.

**Methods:** Prospective data (N=167,122) from a large mental healthcare provider in London, UK were extracted between 1 Jan 2015 to 1 March 2020 with daily deaths from all causes (primary outcome), cause-specific deaths, emergency admissions, referrals and discharges, inpatient care (admissions, discharges, caseloads) and community services (face-to-face (f2f)/non-f2f contacts, caseloads): Adult, older adult and child/adolescent mental health; early intervention in psychosis; home treatment teams and liaison/Accident and Emergency (A&E).

**Results:** Application of a quasi-experimental design was a two-stage process: (1) Propensity score matching (1:2) was used to match residents in ULEZ areas with individuals living in non-ULEZ areas based on age, gender, ethnicity, neighbourhood deprivation, month and year of first contact with secondary mental health services. (2) Changes around the implementation of ULEZ (1 April 2019 and 1 March 2020, respectively) were estimated using a RDIT design with a difference-in-difference approach generating incidence rate ratios (IRRs) comparing individuals living in ULEZ with those living in non-ULEZ areas. ULEZ between pre- and post-intervention periods.

**Conclusion:** Electronic mental health records could provide a unique opportunity for the rapid evaluation of complex environmental and climate related policies.

## S12.03 Assessing the Impact of Population Mental Health Interventions: Applying Propensity Score Matching to Routinely Collected Data

**Amy Ronaldson**<sup>1</sup>, Ioannis Bakolis<sup>1,2</sup>, Thomas Allen<sup>3</sup>, Luke Paterson<sup>3</sup>, Rachel Elliott<sup>3</sup>, Claire Henderson<sup>1</sup>  
<sup>1</sup>Health Service & Population Research Department, Institute of Psychiatry, Psychology, & Neuroscience (IoPPN), King's College London, United Kingdom; <sup>2</sup>Department of Biostatistics & Health Informatics, IoPPN, King's College London, United Kingdom; <sup>3</sup>Manchester Centre for Health Economics, University of Manchester, United Kingdom

**Aims:** Large amounts of routinely collected clinical data from electronic health records are increasingly available for use in health research. Quasi-experimental designs can be applied to these clinical datasets for the evaluation of health interventions, with the aim to improve the external validity or provide new evidence when RCTs are not ethical nor feasible. The aim of this study is to showcase how these techniques can be applied in a psychiatric setting, using a real-world example from the RECOLLECT programme.

**Methods:** The RECOLLECT programme is using routinely collected data to evaluate the effectiveness and cost effectiveness of Recovery Colleges in England. We linked local Recovery College student records with deidentified health data from the Clinical Record Interactive Search (CRIS) database as well as Hospital Episode Statistics. This linkage was used to create a quasi-experimental retrospective matched cohort study.

**Results:** Application of a quasi-experimental design was a two-stage process: (1) Propensity score matching (1:4) was used to identify matched controls based on age, gender, ethnicity, neighbourhood deprivation, month and year of first contact with secondary mental health services. For Recovery College students, index date was considered to be the date they registered at the Recovery College. Corresponding controls were assigned the same index date; (2) Health service use data before and after each participant index date was added to the dataset, and unit costs were assigned to allow an economic evaluation.

**Conclusion:** Electronic mental health records could provide a unique opportunity for the evaluation of complex population mental health interventions.

## S12.04 Applying the Health Disparity Framework in Genetically Informed Studies

**Moritz Herle**<sup>1</sup>, Andrew Pickles<sup>2</sup>, Oliver Pain<sup>1</sup>, Russell Viner<sup>3</sup>, Jean-Baptiste Pingault<sup>4</sup>, Bianca L De Stavola<sup>5</sup>

<sup>1</sup>Social, Genetic and Developmental Psychiatry Centre, Institute of Psychology, Psychiatry and Neuroscience, Kings College London, UK;

<sup>2</sup>Department of Biostatistics & Health Informatics, Institute of Psychology, Psychiatry and Neuroscience, Kings College London, UK ;

<sup>3</sup>Population, Policy & Practice Research and Teaching Department, UCL Great Ormond Street Institute of Child Health, University College London, London, UK; <sup>4</sup>Division of Psychology and Language Sciences, Department of Clinical, Educational and Health Psychology, University College London, London, UK

**Aims:** Polygenic scores are now commonly available in longitudinal cohort studies, leading to their integration into epidemiological research. In this work, our aim is to explore how polygenic scores can be used as exposures in causal inference-based methods, specifically mediation analyses. We propose to estimate the extent to which the association of a polygenic score indexing genetic liability to an outcome could be mitigated by a potential intervention on a mediator. To do this this, we use the interventional disparity measure approach, which allows us to compare the adjusted total effect of an exposure on an outcome, with the association that would remain had we intervened on a potentially modifiable mediator.

**Methods:** As an example, we analyse data from two UK cohorts, the Millennium Cohort Study (MCS, N=2,575) and the Avon Longitudinal Study of Parents and Children (ALSPAC, N=3347). In both, the exposure is genetic liability for obesity (indicated by a polygenic risk score for BMI), the outcome is late childhood/early adolescent BMI, and the mediator and potential intervention target is physical activity, measured between exposure and outcome.

**Results:** Our results suggest that a potential intervention on child physical activity can mitigate some of the genetic liability for childhood obesity.

**Conclusion:** We propose that including polygenic scores in a health disparity measure approach, and causal inference-based methods more broadly, is a valuable addition to the study of gene-environment interplay in complex health outcomes.

## S13 Individual Placement and Support: From RCTS to Implementation and Real-World Effectiveness

Fri. 13 Sept., 08:30-10:00

2013

Chair: Arnstein Mykletun, NO

Co-chair: Miles Rinaldi, UK/NO

### ABSTRACT

Work has been an integral part of mental health services since the 1800's and during the 20th century, moved from being a form of therapy, to being a human right. Research into mental health and employment for people with moderate and severe mental illness has followed two strands: investigations of those client characteristics directed towards questions about 'who is employable' and studies of which models and approaches are most effective. The research literature shows that models and approaches are more important than client characteristics in determining whether people with mental health problems are able to work. This symposium will present an update of the RCT evidence on the most effective approach to supporting people to gain and retain employment, Individual Placement and Support (IPS), the economic modelling of the societal and economic case for implementation, the societal impact of IPS implementation on welfare dependency and the societal footprint of IPS in Norway who over a 9-year period undertook a national roll-out of IPS.

### S13.01 How Many Individual Placement and Support RCTs Do We Need before Moving into Full-scale Implementation?

**Miles Rinaldi**<sup>1,2,3</sup>, Eoin Killackey<sup>4,5</sup>, Tarjei Widding-Havneraas<sup>8</sup>, Beate Brinchmann<sup>1</sup>, Arnstein Mykletun<sup>1,2,6,7</sup>

<sup>1</sup>Centre for Work and Mental Health, Nordland Hospital Trust, Bodø, Norway; <sup>2</sup>Centre for Research and Education in Forensic Psychiatry, Haukeland University Hospital, Bergen, Norway; <sup>3</sup>South West London & St George's Mental Health NHS Trust, UK; <sup>4</sup>Orygen, Parkville, Victoria, Australia; <sup>5</sup>Centre for Youth Mental Health, The University of Melbourne, Parkville, Victoria, Australia; <sup>6</sup>Department of Community Medicine, UiT- The Arctic University of Norway, Tromsø, Norway; <sup>7</sup>Division for Health Services, Norwegian Institute of Public Health, Oslo, Norway; <sup>8</sup>Department of Special Needs Education, University of Oslo, Norway

**Aims:** To explore the sufficiency and stability of Individual Placement and Support (IPS) RCT evidence for people with moderate and severe mental illness to understand if IPS is effective.

**Methods:** We did a cumulative meta-analysis on all IPS RCTs for people with moderate and severe mental illness and calculated the failsafe ratio as an indicator of sufficiency and the cumulative slope as an indicator of stability. We also calculated the failsafe number to understand the number of missing studies averaging a z-value of zero that should be added to make the combined effect size statistically insignificant.

**Results:** The IPS RCT evidence reached sufficiency and stability more than a decade ago. Based on findings of the cumulative meta-analysis, there would need to be nearly 400 studies with an average effect size of null that would have to be added to overturn the results of the meta-analysis.

**Conclusion:** The sufficiency and stability of the evidence for IPS was established over a decade ago. While raising ethical questions it also highlights the lack of internationally agreed frameworks for the development, testing and implementation of social interventions compared to pharmacological interventions.

### S13.02 Modelling the Societal and Economic Case for Individual Placement and Support Implementation in Northern Norway

**A-La Park**<sup>1,2,3</sup>, David McDaid<sup>3</sup>, Beate Brinchmann<sup>2</sup>, Nils Abel Prestegård Aars<sup>1</sup>, Thomas Lorentzen<sup>4</sup>, Arnstein Mykletun<sup>1,2,5,6</sup>

<sup>1</sup>Department of Community Medicine, UiT- The Arctic University of Norway, Tromsø, Norway; <sup>2</sup>Centre for Work and Mental Health, Nordland Hospital Trust, Bodø, Norway; <sup>3</sup>Care Policy and Evaluation Centre, Department of Health Policy, London School of Economics and Political Science, London, UK; <sup>4</sup>Department of Sociology, University of Bergen, Norway; <sup>5</sup>Centre for Research and Education in Forensic Psychiatry, Haukeland University Hospital, Bergen, Norway; <sup>6</sup>Division for Health Services, Norwegian Institute of Public Health, Oslo, Norway

**Aims:** Competitive employment is important in promoting recovery and inclusion for people with lived experience of mental health conditions. One supported-employment approach, Individual Placement and

Support (IPS), has been shown in multiple contexts to help promote employment for individuals, but less is known about its broad cross-sectoral societal impacts. This analysis estimates the economic benefits to society of IPS implementation at municipality level in northern Norway.

**Methods:** Economic modelling analysis, making use of data from a longitudinal interrupted time series quasi-experimental design, that estimated the difference in differences in time in work associated with IPS over four years. IPS implementation, in the Bodø municipality was compared to ten control municipalities where IPS had not been implemented. Detailed monitoring data on resources/costs of IPS in Bodø were collected. Resources/costs of usual employment support elsewhere in Norway were obtained from published documentation.

**Results:** There was a positive economic return on investment, with costs more than covered by societal gains from implementation of IPS. This was driven by a significant, positive, causal effect on employment outcomes, equivalent to 12.7 years of increased work per year for the total study population in Bodø. This economic case is strengthened further if expected reduced use of mental and physical health services is considered in the model.

**Conclusion:** IPS makes economic sense, especially when identifying multi-sectoral impacts, including in the health sector. These positive economic benefits were made possible by effective multi-sectoral collaboration and dedicated financing.

### S13.03 The Societal Impact of Individual Placement and Support Implementation on Employment Outcomes for Young Adults Receiving Temporary Health-Related Welfare Benefits

Beate Brinchmann<sup>1</sup>, Sina Wittlund<sup>2</sup>, Thomas Lorentzen<sup>8</sup>, Eoin Killackey<sup>5,6</sup>, Miles Rinaldi<sup>1,3,4</sup>, **Arnstein Mykletun**<sup>1,3,7,9</sup>

<sup>1</sup>Centre for Work and Mental Health, Nordland Hospital Trust, Bodø, Norway; <sup>2</sup>Faculty of Health Sciences, Nord University, Bodø, Norway;

<sup>3</sup>Centre for Research and Education in Forensic Psychiatry, Haukeland University Hospital, Bergen, Norway; <sup>4</sup>South West London & St George's Mental Health NHS Trust, UK; <sup>5</sup>Orygen, Parkville, Victoria, Australia; <sup>6</sup>Centre for Youth Mental Health, The University of Melbourne, Parkville, Victoria, Australia; <sup>7</sup>Department of Community Medicine, UiT- The Arctic University of Norway, Tromsø, Norway;

<sup>8</sup>Department of Sociology, University of Bergen, Norway; <sup>9</sup>Division for Health Services, Norwegian Institute of Public Health, Oslo, Norway

**Aims:** Individual placement and support (IPS) is an evidence-based practice that helps individuals with mental illness gain and retain employment. IPS was implemented for young adults at a municipality level through a cross-sectoral collaboration between specialist mental healthcare, primary mental healthcare, and the government funded employment service (NAV). We investigated whether IPS implementation had a causal effect on employment outcomes for all young adults in receipt of a temporary health-related rehabilitation (work assessment allowance, WAA) welfare benefit, measured at the societal level compared to municipalities that did not implement IPS.

**Methods:** We used a difference in differences design to estimate the effects of IPS implementation on the outcome of workdays per year using longitudinal registry data. We estimate the average effect of being exposed to IPS implementation during four-years of implementation compared to ten control municipalities without IPS for all WAA recipients.

**Results:** We found a significant, positive, causal effect on societal level employment outcomes of 5.6 ( $p = 0.001$ , 95% CI 2.7–8.4) increased workdays per year per individual, equivalent to 12.7 years of increased work in the municipality where IPS was implemented compared to municipalities without IPS. Three years after initial exposure to IPS implementation individuals worked, on average, 10.5 more days per year equating to 23.8 years of increased work.

**Conclusion:** Implementing IPS as a cross sectoral collaboration at a municipality level has a significant, positive, causal, societal impact on employment outcomes for all young adults in receipt of a temporary health-related rehabilitation welfare benefit.

### S13.04 Effectiveness of Individual Placement and Support (IPS) Implementation on Disability Pensions (DP)

Elisabeth Sandtorv<sup>1,3</sup>, Thomas Lorentzen<sup>4</sup>, Eoin Killackey<sup>9,10</sup>, Arnstein Mykletun<sup>1,2,5,6</sup>, Miles Rinaldi<sup>1,2</sup>, Beate Brinchmann<sup>1</sup>

<sup>1</sup>Centre for Work and Mental Health, Nordland Hospital Trust, Bodø, Norway; <sup>2</sup>Centre for Research and Education in Forensic Psychiatry, Haukeland University Hospital, Bergen, Norway; <sup>3</sup>Department of Clinical Medicine, University of Bergen, Bergen, Norway; <sup>4</sup>Department of Sociology, University of Bergen, Norway; <sup>5</sup>Division for Health Services, Norwegian Institute of Public Health, Oslo, Norway; <sup>6</sup>Department of Community Medicine, UiT – The Arctic University of Norway, Tromsø, Norway; <sup>7</sup>South West London & St George's Mental Health NHS Trust, London, UK; <sup>9</sup>Orygen, Melbourne, Australia; <sup>10</sup>Centre for Youth Mental Health, The University of Melbourne, Melbourne, Australia

**Aims:** This study aimed to investigate the societal effects of Individual Placement and Support (IPS) implementation on welfare dependency, specifically disability pension (DP). We sought to determine if there had been a reduction or change in the use of DP following the introduction of IPS services in Bodø in 2013.

**Methods:** In this naturalistic effectiveness trial, the aim was to investigate the effects of IPS on DP by comparing hazard probabilities for receiving DP in areas with and without IPS implementation, both before (2011-2012) and after (2013-2015) the introduction of IPS services in Bodø. Ten municipalities without IPS served as controls. A logistic discrete-time survival model was used, and hazard probabilities for receiving DP were calculated. Individuals were followed from the year they started Work Assessment Allowance (WAA) until they received DP or reached the maximum observation period of five years, whichever came first.

**Results:** DP rates increased in both implementation and control municipalities for the cohorts receiving WAA after 2013, but we found no statistically significant effect of IPS on DP.

**Conclusion:** Although IPS has the potential to increase employment [days worked per year], no such effect was found for DP on our study. A possible consequence IPS implementation could be quicker assessment of work capacity for individuals using the IPS-services, leading to higher DP-rates.

### S13.05 Mapping the Implementation of Individual Placement and Support (IPS) in Norway. Results from the IPSNOR Study

Nils Abel Prestegård Aars<sup>1</sup>, Beate Brinchmann<sup>1</sup>, Miles Rinaldi<sup>1,2,8</sup>, David McDaid<sup>3</sup>, Eoin Killackey<sup>4,5</sup>, Arnstein Mykletun<sup>1,2,6,7</sup>

<sup>1</sup>Centre for Work and Mental Health, Nordland Hospital Trust, Bodø, Norway; <sup>2</sup>Centre for Research and Education in Forensic Psychiatry, Haukeland University Hospital, Bergen, Norway; <sup>3</sup>London School of Economics and Political Science, UK; <sup>4</sup>Orygen, Parkville, Victoria, Australia; <sup>5</sup>Centre for Youth Mental Health, The University of Melbourne, Parkville, Victoria, Australia; <sup>6</sup>Department of Community Medicine, UiT- The Arctic University of Norway, Tromsø, Norway; <sup>7</sup>Division for Health Services, Norwegian Institute of Public Health, Oslo, Norway; <sup>8</sup>South West London & St George's Mental Health NHS Trust, London, UK

**Aims:** Individual Placement and Support (IPS) is an evidence-based service which support people with mental illness gain and retain competitive employment. Randomized controlled trials has proven IPS effective under controlled settings and for different subgroups. Implementation of IPS in real-world settings does however come with a host of challenges, and little is known about the societal footprint of IPS when fully scaled up. In this study we follow the implementation of IPS in all of Norway over a 9-year period, with the overall aim of illustrating how the service was rolled out in an entire country. The results will inform empirical studies on the societal footprint of IPS in Norway.

**Methods:** We conducted semi-structured interviews with 73 central stakeholders from all IPS service centers in Norway between 2012 - 2020. Crucial to this study, respondents reported on dates of establishment, number of employment specialists (ES) and the municipalities catered for by the center. From Statistics Norway we extracted annual population for every municipality in Norway for the same period, and calculated the dose of IPS as number of ES per 100,000 inhabitants per year in each municipality.

**Results:** The results from this study is presented as sequential heat maps, illustrating how dose of IPS changed in Norway over a 9-year period on a granular level.

**Conclusion:** In this study we have calculated how much IPS was available per population in all of Norway per year. The results are crucial to inform empirical analyses on the societal footprint of IPS.



## S14 Trajectories of Mental Disorders in Childhood and Adolescence: Lessons from Longitudinal Studies

Fri. 13 Sept., 08:30-10:00

2055

Chair: Giovanni de Girolamo, IT

Co-chair: Laura Duncan, CA

### ABSTRACT

This symposium synthesizes findings from four significant longitudinal studies examining the trajectories of mental disorders from childhood into adolescence and early adulthood. The transition from child and adolescent mental health services (CAMHS) to adult mental health services (AMHS) is crucial for continuity of care. The MILESTONE project highlighted that, although about half of the youth cease using mental health services upon reaching the upper age limit of CAMHS, this discontinuation does not necessarily correlate with worsening mental health. Factors such as higher symptom scores and a need for continued treatment predict transitions to AMHS or extended CAMHS care. Lessons from the Brazilian High Risk Cohort Study for Mental Health Conditions will be provided with a focus on the associations of environmental, psychological, genetic and neuroimage factors with mental health problems. Several Canadian cohort studies will be profiled with a focus on transferability when considering evidence about child/youth mental health service use. Finally, a comprehensive review of longitudinal studies on child mental disorders underscores the value of these studies in understanding the development and impact of mental disorders over the life course. It calls for standardized reporting and methodological rigor in future research to enhance our understanding of these disorders. Together, these studies underscore the complexity of mental health trajectories from childhood through adulthood and the critical role of early identification and intervention in mitigating long-term consequences.

### S14.01 Transition from Child/Adolescent Mental Health Services to Adult Mental Health Services: Lessons from the MILESTONE Project

**Giovanni de Girolamo**<sup>1</sup>, Suzanne E. Gerritsen<sup>2</sup>, Gwendolyn C. Dieleman<sup>2</sup> for the MILESTONE consortium  
<sup>1</sup>IRCSS Fatebenefratelli, Brescia (Italy); <sup>2</sup>Department of Child and Adolescent Psychiatry and Psychology, Erasmus Medical Center, Rotterdam (The Netherlands)

**Aims:** Separate mental health services by age, namely child and adolescent mental health services (CAMHS) and adult mental health services (AMHS), might be a barrier to continuity of care that adversely affects young people's mental health. We studied the type of care young people receive after reaching the upper age limit of their CAMHS and examine differences in outcomes at 24-month follow-up between young people receiving different types of care.

**Methods:** To assess mental health in young people from 39 CAMHS in eight European countries, we did a longitudinal cohort study. Eligible young people were CAMHS users up to 1 year younger than the upper age limit of their CAMHS. Information on mental health service use, mental health problems (ie, using the HONOSCA, Youth Self-Report and Adult Self-Report, DSM-5, and ICD-10), and sociodemographic characteristics were collected using self-reported, parent-reported, and clinician-reported interviews and questionnaires.

**Results:** The MILESTONE cohort included 763 young people. The participants were 60.0% female (n=458) and 40.0% male (n=305), and had a mean age of 17.5 years. Over the 24-month follow-up period, 48 young people (6.3%) actively withdrew from the study. For young people, the higher their scores on the HONOSCA (p=0.0009) and Youth Self-Report and Adult Self-Report (p=0.046), and who had a clinical classification of severe mental illness (p=0.0033), had suicidal thoughts or behaviours or self-harm (p=0.034), used psychotropic medication (p=0.0014), and had a self-reported or parent-reported need for continued treatment (p<0.0001) at baseline, were more likely to transition to AMHS or stay in CAMHS than to have care end.

**Conclusion:** Although approximately half of young people reaching the upper age limit of their CAMHS stop using mental health services, this was not associated with a deterioration in their mental health.



## S14.02 In View of Generalizability & Transportability: Canadian Evidence on Mental Health Service Use among Children & Youth

**Jordan Edwards**<sup>1</sup>, Katholiki Georgiades<sup>2</sup>, Kelly K. Anderson<sup>3</sup>

<sup>1</sup>Hamilton Health Sciences, Hamilton, Canada; <sup>2</sup>McMaster; <sup>3</sup>Western University

**Aims:** Canadian longitudinal evidence on mental health and service use among children and youth is fragmented and disparate, reflecting variation in data sources, geographical coverage, and measurement. The characteristics of data used to measure child and youth mental health service use in longitudinal studies directly impacts the generalizability and subsequently transportability of evidence derived from those data.

**Methods:** This presentation will contextualize Canadian longitudinal evidence on mental health service use among children and youth by considering characteristics, strengths, limitations and differences of various types of data and their implications for generalizability, and transportability. We will profile different Canadian population-level longitudinal survey data and health administrative data. Further, we will describe implications for using linked survey and health administrative data sources.

**Results:** Using examples from the published literature, we will highlight key differences between the generalizability of evidence derived from varying longitudinal data sources. We will highlight potential sources of bias related to sampling and measurement and will outline key pandemic related considerations and their implications for transportability. Further, we will outline a vision for future longitudinal research aimed at producing generalizable evidence on mental health service use among children and youth in Canada.

**Conclusions:** Children and youth are central to initiatives aimed at improving population mental health. Contextualizing the longitudinal data we use to inform mental health policy and programming is key to producing accurate evidence to successfully support population mental health service needs.

## S14.03 Associations of Environmental, Psychological, Genetic and Neuroimage Findings with Mental Health Problems: Lessons from the Brazilian High Risk Cohort Study for Mental Health Conditions

**Mauricio Scopel Hoffmann**<sup>1</sup>, Giovanni Abrahão Salum<sup>2,3</sup>

<sup>1</sup> Dept of Psychiatry, Universidade Federal de Santa Maria, Santa Maria, Brazil; <sup>2</sup>Dept of Psychiatry and Legal Medicine, Universidade Federal do Rio Grande do Sul; <sup>3</sup>Child Mind Institute, New York, USA

**Aims:** The Brazilian High-Risk Cohort Study (BHRCS), one of the largest studies in the global south, has been ongoing since 2010 to understand the development of mental health conditions from molecular to behavioral levels.

**Methods:** Initiated in 2010, the BHRCS screened 9,937 young people from state-funded schools in two Brazilian state capitals. Out of these, 1,553 were selected due to high family risk for psychopathology, and 957 participants aged 6 to 14 years (45% female) were selected from a random sample (N=2,511). With 80% retention, the cohort has completed five waves of data collection, including phenotypic, genotypic (parents and subjects), and neuroimaging data from a subsample of 780 participants.

**Results:** To date, 200 papers have been published based on BHRCS data. Key findings include that 20% of the sample had severe mental health issues, with 81% lacking access to care, and stigma being a significant barrier. Environmental factors such as threat, poverty, and changes in parental employment were linked to mental health conditions over time, which correlated with lower educational achievement. Genetically, genes associated with Alzheimer's Disease were linked to poor cognitive performance and ADHD in children and adolescents, moderated by environmental risks. Innovations such as Neuroimaging Association Score and data integration with other cohorts are increasing the utility of neuroimage-base risk stratification for mental health problems.

**Conclusion:** BHRCS is the largest population neuroscience study in Brazil, providing crucial insights into developmental psychiatry and the developmental trajectories of Brazilian youth.

## S14.04 Unveiling Trends in Longitudinal Studies of Child Mental Disorders in the General Population & Methodological Considerations for New Studies

**Laura Duncan**<sup>1,2</sup>, Theodora Bogdan<sup>1</sup>, Katholiki Georgiades<sup>1</sup>, Weiyi Xie<sup>1</sup>

<sup>1</sup>Department of Psychiatry & Behavioural Neurosciences, Offord Centre for Child Studies, McMaster University, Hamilton, Ontario, Canada;

<sup>2</sup>McMaster Children's Hospital, Hamilton Health Sciences, Hamilton, Ontario, Canada

**Aims:** Longitudinal studies of child mental disorders investigate risk factors and sequelae of disorder. They are time/resource intensive but offer life-course perspectives. A comprehensive synthesis of the characteristics of existing longitudinal studies provides insights into methodological trends in studies conducted to date and informs planning of new studies.

**Methods:** A systematic review of literature was conducted in MEDLINE, EMBASE, and PsycINFO in December 2022. Records were grouped by study and data were extracted and synthesized regarding the scope and design features of studies.

**Results:** There were 18,133 unique records for 487 studies—159 of these were eligible for inclusion. Studies occurred from 1934 to 2019 worldwide, with data collection across 1 to 68 time points, with 70% of studies ongoing. Baseline sample sizes ranged from n = 151 to 64,136. Studies were most frequently conducted in the United States and at the city/town level. Internalizing disorders and disruptive, impulse control, and conduct disorders were the most frequently assessed mental disorders. Of studies reporting methods of disorder assessment, almost all used measurement scales. Individual, familial and environmental risk and protective factors and sequelae were examined.

**Conclusion:** Characterizing the methodological characteristics of longitudinal studies of child mental disorders in the general population provides an understanding and inventory of extant studies. Our results have implications regarding: (a) the usefulness of published methodology and the need for standardized reporting requirements; (b) meta-analytic syntheses of longitudinal evidence relating to child mental disorder; and (c) planning and methodological considerations for new studies.

## S15 Advancements and Current Evidence on Acute Mental Health Services: Insights from Three Western European Countries

Fri. 13 Sept., 08:30-10:00

A2064

Chair: Andreas Bechdorf, DE

Co-chair: Sonia Johnson, UK

### ABSTRACT

The symposium will convene experts from England, Switzerland, and Germany to showcase pioneering approaches and current evidence in crisis care and home treatment for mental health challenges. **Sonia Johnson** from the United Kingdom will illuminate the nationwide implementation of crisis resolution teams, emphasizing the ongoing quest for high-quality, individualized care amidst variable impacts and user feedback. **Niklaus Stulz** will present findings from Switzerland, demonstrating how home treatment services significantly reduce hospital days for patients experiencing acute mental health crises, while maintaining comparable clinical outcomes and patient satisfaction levels. **Martin Lambert's** research from Germany highlights the effectiveness of assertive community treatment within integrated care models, showcasing substantial cost reductions alongside improved clinical outcomes for individuals with severe and persistent mental illness. Additionally, **Andreas Bechdorf** will present the evaluation of intensive home treatment in Germany, revealing lower rates of inpatient readmissions and reduced days spent in psychiatric care, positioning home treatment as a viable alternative to traditional inpatient care. These diverse perspectives underscore the transformative potential of innovative approaches to crisis care and home treatment, emphasizing the importance of tailored, community-based interventions in addressing the complex needs of individuals experiencing mental health crises. The symposium will provide a platform for cross-country knowledge exchange, fostering collaboration and driving forward the evolution of crisis care services towards more effective, accessible, and person-centered care models.

### S15.01 Meeting the Challenges of Crisis Care in England after the Nationwide Roll-Out of Home Treatment Teams

**Sonia Johnson**<sup>1</sup>, Brynmor Lloyd-Evans<sup>1</sup>, NIHR Policy Research Unit in Mental Health Team<sup>1,2</sup>

<sup>1</sup>University College London, London, UK; <sup>2</sup>Kings College London, London, UK

**Aims:** Crisis resolution teams delivering crisis assessment and intensive home treatment were rolled out nationwide in England over 20 years. However, variable impacts and some service user dissatisfactions are reported.

**Methods:** We have conducted a series of studies (with co-production a major element) aimed at (a) ensuring crisis teams achieve high quality and good outcomes nationwide (b) understanding crisis care needs and provision at a catchment area level, including new models developed to address needs not met by crisis teams.

**Results:** Regarding crisis team quality, a package of training and support for achieving high model fidelity shows some evidence of improving outcomes from crisis team care. A recent focus in NHS policy and UK research is on the catchment area crisis care system as a whole: the NIHR Policy Research Unit has investigated models such as the crisis café which show some promise in providing an acceptable alternative to more medically oriented acute services, with preliminary evidence of lower admission rates in catchment areas where they are present.

**Conclusion:** Important challenges for delivering individualised and effective acute mental health care remain even with intensive home treatment routinely implemented under national policy. Systematic strategies for defining and improving fidelity are a potential route for improving routine service delivery. A system-wide perspective suggests roles for multiple admission alternatives in delivering flexible, individualised acute care.

## S15.02 Home Treatment for Acute Mental Healthcare in Switzerland: Randomised Controlled Trial

**Niklaus Stulz**<sup>1</sup>

<sup>1</sup>Integrated Psychiatric Services Winterthur – Zurcher Unterland, Winterthur, Switzerland

**Aims:** Home treatment has been proposed as an alternative to acute in-patient care for mentally ill patients. We aimed to test whether and to what degree home treatment services would enable a reduction (substitution) of hospital use.

**Methods:** A total of 707 consecutively admitted adult patients with a broad spectrum of mental disorders (ICD-10: F2–F6, F8–F9, Z) experiencing crises that necessitated immediate hospital admission, were randomly allocated to either a service model including a home treatment alternative to hospital care (experimental group) or a conventional service model that lacked a home treatment alternative to in-patient care (control group).

**Results:** The mean number of hospital days per patient within 24 months after the index crisis necessitating hospital admission (primary outcome) was reduced by 30.4% (mean 41.3 v. 59.3,  $P < 0.001$ ) when home treatment was available (intention-to-treat analysis). Regarding secondary outcomes, average overall treatment duration (hospital days + home treatment days) per patient (mean 50.4 v. 59.3,  $P = 0.969$ ) and mean number of hospital admissions per patient (mean 1.86 v. 1.93,  $P = 0.885$ ) did not differ between the study arms within 24 months after the index crisis. There were no between-group differences regarding clinical and social outcomes (Health of the Nation Outcome Scales: mean 9.9 v. 9.7,  $P = 0.652$ ) or patient satisfaction (Perception of Care questionnaire: mean 0.78 v. 0.80,  $P = 0.242$ ).

**Conclusion:** Home treatment can reduce hospital use among severely ill patients in acute crises and seems to result in comparable clinical/social outcomes and patient satisfaction as standard in-patient care.

## S15.03 Treatment of Severe and Persistent Mental Illness with Assertive Community Treatment within a Stepped and Integrated Care Model: Results of a Randomized Controlled Trial

**Martin Lambert**<sup>1</sup>

<sup>1</sup>Centre of Integrated Care, Department of Psychiatry and Psychotherapy, University Medical Center Hamburg-Eppendorf

**Aims:** Stepped, evidence-based and integrated care models have the potential to be used as a reference for mental health services. This post-hoc analysis aimed to evaluate cost savings, effectiveness, and cost-effectiveness in people with severe and persistent mental illness (SPMI) treated with therapeutic assertive community treatment (TACT) within such a model.

**Methods:** The RECOVER trial was a two arm, assessor- and data analyst-blinded RCT conducted in Hamburg, Germany. Participants aged 16-79 years with mental disorders were randomly 1:1 assigned either to RECOVER or treatment as usual (TAU). Primary outcomes comprised costs, effectiveness, and cost-effectiveness. Outcomes were evaluated according to the ITT principle, group differences regarding costs with adjusted generalized linear models, effectiveness with ANCOVA models, and cost-effectiveness with the incremental cost-effectiveness ratio (ICER) and cost-effectiveness acceptability curves (CEACs).

**Results:** 891 patients were included in the RECOVER trial ( $n=477$  in RECOVER,  $n=444$  in TAU). Of those, 189 (21,2%) were classified as SPMI, the highest severity and disability level in RECOVER. Compared to TAU, TACT was associated with significantly lower annual total costs (-7,944€, -28%,  $p < 0.01$ ), health and social care costs (-7,788€, -34%,  $p < 0.01$ ) and hospital costs (-7.424€, -54%,  $p < 0.001$ ). Effectiveness analyses showed a better outcome for TACT (combined score for symptoms, functioning, quality of life). The CEACs descriptively demonstrated that TACT was cost-effective with a probability of >95%.

**Conclusion:** Treatment of SPMI with TACT resulted in substantial cost reductions with better cost-effectiveness. Treatment of SPMI with TACT could be successfully integrated in stepped, evidence-based and integrated care models.

## S15.04 Does Intensive Home Treatment Reduce Utilization of Psychiatric Hospital Services? A Multi-Center Quasi-Experimental Cohort Study from Germany

**Andreas Bechdolf**<sup>1,2,3</sup>, Konstantinos Nikolaidis<sup>1,2</sup>, Johanna Baumgardt<sup>6</sup>, Stefan Weinmann<sup>4,5</sup>

<sup>1</sup>Department of Psychiatry, Psychotherapy, and Psychosomatics incorporating FRITZ am Urban and soulspace, Vivantes Hospital am Urban and Vivantes Hospital im Friedrichshain, Berlin, Germany; <sup>2</sup>Department of Psychiatry and Psychotherapy, CCM, Charité - Universitätsmedizin Berlin, corporate member of Freie Universität Berlin and Humboldt-Universität zu Berlin, Germany; <sup>3</sup>German Center for Mental Health (DZPG), site Berlin-Potsdam; <sup>4</sup>University Psychiatric Clinics (UPK) Basel, Faculty of Medicine University of Basel; <sup>5</sup>Department of Psychiatry, Psychotherapy, and Psychosomatics, MediClin Clinic at Lindenhöhe, Offenburg; <sup>6</sup>Scientific Institute of the AOK (WIdO), Berlin, Germany

**Aims:** In 2018 a new law in Germany authorized national mental health care providers to establish a specific form of home psychiatric treatment (HT) on a regular basis, the Inpatient Equivalent Home Treatment (IEHT). IEHT, while resembling internationally recognized HT forms, offers a distinct model. It delivers daily acute psychiatric treatment for individuals with severe mental illness in their home environment, mirroring the content, flexibility, and complexity of inpatient psychiatric treatment (IT). This study aimed to evaluate IEHT compared to IT.

**Methods:** Between 2021 and 2022, we conducted a comparative study of IT and IEHT, utilizing a 12-month follow-up quasi-experimental design with propensity score (PS) matching in ten psychiatric hospitals across various regions of Germany. Assessments were conducted at baseline, as well as after 6 and 12 months. Using standardized instruments and routine hospital data we assessed the inpatient readmission rate within 12 months, as the primary outcome, and the following secondary outcomes: combined (inpatient + day care clinic + IEHT) readmission rate, total number of inpatient hospital days, job integration, quality of life, psychosocial functioning, symptom severity, and recovery orientation. All main analyses were intention-to-treat. This study was prospectively registered in clinicaltrials.gov (NCT0474550).

**Results:** Out of 1396 approached patients, two hundred service users receiving IEHT and 200 statistically matched "twins" receiving IT were recruited. No significant differences in demographic variables, psychometric measures, or clinical characteristics were observed between the two groups at the recruitment. Psychosocial functioning, quality of life, job integration and recovery orientation did not differ significantly between the two groups 12 months after study inclusion. In the IEHT group were reported significantly lower rates as compared to the IT group for the inpatient readmission rate (on average -18%,  $p < 0.005$ ), the combined readmission rate (on average +13%,  $p < 0.005$ ), and the IT days within 12 months (on average -6.82 days,  $p < 0.001$ ).

**Conclusion:** IEHT, 12 months after the index treatment, was found to be comparable to IT in terms of psychosocial functioning, quality of life, job integration, and recovery feeling. Moreover, users of IEHT appeared to exhibit reduced utilization of IT, day clinic, or IEHT services and spent fewer days in IT or IEHT care 12 months after the index treatment. Observational evidence following the study indicated that IEHT has not only become comparable to IT but has also shown to be a viable alternative, particularly in terms of readmission rates and inpatient spent days, aligning with international results on HT.

**S16 Methodological Advances in the Field of Ambulatory Assessment**

Fri. 13 Sept., 14:00-15:30

A1129

Chair: Setareh Ranjbar, CH

Co-chair: Jennifer Glaus, CH

**ABSTRACT**

The field of ambulatory assessment, including Ecological Momentary Assessment (EMA), wearable sensors, smartphone applications, has experienced remarkable growth recently due to advancements in technology and methodology. These innovations have enabled researchers to collect frequent and reliable assessments in real-time and in real-life settings, allowing the investigation of dynamic relationships and profiles. This symposium aims to explore the latest methodological advances and challenges (e.g., data collection and analysis) unique to ambulatory research. The symposium will feature five presentations from different research groups, each highlighting diverse approaches and techniques employed in ambulatory assessment studies. First, **Prof. Dr. Lamers** will discuss two novel studies using extended periods of data collection to identify individuals at risk for depression and to understand consequences of daily-life stress, addressing challenges in minimizing burden and improving feasibility through variable selection. Continuing the discussion on stress, **Prof. Dr. Husky** will present new findings on stress reactivity, highlighting age and sex differences from a large community study employing EMA. **Konstantin Drexl** will address additional methodological challenges, such as missing data and measurement error, presenting findings on sleep and mood using Bayesian joint multilevel models. Exploring alternative analyses using EMA data, **Dr. Urben** will introduce network analysis within the context of self-regulatory processes. Further expanding the analytical approach, **Dr. Glaus** will present an approach using both EMA and actigraphy, employing latent profile analyses to investigate lifestyle and mood profiles. The symposium will conclude with an inclusive discussion with all presenters, providing a holistic perspective on the state-of-the-art methodologies in ambulatory assessment.

**S16.01 Long-term Monitoring of Persons with Depression and Stress-related Disorders: Lessons Learned from RADAR-CNS and New Developments in Stress in Action****Femke Lamers**<sup>1,2</sup>, Brenda WJH Penninx<sup>1,2</sup><sup>1</sup>Amsterdam UMC, Vrije Universiteit Amsterdam, Department of Psychiatry, Boelelaan 1117, Amsterdam, The Netherlands; <sup>2</sup>Amsterdam Public Health, Mental Health program, Amsterdam, The Netherlands

**Aims:** Identifying those at risk for developing depressive episodes using smartphone and wearable data has great potential for early intervention and prevention. Most studies however, have collected data only for a short period of time, and it remains unclear which variables are most important to capture. To minimize burden and improve feasibility, identification of which factors are most important in day-to-day life is needed.

**Methods:** First, we will be showing some lessons learned from the RADAR-MDD study, in N=623 persons with recurrent major depressive disorder who were followed for a maximum of two years with passive and active smartphone monitoring and a Fitbit. Second, we will present the aims and outline of the new 10-year Stress in Action Consortium (SiA), that aims to gain mechanistic understanding of the causes and consequences of daily-life stress, enabling strategies to monitor and intervene on daily-life stress and reduce its detrimental health impact.

**Results:** In RADAR-MDD, over 90% of persons had data available from active components, while overall Fitbit wear-time was 62.5% with a mean wear time of 15.1 h per day (Matcham et al. BMC Psychiatry, 2022, 22:136). Stress in Action aims to measure ambulant affective, behavioural, cognitive and physiological stress responses, and develop a toolkit that will be used in an enrichment phase of the project in ~3000 participants of existing Dutch cohorts. SiA is currently analysing existing ambulatory data to inform this toolkit.

**Conclusion:** Results from RADAR-MDD and new developments in the new Stress in Action project will be discussed.



## S16.02 Sex Differences in Stress Reactivity in Daily Life in Adults with Mood Disorders

**Mathilde Husky**<sup>1</sup>, Jennifer Glaus<sup>2</sup>, Setareh Ranjbar<sup>3</sup>, Martin Preisig<sup>3</sup>

<sup>1</sup>University of Bordeaux, Bordeaux Population Health Research Center, University of Bordeaux, Bordeaux, France; <sup>2</sup>Division of Child and Adolescent Psychiatry, Department of Psychiatry, Lausanne University Hospital and University of Lausanne, Lausanne, Switzerland; <sup>3</sup>Psychiatric Epidemiology and Psychopathology Research Center, Department of Psychiatry, Lausanne University Hospital and University of Lausanne, Lausanne, Switzerland

**Aims:** The objective of the study is to investigate age and sex differences in emotional reactivity to daily stressors using Ecological Momentary Assessment (EMA) in a general population sample of adults.

**Methods:** Data will be drawn from the CoLaus|PsyCoLaus study, a prospective study conducted in a representative sample of the population aged 35-75 years living in Lausanne, Switzerland. Participants completed EMA for a period of 7 to 14 consecutive days with 4 prompts per day. At each assessment, participants reported their current affective state (sad/happy, anxious/calm, active/inactive, tired/excited) and their exposure to stressors in their daily life, recording the type of event that affected them the most and its positive or negative valence.

**Results:** First, we will examine the types of positive and negative events reported. Second, we will investigate changes in mood states or emotional reactivity following exposure to positive and negative events. We will do so by age and sex and will investigate age X sex interactions.

**Conclusion:** Despite the known role of sex as a factor associated with exposure to life events and reactivity to life events, most studies investigating stress reactivity have not examined sex X age interactions. Relying on one of the largest community-based EMA studies, the present investigation would provide important insights regarding age and sex differences in stress reactivity in naturalistic settings among adults.

## S16.03 At What Timescale Does Sleep Act on Internalizing Symptomatology in Adolescents? Findings from a Long-Term Ambulatory Assessment Pilot Study

**Konstantin Drexler**<sup>1</sup>, Jennifer Glaus<sup>1</sup>, Sebastien Urben<sup>1</sup>, Kerstin J. Plessen<sup>1</sup>

<sup>1</sup>Division of Child and Adolescent Psychiatry, Department of Psychiatry, Lausanne University Hospital and University of Lausanne, Lausanne, Switzerland

**Aims:** This study aims to explore the sleep-related etiology of internalizing disorders in adolescents by overcoming common research limitations, such as brief sleep assessment periods and poor operationalization of within-person processes. It seeks to examine daily and weekly associations of changes in sleep patterns to responses in affective functioning, which may contribute to depressive and anxious symptoms.

**Methods:** We recruited adolescents aged 14-17 from schools in the Greater Lausanne area for a study spanning three waves of three-weeks of data collection combining continuous actigraphy, Ecological Momentary Assessments for daily mood tracking, and weekly evaluations of depressive and anxiety symptoms. On the daily level, Bayesian joint multilevel models examined daily couplings of sleep patterns with daytime mood and subsequent internalizing symptoms. On the weekly level, emotion regulation was assessed as a potential mediator between sleep patterns and concurrent as well as subsequent symptoms.

**Results:** The presentation of results from the daily and the weekly level will illustrate the heterogeneity in within-person effects across adolescents as well clinical features of the sample. Furthermore, we will illustrate methodological challenges such as the robustness against missing data and the propagation of measurement error.

**Conclusion:** Based on a multiwave intensive longitudinal design, this study examined dynamic signatures of the more complex underlying mechanisms by which sleep disturbances may contribute to the development of internalizing disorders. The present pilot study emphasizes the necessity for further research in clinical populations, higher timescales, and a reconsideration of how to operationalize meaningful changes in sleep patterns.

## S16.04 Approaching Self-Regulatory Control Processes and Violence in Male Adolescents through Micro-Level Methodology

**Sebastien Urben**<sup>1</sup>, Kerstin J. Plessen<sup>1</sup>

<sup>1</sup>Division of Child and Adolescent Psychiatry, Department of Psychiatry, Lausanne University Hospital and University of Lausanne, Lausanne, Switzerland

**Aims:** Self-regulatory control processes are associated with the emergence and maintenance of externalizing symptoms (e.g., violence, aggressive or rule-breaking behaviors). However, the specific understanding of this association at a dynamical micro-level at the within-person is not explored. Therefore, this study examines the interrelationships of self-regulatory control processes (e.g., anger dysregulation and self-control) and its role for the emergence of violence (i.e., externalizing behaviors) in adolescents, integrating the within- and between-person level through ambulatory assessments.

**Methods:** Sixty-two male adolescents with various degree of behavioral and emotional problems undertook an ambulatory assessment including not only experience sampling (i.e., self-report) but also a cognitive ambulatory assessment (i.e., go/no-go task) over 9 days (multiple time a day).

**Results:** Network analyses revealed at the within-person level temporal dynamic within the day and a cross-sectional (in real time) relationships between states of anger, anger rumination, response inhibition and self-control. Multi-level regression analyses revealed that violent ideations and behaviors at the same measurement were related to lower self-control and higher anger rumination, at the within-person level. Violent ideation led to violent behaviors in the next time-point (next measure) and states of anger lead to violent ideations the next day.

**Conclusion:** Our original methodology, combining within- and between-person level as well as subjective measures and performances, gives important insights on the interrelationships of self-regulatory control (and, in particular, anger dysregulation) processes and their role in violence (i.e., externalizing symptoms) in male adolescents.

## S16.05 Adolescent Profiles of Mood States and Lifestyle Behaviors with Internalized Symptoms in Adolescents from the Community

**Jennifer Glaus**<sup>1</sup>, Setareh Ranjbar<sup>2</sup>, Konstantin Drexler<sup>1</sup>, Sébastien Urben<sup>1</sup>, Kerstin J. Plessen<sup>1</sup>

<sup>1</sup>Division of Child and Adolescent Psychiatry, Department of Psychiatry, Lausanne University Hospital and Lausanne University, Lausanne, Switzerland; <sup>2</sup>Psychiatric Epidemiology and Psychopathology Research Center, Department of Psychiatry, Lausanne University Hospital and University of Lausanne, Prilly, Switzerland

**Aims:** Lifestyle significantly impacts physical and mental health. Addressing and modifying unhealthy behaviors early in life can be crucial for prevention. However, limited research has explored the dynamic interrelationships between mood states and multiple lifestyle behaviors in adolescents. The aims of this study are to (1) identify various profiles of mood states and lifestyle behaviors (i.e., sleep, physical activity, and eating habits) among adolescents using ambulatory assessments; and (2) examine associations between these profiles and internalized symptoms.

**Methods:** We recruited a total of 109 participants (56.9% females) aged 14-17 years from a community setting. Participants underwent three 21-day monitoring periods, during which they wore actigraphy devices on their wrists and completed Ecological Momentary Assessment (EMA) surveys. EMA prompts were administered four times daily, capturing data on environmental context, sleep quality, physical activity, eating habits, and current mood states. Internalized symptoms were assessed at baseline using the Child Behavior Checklist – Youth Self-Report.

**Results:** We will employ latent profile analysis to identify different lifestyle profiles among adolescents, shedding light on their daily routines. We will then test the associations between these profiles and internalized symptoms among adolescents using generalized estimating equation (GEE).

**Conclusion:** The findings of this study will allow identifying specific physical and mental health targets for future early detection and prevention strategies, in particular for adolescents experiencing internalized symptoms. Moreover, the use of mobile technologies opens new opportunities for the implementation of real-time, ecological momentary interventions or just-in-time adaptive intervention to promote health lifestyles among youths.

## S17 Problem Checklists or Standardized Diagnostic Interviews for the Classification of Child & Youth Psychiatric Disorder in Epidemiological Research?

Fri. 13 Sept., 14:00-15:30

2013

Chair: Laura Duncan, CA

Co-chair: Giovanni A Salum, BR

### ABSTRACT

Standardized diagnostic interviews (SDI) to assess child and youth psychiatric disorders have become the de facto gold standard for classifying disorder despite meta-analytic evidence that the reliability of SDIs is moderate and highly variable (Duncan et al., 2019). Theoretical arguments exist for expecting checklists to achieve comparable levels of reliability and validity with SDIs for identifying child psychiatric disorder in epidemiological studies and clinical research (Boyle et al., 2017). Emerging empirical evidence also indicates that this is the case (Boyle et al., 2021). Practical benefits also exist (cost, burden, administration mode etc.). However, the use of SDIs endures (JAACAP Special Issue, 2020) with new developments in modes of administration that increase flexibility (Townsend et al., 2020). Using theoretical arguments and empirical evidence from numerous large-scale epidemiological studies, this symposium will: 1) compare the value of interviews and checklists in terms of validity, reliability, and utility; 2) consider implications of using checklists versus interviews; and 3) offer arguments from both sides when considering measurement and assessment alternatives. Four presenters will offer their perspectives on the interview versus checklist debate and examine the trade-offs that exist in the use of different measurement approaches. A discussant will reflect on the panel presentations and direct questions to presenters for discussion. This symposium outlines a need for additional research on the psychometric adequacy of self-completed problem checklists and standardized diagnostic interviews to classify child and youth psychiatric disorder.

References: Duncan, L., et al. (2019). *Journal of Child Psychology and Psychiatry*, 60(1), 16-29.; Boyle, M. H., et al. (2017). *International Journal of Methods in Psychiatric Research*, 26(4), e1544; Boyle, M. H., et al. (2021). *The Canadian Journal of Psychiatry*, 07067437211037125.; Journal of the American Academy of Child & Adolescent Psychiatry. (2000). Special Section: Research Psychiatric Diagnostic Interview for Children and Adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, 39(1), 1-134; Townsend, L., et al. (2020). *Journal of the American Academy of Child & Adolescent Psychiatry*, 59(2), 309-325

### S17.01 Checklists & Interviews: Psychometric Equivalence for Classifying Child/Youth Psychiatric Disorder in Epidemiological Studies

**Laura Duncan**<sup>1</sup>

<sup>1</sup>Offord Centre for Child Studies, McMaster University

**Aims:** Standardized diagnostic interviews to assess child and adolescent psychiatric disorders have become the de facto gold standard for classifying disorder despite meta-analytic evidence that the reliability of SDIs is moderate and highly variable. Theoretical arguments and empirical evidence also exist for equivalence.

**Methods:** We use several bases of evidence that assess the statistical equivalence in the test-retest reliability and construct validity of different versions of the Ontario Child Health Study Emotional Behavioural Scales and a standardized diagnostic interview. Equivalence is tested by comparing: (1) test-retest reliabilities based on kappa ( $\kappa$ ), (2) observed agreement corrected for attenuation due to measurement error, and (3) in structural equation models, their strength of association with construct validity variables.

**Results:** Evidence indicates that the reliability and validity of the checklist and interview instruments are highly comparable. Test-retest reliabilities ( $\kappa$ ) for interviews compared to checklists meet criteria for statistical equivalence. Agreement between the checklist and interviews on classifications of disorder at times 1 and 2 was, on average,  $\kappa=0.93$ . The  $\beta$  coefficients estimating associations with construct validity variables are almost identical.

**Conclusion:** Evidence suggests that checklists can be used to measure disorder dimensionally and categorically without sacrificing validity or reliability. Is it time for the field of child and adolescent psychiatry

to retire interviews for the purposes of classifying child and adolescent psychiatric disorders in clinical and epidemiological research?

### **S17.02 Checklists & Interviews: Defining Clinical Thresholds & Evaluation of Predictive Validity in a Brazilian High-Risk Cohort**

**Mauricio S. Hoffmann**<sup>1</sup>

<sup>1</sup>Universidade Federal de Santa Maria

**Aims:** Defining clinical thresholds for youth with mental health need is essential in clinical and research settings. Two methods for defining thresholds include structured diagnostic interviews and symptom checklists. This study contrasts these methods in their ability to predict negative outcomes in children/youth 8 years after initial assessment.

**Methods:** We used the Brazilian High-Risk Cohort (N=2,511) where we assessed participants at baseline and at 8-years (n=1,905, 76% attrition). Clinical thresholds were derived using semi-structured DSM-based diagnosis according to the Developmental and Well-being Assessment (DAWBA) and the checklist-based score (T-score  $\geq 70$ ) as defined by the Child Behaviour Checklist (CBCL). DAWBA diagnosis and CBCL scores were grouped into any problems, internalising, externalising and attentional/hyperactivity problems. We estimated attrition-weighted and covariate- and multiple comparison-adjusted regression models to predict 8-year follow-up outcomes.

**Results:** Any problems as classified by DAWBA and CBCL presented independent associations with life-threatening outcomes (adjusted odds ratio 1.62 [1.20–2.18] and 1.66 [1.19–2.30], respectively); but only CBCL independently predicted poor life chances (1.56 [1.19–2.04]). Participants classified by both approaches did not present higher chances for life-threatening outcomes when compared with participants classified with DAWBA or CBCL alone, and for poor life chances when compared to CBCL alone.

**Conclusion:** Both semi-structured diagnostic interview and symptom checklist predict important clinical outcomes 8-years after initial assessment, confirming their utility for defining thresholds with no obvious advantage of one over the other. Other aspects must come into play in the decision of which one to use, such as reliability and cost-effectiveness.

### **S17.03 Comparing Mental Health Problem Checklists and Structured Diagnostic Interviews to Predict Health-Related Quality of Life Outcomes in Canadian Children with Chronic Physical Illness**

**Alex W. Luther**<sup>1</sup>, Christy KY. Chan<sup>1</sup>, Mark A. Ferro<sup>1</sup>

<sup>1</sup>School of Public Health Sciences, University of Waterloo, Waterloo, Canada

**Aims:** Assessments of mental health is often completed through validated problem checklists or diagnostic interviews. This study compares the ability of a problem behaviour checklist and structured diagnostic interview to classify psychiatric disorder and predict health-related quality of life (HRQoL) among children with chronic physical illness (CPI).

**Methods:** Data come from the Multimorbidity in Children and Youth across the Life-course (MY LIFE) study, a cohort of Canadian children diagnosed with CPI (N=201). Psychiatric disorders were measured using the Mini International Neuropsychiatric Interview for Children and Adolescents (MINI-KID) and the Emotional Behavioural Scales (EBS). The KIDSCREEN-27 was used to assess HRQoL. Linear regression models regressed 24-month HRQoL outcomes on the MINI-KID and EBS. Regression coefficients for these measures were compared using the method of variance estimate recovery.

**Results:** The prevalence of psychiatric disorder at baseline was 35.3% as classified by MINI-KID, 37.3% and 41.8% as classified by EBS cut-off ( $\kappa=0.61$ ) and T-score approaches ( $\kappa=0.51$ ), respectively. The presence of any psychiatric disorder classified by MINI-KID and EBS predicted poorer HRQoL in the school environment domain. The presence of neurodevelopmental disorder as classified by MINI-KID and EBS approaches predicted poorer HRQoL in the school environment and autonomy and parent relations domains. There was no significant difference between MINI-KID and EBS in predicting HRQoL outcomes.

**Conclusion:** Prevalence of psychiatric disorder and prediction of HRQoL is similar when using the EBS versus the MINI-KID.

## **S17.04 Checklists & Interviews: A Simulated Validity Comparison & Decision Analysis Framework for Considering Costs & Benefits**

**R. Christopher Sheldrick<sup>1</sup>**

<sup>1</sup>University of Massachusetts, Chan Medical School

**Aims:** Valid and reliable diagnoses of child/youth psychiatric disorders are essential for epidemiological research, diagnostic accuracy studies, and intervention trials. These instruments provide different information, e.g., checklists assess symptoms using continuous scores compared to national norms while interviews offer clinical assessments of whether patients meet criteria for diagnostic classification systems like DSM-5 using both symptoms and impairment.

**Methods:** Standardized diagnostic interviews and validated checklists will be compared using two frameworks: (1) a simulation model that considers methodological challenges to comparing validity without a common gold standard, and (2) a decision analysis framework that considers the net costs and benefits of each approach for a specific purpose.

**Results:** Drawing on a published study (Angold et al., 2012) comparing structured diagnostic interviews, a simulation model suggests that without a common gold standard, the association between assessments is a function of construct validity (i.e., how similar the construct measured corresponds to the construct of interest), accuracy (i.e., how well that construct is measured), and threshold (i.e., sensitivity and specificity with which the construct is detected). A decision analysis framework highlights factors that may influence decisions to use checklists or interviews for a given research purpose.

**Conclusion:** Evidence suggests the psychometrics of checklists are often similar or superior to those of interviews and that checklists can be collected from larger samples with the same budget, thus increasing statistical power. However, the instruments assess related but different constructs, which stakeholders may value differently. Hybrid approaches that combine checklists with structured clinical judgment will be considered.

Angold, A., Erkanli, A., Copeland, W., Goodman, R., Fisher, P. W., & Costello, E. J. (2012). Psychiatric diagnostic interviews for children and adolescents: a comparative study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 51(5), 506-517



## S18 A Population-Based Approach to Investigating Youth Mental Health: Trends, Determinants and Access to Care

Fri. 13 Sept., 14:00-15:30

2055

Chair: Mary Cannon, IE

Co-chair: Louise Arseneault, UK

### ABSTRACT

Mental health problems are increasing among young people in Europe and internationally but the causes of this increase are not fully understood. This symposium will focus on large population-based datasets which provide recent and comprehensive information on the mental health of young people, including the Planet Youth study, the ALSPAC study, the Adolescent Brain, Cognition and Development study and the Oxwell student Survey. This symposium will present data on trends in mental health problems among youth in Ireland over a two year period. We will also examine mental health seeking among adolescents in the UK and whether their needs are being met. The remaining presentations will examine determinants of mental health problems in adolescents and will focus on a varied list of risk factors from prenatal adversity and fatty acid consumption to social media use and "sexting" behaviours. This symposium will be a chance to bring together data from the UK, Ireland and the US to discuss the important and topical issue of young people's mental health.

### S18.01 Recent Trends (2021-2023) in Adolescent Mental Health, Self-harm and Suicidal Behaviours

**Niamh Dooley**<sup>1,2</sup>, Emmet Power<sup>2</sup>, Louise Arseneault<sup>3</sup>, David Cotter<sup>2</sup>; Mary Cannon<sup>2</sup>

<sup>1</sup>Research Associate Statistician, Centre for Rheumatic Diseases, King's College London, UK; <sup>2</sup>Department of Psychiatry, RCSI University of Medicine and Health Sciences, Dublin, Ireland; <sup>3</sup>Social, Genetic, and Development Research Centre, Kings College London

**Aims:** Internationally, there is evidence that mental health problems are increasing among adolescents and young people. In many instances, this is captured by over-burdened mental health services and long waiting lists. However, inclusive population-level data is needed to understand the extent of this problem and the contribution of the COVID-19 pandemic.

**Methods:** A cross-sectional survey of adolescents (N = 4,404), predominantly aged 15-16, was conducted in 40 schools in Ireland, between September and December 2021 and repeated in 2023. A range of mental health measures were taken including: the Strengths & Difficulties Questionnaire (SDQ); the Adolescent Psychotic-like Symptom Screener; and life-time suicidal behaviours.

**Results:** In 2021, over a quarter of adolescents described their mental health as "bad" or "very bad" (29%), and had SDQ total problem scores over 20 (26%). Over a third (39%) reported self-harming, 42% reported suicidal ideation, and 11% reported attempting suicide, in their lifetime. Gender-diverse youth (non-binary, trans, undisclosed) had higher rates of poor mental health outcomes compared to cis-gendered youth (male/female), and females had higher rates of most outcomes compared to males. Rates of these outcomes stayed relatively stable between 2021 and 2023.

**Conclusion:** Many of these estimates suggest a deterioration from previous epidemiological studies. While our findings do not definitively prove youth mental health has worsened over time, these findings are highly concerning. We propose a close monitoring of mental health in future surveys of this population and encourage initiatives to improve the capacity and quality of youth mental health services.

### S18.02 The Association between Social Media use, "Sexting", Body Image and Mental Health measures in Adolescents: a population-based cross-sectional survey in schools

Delia Cotter<sup>1</sup>, Niamh Dooley<sup>1,2</sup>, Emmet Power<sup>1</sup>, Jessica Ohland<sup>1</sup>, Louise Arseneault<sup>3</sup>, **Mary Cannon**<sup>1</sup>

<sup>1</sup>Department of Psychiatry, RCSI University of Medicine and Health Sciences, Dublin; <sup>2</sup>Centre for Rheumatic Disease, Kings College London; <sup>3</sup>Social, Genetic and Developmental Research Centre, Kings College London



**Aims:** A large body of evidence suggests that the mental health of adolescents has worsened in recent years, particularly in young women but the reasons are not clear. In this study we investigated three putative risk factors which are a central part of adolescent life: digital usage, "sexting" (sending and receiving of sexually explicit messages) and poor body image. We investigated how much these topics influence adolescents' mental health, and specifically whether the effects differ between genders.

**Methods:** We used the Planet Youth data set, which is a population based survey of students (2<sup>nd</sup>– 5<sup>th</sup> years) conducted in schools in September-December 2021 in one urban area (North County Dublin) and one rural area (Cavan and Monaghan). We used the Strengths and Difficulties Questionnaire (SDQ) to capture general mental health, and SDQ scores above 20 were defined as poor mental health. The second outcome was self-harm. We fitted a series of linear mixed models to the data, to examine the associations between the three risk factors and the two mental health outcomes in both genders separately adjusted for confounders.

**Results:** We found that all three risk factors were associated with poorer mental health in both boys and girls but the effects were larger in girls. More than 4 hours of social media use per day was associated with a two-fold increased risk of poor mental health in girls compared with 1.6 fold in boys. Poor body image was associated with both self-harm and worse mental health outcomes in both genders, but the prevalence of poor body image was much more prevalent in girls than boys (60% vs 36%). Poor body image was associated with a 3.5 fold increased risk of poor mental health in girls. The sending of sexually explicit messaging was associated with a 2.6-3.3 fold increased risk of self-harm in boys and girls respectively.

**Conclusion:** Overall our findings show that digital use, body image disturbance and "sexting" behaviours in teenage life have a strong association with poor mental health and self-harm, and that these effects are stronger in girls.

### S18.03 Networks of Care for the Modern Adolescent

Simon White<sup>1,2</sup>, **Emma Sonesson**<sup>3</sup>, Mina Fazel<sup>3</sup>

<sup>1</sup>Department of Psychiatry, University of Cambridge, UK; <sup>2</sup>MRC Biostatistics Unit, University of Cambridge, UK; <sup>3</sup>Department of Psychiatry, University of Oxford, UK

**Aims:** Given increases in mental health difficulties amongst adolescents, it is important to understand how they navigate systems of care and support. We mapped 'networks of care' to explore patterns of adolescents' mental health help-seeking alongside the perceived helpfulness of support accessed.

**Methods:** We used a network approach to examine data from 23,927 students aged 11-18 years who participated in the 2023 OxWell Student Survey, a school-based, repeated cross-sectional survey of mental health and wellbeing. Students self-reported past-year access to 18 types of support across informal (e.g. friends and family), semi-formal (e.g. school and charities), and formal (e.g. health and social care) domains, as well as how helpful they found the support.

**Results:** One-in-four (27.0%) adolescents reported past-year access to mental health support, of which just over half (56.7%) reported accessing multiple types of support. For those with and without elevated symptoms of anxiety and depression, informal supports were the most commonly-accessed and perceived to be the most helpful, whilst formal supports were generally perceived as the least helpful. Girls and gender diverse/gender non-disclosing adolescents were more likely to access multiple types of support but found support relatively less helpful than did boys. The networks further demonstrated that those who had approached their parent(s) for support and not found them helpful were a group of particular concern.

**Conclusion:** Findings highlight interesting help-seeking patterns and groups whose needs are not sufficiently met by existing systems. They further demonstrate that we cannot develop, deliver, or evaluate services in isolation.

### S18.04 Prenatal Adversity; A Treatable Risk Factor for developing Psychopathology

**Lorna Staines**<sup>1</sup>, Niamh Dooley<sup>2</sup>, Colm Healy<sup>3</sup>, Ian Kelleher<sup>3</sup>, David Cotter<sup>1</sup>, Mary Cannon<sup>1</sup>

<sup>1</sup>Department of Psychiatry, RCSI University of Medicine and Health Sciences, Dublin Ireland; <sup>2</sup>Kings College London, UK; <sup>3</sup>Division of Psychiatry, Centre for Clinical Brain Sciences, University of Edinburgh, Edinburgh EH10 5HF, UK

**Aims:** Maternal behaviours and infections are treatable risk factors, but important questions have not been explored, such as maternal infection/birth complications and developing psychopathology, and if having multiple prenatal/perinatal complications increase risk. To address this, we examined a marker of

psychopathology (Psychotic Like Experiences PLEs), looking at three key questions: 1) Can prenatal/perinatal risk factors increase frequency or persistence of PLEs? 2) Does the cumulative number of prenatal/perinatal complications increase frequency or persistence of PLEs? 3) Do maternal behaviours and infections increase risk for both childhood and adolescent psychopathology?

**Methods:** The Adolescent Brain Cognitive Development (ABCD) study was used for this project. ABCD is a large cohort study of children (age 9-10 at baseline;  $n=11872$ ) collected in the USA. PLEs were measured longitudinally at 3 time-points (age:9-10 to 11-12) using the Prodromal Questionnaire-Brief, Child version. PLEs were included only if children reported them as distressing ( $\geq 3/6$ ). Mixed effect models were used for analysis.

**Results:** Two maternal complications: urinary tract infection ( $\beta=0.11$ , 95%CI[0.03–0.19]) and severe anaemia ( $\beta=0.18$ , 95%CI[0.07–0.29]) increased frequency of distressing PEs in childhood. Cumulative number of prenatal complications increased frequency of PEs ( $\beta=0.03$ , 95%CI[0.01–0.06]) and the odds of having persistent PE by 8%. (OR=1.08, 95%CI[1.01,1.15]). Maternal smoking was associated with an increased frequency of PLEs ( $\beta=0.11$ , 95%CI[0.04–0.18]) and persistent PLEs (OR=1.31, 95%CI[1.04–1.66]). Maternal substance use showed a 48% increased risk of persistent PLEs (OR=1.48, 95%CI[1.08–2.01]). Perinatal complications showed no effect on PLEs.

**Conclusion:** Maternal behaviours (smoking, substance use) were most associated with higher frequency of distressing PLEs, and higher odds of having persistent PLEs. This emphasizes the continued need for innovative public health campaigns to address these continued behaviours, despite widespread public awareness of the risk.

### S18.05 Longitudinal Trajectories of Polyunsaturated fatty acids and Associations with Psychosis-spectrum Outcomes in Early Adulthood

**David Mongan**<sup>1\*</sup>, Benjamin I. Perry<sup>3\*</sup>, Colm Healy<sup>6</sup>, Subash Raj Susai<sup>2</sup>, Stan Zammit<sup>5,6</sup>, David R. Cotter<sup>2</sup>. \*Joint first authors

<sup>1</sup>Centre for Public Health, Queen's University Belfast, Northern Ireland; <sup>2</sup>Department of Psychiatry, Royal College of Surgeons in Ireland University of Medicine and Health Sciences, Dublin, Ireland; <sup>3</sup>Department of Psychiatry, University of Cambridge School of Clinical Medicine, Cambridge, United Kingdom; <sup>4</sup>Centre for Academic Mental Health, Population Health Sciences, Bristol Medical School, University of Bristol, Bristol, United Kingdom; <sup>5</sup>Division of Psychological Medicine and Clinical Neurosciences, MRC Centre for Neuropsychiatric Genetics and Genomics, Cardiff University, Cardiff, United Kingdom; <sup>6</sup>Department of Psychiatry, University of Edinburgh

**Aims:** Evidence supports associations between polyunsaturated fatty acids (PUFAs) such as docosahexaenoic acid (DHA) and psychosis. However, PUFA trajectories in the general population have not been characterised and associations with psychosis-spectrum outcomes in early adulthood are unknown.

**Methods:** Plasma omega-6:omega-3 ratio and DHA %total fatty acids were measured by nuclear magnetic spectroscopy at 7,15,17 and 24years in the Avon Longitudinal Study of Parents and Children. Curvilinear growth mixture modelling evaluated BMI-adjusted trajectories of both measures. Outcomes were assessed at 24years. Psychotic experiences (PEs), At-Risk-Mental-State status, psychotic disorder and number of PEs were assessed using the Psychosis-Like Symptoms interview PLIKSi ( $n=3635$ , 2247 [61.8%]female). Negative symptoms score was measured using the Community Assessment of Psychic Experiences ( $n=3484$ , 2161 [62.0%]female). Associations were adjusted for sex, ethnicity, parental social class, cumulative smoking and alcohol use.

**Results:** Relative to stable average, the persistently high omega-6:omega-3 ratio trajectory was associated with increased odds of PEs and psychotic disorder, but attenuated on adjustment for covariates (PEs adjusted odds ratio[aOR] 1.63, 95% [CI] 0.92-2.89; psychotic disorder aOR 1.69, 95%CI 0.71-4.07). This was also the case for persistently low DHA (PEs aOR 1.42, 95%CI 0.84-2.37; psychotic disorder aOR 1.14, 95%CI 0.49-2.67). Following adjustment, persistently high omega-6:omega-3 ratio was associated with increased number of PEs ( $\beta 0.41$ , 95%CI 0.05-0.78) and negative symptoms score ( $\beta 0.43$ , 95%CI 0.14-0.72), as was persistently low DHA (number of PEs: $\beta 0.45$ , 95%CI 0.14-0.76; negative symptoms: $\beta 0.35$ , 95%CI 0.12-0.58).

**Conclusion:** Optimisation of PUFA status during development warrants further investigation in relation to psychotic symptoms in early adulthood.

## S19 Involuntary Psychiatric Hospitalization: Reducing the Need and Improving the Experience

Fri. 13 Sept., 14:00-15:30

A2064

Chair: Brynmor Lloyd-Evans, UK

Co-chair: Sonia Johnson, UK

### ABSTRACT

Compulsory detention in psychiatric hospital is inherently coercive, costly and often a negative experience for the person detained and their family carers. Rates of detention vary substantially within and between countries, and have risen in many European countries, for reasons which are poorly understood. There is limited research about how to reduce use of detention and improve people's experience of compulsory hospitalization. This symposium draws together relevant research in this field; then present findings from two innovative UK projects aiming to reduce use of detention or improve service users' and families' experience. **Barbara Lay** will provide an overview of current knowledge about how to reduce use of compulsory admission, drawing on international literature and her experiences of leading innovative work in Switzerland. Next, **Patrick Nyikavaranda** will present findings from a recent systematic review of qualitative literature about service users' and carers' experiences of detention in psychiatric hospital. **Sonia Johnson** will describe and present findings from the Finch Study: a feasibility trial of a crisis planning and monitoring programme for people detained in hospital which aims to prevent repeat detentions. **Mary Birken** will present two qualitative projects attached to the Finch trial. She will describe service users' and clinicians' perceptions of people's pathway to detention and opportunities to avert detentions; and experiences of the Finch trial intervention. Lastly, **Domenico Giacco** will present the Opal Study, which developed and tested an innovative peer support programme for family carers of people detained in hospital. Priorities for research and practice will be discussed.

### S19.01 Research to Reduce Compulsory Admissions – What Do We Know and What Remains to Be Done?

**Barbara Lay**<sup>1</sup>

<sup>1</sup>Formerly: University Hospital of Psychiatry Zurich, Switzerland

**Aims:** Compulsory hospitalization affects an individual's basic rights and liberties profoundly, conflicts with principles of contemporary psychiatric concepts and has been found to be associated with a number of negative effects on patients and their relatives. Encouraged by the UN Convention on the rights of people with disabilities (2006) the ethically, legally and clinically problematic nature of involuntary treatment therefore has raised growing concerns for quite some time. Nevertheless, available epidemiological data suggest that rates of compulsory admissions tended to rise in many European countries in recent years, but large differences are found between and within countries – variation that is for the most part, however, unexplained by legal framework, demographic or health care delivery indicators. Research targeting the question how compulsory psychiatric admissions might be reduced to a clinically beneficial minimum therefore is urgently needed. Based on a review of the international literature, and with a special focus on mental health care data from Switzerland, the presentation will 1) address the factors commonly associated with the risk of involuntary hospitalization and, 2) specifically, summarize the evidence for mental health care interventions in terms of their potential to reduce involuntary psychiatric admissions.

**Results:** So far, there are only a few promising evidence-based approaches suggesting a clinically relevant risk reduction in compulsory admissions. These, however, offer opportunities to be applied to high-risk patients and to be adapted to other mental health care contexts.

**Conclusion:** The common basic principles of these interventions, challenges for 'translation', implementation and future research will be discussed.

## S19.02 Qualitative Meta-Synthesis of Service User and Carer Experiences of Assessment and Involuntary Hospital Admissions Under Mental Health Legislations

**Patrick Nyikavaranda**<sup>1</sup>, Gergely Bartl<sup>1</sup>, Ruth Stuart<sup>2</sup>, Nafiso Ahmed<sup>1</sup>, Brynmor Lloyd-Evans<sup>1</sup> and the NIHR Policy Research Unit in Mental Health group<sup>1,2</sup>

<sup>1</sup>Division of Psychiatry, University College London; <sup>2</sup>Institute of Psychiatry, Psychology and Neuroscience, King's College London

**Aims:** This systematic review and qualitative meta-synthesis updates two existing reviews on service users' and carers' experiences with assessment and involuntary admissions under mental health legislation to guide policy and service delivery improvements.

**Methods:** Five bibliographic databases were searched for studies published from January 2018 to March 2023. A total of 24 new studies were identified, focusing on qualitative investigations of experiences under mental health legislation. A team including researchers with relevant personal experience analysed and synthesised data using a thematic synthesis approach.

**Results:** Perceptions of admissions and assessments varied. Many reports highlighted the negative and sometimes traumatic effects on emotional well-being and self-worth. Conversely, fewer accounts were reported as opportunities to access help and support, accompanied by feelings of relief. Notably, compared to the previous reviews, experiences of racial discrimination, unequal access to care, and dissatisfaction with pre- and post-hospital support were more prominent.

**Conclusion:** Increasing service user and carer involvement in treatment decisions, provision of timely information at key stages of the admission process, training key personnel, addressing discrimination, and investing in community alternatives to inpatient care may improve overall treatment experiences.

## S19.03 Development and Feasibility Trial of a Crisis Planning Intervention designed to prevent Repeat Involuntary Hospitalisations

**Sonia Johnson**<sup>1</sup>, Mary Birken<sup>1</sup>, Patrick Nyikavaranda<sup>1</sup>, Ariana Kular<sup>1</sup>, Brynmor Lloyd-Evans<sup>1</sup> and the FINCH study team<sup>1,2</sup>

<sup>1</sup>Division of Psychiatry, University College London, London, United Kingdom; <sup>2</sup>University of Lancaster, Lancaster, UK

**Aims:** Compulsory detentions under mental health legislation have risen over several decades in England. Avoiding these is a priority given their traumatic nature and departure from usual ethical principles of consent and collaboration. In a sparse literature, interventions based on crisis planning currently have the best supporting evidence in preventing compulsory detention.

**Methods:** Working with a co-production group including people with relevant lived experience, we adapted and manualised an intervention previously trialled in Zürich Switzerland, aimed at reducing future compulsory detentions among people discharged after a compulsory admission. We have conducted a randomised controlled feasibility trial of the intervention. Feasibility and acceptability of the intervention and trial processes have been assessed. We have measured outcomes including the planned primary outcome for a full trial, which is repeat compulsory detention within one year of randomisation.

**Results:** Eighty participants have been recruited within the planned timeframe from three catchment areas, half from ethnic backgrounds at elevated risk of compulsory detention. Primary outcomes were obtained for 70 participants. Persistence and flexibility were required for intervention delivery, but a majority of experimental group participants received at least three intervention sessions and developed a crisis plan. Rates of repeat compulsory admission in each group will be presented.

**Conclusion:** This feasibility study suggests patients being discharged following a compulsory admission can be recruited and followed up in a trial of a crisis planning intervention. Learning to inform a full trial will be discussed.

### S19.04 Service Users' Pathways to Detention and Opportunities to Avert the Need for Detention: Findings from Two Qualitative Studies

**Birken M.**<sup>1</sup>, Kular A.<sup>1</sup>, Nyikavaranda P.<sup>1</sup>, Wood L.<sup>1</sup>, Lloyd-Evans B.<sup>1</sup>, Johnson S.<sup>1</sup>

<sup>1</sup>Division of Psychiatry, University College London, UK

**Aims:** We conducted two qualitative studies. The first explored patients' journeys to detention and any opportunities to avert compulsory hospitalization, from the perspectives of service users and clinicians. The second explored providers' and participants' experiences of the acceptability of the Finch study novel crisis planning and monitoring intervention.

**Methods:** Study 1: We recruited people with recent experience of being detained in hospital and staff involved in the detention process or providing care to detained patients via NHS services, social media and service user and staff professional networks. Individual qualitative interviews were analysed using thematic analysis. Study 2: We recruited clinician-providers and participant-recipients of the novel Finch study crisis planning and monitoring intervention, designed to help prevent repeat detentions. Qualitative interviews were analysed using a deductively-derived framework informed by the seven constructs of the Theoretical Framework of Acceptability of healthcare interventions.

**Results:** Twenty service users and 23 staff from inpatient and community services were recruited for study 1; eight service user participants and nine clinicians for study 2. Respondents identified individual, family, service-related and societal factors which can contribute to or protect someone from being detained. Opportunities to avert the need for detention were considered, including the experience and potential impact of the novel Finch trial intervention.

**Conclusion:** Priorities for practice and research to improve care and outcomes for people who have been detained in hospital will be discussed. Implications regarding the feasibility of the Finch trial crisis planning intervention and next steps for its evaluation will be considered.

### S19.05 Peer Support for Family/Friends of Involuntarily Hospitalised People: the OPAL Study

**Domenico Giacco**<sup>1</sup>, Imogen Wells<sup>1</sup>, Kelly Wintsch<sup>1,2</sup>

<sup>1</sup>Warwick Applied Health, Warwick Medical School, University of Warwick, United Kingdom; <sup>2</sup>Unit for Social and Community Psychiatry, Queen Mary University of London, United Kingdom

**Aims:** Family members and friends (often defined as 'carers' in the UK) of people who are involuntarily hospitalised experience distress and conflicting emotions. Peer support can be beneficial for their quality of life and provide appropriate information and emotional support. The OPAL study is an international collaboration between UK Universities and NHS services and the University of Hamburg, with a central role of people with lived experience. This presentation will describe: a) the development of the carer peer support programme; b) the findings from its implementation in practice.

**Methods:** The project was carried out in urban (London, Coventry) and rural (Warwickshire, Devon, Herefordshire and Worcestershire) sites in England. Firstly, we interviewed carers, service users and clinicians to generate ideas on carer peer support delivery. We then developed the training programme in collaboration with our lived experience advisory group and academic and clinical experts. Finally, we tested the intervention in two implementation cycles, exploring a 'train-the-trainer' model.

**Results:** Three key intervention components were recommended: (1) information about mental health services; (2) personal continuity of support and (3) value of lived experience for emotional support. A four-session training course was developed. The evaluation of its implementation will be presented and be reflected upon.

**Conclusion:** The OPAL study has developed a carer peer support model that can guarantee sustainability and more positive experiences of hospital care of family members. The challenges are now to ensure partnerships and policy support for further roll-out.

**Funding:** UK National Institute for Health and care Research



## S20 Interlinking Premenstrual and Perinatal Mood Disorders: Epidemiological Insights and Molecular Underpinnings

Fri. 13 Sept., 16:00-17:30

A1129

Chair: Donghao Lu, SE

Co-chair: Emma Bränn, SE

### ABSTRACT

**Aims:** This symposium explores the complex interrelationships between reproductive mood disorders, including premenstrual disorders (PMDs) and perinatal depression (PND) by examining risk factors, biomarkers, and genetic associations. Drawing from extensive register-based studies, wearable device data, and genetic analyses across multiple cohorts, our aim is to unravel the epidemiological patterns and potential biomarkers that can inform diagnostics and interventions.

**Methods:** Leveraging nationwide registers, wearable technology, and genetic databases, we conducted a series of studies focused on identifying epidemiological risk factors, biomarkers, and genetic links related to PND and PMDs. Our methodologies ranged from prospective cohort studies, cross-sectional analyses, to genome-wide association studies (GWAS), encompassing over millions of women across China, Iceland, Norway, and Sweden. **Results:** Our findings highlight significant associations between immune biomarkers before pregnancy and the risk of PND, the intergenerational transmission of PMDs related to parental and perinatal factors, and the variability of heart rate as a potential diagnostic tool for PMDs. Furthermore, we discovered genetic markers associated with PMDs, and strong phenotypic correlations between PMDs and PND as well as between PND and other psychiatric disorders, underscoring the potential role of genetic factors underlying reproductive mood disorders and the links to other psychiatric disorders. **Conclusion:** The symposium presents groundbreaking research that enhances our understanding of the epidemiological and molecular facets of reproductive mood disorders. By delineating the risk factors, identifying novel biomarkers, and uncovering molecular underpinnings, our collective work paves the way for improved screening, prevention, and treatment strategies for affected individuals.

### S20.01 Association Between Immune Biomarkers Before Pregnancy and Risk of Perinatal Depression: A Prospective Cohort Study of 4,483 Women in Sweden

Jing Zhou<sup>1</sup>, Donghao Lu<sup>1</sup>

<sup>1</sup>Unit of Integrative Epidemiology, Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden

**Aims:** Perinatal depression (PND) is a global health concern, affecting millions of birthing women. Emerging data suggest that inflammation may play a role in the development of PND. Peripheral blood immune biomarkers before pregnancy are widely tested in clinical practice at minimum cost, yet their potential role in PND risk remains unknown.

**Methods:** We conducted a prospective cohort study of 4,483 birthing women during 2009-2021 within the LifeGene study with linkage to Swedish registers. Peripheral blood immune biomarkers were profiled at baseline. Cases of PND were identified using validated tools or clinical diagnosis from subsequent pregnancies and postpartum periods. Logistic regression models were employed to assess the associations of each immune biomarker (z scored) with PND.

**Results:** We identified 495 (11.0%) PND cases with an average age of 29.2 years at baseline. Pre-pregnancy platelet-to-lymphocyte ratio (PLR) was positively associated [OR, 95% CI:1.14(1.01,1.27)], while lymphocyte count was inversely associated [OR, 95% CI: 0.89(0.80,0.98)] with PND. A dose-response relationship was indicated for both PLR and lymphocytes when analyzed in categories based on tertile distribution. These associations appeared more pronounced for postpartum depression than antepartum depression and were independent of psychiatric comorbidities.

**Conclusion:** With implications for future mechanistic research, these findings suggest that blood levels of lymphocytes and PLR before pregnancy are associated with subsequent risk of PND in a dose-response manner.



## S20.02 Associations of Parental and Perinatal Factors with Risk of Premenstrual Disorders: A Nationwide Register-Based Study in Sweden

**Yihui Yang**<sup>1</sup>, Unnur A. Valdimarsdóttir<sup>2,3,4</sup>, Elizabeth R. Bertone-Johnson<sup>5,6</sup>, Donghao Lu<sup>1</sup>

<sup>1</sup>Unit of Integrative Epidemiology, Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden; <sup>2</sup>Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, Massachusetts; <sup>3</sup>Department of Medical Epidemiology and Biostatistics, Karolinska Institutet, Stockholm, Sweden; <sup>4</sup>Center of Public Health Sciences, Faculty of Medicine, University of Iceland, Reykjavik, Iceland; <sup>5</sup>Department of Biostatistics and Epidemiology, School of Public Health and Health Sciences, University of Massachusetts Amherst, Amherst, MA, USA; <sup>6</sup>Department of Health Promotion and Policy, School of Public Health and Health Sciences, University of Massachusetts Amherst, Amherst, MA, USA

**Aims:** It remains unknown whether pregnancy-related parental and perinatal adversities contribute to development of premenstrual disorders (PMDs). This study aims to assess associations of parental and perinatal exposures with risk of PMDs.

**Methods:** We performed a cohort study of females born between 1973 and 2007 in Sweden with follow-up through 2022. To account for unmeasured familial factors, we also conducted a sibling analysis by comparing risk of PMDs among full sisters. Parental and perinatal characteristics were collected from the Medical Birth Register and other registers. Clinician-diagnosed PMDs were ascertained from the Patient Register and Primary Care Register and PMDs-specific prescriptions in Prescribed Drug Register. We used multivariate Poisson regression to estimate risk ratio (RR) for PMDs with parental and perinatal exposures in both population and sibling analyses.

**Results:** We identified 65,579 individuals with PMDs (4.06 per 1,000 person-years) in population analysis and 28,281 (4.23 per 1,000 person-years) in sibling analysis. Maternal smoking  $\geq 10$  cigarettes per day in early pregnancy was associated with an increased risk of PMDs in both population (RR=1.12 (1.08-1.16)) and sibling analyses (RR=1.20 (1.03-1.39)). For PMDs diagnosed before age 25, positive associations were found for being very preterm ( $<32$  gestational weeks) and very low birthweight ( $<1500$  gram) in both population and sibling analyses. However, no association was found for PMDs with maternal cohabitation status, maternal diabetes, mode of delivery and Apgar score in either population or sibling analysis.

**Conclusion:** These findings suggest that some perinatal factors may play a role in the development of PMDs.

## S20.03 Real-time Heart Rate Variability Based on Wearable Device and Premenstrual Disorder Symptoms Across Menstrual Cycle: Findings from the COPE Study

**Qing Pan**<sup>1</sup>, Jing Zhou<sup>2</sup>, Min Chen<sup>1</sup>, Yuchen Li<sup>1</sup>, Donghao Lu<sup>1,2</sup>

<sup>1</sup>Health Management Center, General Practice Medical Center, Innovation Institute for Integration of Medicine and Engineering, West China Hospital, Sichuan University, Chengdu, China; <sup>2</sup>Unit of Integrative Epidemiology, Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden

**Aims:** To investigate the variability of wearable device-based real-time heart rate variability (HRV) through menstrual cycles and its associations with premenstrual disorders (PMDs) symptoms.

**Methods:** We conducted a prospective study of female participants nested from the Care of Premenstrual Emotion Cohort. Five HRV metrics (SDNN, rMSSD, LF, HF, and LF/HF) were obtained from consecutive RR-intervals collected by the Huawei Fitness Tracker 6 Pro at 5-minute intervals over 1-2 menstrual cycles. At the same time, PMD symptoms were assessed with the Daily Record of Severity of Problems on a daily basis for diagnosing PMDs. HRV variability across cycles was described using descriptive statistics and splines, while the associations between HRVs and PMD symptoms were estimated by mixed effect model.

**Results:** A total of 183 participants with 84 PMD cases were included. SDNN, rMSSD, HF, and LF decreased before menses and increased afterwards, while the opposite trend was noted for LF/HF. Across menstrual cycles, SDNN ( $B = -0.004$ ,  $P = 0.021$ ) and rMSSD ( $B = -0.007$ ,  $P < 0.001$ ) were significantly associated with PMD symptoms, while null associations were observed for LF, HF, and LF/HF. Specifically, the association between SDNN/rMSSD and PMD symptoms was positive 2 weeks before menses yet turned to negative from 1 week before to 2 weeks after menses. The associations appeared stronger in the PMDs than those without.

**Conclusion:** Our findings suggest that wearable device-estimated HRV fluctuated across menstrual cycles and was predictive of PMD symptoms, which may aid future diagnostic process for PMDs.

## S20.04 Genome-Wide Association Study of Disordered Premenstrual Symptoms: Preliminary Results from the LifeGene

**Elgeta Hysaj**<sup>\*1</sup>, Piotr Pawel Jaholkowski<sup>\*2 3 4</sup>, Alexey Shandrin<sup>\*2 3 4</sup>, Unnur A. Valdimarsdóttir<sup>1,5</sup>, Ole A. Andreassen<sup>#2 3 4</sup>, Donghao Lu<sup>#1</sup>. \*Equal contribution #Equal contribution

<sup>1</sup>Unit of Integrative Epidemiology, Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden; <sup>2</sup>NORMENT, Institute of Clinical Medicine, University of Oslo, Oslo, Norway; <sup>3</sup>NORMENT, Division of Mental Health and Addiction, Oslo University Hospital, Oslo, Norway; <sup>4</sup>KG Jebsen Centre for Neurodevelopmental Disorders, University of Oslo, Oslo, Norway; <sup>5</sup>Center of Public Health Sciences, Faculty of Medicine, University of Iceland, Reykjavik, Iceland

**Aims:** Premenstrual disorders (PMDs) affect up to 30% of women of reproductive age and are characterized by mood and behavioural symptoms before menstruation accompanied by significant functional impairment. While a sizable heritability of premenstrual symptoms has been indicated by twin studies, no genome-wide association study (GWAS) is available to characterize the genetic architecture of PMDs.

**Methods:** We conducted a preliminary GWAS of 2114 probable cases and 3589 controls of European ancestry from the LifeGene Study in Sweden. A modified version of the Premenstrual Screening Tool (PSST) and clinical diagnosis were used to identify probable cases with disordered premenstrual symptoms. Genotyping was performed using Illumina Global Screening Array Multiple Disease and imputed using Haplotype Reference Consortium (HRC) reference panel. A meta-analysis has been planned by using samples from several independent cohorts in Norway, Sweden, Iceland, and the US.

**Results:** In the preliminary analysis of 2114 probable cases and 3589 controls in LifeGene, we identified 5 genetic variants with a marginal genome-wide significance ( $P < 1 \times 10^{-6}$ ). One of the top loci 17q24.1 (rs8077707, mapped to *AXIN2*, OR=0.81,  $P=3.145e-07$ ) has been associated with ADHD. A meta-analysis with MoBa from Norway (15910 cases and 52364 controls) will be performed in spring 2024, followed by functional annotation analysis.

**Conclusion:** This study provides the first piece of evidence on the genetic basis for PMDs and may advance our understanding of the underlying mechanisms. Future meta-analysis with samples pooled from multiple cohorts will increase the statistical power for discovery.

## S20.05 Association between Premenstrual Disorders and Perinatal Depression: A Cross-Sectional Analysis of 9,354 Women in Iceland

**Hang Yu**<sup>\*</sup>, Ulrika Hellberg<sup>1\*</sup>, Elgeta Hysaj<sup>1</sup>, Emma Bränn<sup>1</sup>, Unnur Anna Valdimarsdóttir<sup>1,2</sup>, Donghao Lu<sup>1</sup>. \* Equal contribution

<sup>1</sup>Unit of Integrative Epidemiology, Institute of Environmental Medicine, Karolinska Institutet, Sweden; <sup>2</sup>Center of Public Health Sciences, Faculty of Medicine, University of Iceland, Reykjavik, Iceland

**Aims:** A robust association between premenstrual disorders (PMDs) and perinatal depression (PND) has been suggested. We aimed to explore what subtypes of PMDs are associated with different PND subtypes.

**Methods:** We conducted a cross-sectional analysis with data from the Stress-And-Gene-Analysis cohort, a nationwide cohort in Iceland launched in 2018. Premenstrual disorders were assessed with a modified version of Premenstrual Symptoms Screening Tool, while perinatal depression was measured using the Edinburgh Perinatal Depression Scale (lifetime version). Prevalence ratios (PR) were estimated using Poisson regression. Separate analyses were performed for PMD subtypes (premenstrual syndrome (PMS) and premenstrual dysphoric disorder (PMDD)) and PND subtypes by timing of symptom onset.

**Results:** In total, 9,354 parous women were included in this study. At a mean age of 39.63 years (SD 7.68) 4,348 women were classified as with PND and 2,551 with PMDs. As expected, women with PND had a higher prevalence of PMDs compared with women without (PR 2.24, 95%CI 2.04-2.45). The association was more pronounced for PMDD (PR 2.83, 95%CI 2.31-2.46) than for PMS (PR 2.10, 95%CI 1.90-2.33). The strongest association was noted for PND women with symptom onset during the second trimester of pregnancy (PR 2.43, 95%CI 2.12-2.78). Furthermore, women with persistent depression had a higher prevalence of PMDs (PR 2.47 95%CI 2.24-2.73) compared to women with antepartum/ postpartum depression (PR 1.95, 95%CI 1.64-2.33 vs PR 1.94, 95%CI 1.73-2.19).

**Conclusion:** Our findings suggest that depression with an onset both during and after pregnancy are associated with PMDs, particularly with PMDD.

## S20.06 Perinatal Depression and Psychiatric Comorbidities During the Life course: A Swedish Nationwide Register Based Study

**Emma Bränn**<sup>1</sup>, Arilan Duna<sup>1</sup>, Donghao Lu<sup>1</sup>

<sup>1</sup>Unit of Integrative Epidemiology, Institute of Environmental Medicine, Karolinska Institutet, Sweden

**Aims:** Women with a history of major depression are at risk of perinatal depression (PND). The associations between PND and other types of psychiatric disorders are less clear, although a recent GWAS revealed genetic correlations with almost all psychiatric disorders. Here, we aimed to examine the association between PND and overall, and 17 type-specific, psychiatric disorders in a life course approach.

**Methods:** Leveraging Swedish nationwide health register and primary care data, we included all birthing women diagnosed with depression or prescribed for antidepressants during pregnancy or within a year postpartum, i.e., women with PND (n=122,720), during 2001-2022. Using incidence density sampling, we matched each case to 10 unaffected birthing women. We ascertained any diagnosis of psychiatric disorder over the lifetime from the National Patient Register. Using multivariable conditional logistic regressions, we estimated the association between PND and any, or subtypes of, psychiatric disorders dated before or after the PND diagnosis.

**Results:** Women with PND were diagnosed at age 31.0 years on average. We found that PND was highly associated with any other psychiatric disorders (adjusted odds ratio (aOR)=7.7, 95%CI 7.5-7.8). The association remained when excluding depression (aOR=6.5, 95%CI 6.4-6.6), and was comparable for psychiatric disorders dated before and after PND diagnosis (aOR = 5.4 and 6.0). Most pronounced association was noted for depression, anxiety, and personality disorders (aOR 7.8-6.7).

**Conclusion:** Throughout life course, PND is associated with psychiatric disorders, particularly with depression and anxiety. These findings may shed light on shared genetic/risk factors between PND and other psychiatric disorders.

## S21 Application and Developments of the Adult Psychiatric Morbidity Survey (APMS) Programme

Fri. 13 Sept., 16:00-17:30

2013

Chair: Terry Brugha, IE

Co-chair: Zoe Morgan, UK

### ABSTRACT

Informed by three decades of the Adult Psychiatric Morbidity Survey (APMS) programme, this symposium will include findings from the community-based population surveys and discuss methodological developments. Symposium Chair Professor **Traolach Brugha** will examine how much the prevention and current treatment evidence base fits modern knowledge of the life course epidemiology of common mental disorders (CMD) such as depression including addressing chronic and persistent outcomes. Dr **Carol Kan** will report on research to evaluate the revised eating disorders section of WHO Schedule for Clinical Assessment in Neuropsychiatry version 3 (SCAN-3), which was incorporated into the current 2023 survey APMS survey, to examine the prevalence of eating disorders. Symposium co-chair **Zoe Morgan**, Research Associate, using data from the 2014 APMS survey, will report on how Attention-Deficit Hyperactivity Disorder (ADHD) is currently screened for and the results from validation work carried out to improve the diagnostic pathways of adults with ADHD and screening methods in future APMS surveys. Dr **Lucy Teece**, Lecturer in Medical Statistics, will present findings from four sequential cross-sectional surveys (APMS 1993-2014) to understand up-to-date age and period trends of the prevalence of common adult mental disorders, and how trends in treatment and individual social contacts might impact these. Professor **Sally McManus** will report on the social context of mental health: the prevalence of threatening/obscene messaging from a current or ex-partner; characteristics of victims; and associations with other forms of violence, mental disorder, self-harm, and suicidality.

### S21.01 Depression Life Course Trajectory Epidemiology: Implications for Research Priorities for Prevention and Treatment Evaluations

**Traolach Brugha**<sup>1</sup>, Samuel Tromans<sup>1</sup>, Zoe Morgan<sup>1</sup>, David Seaton<sup>1</sup>, Sally McManus<sup>2</sup>, Mari Tomes-Smith<sup>3</sup>

<sup>1</sup>University of Leicester, Leicester, UK; <sup>2</sup>City University, London, UK; <sup>3</sup>NatCen Social Research, London, UK

**Aims:** To determine whether and how much the prevention and current treatment evidence base fits modern knowledge of the life course epidemiology of common mental disorders (CMD) such as depression including addressing chronic and persistent outcomes.

**Methods:** A series of scoping reviews examining: 1) The current evidence on CMD and depression trajectories including studies using group based growth mixture modelling on longitudinal multiple follow-up survey data; 2) Evidence that psychological interventions selectively address both episodic and chronic trajectories; 3) Evidence that pharmacological interventions address both episodic and chronic trajectories. Planned further prospective data collection in the Adult Psychiatric Morbidity Survey 2023-4 (APMS) to collect and model longitudinal trajectory models and their associations with detailed information already collected on use of treatments and services.

**Results:** There is little discussed but ample evidence that CMD trajectories include subgroups who remain well, groups that are improving or deteriorating and groups who have persistent CMD symptoms with early life onsets. We describe searches for prevention and treatment trials that focus on the persistent subgroups, which are sparse.

**Conclusion:** In spite of two decades of life course epidemiology studies of common mental disorders (CMD) trajectories there has been no impact on the direction of intervention trial priorities and little evidence that epidemiology and treatment researchers are communicating 'in the same tent'. Research priorities need to be radically revised.

## S21.02 Development of Version 3 of the Schedule for Clinical Assessment in Neuropsychiatry for the Adult Psychiatric Morbidity Survey Assessment of Eating Disorders

**Carol Kan**<sup>1,4</sup>, Samuel Tromans<sup>2</sup>, Sally McManus<sup>3</sup>, John Maltby<sup>2</sup>, Zoe Morgan<sup>2</sup>, Traolach Brugha<sup>2</sup>

<sup>1</sup>Institute of Psychiatry, Psychology and Neurosciences, London, UK; <sup>2</sup>University of Leicester, Leicester, UK; <sup>3</sup>City University, London, UK; <sup>4</sup>Vincent Square Eating Disorder Service, London, UK

**Aims:** Differentiating normal psychological concerns about diet, weight and shape from pervasive psychopathological phenomena meeting criteria for eating disorders (ICD-11; DSM-5) challenges instrument development required for large scale epidemiological surveys that aim to inform population policy and specialist health care commissioning. The aim of the revised eating disorders section of WHO Schedule for Clinical Assessment in Neuropsychiatry version 3 (SCAN-3) is to evaluate the application of short structured questionnaires used in general population surveys of healthcare need.

**Methods:** Service users, specialist eating disorder teams, SCAN-3 experts and developers of the ICD-11 guidelines worked collaboratively in expanding and refining the eating disorders section for SCAN-3. It is then used in phase two of the Adult Psychiatric Morbidity Survey (APMS-5). In parallel, a clinical comparison study will compare data arising from SCAN-3 and eating disorder questionnaires collected from patients referred to eating disorder services in the UK, with the aim of establishing benchmarks for eating disorders questionnaires used in policy informing community surveys.

**Results:** We will report on the development of the items and glossary definitions used in the revised eating disorders section of SCAN-3. Our approach in algorithms development to support classification rules will also be explored, while progress with APMS-5 and the clinical comparison study will be provided.

**Conclusion:** Questionnaires alone may fail to differentiate normal psychology from psychopathology for eating disorders. Careful development and comparison may help provide more salient information for future health policy.

## S21.03 Screening for Attention-Deficit Hyperactivity Disorder (ADHD) in the Adult Psychiatric Morbidity Survey

**Zoe Morgan**<sup>1</sup>, Sally McManus<sup>2</sup>, Traolach Brugha<sup>1</sup>

<sup>1</sup>University of Leicester, Leicester, UK; <sup>2</sup>City University, London, UK

**Aims:** ADHD is a common neurodevelopmental disorder affecting 3-4% of adults worldwide. The disorder is characterised by developmentally inappropriate and impairing levels of inattentive, hyperactive and impulsive symptoms. Waiting times for ADHD specialist services are increasing, delaying diagnosis and access to treatments and thus delaying improvement to quality of life for these individuals. We aim to validate a semi-structured ADHD screening tool, to see if it can be used to improve the diagnostic pathways of adults with ADHD.

**Methods:** The British Adult Psychiatric Morbidity Survey (APMS) programme is the world leading source of information on complex mental health conditions in adults. The 2014 APMS, for the first time, made use of a systematic clinical evaluation of adult ADHD. This was developed for the survey by extending the Schedules for Clinical Assessment in Neuropsychiatry (SCAN) currently used to assess psychosis in the APMS programme. Using the Diagnostic Interview for Adult ADHD (DIVA) as the 'Gold Standard', the new semi-structured ADHD screening tool (SCAN ADHD) was validated.

**Results:** 67 adults from the general population, covering a full range of baseline ADHD scores, were used to validate the SCAN ADHD items as a screener for ADHD. The **SCAN ADHD** items proved to be a **good** discriminator compared to the DIVA; AUC=0.84.

**Conclusion:** The SCAN ADHD screener is a good discriminator of ADHD and therefore has potential to be used in primary care settings or other psychiatric assessment settings to improve the efficient identification and management of ADHD in primary health and social care.



## S21.04 An Extended Analysis of Age and Cohort Differences in the Prevalence of Common Mental Disorders in England

**Lucy Teece**<sup>1</sup>, Samuel Tromans<sup>1</sup>, Zoe Morgan<sup>1</sup>, Sally McManus<sup>2</sup>, Traolach Brugha<sup>1</sup>

<sup>1</sup>University of Leicester, Leicester, UK; <sup>2</sup>City University, London, UK

**Aims:** To understand up-to-date age and period trends of the prevalence of common adult mental disorders, and how trends in treatment and individual social contacts might impact these.

**Methods:** Building on previous work by Nicola Spiers et al, we present an updated pseudo-cohort analysis of four sequential cross-sectional surveys (National Psychiatric Morbidity Survey 1993-2014). The prevalence of common mental disorder (CMD; Revised Clinical Interview Schedule > 12) will be modelled using weighted multivariable logistic regression, and age-period-cohort trends will be explored. Analysis of trends in talking treatments (psychotherapy, behavioural therapy, counselling etc) will be added to an updated exploration of trends in antidepressant medication and anxiolytic/hypnotic prescription, as will individual social contact. Associations between prevalence of disorders, treatments, and social contacts will be explored.

**Results:** Previous analyses conducted using the first three surveys found trends in prevalence of CMDs remained largely stable, but with some increased prevalence in women, and a doubling of antidepressant prescriptions between 1993 and 2000. This analysis will provide up-to-date understanding of CMD prevalence, ready for future evaluation of the impact of the anticipated impact of the COVID-19 pandemic. Additional findings on trends in talking treatments and social contacts will be presented, alongside investigations into the interplay between all of these factors.

**Conclusion:** There is little evidence whether changes in interventional treatments over time have had any substantial impact on overall CMD trends, or whether these might differ by patient age-groups and sex. Future research will investigate the impact of the COVID-19 pandemic on these factors.

## S21.05 Threatening or Obscene Messages from a Partner and Mental Health, Self-harm and Suicidality: Results from the Adult Psychiatric Morbidity Survey

**Sally McManus**<sup>1,2</sup>, Paul Bebbington<sup>3</sup>, Leonie Tanczer<sup>4</sup>, Sara Scott<sup>5</sup>, Louise M Howard<sup>6</sup>

<sup>1</sup>City University of London, London, UK; <sup>2</sup>National Centre for Social Research, London, UK; <sup>3</sup>Psychiatry Division, University College London, London, UK; <sup>4</sup>Faculty of Engineering Science, University College London, London, UK; <sup>5</sup>DMSS, North Dalton, UK; <sup>6</sup>Section of Women's Mental Health, Institute of Psychology, Psychiatry and Neuroscience, Kings College London, London, UK

**Aims:** Threatening or obscene messaging is repeated, unwanted texts, emails, letters or cards experienced by the recipient as threatening or obscene, and causing fear, alarm or distress. It is rarely examined as an aspect of intimate partner violence. We describe the prevalence of exposure to threatening/obscene messaging from a current or ex-partner; characteristics of victims; and associations with other forms of violence, mental disorder, self-harm, and suicidality.

**Methods:** Cross-sectional probability-sample survey of the general population, England aged 16+. Multivariable regression modelling tested associations between receipt of messaging and current common mental disorder, past-year self-harm and suicidality.

**Results:** Threatening/obscene messages were received from a current/ex-partner by 6.6% (95%CI: 5.9–7.3) of adults who had been in a relationship; 1.7% received these in the past year. Victims were more likely to be female, under 35, single or divorced, socioeconomically disadvantaged, and to have experienced other forms of sexual and partner violence and abuse. Those who received threatening/obscene messages in the past year were more likely to experience common mental disorder (adjusted odds ratio 1.89; 1.01–3.55), self-harm (2.31; 1.00–5.33), and suicidal thoughts (2.00; 1.06–3.78).

**Conclusion:** Threatening/obscene messaging commonly occurs in the context of intimate partner violence. While often occurring alongside sexual and physical violence, messaging has an additional association with mental disorder and suicidality. Routine enquiry in service settings concerning safety should ask about contact from previous as well as current partners. This should include asking about messaging, as well as forms of technology-enabled abuse which may become increasingly common.



## S22 Natural Language Processing in a Mental Health Setting

Fri. 13 Sept., 16:00-17:30

2055

Chair: Angus Roberts, UK

Co-chair: Jaya Chaturvedi, UK

### ABSTRACT

Electronic health records (EHRs) and social media represent novel 'big data' resources that are both very large in sample size and highly granular in detail; however, the granularity is often in text rather than structured format. Natural Language Processing (NLP), a subfield of artificial intelligence, can automatically extract meaningful information from large volumes of unstructured text data, and underpins future research applications particularly in text-heavy mental healthcare research. This symposium will explore the application of NLP methods to mental healthcare EHR data and social media. The first talk will provide an overview of applied NLP in the Maudsley Clinical Record Interactive Search (CRIS) dataset which has supported over 300 research publications over the last 15 years, and which represents case notes on over 600,000 patients from a large urban catchment. Further speakers will present their work using NLP to analyse clinical data within both CRIS, and in social media data to detect mental health disorders, showcasing the potential of these techniques to advance mental health research. Topics will include innovative extractions of physical pain, treatment resistant schizophrenia and violence information from clinician notes, additionally highlighting how advanced NLP methods can be leveraged to identify patterns in language used by clinicians. This symposium offers the opportunity to learn about state-of-the-art NLP applications in a real-world, clinically relevant setting. The objective is to provide a deeper understanding of how these powerful computational tools can be harnessed to unlock the value of EHR and social media data to improve large-sample mental health research.

### S22.01 Applying Natural Language Processing to Enable Novel Research using Healthcare Big Data

Angus Roberts<sup>1</sup>, **Robert Stewart**<sup>1,2</sup>

<sup>1</sup>Institute of Psychiatry, Psychology and Neurosciences, King's College London, London, UK; <sup>2</sup>South London and Maudsley NHS Foundation Trust, London, UK

**Aims:** To consider a case example of natural language processing (NLP) being applied to support research using a large mental healthcare data resource over the last 15 years.

**Methods:** The Maudsley Clinical Record Interactive Search (CRIS) data platform was set up in 2008 as a governance and technical model to enable researcher access to de-identified copies of all mental healthcare provided to a catchment of around 1.3m residents in southeast London. In order to address the challenge of limited structured data granularity, CRIS has been enhanced over the last 15 years through an extensive programme of external data linkages, as well as with a suite of NLP algorithms.

**Results:** With over 100 algorithms successfully developed and applied, NLP-derived meta-data now support nearly all CRIS research output (over 300 publications to date), opening up detailed information on clinical phenotypes (e.g., symptom profiles), risk factors (e.g., substance use, violence, physical comorbidity, social isolation), interventions (pharmaceutical, psychological), and outcomes (e.g. adverse drug reactions). Techniques deployed have ranged from rule-based to large language models.

**Conclusion:** Health records provide novel opportunities for generating data resources that are both very large in sample size and highly granular in detail. We have shown that NLP can be successfully used for research innovation using these resources; however, this requires close, multidisciplinary teamworking in its development and imaginative academic integration in its application.

## S22.02 Overlap of Recorded Pain between Primary and Secondary Care Health Records

**Jaya Chaturvedi**<sup>1</sup>, Mark Ashworth<sup>1</sup>, Rob Stewart<sup>1,2</sup>, Angus Roberts<sup>1</sup>

<sup>1</sup>Institute of Psychiatry, Psychology and Neurosciences, King's College London, London, UK; <sup>2</sup>South London and Maudsley NHS Foundation Trust, London, UK

**Aims:** To study the overlap of recorded pain between secondary care mental health hospital records and primary care records, using natural language processing (NLP) on the secondary care data.

**Methods:** A cohort of 27,211 patients aged 18+ and under active referral from July 1, 2017, to July 1, 2019, with  $\geq 1$  document, was extracted from deidentified secondary mental healthcare (MHC) records. An NLP application classified sentences mentioning patient physical pain as "relevant". Patients with  $\geq 1$  "relevant" sentence were considered to discuss pain. MHC patient IDs were searched in the primary care (PC) database for matching records and variables indicating pain medication, diagnosis, or treatment. This cross-referencing process enabled the comparison of recorded pain between the two systems at the patient level.

**Results:** Of 4,822 (17%) MHC patients with PC records, 1,507 (31%) had recorded pain instances in both, while 687 (14%) only in PC. Notably, 2,628 (55%) had recorded pain only within MHC, identified through the NLP application.

**Conclusion:** For patients with records in both systems, NLP on MHC data identified a substantial proportion (55%) with pain mentioned only in MHC notes, uncaptured by PC records. This highlights NLP's value in adding to what might be derived from PC databases. However, the limited PC catchment area (22% of MHC) could contribute to the low overlap observed. A strength of this work is the innovative use of NLP for the identification and extraction of pain-related mentions that may have been otherwise overlooked or challenging to capture through conventional means.

## S22.03 Enhancing Treatment Resistant Schizophrenia Identification through Clinical Text Mining

**Tao Wang**<sup>1</sup>, Hamilton Morrin<sup>2</sup>, Robert Stewart<sup>1,2</sup>, Angus Roberts<sup>1</sup>, Sameer Jauhar<sup>1,2</sup>, James MacCabe<sup>1,2</sup>

<sup>1</sup>Institute of Psychiatry, Psychology and Neurosciences, King's College London, London, UK; <sup>2</sup>South London and Maudsley NHS Foundation Trust, London, UK

**Aims:** This study aims to develop an automated computational method using natural language processing (NLP) on clinical text to facilitate identifying treatment-resistant schizophrenia (TRS).

**Methods:** We analyzed a dataset of antipsychotic prescribing records for patients with psychosis (ICD-10 codes F20-F29), including both structured information and unstructured free text processed using NLP techniques, from a large UK mental hospital. To assess treatment adequacy, we developed a change point detection (CPD) algorithm to identify treatment episodes (i.e., start and end dates of a medication course). To distinguish TRS and pseudo-resistance, we devised a relation-extraction method to extract treatment responses (e.g., adverse drug events, nonadherence or non-response) from clinical text. Manual validation was used to validate these algorithms.

**Results:** A cohort of 15,129 patients who were diagnosed with psychosis and prescribed antipsychotics in 2007-2017 and 1,503,104 prescribing records of antipsychotics were extracted. The CPD algorithm achieved  $F1=0.81$  in identifying antipsychotic treatment episodes. This algorithm indicated an average of 1.8 treatment episodes per patient ( $SD=1.36$ ), with an average episode duration of 37.4 months ( $SD=36.7$ ). Furthermore, a guideline was developed to annotate data for training NLP models to extract responses to antipsychotics from clinical text. Initial model development demonstrated promising results.

**Conclusion:** Leveraging NLP methodologies on clinical text offers promising approaches to grasp the patterns of medication usage and responses among individuals with antipsychotics. This helps identify and document adequate treatment, treatment response and resistance, thereby enhancing our understanding of TRS and informing new treatments.

## S22.04 Violence in Mental Healthcare Records

Lifang Li<sup>1</sup>, **Sharon Sondh**<sup>2</sup>, Harsharon Sondh<sup>2</sup>, Angus Roberts and <sup>1,2</sup> Robert Stewart<sup>1,2</sup>

<sup>1</sup>Institute of Psychiatry, Psychology and Neurosciences, King's College London, London, UK; <sup>2</sup>South London and Maudsley NHS Foundation Trust, London, UK

**Aims:** This study aims to create a natural language processing (NLP) application which focuses on extracting and categorising mentions of violence from mental healthcare record texts. The application centres on extracting information related to various forms of violence (physical, sexual, emotional, and financial) from the clinical record Database CRIS. Alongside this, the study also extracts details about the patient role, domestic context, presence, and polarity.

**Methods:** 6,500 randomly selected clinical notes from a large mental healthcare provider were independently annotated by two raters. The notes each enclosed 400 characters which included the keywords linked to the study. Rigorous training and an approved coding manual was provided to ensure there was consistency when the annotators were coding. 90% of the annotated data was used for fine-tuning a multi-label BERT model (employing a 5-fold cross-validation). The rest (10%) was reserved for a blind test.

**Results:** The model performed well on the blind test set of emotional violence (F1= 0.89), financial violence with F1=0.88, physical (non-sexual) violence (F1=0.84), and unspecified violence (F1=0.81), and patients' role (F1=0.89 as perpetrator; F1= 0.84 as victim), polarity (F1=0.89 for affirmed behaviour), presence (F1= 0.95 for actual violence), and domestic settings (F1= 0.88).

**Conclusion:** We were successful in developing a suite of NLP applications using a BERT model to extract information on various types of violence (physical, sexual, emotional, financial) and to characterise the polarity, presence, patient role, and setting.

## S22.05 Measuring Depression in Social Media

**Fabio Crestani**<sup>1</sup>

<sup>1</sup>Università della Svizzera Italiana (USI), Lugano, Switzerland

**Aims:** We employ sophisticated text mining and natural language processing (NLP) techniques to analyse written content with the aim of inferring the psychological states and conditions of individuals.

**Methods:** We have created an extensive test collection derived from social media posts, designed to identify potential mental health disorders in individuals. We have also designed appropriate evaluation measures. Our initial primary focus was on depression among various mental health conditions. This collection has been made available to the CLEF (Conference and Labs of the Evaluation Forum) community and has been utilized by over 60 distinct international research groups.

**Results:** Participants in our eRisk (Early Risk Prediction) Lab at CLEF have employed over 100 diverse methodologies to address the challenges we have presented them over the past seven years. The outcomes of their endeavours have been documented in the CLEF conference proceedings and in various other papers across multiple computer science conferences and journals.

**Conclusion:** Over the past seven years, the eRisk Lab has developed numerous innovative methods for the automatic detection of mental health conditions, focusing primarily on early detection tasks. Specifically for depression, our work has evolved from early detection to assessing severity levels and ultimately to estimating individual symptoms. The insights gained from this research may also be applicable to other mental health disorders.

## S23 Climate, Environmental Change and Mental Health across the Life Course

Sat. 14 Sept., 09:00-10:30

A1031

Chair: Ioannis Bakolis, UK

Co-chair: Amy Ronaldson, UK

### ABSTRACT

The World Health Organisation (WHO) ranks air pollution as the main environmental cause of premature death with noise pollution second only to magnitude with emerging evidence on climate events such as heatwaves. However, the significant potential health and societal costs of poor mental and neurological health in relation to air quality noise, and climate events are under-represented due to limited evidence. Our symposium tries to address critical gaps in the knowledge on the links between exposure to regulated air pollutants (PM<sub>2.5</sub>, NO<sub>2</sub>), road-traffic noise and climate events on cognitive function, neurological and mental health across the life-course. The different talks will leverage data resources from different cohorts and will cover: 1) Early life exposure to air and noise pollution and mental health from Adolescence to Young Adulthood with the use of the Avon Longitudinal Study of Parents and Children (ALSPAC); 2) Associations between air pollution and mental health service use in children and adolescents with the use of electronic mental health records; 3) A nation-wide population based, longitudinal cohort study to assess associations between transportation noise exposure at individual's residential addresses and the risk for death by suicide; 4) Air Pollution, Mental Health, Cognition and Brain Health with the use of the MRC National Survey of Health and Development; 5) Air pollution, temperature and mental well-being with the use of smartphone technologies and 6) Temperature and mood disorder symptoms of depression and mania in a clinical population, with the use of digital platform and smartphone app data.

### S23.01 Air and Noise Pollution Exposure in Early Life and Mental Health from Adolescence to Young Adulthood

**Joanne B. Newbury**<sup>1</sup>, Jon Heron<sup>1</sup>, James B. Kirkbride<sup>3</sup>, Helen L. Fisher<sup>2,4</sup>, Ioannis Bakolis<sup>5,6</sup>, Stanley Zammit<sup>1,7</sup>

<sup>1</sup>Population Health Sciences, Bristol Medical School, University of Bristol, UK; <sup>2</sup>Social, Genetic, and Developmental Psychiatry Centre, Institute of Psychiatry, Psychology & Neuroscience, King's College London, London, UK; <sup>3</sup>PsyLife Group, Division of Psychiatry, UCL, London, UK; <sup>4</sup>ESRC Centre for Society and Mental Health, King's College London, London, UK; <sup>5</sup>Department of Biostatistics and Health Informatics, Institute of Psychiatry, Psychology & Neuroscience, King's College London, London, UK; <sup>6</sup>Centre for Implementation Science, Health Service and Population Research Department, Institute of Psychiatry, Psychology & Neuroscience, King's College London, London, UK; <sup>7</sup>MRC Centre for Neuropsychiatric Genetics and Genomics, School of Medicine, Cardiff University, Cardiff, UK

**Aims:** Growing evidence associates air pollution exposure with various psychiatric disorders. However, the importance of early-life (e.g., prenatal) pollution exposure in youth mental health is poorly understood, despite youth being a critical period for intervention. Moreover, few longitudinal studies have investigated the association of noise pollution with mental health, despite the correlation between air and noise pollution.

**Methods:** Data were from Avon Longitudinal Study of Parents and Children (ALSPAC), which tracks the development of >14,000 babies born in 1991-1993 in and around Bristol, UK. Novel data on nitrogen dioxide (NO<sub>2</sub>), particulate matter <2.5 microns (PM<sub>2.5</sub>), and noise pollution were linked to addresses in pregnancy, childhood (age 1-9), and adolescence (age 10-12). Psychotic experiences, anxiety, and depression were measured between ages 13-24. Analyses controlled for individual-, family-, and area-level confounders.

**Results:** After covariate adjustment, interquartile range increases (0.72µg/m<sup>3</sup>) in PM<sub>2.5</sub> during pregnancy and childhood were associated with 11% and 9% elevated odds for psychotic experiences (pregnancy: adjusted [a]OR=1.11, 95% CI=1.04-1.19, p=0.002; childhood: aOR=1.09, 95% CI=1.00-1.10, p=0.04). Pregnancy PM<sub>2.5</sub> exposure was also associated with depression (aOR=1.10, 95% CI=1.02-1.18, p=0.01). Conversely, higher noise pollution exposure in childhood (aOR=1.19, 95% CI=1.03-1.38, p=0.02) and adolescence (aOR=1.22, 95% CI=1.02-1.45, p=0.03) was associated with elevated odds for anxiety.

**Conclusion:** In this longitudinal cohort study, early-life air and noise pollution exposure were prospectively associated with three common mental health problems from adolescence to young adulthood. There was a

degree of specificity in terms of pollutant-timing-outcome associations. Assuming causality, interventions to reduce air/noise pollution could improve population mental health.

### S23.02 Associations between Air Pollution and Mental Health Service Use in Children and Adolescents: A Retrospective Cohort Study

Eshchar Haiman<sup>1</sup>, Diya Bhandari<sup>1</sup>, Robert Stewart<sup>2,3</sup>, Ian Mudway<sup>4,5,6</sup>, **Amy Ronaldson**<sup>7</sup>, Ioannis Bakolis<sup>7,8</sup>

<sup>1</sup>Social, Genetic & Developmental Psychiatry Centre, IoPPN, King's College London; <sup>2</sup>Department of Psychological Medicine, IoPPN, King's College London; <sup>3</sup>South London and the Maudsley NHS Foundation Trust, London; <sup>4</sup>Environmental Research Group, School of Public Health, Faculty of Medicine, Imperial College London; <sup>5</sup>MRC Centre for Environment and Health, School of Public Health, Faculty of Medicine, Imperial College London; <sup>6</sup>NIHR Health Protection Research Unit in Environmental Exposures and Health, School of Public Health, Faculty of Medicine, Imperial College London; <sup>7</sup>Centre for Implementation Science, Health Service and Population Research Department, Institute of Psychiatry, Psychology, and Neuroscience (IoPPN), King's College London; <sup>8</sup>Department of Biostatistics and Health Informatics, IoPPN, King's College London

**Aims:** Exposure to air pollution is known to increase mental health service use in adults. Using a state-of-the-art linkage between environmental and mental healthcare data, we examined whether this association extends to children and adolescents.

**Methods:** In 11,773 children and adolescents in contact with mental health services in South London, healthcare data were linked with high resolution estimates of nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>) levels in ambient air connected to residential addresses. Associations between air pollution and Community Mental Health Team (CMHT) events over a 1-, 5-, and 9-year period were examined using negative binomial regressions. All models were adjusted for relevant individual and neighbourhood level factors. The role of age group, gender, and diagnosis (mood and anxiety disorders; neurodevelopmental disorders (NDDs)) were explored.

**Results:** Exposure to higher levels of air pollution was associated with an increase in CMHT events at all time-points (e.g. NO<sub>2</sub>: 1-year adjusted incident rate ratio (aIRR)=1.05, 95% CI=1.01-1.10; 5-year aIRR=1.06, 95% CI=1.02-1.11; 9-year aIRR=1.09, 95% CI=1.04-1.13). Results were only statistically significant in children (3-12y) as opposed to adolescents (13+y), and only in boys. There was an association between NO<sub>2</sub> exposure and use of CMHTs at all time-points in patients with NDD, but only at 9-years in those with mood and anxiety disorders.

**Conclusion:** Associations observed between air pollution and increased use of mental health services in adults extends to children and adolescents, but these associations appear to be modified by age group, gender, and diagnosis.

### S23.03 Noise and Mental Health – More Than Just a Nuisance

**Benedikt Wicki**<sup>1,2</sup>, Danielle Vienneau<sup>1,2</sup>, Martin Röösli<sup>1,2</sup>

<sup>1</sup>Swiss TPH (Swiss Tropical and Public Health Institute), Allschwil, Switzerland; <sup>2</sup>University of Basel, Basel, Switzerland

**Aims:** A growing body of evidence indicates that noise can be a relevant risk factor for diverse mental disorders. However, the latest systematic reviews from 2020 rated the overall quality of evidence as low. We aim to report results from two recent, methodologically robust studies from Switzerland.

**Methods:** In the first study, we conducted a nation-wide population based, longitudinal cohort study to assess associations between transportation noise exposure at individual's residential addresses and the risk for death by suicide. The second study assessed acute effects of military aircraft noise on psychiatric in-patients' on demand medication consumption in a natural experiment setting applying the case time series design.

**Results:** In the cohort study, we found a significant association between the risk for death by suicide and exposure to road traffic and railway noise (HR=1.04 [1.02, 1.07] and 1.02 [1.00, 1.04] per 10dB Lden, respectively). In the case time series analysis, we found a significantly increased probability for on demand sedative and analgesic consumption (OR=1.016 [1.006, 1.026] and 1.032 [1.016, 1.048] per 10dB LAeq(h), respectively) in the three hours following military aircraft noise exposure. Effects were larger in multimorbid patients.

**Conclusion:** By using suicides as a surrogate for underlying severe mental health disorders, we found further evidence supporting that noise can adversely affect mental health. Adding to this, we found that loud noise events can also have acute impacts on psychiatric patients, potentially worsening symptoms and contributing to adverse events. These findings can be well explained by established and novel pathophysiological concepts.



### S23.04 Air Pollution, Mental Health, Cognition and Brain Health: Findings from the MRC National Survey of Health and Development

**Thomas Canning**<sup>1,2†</sup>, Jorge Arias-de la Torre<sup>3,4,5†</sup>, Helen L. Fisher<sup>2,6</sup>, John Gulliver<sup>7,8</sup>, Anna Hansell<sup>7</sup>, Rebecca Hardy<sup>9</sup>, Stephani L. Hatch<sup>6,10</sup>, Ian S. Mudway<sup>11,12</sup>, Amy Ronaldson<sup>3</sup>, Amal R. Khanolkar<sup>13,14</sup>, Molly Cartlidge<sup>15</sup>, Jonathan Schott<sup>15</sup>, Sarah-Naomi James<sup>13</sup>, Sarah Keuss<sup>15</sup>, Marcus Richards<sup>13</sup>, Ioannis Bakolis<sup>1</sup> † These authors contributed equally

<sup>1</sup>Department of Biostatistics and Health Informatics, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, United Kingdom; <sup>2</sup>Social, Genetic & Developmental Psychiatry Centre, Institute of Psychiatry, Psychology & Neuroscience, King's College London, London, United Kingdom; <sup>3</sup>Centre for Implementation Science, Health Service and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, United Kingdom; <sup>4</sup>CIBER Epidemiology and Public Health (CIBERESP), Madrid, Spain; <sup>5</sup>Institute of Biomedicine (IBIOMED), University of Leon, Leon, Spain; <sup>6</sup>ESRC Centre for Society and Mental Health, King's College London, London, United Kingdom; <sup>7</sup>Centre for Environmental Health and Sustainability, University of Leicester, Leicester, United Kingdom; <sup>8</sup>Population Health Research Institute, St George's, University of London, London, United Kingdom; <sup>9</sup>School of Sport, Exercise and Health Sciences, Loughborough University, Loughborough, United Kingdom; <sup>10</sup>Department of Psychological Medicine, Institute of Psychiatry, Psychology & Neuroscience, King's College London, London, United Kingdom; <sup>11</sup>MRC Centre for Environment and Health, School of Public Health, Faculty of Medicine, Imperial College London, London, United Kingdom; <sup>12</sup>NIHR Health Protection Research Units in Environmental Exposures and Health, and Chemical and Radiation Threats and Hazards, Imperial College London, London, United Kingdom; <sup>13</sup>MRC Unit for Lifelong Health and Ageing at UCL, University College London, London, United Kingdom; <sup>14</sup>School of Life Course & Population Sciences, King's College London, London, United Kingdom; <sup>15</sup>Dementia Research Centre, UCL Queen Square Institute of Neurology

**Aims:** There is limited understanding of long-term associations between outdoor air pollution exposures with brain health in mid to older age. We tested these associations between the ages of 45 and 71, while accounting for historic exposures and outcomes.

**Methods:** We utilised 1761 participants from the MRC National Survey of Health and Development (the 1946 British birth cohort), and 453 from the neuroimaging sub-study, Insight-46. Annual exposures were estimated for NO<sub>2</sub> (at age 45, 55 and 60-64), PM<sub>10</sub> (age 55 and 60-64) and PM<sub>2.5</sub>, NO<sub>x</sub>, PM<sub>coarse</sub> and PM<sub>abs</sub> (age 60-64). Mixed models examined associations between NO<sub>2</sub> and PM<sub>10</sub> with the General Health Questionnaire-28 ([GHQ-28], emotional symptoms, ages 53, 60-64 and 69). Associations between averaged exposures between all pollutants and Addenbrooke's Cognitive Examination-III ([ACE-III], cognitive state, age 69), and in parallel, MRI measures of the whole brain, ventricular, hippocampus, and white matter hyperintensity volume (brain health: ages 69-71) were examined with linear regression. We controlled for sociodemographic indicators, prior exposure to pollution (before age 45), mental health (age 13-15 and 26) and cognition (age 15).

**Results:** In fully adjusted models, higher exposure to NO<sub>2</sub> was associated with poorer mental health ( $\beta=0.016$ , [95%CI:0.001, 0.033]), cognition (NO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, PM<sub>coarse</sub> and PM<sub>abs</sub>) (NO<sub>2</sub>:  $\beta=-0.609$ , [0.950, -0.268]) and hippocampal volume and/or ventricular space (NO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>2</sub>) (NO<sub>x</sub>:  $\beta=-0.084$ , [-0.165, -0.003] for total hippocampal volume) between ages 45-71.

**Conclusion:** Higher air pollution exposure in adults in mid-late life is associated with poorer brain health, suggesting that improving air quality may support healthy ageing.

### S23.05 Using Smartphone Technologies to Investigate the Association between Air Pollution and Mental Wellbeing

**Ryan Hammoud**<sup>1</sup>, Michael Smythe<sup>2</sup>, Johanna Gibbons<sup>3</sup>, Neil Davidson<sup>3</sup>, Antonio Gasparrini<sup>4</sup>, Andrea Mechelli<sup>1</sup>, Ioannis Bakolis<sup>5,6</sup>

<sup>1</sup>Department of Psychosis Studies, Institute of Psychiatry, Psychology & Neuroscience, King's College London. De Crespigny Park, London. SE5 8AF, United Kingdom; <sup>2</sup>Nomad Projects, Sunbury Workshops, 24 Swanfield St, London. E2 7LF, United Kingdom; <sup>3</sup>J & L Gibbons, 19 Swan Yard, London. N1 1SD, United Kingdom; <sup>4</sup>Department of Public Health, Environments and Society, London School of Hygiene & Tropical Medicine. 15-17 Tavistock Place, London. WC1H 9SH, United Kingdom; <sup>5</sup>Health Services and Population Research Department, Centre for Implementation Science, Institute of Psychiatry, Psychology & Neuroscience. De Crespigny Park, London. SE5 8AF, United Kingdom; <sup>6</sup>Department of Biostatistics and Health Informatics, Institute of Psychiatry, Psychology & Neuroscience. De Crespigny Park, London. SE5 8AF, United Kingdom

**Aims:** There is a limited understanding of the momentary associations between air pollution and mental wellbeing. We tested the relationship between daily PM<sub>2.5</sub> exposure and momentary mental wellbeing, while accounting for potential sociodemographic and environmental confounders. We also examined whether ambient temperature modifies this relationship.



**Methods:** We utilised the Urban Mind smartphone app for real-time ecological momentary assessment (EMA), capturing participants' immediate mental wellbeing and environmental exposure. PM2.5 exposure was estimated using high-resolution data, that was both spatially and temporally precise, linked with the time and location of each self-reported assessment. Multilevel regression models analysed the impact of PM2.5 on mental wellbeing, adjusting for demographic and environmental covariates.

**Results:** The analysis included 5,784 assessments from 202 participants who completed at least 50% of the scheduled assessments. We found no significant association between PM2.5 exposure and momentary mental wellbeing. Adjustments for demographic and mental health history slightly modified these results but did not establish a consistent significant relationship. Temperature did not significantly influence this association.

**Conclusion:** The study did not find consistent evidence that higher ambient PM2.5 exposure is associated with reduced momentary mental wellbeing. Additionally, the modifying effect of ambient temperature on this relationship was not significant. These findings suggest that the impact of air pollution on mental health may manifest over longer periods rather than immediately, highlighting the need for longitudinal studies to further explore these relationships.

### S23.06 The Association between Outdoor Ambient Temperature and Depression and Mania: an Ecological Momentary Assessment Study

**Philippa Clery**<sup>1</sup>, David PJ Osborn<sup>1,2</sup>, Joseph F Hayes<sup>1,2,3</sup>, Annie Jeffery<sup>1</sup>, Aaron Kandola<sup>3,4</sup>, Naomi Launders<sup>1</sup>, Emma L Lawrance<sup>5,6</sup>, Rhiannon Thompson<sup>7,8</sup>, Jennifer Dykxhoorn<sup>1</sup>

<sup>1</sup>University College London (London, GB); <sup>2</sup>North London Mental Health Partnership, London, UK; <sup>3</sup>Juli Health, Hull, Massachusetts, USA; <sup>4</sup>MRC Unit of Lifelong Health and Ageing, UCL, UK; <sup>5</sup>Climate Cares Centre, Institute of Global Health Innovation, Imperial College London, London, UK; <sup>6</sup>Grantham Institute for Climate Change and the Environment, Imperial College London, London, UK; <sup>7</sup>Department of Epidemiology and Biostatistics, School of Public Health, Imperial College London, UK; <sup>8</sup>NIHR School for Public Health Research (NIHR SPHR), England, UK

**Aims:** Environmental heat exposure can negatively impact mental health. Evidence for mood disorders is inconsistent. Current studies are limited by poor temporal and geographical resolution methodologies. We aimed to investigate the association between real-time temperature and depressive and manic symptoms.

**Methods:** We used ecological momentary assessment (EMA) data from the digital platform juli to investigate the association between real-time mean and maximum ambient temperature collected from smartphone geolocation, and depressive and manic symptom scales every two weeks, in adults with depression and bipolar disorder. We used negative binomial mixed-effects regression models, controlled for demographic and weather variables, and stratified by season.

**Results:** We analysed data from 4,000 participants with depressive symptoms and 2,132 with manic symptoms, between 2021 and 2023. We found that each 1°C increase in mean daily temperature in the preceding two weeks was associated with a 0.2% reduction in depressive symptom scores (IRR 0.998, 95%CI 0.997-0.999) and a 0.4% increase in manic symptom scores (IRR 1.004, 95%CI 1.001-1.007). Associations between maximum temperature and depressive and manic symptoms followed a similar pattern.

**Conclusion:** We found evidence that higher temperatures were associated with increased manic symptoms and decreased depressive symptoms, indicating a relationship between temperature and the mood disorder continuum. With globally rising temperatures, there is a need to understand the impact of heat for clinical risk stratification and targeted support based on local temperature patterns. This study demonstrates potential for novel data sources and EMA methods to inform our understanding of the link between climate and mental health.

## S24 Intersecting Perspectives on Mental Health across the Life Span: From Social Wellbeing to Pharmacoepidemiology

Sat. 14 Sept., 09:00-10:30

2013

Chair: Christoph Mueller, UK

Co-chair: Robert Stewart, UK

### ABSTRACT

This symposium, presented by researchers across Europe, explores societal and pharmacological aspects of mental health care. It examines social cognition and how this is impacted by lack of insight in people with dementia and builds on this by considering the impact of loneliness in severe mental illness. Further, the longitudinal stability of Major Depressive Disorder subtypes across age groups is considered and how this might be affected by other factors, as depression severity or sex. Moreover, the global challenge of rational medication use for mental disorders will be explored, considering the balance between treatment effectiveness and healthcare sustainability. Exploring pharmacoepidemiology in more detail, the impact of cross-medication properties on adverse outcomes in people with dementia will be presented; through the example of dizziness as a potential side effect and a more general talk focusing on improving safety in prescribing practices for older people. This also includes an exploration of the value of a decision support tool in clinical practice.

### S24.01 Insight into Social Cognitive Abilities in Dementia

**Fern Rodgers**<sup>1</sup>, Jonathan Huntley<sup>1,2</sup>, Andrew Sommerlad<sup>1,3</sup>

<sup>1</sup>University College London, UK; <sup>2</sup>University of Exeter, UK; <sup>3</sup>Camden and Islington NHS Foundation Trust, UK

**Aims:** Social cognition decline is a feature of dementia progression, which may lead to impaired social relationships and isolation. People with dementia (PWD) frequently lack insight into some but not all aspects of their cognition and function which may worsen burden and distress for them and their family caregivers. This study investigated whether PWD lack insight into their social cognition.

**Methods:** Cross-sectional study of PWD and healthy controls (HC) who completed the Interpersonal Reactivity Index (IRI), a self-report measure of social cognition (perspective taking/theory of mind (ToM) and empathy), and The Awareness of Social Inference Test (TASIT-S), a task-based measure of social cognition (emotion recognition (ER) and theory of mind) and the Addenbrookes Cognitive Examination (ACE) assessing general cognition.

**Results:** We recruited 77 PWD (mean age=78.1years; mean ACE=71.6) and 17 HC (mean age=71.5years; mean ACE=96.7). There were differences between PWD and HC on self-reported ToM ( $t=1.96$ ,  $p=0.05$ ) and on the TASIT-S subcomponents assessing ER and ToM ( $t=4.87$ ,  $p<0.001$ ;  $t=3.27$ ,  $p<0.001$ ). In analyses adjusted for age, sex and education, higher ACE scores were associated with higher ER: TASIT-ER score was 0.6 higher (95%CI=0.3-0.9,  $p<0.001$ ) per 10 points higher ACE. There was no association between ACE and TASIT-ToM in adjusted models. We did not find association between self-rated and task-assessed ToM in PWD or HC.

**Conclusion:** Differences in self-reported and task-assessed social cognition were observed between people with dementia and healthy controls, with ACE scores predicting better performance in ER. However, neither group were able to accurately estimate their social cognitive ability.

### S24.02 Loneliness in People with Severe Mental Illness: an Electronic Health Records Investigation

**Mariana Pinto da Costa**<sup>1,2</sup>, Dulce Alarcon Yaquetto<sup>1</sup>, Gayan Perera<sup>1</sup>, James Shearer<sup>1</sup>, Robert Stewart<sup>1,2</sup>

<sup>1</sup>South London and Maudsley NHS Foundation Trust, London, UK; <sup>2</sup>King's College London, Institute of Psychiatry, Psychology and Neuroscience, London, UK

**Aims:** To investigate if loneliness is associated with clinical phenotypes of psychosis in people with severe mental illness (SMI).

**Methods:** We used the Clinical Record Interactive Search (CRIS) platform which provides anonymised copies of the South London and Maudsley NHS Foundation Trust (SLaM) electronic health records. A previously

validated natural language processing (NLP) algorithm that identifies instances of loneliness was used to assess exposure.

**Results:** We identified people based on their first diagnosis of SMI and assessed if loneliness was a predictor of negative, depressive, and manic symptoms during a 12-month follow-up. We will present the findings obtained, with a focus on age and other individual characteristics. The advantages and challenges of using data science and large real world health electronic records to study loneliness will be discussed.

**Conclusion:** Loneliness can be studied as a predictor of clinical phenotypes in SMI using electronic health records coupled with NLP. As a potentially modifiable factor, this opens up opportunities for future research and interventions aimed at improving treatment outcomes and recovery in SMI patients.

### **S24.03 Stability of the Subtypes of Major Depressive Disorder in Three Different Age Ranges and the Influence of Sex and Severity of Depression on the Stability**

**Beatriz Pozuelo Moyano**<sup>1</sup>, Marie-Pierre F. Strippoli<sup>2</sup>, Kevin Swierkosz-Lenart<sup>1</sup>, Martin Preisig<sup>2</sup>, Armin von Gunten<sup>1</sup>

<sup>1</sup>Service of Old Age Psychiatry, Department of Psychiatry, Lausanne University Hospital (CHUV) and University of Lausanne, Prilly, Switzerland; <sup>2</sup>Psychiatric Epidemiology and Psychopathology research center, Department of Psychiatry, Lausanne University Hospital and University of Lausanne, Prilly, Switzerland

**Aims:** To evaluate i) the longitudinal stability of various subtypes of Major Depressive Disorder (MDD) according to DSM-IV criteria (atypical, the melancholic, the combined atypical and melancholic and the unspecified) across different age groups (35-45, 45-55, and 55-65 years old) and ii) the impact of depression severity and sex on the stability of these subtypes over time.

**Methods:** In this prospective cohort study, 721 participants underwent at least two psychiatric evaluations, the first occurring between ages 34-45, 45-55, or 55-65. A semistructured diagnostic interview was used to assess lifetime and cumulative MDD subtypes. Associations between lifetime MDD status at the first evaluation and cumulative MDD subtype status were analyzed via multinomial logistic regression. The effect of sex and severity of the baseline episode disorder on these associations, was assessed by testing the interactions between sex and GAF score and lifetime MDD subtypes at the first psychiatric evaluation in the multinomial logistic regression model.

**Results:** Among participants, 35.3% were aged 35-45 at the first evaluation, 41.1% were aged 45-55, and 23.6% were aged 55-65. For those meeting criteria for lifetime atypical MDD between ages 55-65, 44.8% experienced a cumulative atypical subtype (OR 7.79; 95% CI: 2.32, 26.15;  $p < 0.001$ ). No significant interactions were found between sex and severity of the depressive episode and stability lifetime MDD subtypes regarding depression status after follow-up.

**Conclusion:** The significant stability of the atypical subtype underscores the importance of recognizing and identifying this specific subtype in both clinical practice and research environments.

### **S24.04 Public Health Psychopharmacology (PHP): The Impact of Pharmacoepidemiology in Public Health**

**Chiara Gastaldon**<sup>1,2</sup>, Davide Papola<sup>1,3</sup>, Giovanni Ostuzzi<sup>1</sup>, Corrado Barbui<sup>1</sup>

<sup>1</sup>WHO Collaborating Centre for Research and Training in Mental Health and Service Evaluation; Department of Neuroscience, Biomedicine and Movement Sciences, Section of Psychiatry, University of Verona, Verona, Italy; <sup>2</sup>Institute for social and preventive medicine, University of Bern, Bern, Switzerland; <sup>3</sup>Department of Global Health and Social Medicine, Harvard Medical School, Boston, USA

**Aims:** The appropriate use of medicines for mental disorders worldwide is a global challenge, requiring a careful balance between the effectiveness of treatments and the economic sustainability of healthcare systems. Public Health Psychopharmacology focuses on the economic sustainability of healthcare systems to promote the rational use of medicines at the global level. To this end, since 1977, the World Health Organization (WHO) has maintained a Model list of Essential Medicines (EML) to guide the procurement of medicines at the national level. The process to revise the EML for mental disorders is used as a paradigmatic example of the public health impact of pharmacoepidemiology.

**Methods:** We submitted nine evidence-based applications to the WHO Expert Committee on the Selection and Use of Essential Medicines, recommending a substantial revision of the entire mental health section. We

conducted systematic reviews, meta-analyses on the safety and effectiveness of psychotropic medicines and a GRADE assessment of the certainty of evidence.

**Results:** All applications were accepted by the WHO and contributed to the update of the EML, with substantial changes for psychotic, mood, and anxiety disorders, such as the addition of first- and second-generation antipsychotics and the removal of tricyclics.

**Conclusion:** The comprehensive revision of the WHO EML mental health section will enhance access to the most effective, safe, and cost-effective medicines for mental disorders worldwide. Implementation of these changes is a key step towards the right of people with mental disorders to receive evidence-based treatments, promoting a more inclusive and equitable approach to mental health care worldwide.

## S24.05 Safer Prescribing in Older People

**Delia Bishara**<sup>1,2</sup>, Gayan Perera<sup>2</sup>, Daniel Harwood<sup>1</sup>, David Taylor<sup>2,3</sup>, Robert Stewart<sup>1,2</sup>, Christoph Mueller<sup>1,2</sup>

<sup>1</sup>Mental Health for Older Adults and Dementia Clinical Academic Group, South London and Maudsley NHS Foundation Trust, London, UK;

<sup>2</sup>Institute of Psychiatry, Psychology and Neuroscience, London, UK; <sup>3</sup>Pharmacy Department, South London and Maudsley NHS Foundation Trust, London, UK

**Aims:** In view of the limited treatment options available for dementia, it is important to prevent dementia where possible, try to improve outcomes and preserve cognitive function for as long as possible. There is growing evidence of serious effects associated with anticholinergic agents in older people. Long-term use is associated with an increased risk of cognitive decline, dementia and early death. We focussed on exploring ways to improve the safety of prescribing in older people.

**Methods:** We investigated the effect of the central anticholinergic burden of drugs (using the Anticholinergic Effect on Cognition (AEC) scale) on dementia outcomes. Based on the AEC scale, we developed Medichec, a desktop and phone app that helps to identify drugs that have a high central anticholinergic burden. The app was further developed to include and help to identify drugs that are reported to cause QTc prolongation, hyponatraemia, bleeding risk, dizziness, drowsiness and constipation.

**Results:** We found that drugs with high AEC scores were associated with increased mortality and hospitalisation compared to those with low scores, highlighting the importance of keeping the central anticholinergic burden to a minimum. When we compared bladder anticholinergic drugs specifically in people with dementia, those with high AEC scores were associated with significantly increased mortality, by 55% compared to those with low AEC scores.

**Conclusion:** Medichec can facilitate access to side-effects information for multiple medications at once, aid clinical decision-making and optimise treatment. Each side effect will be clinically validated in our dementia population using the CRIS database.

## S24.06 Cross-category Medication Properties and Associations with Adverse Outcomes in People with Dementia: The Example of Dizziness

**Harsharon Sondh**<sup>1,2</sup>, Delia Bishara<sup>1,2</sup>, Gayan Perera<sup>2</sup>, Robert Stewart<sup>1,2</sup>, Christoph Mueller<sup>1,2</sup>

<sup>1</sup>South London and Maudsley NHS Foundation Trust, London, UK; <sup>2</sup>King's College London, Institute of Psychiatry, Psychology and Neuroscience, London, UK

**Aims:** To investigate whether medications with dizziness as a side effect are associated with adverse outcomes in people with dementia.

**Methods:** The South London and Maudsley NHS Foundation Trust (SLaM) Clinical Records Interactive Search (CRIS) platform was used to assemble a cohort of patients diagnosed with dementia. From recorded medications at diagnosis, we ascertained those with dizziness and hypotension (as specific cause for dizziness) listed as side effect. Multivariable Cox regression models were applied to determine risk of emergency general hospitalisation, hospitalisation with a fall, and mortality.

**Results:** We identified 15,210 patients with a diagnosis of dementia. Mean age at dementia diagnosis was 80.9 (+/- 8.7) years; 60.4% were female and 26.3% of an ethnic minority background. Of those 82.2% (n=12,506) were prescribed a medication causing dizziness and 71.2% (n=10,832) a medication causing hypotension at dementia diagnosis. After adjustment for nineteen potential confounders patients receiving medications causing dizziness were at a significantly increased risk for emergency hospitalisation (Hazard ratio (HR): 1.07; 95% confidence interval (CI): 1.00-1.15; p=0.048), but not of a hospitalised fall or mortality. Results for

medications causing hypotension were similar, whereby the risk of emergency hospitalisation was more pronounced (HR: 1.13; 95% CI: 1.07-1.20;  $p < 0.001$ ).

**Conclusion:** Use of medications with dizziness or hypotension as side effect is very common in people with dementia and associated with an increased risk of emergency hospitalisation. The risk of hospitalisation may vary depending on the cause of dizziness and hospitalised falls might not be the main adverse outcome of those medications.

## S25 Genetic Epidemiology: Methods and Applications in Psychiatric Disorders

Sat. 14 Sept., 09:00-10:30

2055

Chair: Giorgio Pistis, CH

Co-chair: Yuri Milaneschi, NL

### ABSTRACT

Genetic epidemiology studies of the role of genetic factors and their interplay with environmental factors, with the aim to find the best study designs and statistical analyses for identifying genes controlling risk for complex diseases. This symposium will show the application of a broad range of genetic epidemiology methods in psychiatric disorders. **Yuri Milaneschi** will present data from the BIOBanks Netherlands Internet Collaboration (BIONIC) project. BIONIC is an overarching infrastructure that assembles data from several large cohorts in the Netherlands, enabling a GWAS of Major Depressive Disorder. Preliminary results from the GWAS will be presented. **Giorgio Pistis** will present results from the CoLauS|PsyCoLauS cohort study and the Netherlands study of Depression and Anxiety, showing how alterations in immuno-metabolic pathways and brain reward processing networks may identify a homogenous dimension within depression and testing the associations between their joint genetic liabilities and individual depressive symptoms. **Alison K. Merikangas** will present results from the Philadelphia Neurodevelopmental Cohort focusing on the association between migraine headache and depression and evaluating whether there is shared genetic susceptibility underlying depression-migraine comorbidity. **Sarah E. Bergen** will present results from a Swedish case-control study aimed to quantify how aggregate genetic risk (family genetic risk scores) and environmental exposures jointly contribute to risk for schizophrenia and bipolar disorder, and whether these relationships differ between the disorders. **Mette Lise Lousdal** will present results from iPSYCH2015 aimed to explore whether polygenic scores for psychiatric disorders have changed between 1981 and 2008.

### S25.01 Combining power with precision in Depression genomics: the BIONIC project

**Yuri Milaneschi**<sup>1,4</sup>, Floris Huider<sup>2,5</sup>, Jouke-Jan Hottenga<sup>2,5</sup>, Dorret I. Boomsma<sup>2,5,6</sup> & Brenda W.J.H. Penninx<sup>1,4</sup>, for the BIONIC Consortium

<sup>1</sup>Department of Psychiatry, Amsterdam UMC, location Vrije Universiteit Amsterdam, The Netherlands; <sup>2</sup>Amsterdam Public Health, Mental Health program, Amsterdam, The Netherlands; <sup>3</sup>Amsterdam Neuroscience, Mood, Anxiety, Psychosis, Stress, and Sleep program, Amsterdam, The Netherlands; <sup>4</sup>Amsterdam Neuroscience, Complex Trait Genetics, Amsterdam, The Netherlands; <sup>5</sup>Department of Biological Psychology, Faculty of Behavioral and Movement Sciences, Vrije Universiteit Amsterdam, Amsterdam, the Netherlands; <sup>6</sup>Complex Trait Genetics Department, Center for Neurogenomics and Cognitive Research (CNCR), Vrije Universiteit Amsterdam, Amsterdam, Netherlands

**Aims:** Large-scale collaborative Genome-Wide Association Studies (GWAS) are unraveling the genetic basis of depression. It has been argued that the combination of heterogeneous cohorts with different instruments to assess depression—from self-report depression to psychiatric diagnoses of major depressive disorder (MDD)—has enabled only the identification of a nonspecific portion of depression genetic risk. Mechanisms specific to MDD may remain inaccessible.

**Methods:** We established the BIOBanks Netherlands Internet Collaboration (BIONIC), an overarching infrastructure assembling data from several large cohorts in the Netherlands. BIONIC aimed to enrich existing cohorts (with available GWAS data) by adding phenotypes of controls and cases with lifetime Major Depressive Disorder (MDD) according to psychiatric criteria. Harmonized cross-cohort phenotype and genotype data were assembled at a central location. Preliminary results of the GWAS were benchmarked against those of the latest meta-analyses by the Psychiatric Genomics Consortium (PGC), which combined cohorts across the world with different depression assessments.

**Results:** Data from 12 Dutch cohorts were combined to create a dataset of 16,655 lifetime MDD cases and 64,941 controls. A genetic correlation of 0.878 (SE = 0.048) indicated a substantial overlap in the genetic base of the traits assessed in BIONIC and PGC. The estimated SNP-heritability - the proportion of trait variance jointly explained by all measured SNPs—was significantly ( $p = 4.7e-4$ ) higher for BIONIC (est = 0.175, SE =



0.021) compared to PGC (est = 0.084, SE = 0.0007). This suggests that the BIONIC GWAS indexed a more homogeneous trait with greater genetic contribution or was less affected by cross-cohort heterogeneity.

**Conclusion:** BIONIC showed that it is possible to obtain large-scale harmonized assessments of MDD across homogeneous cohorts. Meta-analyses of BIONIC data, combined with those of projects adopting a similar approach that combines power with precision, will establish whether genetic risk specific to MDD can be identified.

## S25.02 Depression and Immuno-Metabolic Dysregulations: Evidence of a Shared Genetic Liability and a Specific Symptom Profile

**Giorgio Pistis**<sup>1</sup>, Martin Preisig<sup>1</sup>, Yuri Milaneschi<sup>2</sup>

<sup>1</sup>Department of Psychiatry, Lausanne University Hospital and University of Lausanne, Lausanne, Switzerland; <sup>2</sup>Department of Psychiatry, Amsterdam Public Health and Amsterdam Neuroscience, Amsterdam UMC, Vrije Universiteit, Amsterdam, the Netherlands

**Aims:** Depression is highly heterogeneous. It has been postulated that alterations in immuno-metabolic pathways and brain reward processing networks (i.e. determining anhedonia) may identify a more homogeneous dimension within depression. We examined the reciprocal causal relationships between markers of these processes (Mendelian randomization, MR) and combined them in a common genetic factor (Genomic Structural Equation Modeling, SEM) to test the associations between their joint genetic liabilities and individual depressive symptoms.

**Methods:** MR and SEM analyses were conducted on genome-wide association study (GWAS) summary statistics of anhedonia and five immuno-metabolic markers: body mass index, triglycerides, fasting glucose, c-reactive protein and leptin. Individual depressive symptoms were assessed at high resolution (psychiatric diagnostic interviews) in the CoLaus|PsyCoLaus prospective cohort study and in the Netherlands study of Depression and Anxiety (NESDA).

**Results:** Genetic analyses showed substantial shared genetic liability and consistent reciprocal causal relationships between traits. Depressive symptoms were harmonized across the two cohorts totaling more than 5000 subjects. Polygenic risk score (PRS) indexing the shared underlying genetic liability across traits showed the strongest significant positive association with the symptoms increase in appetite and hypersomnia.

**Conclusion:** Leveraging genomics we showed evidence of a depression dimension clustering of immuno-metabolic and motivational pathways with a specific clinical profile characterized by symptoms reflecting altered energy homeostasis. This emergent bio-clinical dimension may be applied in future research aimed at further deconvolution of depression heterogeneity.

## S25.03 Do Common Genetic Factors Underlie Medical-Mental Comorbidity in Youth?

**Alison K. Merikangas**<sup>1,2,3</sup>, Laura M. Schultz<sup>1,3</sup>, Kosha Ruparel<sup>3,4</sup>, Tarannum Lateef<sup>5,6</sup>, Raquel E. Gur<sup>3,4</sup>, Laura Almasy<sup>1,2,3</sup>

<sup>1</sup>Department of Biomedical and Health Informatics, Children's Hospital of Philadelphia; <sup>2</sup>Department of Genetics, Perelman School of Medicine, University of Pennsylvania; <sup>3</sup>Lifespan Brain Institute of the Children's Hospital of Philadelphia and the University of Pennsylvania; <sup>4</sup>Department of Psychiatry, Perelman School of Medicine, University of Pennsylvania; <sup>5</sup>Department of Neurology, Children's National Health System, George Washington University School of Medicine; <sup>6</sup>Genetic Epidemiology Research Branch, Intramural Research Program, National Institute of Mental Health

**Aims:** 1) to examine the prevalence and association between migraine headache and depression (MDD) in a large diverse sample of youth; 2) to assess whether polygenic scores (PGS) generated from adult genome-wide association studies (GWAS) are associated with these disorders in youth; and 3) to evaluate whether there is shared genetic susceptibility underlying depression-migraine comorbidity.

**Methods:** The sample includes 8,496 youth from the Philadelphia Neurodevelopmental Cohort (5239 of European Ancestry [EA], 2934 of African Ancestry [AA]). Mental disorders and migraine were assessed with structured diagnostic assessments that ascertained the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) and International Classification of Headache Disorders (ICHD-3) respectively. PGS calculated from adult GWAS were used to examine genetic associations.

**Results:** 7% of the youth met criteria for migraine and 12.5% met MDD criteria. Rates were similar in EA and AA youth. There was a significant association between migraine and depression (Odds Ratio=1.47, p<0.001). In

the EA subset, PGS for migraine and depression were associated with these disorders respectively in youth, but no cross-disorder genetic associations were found in this study.

**Conclusion:** Migraine-depression comorbidity is already evident in youth, and PGS generated from adults were associated with both migraine and depression in youth. However, the lack of cross-disorder PGS association suggests a lack of shared genetic pathways. Comorbidity between migraine, depression, and other physical and mental disorders will be examined.

### S25.04 Joint Effects of Family Genetic Risk Scores and Environmental Factors on Risk of Schizophrenia and Bipolar Disorder

Natassia Robinson<sup>1</sup>, Alexander Ploner<sup>1</sup>, Henrik Ohlsson<sup>2</sup>, Paul Lichtenstein<sup>1</sup>, Kenneth S. Kendler<sup>3</sup>, **Sarah E. Bergen**<sup>1</sup>

<sup>1</sup>Department of Medical Epidemiology and Biostatistics, Karolinska Institutet, Stockholm, Sweden; <sup>2</sup>Center for Primary Health Care Research, Lund University, Malmö, Sweden; <sup>3</sup>Virginia Institute for Psychiatric and Behavioral Genetics, Department of Psychiatry, Virginia Commonwealth University, Richmond, Virginia

**Aims:** Genetic and environmental risk factors contribute to the development of schizophrenia (SCZ) and bipolar disorder (BD), but simultaneous investigation of these factors has not yet been examined in a large population. Therefore, we aimed to quantify how aggregate genetic risk (family genetic risk scores, FGRS) and environmental exposures jointly contribute to risk for SCZ and BD, and whether these relationships differ between the disorders.

**Methods:** In a Swedish register-based nested case-control study, we identified SCZ and BD cases diagnosed 1988-2013, matched to five population controls on birth year, sex and birthplace. Our tested exposures were established risk factors for SCZ and BD: adverse childhood experiences (ACEs), substance use disorders (SUD), adverse perinatal factors, severe childhood infections, urban birth and longest residence and FGRS (quintiles) for SCZ and BD. We estimated risk for SCZ or BD diagnosis, and population attributable fractions (PAF) for environmental exposures.

**Results:** The total study populations were 20,589 for SCZ and 93,669 for BD. FGRS quintiles were associated with incremental increases in risk of SCZ and BD. FGRS and most of the environmental exposures were independently associated with risk of SCZ and BD. The greatest PAF for our outcomes was observed for SUD and ACEs (~18-20%).

**Conclusion:** FGRS are associated with increased risk for SCZ and BD. Most environmental factors for SCZ and BD convey risk independent of FGRS. A moderate proportion of cases can be attributed to potentially modifiable factors, ACEs and SUD, with some disorder-specificity.

### S25.05 Changes in Polygenic Scores for Psychiatric Disorders for Cohorts Born between 1981-2008

**Mette Lise Lousdal**<sup>1</sup>, Sonja Labianca<sup>2-3</sup>, Andrew Schork<sup>2-4</sup>, Esben Agerbo<sup>2,5-6</sup>, Bjarni Vilhjálmsson<sup>2,5,7</sup>, John McGrath<sup>5,8</sup>, Oleguer Plana-Ripoll<sup>1,5</sup>

<sup>1</sup>Department of Clinical Epidemiology, Aarhus University and Aarhus University Hospital (Aarhus N, DK); <sup>2</sup>Lundbeck Foundation Initiative for Integrative Psychiatric Research, iPSYCH; <sup>3</sup>Institute of Biological Psychiatry, Mental Health Services, Copenhagen University Hospital; <sup>4</sup>Lundbeck Foundation Center for GeoGenetics, GLOBE Institute, University of Copenhagen; <sup>5</sup>National Centre for Register-Based Research, Aarhus University; <sup>6</sup>Centre for Integrated Register-Based Research, Aarhus University; <sup>7</sup>Bioinformatics Research Centre, Aarhus University; <sup>8</sup>Queensland Brain Institute, University of Queensland

**Aims:** We aimed to explore whether polygenic scores (PGS) for psychiatric disorders – which summarise genetic liability – have changed in the general population and in individuals diagnosed with psychiatric disorders in Denmark.

**Methods:** iPSYCH2015 is a population-based case-cohort sample selected from all singleton births between 1981-2008 (n=1,657,449). Diagnoses of schizophrenia spectrum disorder (SSD), major depressive disorder (MDD), autism spectrum disorder (ASD), and attention-deficit/hyperactivity disorder (ADHD) were obtained from hospital registers. We used linear regression to examine the change in PGS (from summary statistics) according to birth cohort and Cox regression to estimate hazard ratios for psychiatric disorders based on PGS, birth year, and their interaction.

**Results:** We included 41,132 individuals from the random subcohort and 60,293 cases (10,892 SSD, 26,167 MDD, 16,082 ASD, and 16,937 ADHD). In the random subcohort, PGS showed no linear trend according to birth cohort.

In cases, the average 10-year change was: SSD (-0.13 standard deviations [95% confidence intervals: -0.18; -0.07]), MDD (-0.06 [-0.10; -0.03]), ASD (-0.08 [-0.13; -0.04]), and ADHD (-0.03 [-0.08; 0.02]). We found an elevated risk of diagnosed psychiatric disorder for higher PGS and more recent birth cohorts. For SSD, the association between PGS and risk of psychiatric disorders was reduced with 7% (2%; 12%) and 13% (7%; 19%) for birth years 1990-1995 and 1996-2001, respectively, as compared to 1984-1989.

**Conclusion:** In cases, the mean PGS decreased according to birth year, although non-significant for ADHD. For SSD, the association between PGS and the risk of psychiatric disorder decreased in later birth cohorts.

**S26 Early Detection of Bipolar Disorders: Rationale and New Results****Sat. 14 Sept., 09:00-10:30****A2064****Chair:** Andreas Bechdorf, DE**Co-chair:** Jan Scott, UK**ABSTRACT**

Early detection of bipolar disorder (BD) will assist in efforts to prevent this disorder. In this symposium new data on early detection of BD will be presented. **P. Conus** will present the rationale for early detection and prevention in bipolar disorder based on a review of the literature. **J. Scott** will synthesize findings from three cohort studies involving more than 5000 participants. The most consistent findings across populations were that mania-like experiences prior depression, and family history were associated with transition to BD. **A. Pfennig** will present data from a multicenter, longitudinal prospective Early-BipoLife Cohort Study of young people aged 15 to 35 at increased risk for developing BD (n=1,229) and 190 healthy controls. First 24 months follow-up data of risk factor in converters from at-risk status to BD compared to non-converters and controls will be presented and discussed. **A. Bechdorf** et al. followed 70 participants originally included in the 12-month prospective study in a young help seeking population over 10-13 years. This included 35 participants who met Bipolar At-Risk (BAR) criteria and 35 help-seeking clinical controls. At longterm-follow up eight participants (28.6%) developed BD, all of whom were in the BAR group. The symposium indicates that specific symptoms and clinical constellations might be helpful for the prediction of bipolar disorder. They need to be further evaluated in other clinical populations and might be incorporated into transdiagnostic prediction approaches.

**S26.01 Early Intervention in Bipolar Disorders: What Is the Rationale, and Which Are the Targets?****Philippe Conus**<sup>1</sup><sup>1</sup>Lausanne University Hospital, Switzerland

**Aims:** Early intervention strategies have been developed for psychosis and the concept of staging is influencing treatment guidelines in this domain. Although some work has been done in the field of bipolar disorders in this regard, early intervention concepts are still missing. In this talk we will outline the elements justifying the development of early intervention in bipolar disorders and try and define relevant targets.

**Methods:** Review of the literature.

**Results:** Various elements of the literature justify the development of new treatment approaches and the need for earlier intervention: poor functional outcome despite manic syndrome recovery, delay between onset and proper treatment ranging between 6 and 10 years on average, the existence of a prodromal phase before the first manic episode and the absence of specific treatment strategies for the early phase of the disorder. Four main targets can be identified: (1) A better and faster identification of the first manic episode; (2) The identification of bipolar depression; (3) The identification of the proximal prodrome to first episode mania and (4) the identification of a distal prodrome to bipolar disorder.

**Conclusion:** Many elements of the literature suggest early intervention strategies are justified in bipolar disorders and that clear and relevant targets can be identified.

**S26.02 Predicting the Emergence of Full-Threshold (stage 2) Bipolar Disorders in Community and Clinical Cohorts****Jan Scott**<sup>1</sup><sup>1</sup>Newcastle University, UK

**Aims:** Predictors of new-onset bipolar disorder (BD) have been proposed based on retrospective or prospective studies of 'at-risk' cohorts. This paper will synthesize findings from three cohort studies: a clinical cohort specifically examining onset of BD in the UK (n=145), a community-based twin study (Brisbane Longitudinal Study) of youth (n=1800) and a longitudinal study of a large trans-diagnostic cohort attending a

youth mental health outpatient clinic (n>2000). This paper aims to identify predictors of the onset of full-threshold (FT) BD compared with other disorders (specifically psychotic and depressive disorders) across these three populations and includes unpublished findings regarding polygenic risk scores (PRS).

**Methods:** Machine learning, network analysis and multi-state Markov modelling will be used to assess the relationships between baseline characteristics and the likelihood of the onset of BD. We will also examine whether incorporating PRS alongside family history and other risk factors improves the prediction of BD onset.

**Results:** The most consistent findings across populations were that mania-like experiences prior depression, and family history were associated with transition to BD. Specificity was improved somewhat by including certain clinical characteristics (such as delayed sleep onset; anergia) and/or by adding PRS liability. However, these incremental improvements did not necessarily reach the criterion for a reliable screening tool (UC >.85).

**Conclusion:** Identifying risk factors for the onset of BD is improving and the constructs identified are reasonable targets for preventative interventions. However, many of these factors represent trans-diagnostic risk factors for full-threshold major mental disorders rather than BD-specific factors.

### S26.03 Young People at Risk for Developing Bipolar Disorder: First Two-Year Findings from the Multicenter Prospective, Naturalistic Early-BipoLife Study

**Andrea Pfennig**<sup>1</sup>

<sup>1</sup>Department of Psychiatry and Psychotherapy, University Hospital, Technische Universität Dresden, Dresden, Germany

**Aims:** Early identification and timely, targeted intervention of individuals with an increased risk for the development of bipolar disorders (BD) may improve the course of illness and prevent adverse long-term consequences. This study prospectively examined potential risk factors of emerging BD beyond family history in a risk sample and a reference cohort.

**Methods:** The Early-BipoLife study is an ongoing multicenter, prospective, naturalistic study with participants aged 15-35 years old, repeatedly assessed over two years. At baseline, help-seeking participants who positively screened for a potentially increased risk for BD (screenBD at-risk) were recruited at Early Detection Centers/ Initiatives and in- and outpatient settings for depression and ADHD. The reference sample (Ref) was drawn from the representative IMAGEN cohort. Participants were assessed with the SCID and Early Detection Instruments/ criteria sets (EPIbipolar, BPSS-FP, BAR(S) criteria). Transition to BD was assessed with the SCID as one primary outcome measure.

**Results:** Participants from the screenBD at-risk (n=1,083, age=24.6±4.7 years, females=55.3%, 2-year attrition=16%) and the Ref (n=172, age=21.8±1.0 years, females=52.9%, 2-year attrition=3%) group differed regarding sociodemographic variables (age, education, employment), medical history. Additionally, screenBD at-risk had significant lower GAF scores than Ref. Within the first two years, n=31 participants of the screenBD at-risk group (2.9%) developed a manifest BD. Transition rates in instrument-based risk groups were 4.7% (EPIbipolar), 6.6% (BPSS-FP) and 3.2% (BAR(S) criteria) (combined instruments=3.4%).

**Conclusion:** These first findings of the Early-BipoLife study contribute to improved early detection and tailored timely interventions to prevent/ameliorate impairment in the course of BD.

### S26.04 The Long-Term Prospective Validity of Bipolar At-Risk Criteria in Clinically Help-Seeking Young People

**Andreas Bechdolf**<sup>4,5,6</sup>, Alison Yung<sup>2,3</sup>, Pat McGorry<sup>1,2</sup>, Michael Berk<sup>2,3</sup>, Barnaby Nelson<sup>1</sup>, Aswin Ratheesh<sup>1,2</sup>

<sup>1</sup>Orygen; <sup>2</sup>Centre for Youth Mental Health, The University of Melbourne; <sup>3</sup>IMPACT Institute, Deakin University, Australia; <sup>4</sup>Department of Psychiatry, Psychotherapy, and Psychosomatics incorporating FRITZ am Urban and soulspace, Vivantes Hospital am Urban and Vivantes Hospital im Friedrichshain, Berlin, Germany; <sup>5</sup>Department of Psychiatry and Psychotherapy, CCM, Charité - Universitätsmedizin Berlin, corporate member of Freie Universität Berlin and Humboldt-Universität zu Berlin, Germany; <sup>6</sup>German Center for Mental Health (DZPG), site Berlin-Potsdam

**Aims:** Prediction of onset of bipolar disorder (BD) will assist in efforts to prevent this disorder. Bipolar At-Risk (BAR) criteria have limited evidence of predictive validity in clinical populations. BAR criteria include youth aged 15-25 years with subthreshold manic symptoms or major depression, the latter with associated cyclothymic features or a first-degree family history of BD. In two initial studies including a 2-year file audit and a 12-month prospective follow-up, BAR criteria were associated with 14-22% risk of later BD. However, there

are no studies examining the long-term validity of BAR criteria, or any other at-risk criteria in clinical populations.

**Methods:** We followed 70 participants originally included in the 12-month prospective study over 10-13 years. This included 35 participants who met BAR criteria and 35 help-seeking clinical controls. We utilized structured clinical based on the MINI International Neuropsychiatric Interview, unstructured interviews, surveys and data-linkage to ascertain a 'best estimate' diagnosis. Assessments were conducted blinded to the participants' original group assignment.

**Results:** At 10-13 years from baseline assessment, 60 (80%) were able to be contacted. Eight participants developed BD, all of whom were in the BAR group (OR=21.9, 95% CI 1.2- 396.9). This represents a 28.6% transition rate among those meeting BAR criteria at baseline with follow-up. Among the BAR subgroups, subthreshold mania was associated with six of the transitions and depression with cyclothymic features led to two transitions.

**Conclusion:** Bipolar At-Risk criteria may have utility in prediction of bipolar disorder in clinically help-seeking youth mental health populations.



## ORAL PRESENTATIONS

### OP01 Influence of Socio-Economic Status on Mental Health

Thurs. 12 Sept., 08:30-10:00

3128

Chair: Oleguer Plana-Ripoll, DK

#### OP01.01 Socioeconomic Trajectories during Childhood and Mental Health Service Use in Adolescence and Early Adulthood: A Population Based Birth-Cohort Study

**Jordan Edwards**<sup>1,2</sup>, Rebecca Rodrigues<sup>3</sup>, Jinette Comeau<sup>4</sup>, Piotr Wilk<sup>3</sup>, Kelly K. Anderson<sup>3,5,6</sup>

<sup>1</sup>Dept of Psychiatry and Behavioural Neurosciences, McMaster University (Hamilton, CA); <sup>2</sup>Offord Centre for Child Studies; <sup>3</sup>Dept of Epidemiology & Biostatistics, Schulich School of Medicine & Dentistry, Western University; <sup>4</sup>Dept of Sociology, King's University College; <sup>5</sup>Dept of Psychiatry, Schulich School of Medicine & Dentistry, Western University; <sup>6</sup>ICES Western

**Aims:** The association between childhood socioeconomic deprivation and later mental disorders is well-established, however, less is known regarding the impact of longitudinal change in socioeconomic status through childhood on future mental and substance use disorders. Our aim was to examine the association between neighbourhood-level income trajectories during childhood and the subsequent risk of service use for mental or substance use disorders.

**Methods:** We constructed a population-based retrospective birth cohort using data from the Ontario health care system. This birth cohort includes 602,945 children born between 1992 and 1996 and followed to age 25-30 years within the databases. We used longitudinal latent class modelling to identify neighbourhood-level income trajectories from birth to age 12 and modelled the association between income trajectories and first contact with the health care system for a mental or substance use disorder during adolescence and early adulthood.

**Results:** We found evidence of a gradient effect for neighbourhood income trajectory and acute care visits for mental and substance use disorders. Compared to the stable moderate/high-income groups, youth in the upwardly mobile group had an IRR=1.25 (95%CI:1.23,1.27); those in the downwardly mobile group had an IRR=1.30 (95%CI:1.28,1.32); and those with stable low-income had an IRR=1.42 (95%CI:1.40,1.44).

**Conclusion:** Identifying disparities in mental and substance use disorders across population subgroups using population-based data is important for addressing the substantial public health impacts of mental disorders among children and youth. Our findings suggest neighborhood-income trajectories are important antecedents of future mental health related acute care visits.

#### OP01.02 Association of Childhood and Adult Socioeconomic Status with Adult Social Relationships: a Causal Mediation Analysis

**Laura Cachón Alonso**<sup>1</sup>, Laura Pulkki-Råback<sup>1</sup>, Christian Hakulinen<sup>1</sup>, Kaisla Komulainen<sup>1</sup>, Marko Elovainio<sup>1,2</sup>, Young Finns Study Researchers<sup>1,3-5</sup>

<sup>1</sup>Department of Psychology and Logopedics, Faculty of Medicine, University of Helsinki, Finland (FI); <sup>2</sup>Finnish Institute for Health and Welfare, Helsinki, Finland; <sup>3</sup>Centre for Population Health Research, University Hospital, University of Turku, Finland; <sup>4</sup>Research Centre of Applied and Preventive Cardiovascular Medicine, University of Turku, Finland; <sup>5</sup>Tampere Centre for Skills Training and Simulation, Tampere University, Finland

**Background:** Growing up in a family of low socioeconomic status (SES) may have a negative impact on the development and maintenance of social relationships throughout the lifespan.

**Aims:** In this prospective cohort study, we explored associations of childhood SES with social relationships in adulthood, and to which extent these associations can be explained by SES in adulthood.

**Methods:** We used data from 1,685 people participating in the longitudinal Young Finns Study (baseline 1980, participants aged 3-18 years). Childhood SES was assessed through parental income and educational attainment in 1980, and participants' own adult SES through income and educational attainment in 2007. The outcomes were three indicators of social relationships measured in 2018-2020: 1) loneliness, 2) perceived social support and 3) frequency of social contact. Different SES indicators were analyzed separately using regression models and causal mediation analysis via marginal structural models and direct counterfactual estimation.

**Results:** In causal mediation analyses, low parental income was associated with higher loneliness, lower perceived social support, and less frequent social contact in adulthood while adjusting for parental and own educational attainment. These associations were partially mediated by participants' own income in adulthood. Conversely, parental educational attainment was not associated with any of the social relationships' indicators in adulthood.

**Conclusion:** These results emphasize that poor family financial conditions during childhood may have long-lasting implications for the development and maintenance of social relationships through the lifespan.

### OP01.03 Socio-Economic Inequalities in Adolescent Internalising Symptoms: Mediating Roles of Adolescents' Relationships with their Peers and Parents across Four Countries

**Thomas Steare**<sup>1</sup>, Sara Evans-Lacko<sup>2</sup>, Santiago Cueto<sup>3</sup>, Hai-Anh H. Dang<sup>4</sup>, Revathi Ellanki<sup>5</sup>, Gemma Lewis<sup>1</sup>, Kelly Rose-Clarke<sup>6</sup>, Workneh Yadete<sup>7</sup>, Gemma Hammerton<sup>8</sup>, Praveetha Patalay<sup>1</sup>

<sup>1</sup>University College London (GB); <sup>2</sup>London School of Economics and Political Science; <sup>3</sup>GRADE; <sup>4</sup>World Bank; <sup>5</sup>Centre for Economic and Social Studies; <sup>6</sup>King's College London; <sup>7</sup>GAGE; <sup>8</sup>University of Bristol

**Aims:** Socioeconomic inequalities are widely observed across adolescent mental health problems. Understanding the processes through which socioeconomic disadvantage leads to poorer mental health is vital for informing preventative interventions and to reduce health inequalities. Adolescents' socioeconomic circumstances may affect their relationships with their peers and parents, which in turn could affect their mental health. Research on these potential mechanisms has primarily focused on countries in Europe and North America, and has typically neglected regions where the majority of the world's adolescents live. This study therefore aimed to identify whether adolescents' relationships with their peers and parents mediate the association between socioeconomic circumstances and internalising symptoms using longitudinal data from four low- and middle-income countries.

**Methods:** Data was analysed from the Young Lives cohorts across Ethiopia, India, Peru, and Vietnam. Two exposures, household consumption expenditure and subjective assessment of wealth, were measured at age 15, with the two mediators, adolescents' relationships with their peers and their parents, measured at age 19. The outcome, internalising symptoms, was measured with the emotional problems subscale of the Strengths and Difficulties Questionnaire at age 21. Counterfactual mediation analysis using Monte Carlo simulation was used with adjustment for baseline and intermediate confounders.

**Results:** I will present results from the analyses, focusing on the potential differences between countries in the extent that adolescents' social relationships mediate the association between socioeconomic circumstances and internalising symptoms.

**Conclusion:** The findings and their potential implications will be discussed.

### OP01.04 --- WITHDRAWN ---

### OP01.05 Socioeconomic Inequalities in Cause-Specific Mortality in Mental Disorders: a Nationwide Cohort Study in Denmark

Danni Chen<sup>1</sup>, Natalie Momen<sup>1</sup>, Linda Ejlskov<sup>1</sup>, Julie Dreier<sup>2</sup>, Lisbeth Laustsen<sup>1</sup>, **Oleguer Plana-Ripoll**<sup>1,2</sup>

<sup>1</sup>Department of Clinical Epidemiology, Aarhus University and Aarhus University Hospital, Denmark (Aarhus N, DK); <sup>2</sup>National Centre for Register-based Research, Aarhus University, Denmark

**Aims:** Mental disorders are associated with elevated mortality rates, but it is unclear whether these associations could be modified by socioeconomic position (SEP). This study aims to estimate cause-specific mortality associated with mental disorders according to SEP.

**Methods:** We designed a cohort study including all 5,316,626 individuals living in Denmark on January 1, 2000, and followed them up until December 31, 2020. Information on mental disorders, SEP, and mortality was obtained from nationwide registers. The cause of death was categorized into 11 non-overlapping groups according to ICD-10 codes: infectious diseases, neoplasms, diabetes mellitus, circulatory system diseases, respiratory diseases, digestive diseases, alcohol misuse, suicide, accidents and homicides and all other causes. Mortality rate ratios (MRRs) and differences (MRDs) were estimated using Poisson regression models.

**Results:** Mortality rates for all specific causes of death were higher for people with mental disorders compared to those undiagnosed regardless of SEP. For most natural causes and accidents, cause-specific MRRs between people with and without mental disorders were similar across SEP, whilst the largest MRDs were in low-SEP groups, ranging from 0.44 (95% CI 0.35 – 0.52) deaths per 1000 person-years for infectious diseases to 6.02 (5.67 – 6.37) deaths per 1000 person-years for circulatory system diseases. However, we observed higher MRRs for alcohol misuse, suicides, and homicides in high-SEP group, with suicide rates among people diagnosed even higher in high-SEP than low-SEP groups.

**Conclusion:** SEP could modify natural-cause mortality rates in mental disorders, while future research is warranted for understanding external causes of death.

**OP02 Psychopharmacology****Thurs. 12 Sept., 08:30-10:00****3174****Chair:** Georgia Salanti, CH**OP02.01 Cardiometabolic Risks and Psychiatric Effectiveness of Aripiprazole versus Olanzapine, Quetiapine, and Risperidone: a Target Trial Emulation Study****Alvin Richards-Belle**<sup>1</sup>, Naomi Launders<sup>1</sup>, Sarah Hardoon<sup>1</sup>, Al Richards<sup>2</sup>, Kenneth K.C. Man<sup>3-6</sup>, Neil M. Davies<sup>1</sup>, Elvira Bramon<sup>1,7</sup>, Joseph F. Hayes<sup>1,7</sup>, David P.J. Osborn<sup>1,7</sup><sup>1</sup>Division of Psychiatry, University College London, London, United Kingdom; <sup>2</sup>Expert by Experience, United Kingdom; <sup>3</sup>Research Department of Practice and Policy, School of Pharmacy, University College London, London, United Kingdom; <sup>4</sup>Centre for Medicines Optimisation Research and Education, University College London Hospitals NHS Foundation Trust, London, United Kingdom; <sup>5</sup>Department of Pharmacology and Pharmacy, Li Ka Shing Faculty of Medicine, University of Hong Kong, Hong Kong; <sup>6</sup>Laboratory of Data Discovery for Health (D24H), Hong Kong Science Park, Hong Kong; <sup>7</sup>Camden and Islington NHS Foundation Trust, London, United Kingdom**Aims:** To compare the safety and effectiveness of aripiprazole versus olanzapine, quetiapine, and risperidone amongst patients diagnosed with a severe mental illness (SMI) in UK primary care.**Methods:** We emulated a head-to-head trial of aripiprazole versus olanzapine, quetiapine, and risperidone using data from Clinical Practice Research Datalink. Adults diagnosed with SMI initiating a new antipsychotic in primary care 2005-2017 were followed over two years from first prescription. Outcomes included total cholesterol at one year (primary) and psychiatric hospitalisation. Analyses were adjusted for potential confounders.**Results:** We included 26,537 patients (aripiprazole, n=3,573, olanzapine, n=8,554, quetiapine, n=8,289, risperidone, n=6,121). Median age was 53 years, 55.4% were female, and 17.7% were from an ethnic minority. Compared to aripiprazole, no significant difference in total cholesterol at one year was observed with olanzapine (adjusted mean difference [aMD], 0.03 mmol/L, 95% CI, -0.04 to 0.10), quetiapine (aMD, 0.03 mmol/L, 95% CI, -0.04 to 0.10) or risperidone (aMD, 0.01 mmol/L, 95% CI, -0.07 to 0.08), but body weight was higher with olanzapine and risperidone, and blood pressure was higher with olanzapine and quetiapine. Compared to aripiprazole, no significant difference in psychiatric hospitalisations was observed with olanzapine (adjusted hazard ratio [aHR], 1.09, 95% CI, 0.99 to 1.21), quetiapine (aHR, 1.07, 95% CI, 0.96 to 1.18) or risperidone (aHR, 0.98, 95% CI, 0.88 to 1.09).**Conclusion:** There was no significant difference in total cholesterol at one year (primary outcome) or psychiatric hospitalisations with aripiprazole compared to the comparators. However, aripiprazole might confer some favourable effects on other cardiometabolic parameters.**OP02.02 Mortality Risk and Mood Stabilizers in Bipolar Disorder: a Propensity-Score Weighted Population-Based Cohort Study in 2002-2018**Joe Kwun Nam Chan<sup>1</sup>, Corine Sau Man Wong<sup>2</sup>, Catherine Zhiqian Fang<sup>1</sup>, Samson Chun Hung<sup>1</sup>, Heidi Ka Ying Lo<sup>1</sup>, **Wing Chung Chang**<sup>1</sup><sup>1</sup>Department of Psychiatry, School of Clinical Medicine, University of Hong Kong (Hong Kong, HK); <sup>2</sup>School of Public Health, LKS Faculty of Medicine, University of Hong Kong**Aims:** This study aimed to assess comparative mortality risk with all, natural and unnatural causes between lithium, valproate and three frequently-prescribed second-generation antipsychotics, with adjustment for important confounders**Methods:** This population-based cohort study identified 8,137 patients with first-diagnosed BD, who had exposed to lithium (n=1,028), valproate (n=3,580), olanzapine (n=797), quetiapine (n=1,975) or risperidone (n=757) between 2002–2018. Data were retrieved from medical-record database of public healthcare services in Hong-Kong. Propensity-score (PS)-weighting method was applied to optimise control for confounders. PS-weighted Cox-proportional-hazards regression was conducted to assess risk of all-, natural-, and unnatural-cause mortality related to each mood-stabilizer, compared to lithium.**Results:** BD patients treated with olanzapine (PS-weighted HR=2.07 [95% CI 1.33–3.22]) and risperidone (1.66 [1.08–2.55]) had significantly higher all-cause mortality rate than lithium-treated group. Olanzapine was

associated with increased risk of natural-cause mortality (3.04 [1.54–6.00]) and risperidone was related to elevated risk of unnatural-cause mortality (3.33 [1.62–6.86]), relative to lithium. Association between olanzapine and increased natural-cause mortality rate was consistently affirmed in sensitivity analyses. Relationship between risperidone and elevated unnatural-cause mortality became non-significant in sensitivity analyses restricted to monotherapy. Valproate- and lithium-treated groups did not show significant differences in all-, natural- or unnatural-cause mortality risk.

**Conclusion:** Olanzapine and risperidone were associated with higher mortality risk than lithium, and further supported the clinical guidelines recommending lithium as the first-line mood-stabilizer for BD. Future research is required to further clarify comparative mortality risk associated with individual SGA agents to facilitate risk-benefit evaluation of alternative mood-stabilizers to minimize avoidable premature mortality in BD.

### OP02.03 Risk of Adverse Pregnancy, Delivery and Neonatal Outcomes Associated with Bipolar Disorder and Prenatal Use of Mood Stabilizers: a Population-Based Cohort Study

**Joe Kwun Nam Chan**<sup>1</sup>, Samson Chun Hung<sup>1</sup>, Krystal Chi Kei Lee<sup>1</sup>, Corine Sau Man Wong<sup>2</sup>, Ka Wang Cheung<sup>3</sup>, Mimi Tin-Tan Seto<sup>3</sup>, Jessie Lin<sup>4</sup>, Wing Chung Chang<sup>1</sup>

<sup>1</sup>Department of Psychiatry, School of Clinical Medicine, University of Hong Kong (Hong Kong, HK); <sup>2</sup>School of Public Health, LKS Faculty of Medicine, University of Hong Kong; <sup>3</sup>Department of Obstetrics and Gynaecology, School of Clinical Medicine, University of Hong Kong; <sup>4</sup>Department of Rehabilitation Sciences, Hong Kong Polytechnic University

Previous research examining bipolar-disorder (BD) and pregnancy/neonatal outcomes yielded mixed results, were mostly derived from Western countries and rarely delineated effect between disorder and mood-stabilizers. This population-based study identified women age 15-50 years who delivered first/singleton child in 2003-2018 in Hong Kong, utilizing territory-wide medical-record database of public healthcare services. Propensity-score weighted logistic-regression analyses adjusted for confounders were employed to examine risk of adverse pregnancy, delivery and neonatal outcomes associated with BD and mood-stabilizers (lithium, anticonvulsants and antipsychotics). Exploratory unadjusted-analyses were conducted to assess risk for congenital-malformations. Of 465,069 women, 302 had BD-diagnosis, including 168 redeemed  $\geq 1$  prescription of mood-stabilizers during pregnancy (treated-BD) and 134 gestationally-unexposed to mood-stabilizers (untreated-BD). BD was significantly-associated with increased risk of gestational-diabetes (adjusted-odds-ratio: 1.75 [95% CI: 1.15–2.70]) and maternal somatic hospitalization  $\leq 90$  days post-discharge from index-delivery (2.12 [1.19–3.90]). In treatment status-stratified analyses, treated-BD women exhibited significantly-increased rate of gestational-diabetes (2.09 [1.21–3.70]) relative to controls (non-BD and gestationally-unexposed to mood-stabilizers). No significant association of BD or mood-stabilizers with other adverse outcomes was observed. Overall, our findings indicate that BD and mood-stabilizers are not associated with most adverse pregnancy, delivery and neonatal outcomes. Further research clarifying comparative safety of individual mood-stabilizing agents on pregnancy/neonatal outcomes is required.

### OP02.04 Geographical Variation in Antipsychotic Medication Creates Concerns and Research Opportunities

**Olav Nytteingnes**<sup>1,2</sup>, Tore Hofstad<sup>1,3</sup>, Arnstein Mykletun<sup>1,4-6</sup>

<sup>1</sup>Haukeland University Hospital (Bergen, NO); <sup>2</sup>Akershus University Hospital; <sup>3</sup>University of Oslo; <sup>4</sup>Norwegian Institute of Public Health; <sup>5</sup>Nordland Hospital Trust; <sup>6</sup>The Arctic University of Norway.

**Aims:** There are natural care variation and provider differences in antipsychotics medication that are outside treatment guidelines, and that exceeds the boundaries of randomization in research ethics. In "Controversies in Psychiatry", (funded by The Research Council of Norway), we plan to use this unwanted variation as an instrumental variable that may allow causal inference of antipsychotic effectiveness from observational data.

**Methods:** We will use nation-wide registry data to study collection of antipsychotic prescriptions in 2015-2016 for all patients in specialist care with schizophrenia spectrum disorders. Exposures will be type, dose, duration and total exposure of collected prescriptions for antipsychotics in outpatient care, including non-exposure in first episodes. In addition to observational analyses, we will use provider preference for a more restrictive vs liberal use of antipsychotic as an instrumental variable, and use this to study the effect of such variation.

**Results:** Patients' health care usage for mental disorders, injuries and unnatural deaths, and educational attainment, welfare benefits, work participation, and criminal charges will be observed from the exposure and throughout 2025.

**Conclusion:** Provider variation is a cause for concern and should be remediated. In the meantime, it can serve as a source of variation that ought to be utilized as a research tool.

### OP02.05 Is the Effect of Antidepressants Worth the Side-Effects? Only Those Who Need It Can Tell

**Georgia Salanti**<sup>1</sup>, Ethan Sahker<sup>2</sup>, Manuela L Ferreira<sup>3</sup>, Sarah Markham<sup>4</sup>, Toshi A Furukawa

<sup>1</sup>University of Bern (CH); <sup>2</sup>Kyoto University; <sup>3</sup>University of Sydney; <sup>4</sup>University of Oxford

**Aims:** In this study we aimed to determine the smallest worthwhile difference (SWD) of commonly prescribed antidepressants for depression compared to no treatment. SWD is the minimum beneficial effect of an intervention over a comparator that patients consider worthwhile, factoring in treatment burdens such as harms, expenses, and inconveniences.

**Methods:** We estimated the SWD as the difference in response rates between antidepressants and no treatment after 2 months, deemed desirable by patients. An online cross-sectional survey was conducted using Prolific, MQ Mental Health, and Amazon Mechanical Turk crowdsourcing services in the UK and USA from October 2022 to January 2023, involving 935 participants with a mean age of 44.1 (SD=13.9) and 66% being women (n=617).

**Results:** The median SWD was a 20% (IQR=10-30%) difference in response rates for individuals with moderate-to-severe depressive symptoms (124 participants) who were not receiving treatment and were open to considering antidepressants, and 25% (IQR=10-35%) for the entire sample. The observed SWDs indicate that the current 15% advantage of the most effective antidepressants over no treatment observed in meta-analysis of all randomized trials, was deemed satisfactory by one-third of individuals considering antidepressants, considering the associated burdens, while two-thirds expected greater treatment benefits and/or less side effects.

**Conclusion:** Our study highlights the need to develop more effective and/or less burdensome antidepressants, with greater focus on patient perspectives.

### OP02.06 Long-Term Antidepressant Total Doses: an Intersectional Analysis from a Large French Population-Based Cohort Linked to the National Reimbursement Database

**Eugenia Alcalde**<sup>1</sup>, Laurent Rigal<sup>1,2</sup>

<sup>1</sup>INSERM U1018 (FR); <sup>2</sup>AP-HP Paris-Saclay University

**Aims:** Individuals with depression often require extended antidepressant treatment. However, long-term antidepressant use is linked with side effects, and the ongoing efficacy is uncertain. Guidelines suggest adjusting doses after the acute phase for better outcomes. Given the established association between depression and social position, variations in antidepressant doses may stem from intersecting forms of disadvantage. Using the MAIHDA approach, we investigated social disparities in purchased antidepressant doses.

**Methods:** Utilizing data from a French cohort linked to the national reimbursement system (n=19195), we fitted multilevel models; random effects corresponded to intersecting strata (sex, age at first purchase, employment status, and geographic origins). We defined three outcomes as the number of purchased doses of antidepressants at the 1st-2nd, 11th-13th, and 23rd-25th months of treatment. We assessed the discriminatory accuracy of stratification and then added fixed effects.

**Results:** Intersectional stratification accounted for 4%, 11%, and 13% of total dose variance, indicating fair to good discriminatory accuracy. Employment status contributed significantly to between-stratum variance. Adjusted models revealed increased doses for individuals without a job due to health reasons or no activity in all outcomes. Men had higher doses initially and after a year, while immigrants and older adults had lower doses at initial treatment.



**Conclusion:** Social stratification is more discriminating in long-term antidepressant dosages than during initial treatment. Employment accounts importantly for the amounts of doses throughout long-term treatment. Understanding the dimensions influencing antidepressant dosages is crucial for supporting individuals with depression at the intersection of disadvantages.

**OP03 Intervention and Planning in Medical Care****Thurs. 12 Sept., 08:30-10:00****3185****Chair:** Lilit Abrahamyan Empson, CH**OP03.01 Refining Targets for City-Specific Recovery-Oriented Interventions in Early Psychosis****Lilit Abrahamyan Empson**<sup>1</sup>, Philipp S. Baumann<sup>1</sup>, Jérôme Favrod<sup>2</sup>, Philippe Golay<sup>1</sup>, Philippe Conus<sup>1</sup><sup>1</sup>CHUV, Department of Psychiatry, Lausanne, Switzerland (Lausanne, CH); <sup>2</sup>CHUV, Department of Psychiatry, Lausanne, Switzerland; <sup>3</sup>La Source, School of Nursing Sciences, Lausanne, Switzerland; <sup>4</sup>CHUV, Department of Psychiatry, Lausanne, Switzerland; <sup>5</sup>CHUV, Department of Psychiatry, Lausanne, Switzerland

**Aims:** The emergence of psychosis generates city avoidance—a drastic decrease in city attendance and a lack of capacity to benefit from city's restorative resources among early psychosis patients (EP). Patients with low and moderate city attendance have reduced access to important city resources and may benefit from a city-specific recovery-oriented program – Urban Remediation. Specific targets for such a program shall be refined to conceive need-based interventions.

**Methods:** Sociodemographic characteristics, urban practices, and psychological reactions in the city of 117 EP patients were collected via a tailor-made questionnaire. Survey-based data and medical record-based data were compared based on the degree of city attendance.

**Results:** 19% of EP patients reported low city attendance (<1 h/day), 47.4% reported moderate city attendance (1–4 h/day) and 33.6% reported high city attendance (> 4 h/day). Variables discriminating between patients with low, moderate, and high city attendance were sex, low level of premorbid adjustment, low level of functioning at the end of the treatment phase, global negative perception of the city, higher levels of anxiety and persecutory feelings, sensitivity to sensorial overstimulation and elements related to social defeat.

**Conclusion:** A significant proportion of EP patients avoids the city and has potentially restricted access to city resources. We identified a wide span of elements calling for multilevel interventions, ranging from environmental (creating psychosis-friendly environments) and community action (raising awareness, fighting stigma, promoting connectedness and interdependence among community members) to patient-level interventions to promote recovery and a better integration in the community for EP patients.

**OP03.02 Implementation Science, an Opportunity to Enhance Joint Crisis Plans' Prevalence in Psychiatric Care and to Decrease Involuntary Admissions****Pascale Ferrari**<sup>1-2</sup>, Caroline Suter<sup>2-3</sup>, Anne Leroy<sup>4</sup>, Irmela Mukladzija<sup>1</sup>, Coralie Collier<sup>5</sup>, Shyrhete Rexhaj<sup>2</sup>, Philippe Golay<sup>1</sup><sup>1</sup>CHUV (Lausanne, CH); <sup>2</sup>HEdS La Source; <sup>3</sup>Re-pairs; <sup>4</sup>PositiveMinders; <sup>5</sup>Altage

**Background:** According to evidence-based practice, the implementation of the joint crisis plan (JCP), a recent and scientifically validated advance statement inspired by service users, is a public health issue addressing the human, societal and financial challenges of mental disorders. Resulting of a shared decision making process, the JCP supports recovery, allows better self-control and self-care, strengthens the therapeutic alliance, reduces involuntary hospitalizations rates and global health costs and is as such also an ethical issue. Despite evidence, its prevalence remains poor and strategies must be found to transfer knowledge into practice.

**Methods:** Designed and deployed in partnership with peers and caregivers, the JCP implementation project relies on the validated i-Parihs model, the integrated Promoting Action on Research Implementation in Health Services. Data on the implementation process and on the main outcomes were gathered by ongoing monitoring, on-line questionnaires and hospital statistics, and completed by Master thesis.

**Results:** Knowledge of the JCP and professional skills have significantly increased resulting in its higher prevalence in clinical practice. JCP is useful and relevant for any type of psychiatric disorders.

**Conclusion:** Information, training and specific implementation strategies including facilitation and analysis of the local context were the three successful ingredients of the project. Implementation science is a useful method to transfer scientific evidence in mental health but financial incentive must be found. The partnership

between peers, professionals and caregivers as facilitators of the JCP's implementation also played a major role in the process to improve shared decision making and human rights-based care.

### OP03.03 Improving Recovery-Oriented Care among Adults with Severe Mental Disorders in a Psychiatric Day Hospital: a Best Practice Implementation Project

**Gaël Kleinbauer**<sup>1</sup>, Hélène Dos santos<sup>2</sup>, Pascale Ferrari<sup>1-3</sup>

<sup>1</sup>CHUV (Lausanne, CH); <sup>2</sup>eHnv; <sup>3</sup>HEdS La Source

**Introduction:** Person-centred and recovery-oriented care (ROC), as well as rights-based approaches, are internationally recommended in mental health and this, regardless of the care setting. During the covid-19 pandemic, individual or groupal therapeutic activities in the CHUV' psychiatric day hospital (DH) were abolished in the favor of interviews by videoconference or directly in the community when possible, leading the whole team to feel a loss of sense of their clinical practice, which in turn called into question the role and missions of the day hospital.

**Methods:** A participative process involving service users, staff and carers, assessed the degree to which the DH has integrated recovery-oriented practices using the recovery assessment scales. This pre-evaluation led to an improvement project in quality and security of care using the JBI approach to evidence implementation in healthcare and the Consolidated framework for implantation research (CFIR) constructs.

**Results:** Areas of improvements were a stronger involvement of service users in their care, an enhanced diversity in treatment options and more individually tailored services. Financial incentive from service management, engagement of a peer practitioner, training of staff and introduction of recovery-oriented clinical tools resulted in a good compliance follow-up audit.

**Conclusion:** To support lasting change, multi-modal strategies tailored on the analysis of the local context and barriers to change have to be used. Long term re-assessment has to be planned. Implementation science is needed to better integrate ROC to improve the quality of life of adults with severe and disabling psychiatric disorders and their satisfaction with care.

### OP03.04 Experienced Coercion during Psychiatric Hospitalisation: an Interplay of Time-Specific Factors

**Benedetta Silva**<sup>1-2</sup>, Stéphane Morandi<sup>1-2</sup>, Mizue Bachelard<sup>1</sup>, Charles Bonsack<sup>1</sup>, Philippe Golay<sup>1-3-4</sup>

<sup>1</sup>Community Psychiatry Service, Lausanne University Hospital and University of Lausanne (CH); <sup>2</sup>Cantonal Medical Office, Canton of Vaud Department of Health and Social Action; <sup>3</sup>General Psychiatry Service, Lausanne University Hospital and University of Lausanne; <sup>4</sup>Institute of Psychology, Faculty of Social and Political Sciences, University of Lausanne

**Aims:** In mental health care, experienced coercion is defined as the patient's subjective experience of being submitted to coercion. Besides formal coercion, several other factors have been identified as potentially affecting it. This study aimed to explore the interplay between these factors and to provide new insights into how they lead to experienced coercion.

**Methods:** Cross-sectional network analysis was performed on data collected from 225 patients admitted to six psychiatric hospitals. A Gaussian Graphical Model (GGM) using Spearman's rank-correlation method and EBICglasso regularisation was estimated. Centrality indices of strength and expected influence were computed. Both edge-weight accuracy and centrality stability were also investigated.

**Results:** The estimated network was densely connected. Formal coercion was only weakly associated with both experienced coercion at admission and during hospital stay. Experienced coercion at admission was most strongly associated with perceived level of implication in the decision-making process. Experienced coercion during hospital stay, the most central node in the network, was most strongly related to the interpersonal separation perceived from staff, the level of coercion perceived upon admission and the satisfaction with the decision taken and the level of information received. Finally, satisfaction with treatment was linked to experienced coercion during hospital admission both directly and indirectly through perceived fairness.

**Conclusions:** Different factors affect experienced coercion at different stages of the hospitalisation process even more than formal coercion itself. Interventions aimed at reducing experienced coercion and its negative effects should take these time-specific elements into account and proposed tailored strategies to address them.

### OP03.05 Metabolic Syndrome and Its Components are Associated with Length of Stay in a Psychiatric Hospital: Results from a Swiss Psychiatric Cohort and First Episode Psychosis Patients

**Nermine Laaboub**<sup>1</sup>, Setareh Ranjbar<sup>2</sup>, Martin Preisig<sup>2</sup>, Armin von Gunten<sup>3</sup>, Phillipe Conus<sup>4</sup>, Chin Eap<sup>1-7</sup>

<sup>1</sup>Unit of Pharmacogenetics and Clinical Psychopharmacology, Lausanne University Hospital (prilly, CH); <sup>2</sup>Center for Psychiatric Epidemiology and Psychopathology, Lausanne University Hospital; <sup>3</sup>Service of Old Age Psychiatry, Lausanne University Hospital; <sup>4</sup>Service of General Psychiatry, Lausanne University Hospital; <sup>5</sup>School of Pharmaceutical Sciences, University of Geneva; <sup>6</sup>Center for Research and Innovation in Clinical Pharmaceutical Sciences, University of Lausanne; <sup>7</sup>Institute of Pharmaceutical Sciences of Western Switzerland, University of Geneva

**Aims:** Due to limited inpatient care resources and high healthcare expenditures, understanding variables affecting lengths of stay (LOS) is highly relevant. We aimed to investigate associations between metabolic disturbances and LOS in a Swiss psychiatric cohort and in a subgroup of first-episode of psychosis patients.

**Methods:** Patients admitted to one of the general or old-age psychiatric department units between January 01, 2007, and December 31, 2020, were included. Metabolic disturbances (i.e., the metabolic syndrome and its five components) were defined using the International Diabetes Federation definition. Cox frailty models were used to investigate the association between metabolic disturbances and LOS. Hazard ratios (HR) >1 and HR <1 indicated the relative likelihood of short (<median LOS) and lengthy LOS (≥median LOS), respectively.

**Results:** A total of 7'771 patients for 16'959 hospital stays throughout 14 years of follow-up were included. The median LOS was 23 days (interquartile range: 11-45 days). Central obesity (HR=0.82; p<10<sup>-3</sup>), hyperglycemia (HR=0.83; p<10<sup>-3</sup>), hypertriglyceridemia (HR=0.87; p<10<sup>-3</sup>), and the metabolic syndrome (HR=0.76; p<10<sup>-3</sup>) were associated with increased risk of staying longer in the psychiatric hospital, while underweight (HR=1.30, p=0.002) and HDL hypocholesterolemia (HR=1.10, p=0.004) were associated with a higher likelihood of short LOS. In first episode of psychotic patients, hypertriglyceridemia (HR= 0.82; p=0.046) and hypertension (HR=0.76, p=0.047) were associated with lengthy LOS when considering all stays, while no association was found when considering the first stay per patient.

**Conclusion:** Future studies should determine whether better metabolic monitoring and treatment of metabolic disturbances can contribute, with other factors, to reducing LOS.

### OP03.06 Development of a Forensic Mental Health Service Planning Model in Australia

**Charlotte Comben**<sup>1,2</sup>, Zoe Rutherford<sup>1,2</sup>, Carla Meurk<sup>1,2</sup>, Sandra Diminic<sup>1,2</sup>

<sup>1</sup>School of Public Health, The University of Queensland (AU); <sup>2</sup>Queensland Centre for Mental Health Research

**Aims:** Forensic mental health services provide care to individuals within criminal justice systems, a globally increasing population. In Australia, a national epidemiological planning model is needed to standardise national benchmarks to improve care and enable comparison across jurisdictions, which have varying service models. This presentation will describe steps taken to generate information for a forensic mental health service planning model.

**Methods:** A three-stage mixed methods approach was used, including a Delphi process (n=88 clinicians, academics, lived experience advocates, and justice system representatives) and focus groups (n=20 forensic service directors, managers, peer workers and lived experience advocates). A systematic literature review of the prevalence of mental illness in Australian forensic mental health settings was also conducted.

**Results:** Nine discrete populations requiring forensic mental health services were identified through focus groups. These included indicated prevention, mild, moderate and severe and complex mental illness in prisons; people with severe and complex mental illness who require bed-based care, non-acute rehabilitation or community-based care; people who require community outreach services; and people who require court liaison services.

A systematic review is underway to quantify those populations. Results will be presented.

Nine core service types needed to provide forensic mental health care were defined through the Delphi, including forensic bed-based (acute; sub-acute; non-acute; non-acute community), forensic community, prison, outreach and court liaison services.

**Conclusion:** Results are informing nationally consistent forensic mental health service planning in Australia. Inputs could be customised to create similar models internationally.

**OP04 Mental Health Intervention in Children and Young Adults****Thurs. 12 Sept., 14:00-15:30****3128****Chair:** Johannes Wancata, AT**OP04.01 Sustained Effects and Mechanisms of SELFIE, a Mobile Intervention for Improving Self-Esteem in Youth Exposed to Childhood Adversity****Annika Stefanie Reinhold**<sup>1</sup>, Maud Daemen<sup>2</sup>, Jessica Hartmann<sup>1</sup>, Jan R Boehnke<sup>3</sup>, Therese van Amelsvoort<sup>2</sup>, Ulrich Reininghaus<sup>1</sup>, SELFIE group<sup>1</sup>Central Institute of Mental Health, Dept of Public Mental Health, University of Heidelberg, Germany (Mannheim, DE); <sup>2</sup>Dept of Psychiatry and Neuropsychology, MHeNs, Maastricht, The Netherlands; <sup>3</sup>School of Health Sciences, University of Dundee, Dundee, UK

**Aims:** Experiences of childhood adversity are closely linked to social inequality and a risk factor for the development of mental disorders. To improve self-esteem in youth as a promising target mechanism, we tested the effects and mechanisms of SELFIE, a novel ecological momentary intervention (EMI) consisting of a smartphone app and face-to-face sessions.

**Methods:** Young people aged 12 to 26 with low self-esteem and adverse childhood experiences were randomized to a) SELFIE + Care as Usual (CAU) or b) CAU only. Assessments took place at baseline, post-intervention, as well as at 6, 18 and 24-month follow-up. The primary outcome was global self-esteem. Secondary outcomes included subjective quality of life, general psychopathology, and momentary (several times per day) measures. Linear mixed models and causal mediation models were fitted to test the effects and potential mechanisms of SELFIE.

**Results:** In total, 174 participants were randomized in the trial. SELFIE showed sustained signals of efficacy on improving global self-esteem across 18- and 24-month follow-up compared to the control condition ( $B = 2.31$ ; 95% CI, 1.11-3.51;  $d = 0.51$ ), as well as small to moderate effects on secondary outcomes. In addition, the effect of SELFIE on general psychopathology at post-intervention and 6-month follow-up was mediated by global self-esteem. We further found evidence of an indirect effect of SELFIE via other secondary outcomes.

**Conclusion:** Our results demonstrate sustained signals of efficacy of SELFIE with self-esteem mediating its effects. Further research on its implementation and potential to target public mental health inequalities is warranted.

**OP04.02 Estimating the Lifetime Costs and Benefits of the Incredible Years Teacher Classroom Management intervention for Primary School Children**Sarah Bates<sup>1</sup>, **Yekta Saidi**<sup>1</sup>, Richard Cookson<sup>2</sup>, Ieva Skarda<sup>2</sup>, Tamsin Ford<sup>3</sup>, Rachel Hayes<sup>4</sup>, Poushali Ganguli<sup>5</sup>, Sarah Byford<sup>5</sup>, Alan Brennan<sup>1</sup><sup>1</sup>University of Sheffield (GB); <sup>2</sup>University of York; <sup>3</sup>University of Cambridge; <sup>4</sup>University of Exeter; <sup>5</sup>King's College London

**Aims:** To estimate the long-term impact and cost-benefit of the Incredible Years Teacher<sup>®</sup> Classroom Management (IY-TCM) intervention for mental health in primary school, compared to no intervention.

**Methods:** LifeSim, a microsimulation model, was used to estimate the long-term effects of the intervention by linking short-term SDQ changes to adolescent and adult health and economic outcomes using data sources including longitudinal studies (e.g., Millenium cohort study), surveys, administrative records, and existing research on relationships between early life circumstances and long-term outcomes. Cost-benefit analyses were conducted with subgroup analyses based on deprivation, conduct scores and parental depression. Benefits were measured in quality adjusted life years and wellbeing adjusted life years. All analyses were conducted in R.

**Results:** LifeSim results indicate small gains in long-term outcomes including mental health, and that IY-TCM could be cost-effective but there was a large amount of uncertainty (Net monetary benefit (NMB)=£21, Estimated CI = -£195, £240). Benefits are greater, with greater certainty of cost-effectiveness, for those with high deprivation (NMB = £231, Estimation CI - £99, £231) and high conduct scores at baseline (NMB=£315, Estimated CI = £45, £483). For a typical year size group in England ( $n = 775000$ ), the estimated total net social benefit was £111m.

**Conclusion:** IY-TCM is estimated to be cost-effective compared to no intervention, but with a large amount of uncertainty. Greater benefits for pupils with difficulties at baseline suggests that the intervention may be more cost-effective for schools in more deprived areas with a greater proportion of children with conduct problems.

### OP04.03 Co-Creating an Online Platform for Adolescent Mental Health Promotion: Opinions of French Adolescents, Parents and Teachers

**Emma Falkiner**<sup>1</sup>, Astrid Kerouedan<sup>1</sup>, Mariona Perez-Anton<sup>2</sup>, Rodrigo Lima <sup>2</sup>, Camille Davisse-Paturet<sup>1</sup>, Maria Melchior<sup>1</sup>

<sup>1</sup>Inserm, Paris, France (Paris, FR); <sup>2</sup>Parc Sanitari Sant Joan de Déu, Sant Boi de Llobregat, Spain

**Aims:** Latest findings show deterioration of adolescent mental health. The IMPROVA research project aims to co-create and evaluate an online platform promoting adolescent mental health in France, Germany, Romania and Spain. As part of the co-creation step, the present work aims to understand the opinions of adolescent, parents, teachers, school staff and policy makers on the platform, in France.

**Methods:** A convenience sample was recruited through social media and project members' personal and professional networks. Each type of user was invited to a focus group session, held online, in French, during the most suitable timeslot for users. The recorded sessions followed a semi-structured guideline, common to the four countries. Themes included mental health knowledge and resources, provisional platform's appropriateness and acceptability, and feasibility in school context, including obstacles and catalysts.

**Results:** 7 adolescents (6 girls, mean age: 14), 5 parents (4 women, mean age: 49) and 6 teachers (1 woman, mean age: 28) participated in each group. All groups named the platform relevant and the planned modules appropriate. Adolescents suggested additional modules on self-harm prevention, menstruation support and eating disorder awareness. Teachers suggested additional modules on academic orientation and eating disorders. All stakeholders defined the main obstacle for platform use was to motivate adolescents. To enhance interest, adolescents suggested platform promotion by peers. Teachers argued platform use during classroom time was not feasible due to time constraints.

**Conclusion:** While additional focus groups with headmasters and policy makers may bring new insights, these shared opinions will improve the online platform before its evaluation next school-year.

### OP04.04 Five-Year Mental Health Outcomes for Children and Young People Presenting to GPs in England with Psychiatric Symptoms

**Morwenna Senior**<sup>1</sup>, Matthias Pierce<sup>1</sup>, Vicky Taxiarchi<sup>1</sup>, Shruti Garg<sup>1</sup>, Dawn Edge<sup>1</sup>, Kathryn Abel<sup>1</sup>

<sup>1</sup>University of Manchester (Manchester, GB)

**Aims:** In recent years children and adolescents have been presenting to healthcare services in increasing numbers with psychiatric symptoms. To address an evidence gap about what happens next for these individuals, we examined trajectories of healthcare use over five years after presentation.

**Methods:** A retrospective cohort study of primary care (CPRD-Aurum database) identified children and adolescents (3-18y) presenting between 2000 and 2016 with a psychiatric symptom or diagnosis. Group-Based-Multi-Trajectory Models (GBMTM) identified clusters with similar trajectories over five years of follow-up for three outcomes: mental health-related GP contacts, psychotropic prescriptions and specialist mental healthcare contacts. Survival analysis examined associations between trajectory membership and self-harm hospitalisation or suicide.

**Results:** 369,340 CYP were included. In the best-fitting, seven group GBMTM, the largest group ('low contact', 51.2%) had low rates of service contact or psychotropic prescriptions. Other trajectories showed 'moderate, non-pharmacological contact' (13.0%); 'declining contact' (8.7%); escalating contacts in year-5 (6.9%), or year-4 (5.2%); or prolonged contact with GPs (8.6%) and specialists (6.5%). Non-white ethnicity and presentation in earlier years (2000–2004) were associated with 'low contact' group membership. The 'prolonged specialist contact' group had highest risk of self-harm hospitalisation (Hazard Ratio vs. low-contact group 2.19, 95% CI 2.03 - 2.36) and suicide (HR 2.67 95% CI 1.72 - 4.14).

**Conclusion:** Most children and adolescents presenting to primary care with psychiatric symptoms have low or declining rates of ongoing contact. For many, this may reflect symptomatic improvement which is potentially reassuring for children and caregivers; for others, however, there may be unmet need.



### OP04.05 Do non-clinical services help to improve functional outcomes among young adults with mental disorders? A systematic review

**Kate Gossip**<sup>1,2</sup>, Julie John<sup>1,2</sup>, Charlotte Comben<sup>1,2</sup>, Holly Erksine<sup>1,2,3</sup>, James Scott<sup>2,4,5</sup>, Sandra Diminic<sup>1,2</sup>

<sup>1</sup>The University of Queensland (AU); <sup>2</sup>Queensland Centre for Mental Health Research; <sup>3</sup>Institute for Health Metrics and Evaluation; <sup>4</sup>Child Health Research Centre, The University of Queensland; <sup>5</sup>Child and Youth Mental Health Service, Children's Health Queensland

**Aims:** This systematic review aims to examine and synthesise the international peer-reviewed evidence on the impact that non-clinical services have on improving functional outcomes for young adults with mental disorders.

**Methods:** The systematic review was conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines.

**Results:** Only 17 studies met the inclusion criteria. Nine studies were focussed on vocational support services and seven of these examined the impact of the well-established Individual Placement and Support model. Most studies reported increased rates of employment similar to studies in adult populations. Six studies reported on lifestyle interventions including a combination of physical activities, nutrition education, health coaching and motivation and behaviour change. The measures of functioning used by the studies were too varied to determine whether lifestyle interventions may be useful in improving functional outcomes for this population. There were only two studies on family and network support services for young adults.

**Conclusion:** Some non-clinical support services have been shown to improve functional outcomes among young adults with mental disorders which can enhance present functioning and prevent future disability. However, further research and evaluation is needed to translate existing evidence into pragmatic guidance for service planners to invest in options to make non-clinical support services more accessible to young adults in need. Where evidence is limited, further research is needed to better understand the extent to which non-clinical services improve functioning.

### OP04.06 'If I Don't Have My Support Worker in the Room...': a Mixed Methods Study of Perspectives on Remote Daily Living Support for Neurodivergent Young Adults

**Maria Löthberg**<sup>1</sup>, Eda Wirström<sup>1,2</sup>, Jenny Meyer<sup>1,5</sup>, Sonya Girdler<sup>1,4</sup>, Sven Bölte<sup>1,3,4</sup>, Ulf Jonsson<sup>1,3,5</sup>

<sup>1</sup>Center of Neurodevelopmental Disorders (KIND), Karolinska Institutet, Stockholm, Sweden (SE); <sup>2</sup>Department of Social Psychiatry and Individual Support, Municipality of Uppsala, Uppsala, Sweden; <sup>3</sup>Child and Adolescent Psychiatry, Stockholm Health Care Services, Region Stockholm, Stockholm, Sweden; <sup>4</sup>Curtin Autism Research Group, Curtin School of Allied Health, Curtin University, Perth, Australia; <sup>5</sup>Department of Medical Sciences, Child and Adolescent Psychiatry, Uppsala University, Uppsala, Sweden

**Aims:** Information technology is increasingly being employed for providing support and interventions in disability and health service contexts. This study aimed to investigate service users' and support workers' perspectives on remote support in daily living for young adults with neurodevelopmental conditions.

**Methods:** Using a convergent mixed methods approach, we integrated qualitative and quantitative findings from survey responses and focus groups. Young service users (aged 18 to 29) diagnosed with ADHD and/or autism (n=35) and support workers (n=64) from four municipalities in Sweden responded to a survey designed to tap into their lived experiences and views. The topic was explored further in focus groups with young service users (n=7) and support workers (n=3). Open-ended survey questions were analysed using qualitative content analyses and complemented with information from the focus groups, while closed survey questions were summarized descriptively. Inferences were merged in a joint display.

**Results:** While participants reported having access to digital devices, service routines for remote contact were not in place. Service users were more hesitant than support workers in endorsing remote support, expressing concerns that this approach would be inferior to in-person support (e.g., owing to miscommunications and insufficient social and emotional contact). Still, both groups expressed that remote contact may at times be a beneficial complement to in-person meetings, increasing accessibility and user choice.

**Conclusion:** Service providers planning to implement remote support elements should explore the demand, acceptability, and organizational readiness for this approach. Moving forward, user engagement will be crucial to meet individual preferences, values, and needs.

**OP05 Cognition and Mental Health****Thurs. 12 Sept., 14:00-15:30****3174****Chair:** Nicolas Cherbuin, AU**OP05.01 Prenatal and Postnatal Maternal Depressive Symptoms and Functional Brain Connectivity Development in Offspring from Mid-Childhood to Adolescence****Dogukan Koc**<sup>1</sup>, Adriana Hermans<sup>1</sup>, Bing Xu<sup>1</sup>, Ryan Muetzel<sup>1,2</sup>, Hanan El Marroun<sup>1,3</sup>, Henning Tiemeier<sup>1,4</sup><sup>1</sup>Department of Child and Adolescent Psychiatry/Psychology, Erasmus MC, Rotterdam, the Netherlands (Rotterdam, NL); <sup>2</sup>Department of Radiology and Nuclear Medicine, Erasmus MC, Rotterdam, the Netherlands; <sup>3</sup>Department of Psychology, Erasmus School of Social and Behavioral Science, Rotterdam, the Netherlands; <sup>4</sup>Department of Social and Behavioral Science, Harvard T. H. Chan School of Public Health, Boston, USA

**Aims:** Prenatal and postnatal maternal depression are prevalent conditions with profound implications for the offspring, potentially contributing to a range of neuropsychiatric disorders. In a population-based cohort (the Generation Study), we investigated prenatal and postnatal maternal depressive symptoms and the development of resting-state functional connectivity (RSFC) in offspring from late childhood to adolescence.

**Methods:** Maternal depressive symptoms were assessed during mid-pregnancy and the postpartum period using the Brief Symptom Inventory. Offspring, aged 9-15 years, underwent functional neuroimaging at two assessments (n=2825 with 3627 scans). Graph theory-based metrics, including global efficiency, modularity, and clustering coefficient, were calculated, along with within- and between-network RSFC. We used a linear mixed-effects model to examine how maternal depressive symptoms relate to offspring RSFC from mid-childhood to adolescence, considering both main and interactions effects (maternal depressive symptoms score-by-child age).

**Results:** Longitudinal analysis highlighted a significant age-dependent association, indicating that prenatal depressive symptoms were related to a greater increase in global efficiency ( $\beta=0.003$ ,  $SE=0.000$ ,  $P_{FDR}=0.002$ ), global modularity ( $\beta=0.003$ ,  $SE=0.000$ ,  $P_{FDR}=0.002$ ) and within-network default mode network (DMN) connectivity ( $\beta=0.006$ ,  $SE=0.000$ ,  $P_{FDR}=0.002$ ) over time, whereas postnatal depressive symptoms were not.

**Conclusion:** This study showed a distinct association between prenatal depressive symptoms with a greater increase in global efficiency, global modularity and within-network DMN connectivity from childhood to adolescence. The lack of associations with postnatal symptoms suggests that the prenatal period may be a critical window for neural development, influencing future brain connectivity in offspring.

**OP05.02 Childhood Traumatic Brain Injury and Risk of Violent Victimization and Self-directed Violence: A Nationwide Cohort Study Using Linked Data****Maya Ogonah**<sup>1</sup>, Anabelle Paulino<sup>1</sup>, Ioannis Mavroudis<sup>2</sup>, Daniel Whiting<sup>3</sup>, Seena Fazel<sup>1</sup><sup>1</sup>University of Oxford (GB); <sup>2</sup>Leeds Teaching Hospital NHS Trust; <sup>3</sup>University of Nottingham

**Aims:** This study will be the first to use a large data-registry cohort to examine the associations of child and adolescent traumatic brain injury (TBI) with violent victimisation and self-directed violence.

**Methods:** A retrospective population-based e-cohort study of 1,795,218 participants (69,308 with TBI diagnosis) registered with a Welsh GP practice between 2009 and 2023 was conducted using linked routine data from SAIL databank. Violent victimisation and self-directed violence, the outcomes of interest, are defined by GP interactions, emergency department, and hospital admission, with an ICD or Read code assigned at time of visit. Clinicians and carers' of TBI survivors provided qualitative feedback on the study's aims, importance of research questions and clinical significance to ensure the project best reflects the needs and views of those impacted by TBI. Using Cox regression to estimate risk of violent outcomes, models will be fitted to account for substance misuse, deprivation, severe abuse, psychiatric and neurological conditions, and we plan to conduct sensitivity analyses to explore the effect of injury characteristics on risk.

**Results:** Analyses have yet to be run at the time of abstract submission deadline; results will be presented at the conference. We hypothesise that TBI exposure during childhood is associated with elevated risk of

victimisation and self-directed violence; risk will be attenuated in cases of mild injuries and increased following recurrent injuries.

**Conclusion:** Risk of violent victimisation and self-directed violence post-TBI are significant and underscore the importance of understanding predictors of risk to better inform effective health management strategies in TBI.

### OP05.03 Sensory Processing in Infancy and Its Relationship to Mental Health at 5-years: Findings from ELFE French National Birth Cohort

**Emma Butler**<sup>1</sup>, Michelle Spirtos<sup>2</sup>, Linda M O Keeffe<sup>3,4</sup>, Mary Clarke<sup>1</sup>

<sup>1</sup>RCSI (IE); <sup>2</sup>TCD; <sup>3</sup>UCC; <sup>4</sup>University of Bristol

**Background:** Studies report associations between sensory processing difficulties and mental health problems but these have been cross-sectional, thus we do not know the temporal order of this relationship.

**Aims:** To: (1) use public and patient involvement (PPI) to agree behavioural indicators in a longitudinal cohort that are indicative of sensory processing, (2) describe the sensory patterns among 1-year-olds and (3) examine whether sensory patterns in infancy predict mental health at 5-years.

**Methods:** French cohort data from 10, 854 5-year-olds, recruited at birth was analysed. Latent class analysis (LCA) classified the infants into sensory groups using the PPI indicators. Children's mental health was measured by the Strengths & Difficulties questionnaire (SDQ) completed by the primary caregiver at 5-years.

**Results:** PPI identified 10 sensory indicators. LCA identified three sensory classes, "typical" (84.3%), "possible" difficulty (5.0%)- only different from "typical" in relation to adaptability and sleep problems and "definite" difficulties (10.7%)- characterised by being difficult to calm, disliking confined spaces, less adaptable, more anxious, unable to keep still, with concerns about food and sleep. Infant sensory group significantly predicted the child's SDQ-score. On average, the "definite" group scored 3 points higher than the other groups, with up to triple the rates of children in the clinical ranges of SDQ-score.

**Conclusion:** Infants with sensory difficulties have higher rates of mental health symptoms by 5-years. Sensory problems in infancy could be used as an early indicator of later mental health difficulties with potential usefulness for informing interventions. Longitudinal studies should strongly consider including standardised sensory measures.

### OP05.04 Cognitive and Psychological Flexibility in Patients with Recurrent Gynaecological Malignancies. A Pilot Study

**Krisztina Kocsis-Bogar**<sup>1</sup>, Arina Onoprienko<sup>1</sup>, Manuela Kohlmann<sup>1</sup>, Andreas Wippel<sup>1</sup>, Georg Fichtinger<sup>1</sup>, Thomas Bartl<sup>1</sup>

<sup>1</sup>Medical University of Vienna, Department of Psychiatry and Psychotherapy (Vienna, AT)

**Aims:** Psychological flexibility (PF) is widely regarded as an ability to adapt to fluctuating situational demands, to reconfigure mental resources and to shift perspectives (Kashdan & Rottenberg, 2010). The improvement of PF in cancer patients has been addressed in several studies using Acceptance and Commitment Therapy. It is not clear if there is an overlap between self-report PF and cognitive flexibility measured by neuropsychological instruments. This question is especially relevant in cancer patients suffering from subjective as well as objective cognitive impairments due to their illness and cytotoxic chemotherapy. Our aim was to examine the relationship between the different dimensions of cognitive and psychological flexibility in cancer patients.

**Methods:** Cognitive flexibility was measured by TMT-A and B in 20 patients with recurrent gynaecological malignancies. Different aspects of PF were assessed using Acceptance and Action Questionnaire-II (AAQ-II), Committed Action Questionnaire (CAQ) and Cognitive Fusion Questionnaire (CFQ). Due to the small sample size, Spearman's r was calculated.

**Results:** Cognitive flexibility measured by TMT-B-A was significantly correlated with every measured aspect of PF: committed action ( $p < .05$ ), the lack of cognitive fusion ( $p < .05$ ), and acceptance and action ( $p < .01$ ). TMT-B was significantly associated with AAQ-II ( $p < .01$ ) and CFQ ( $p < .05$ ).

**Conclusion:** Our results show a significant association of subjective psychological and objectively measurable cognitive flexibility. Cognitive training aiming to improve cognitive flexibility may increase the ability of PF and thus the effectiveness of acceptance-oriented psychotherapies in patients with recurrent malignancies.

### OP05.05 Cognitive Function is Related to Genetic Variability in DNA Repair

**Nicolas Cherbuin**<sup>1</sup>, Hardip Patel<sup>2</sup>, Erin Walsh<sup>1</sup>, Ananthan Ambikairajah<sup>3</sup>, Richard Burns<sup>1</sup>, Lene Juel Rasmussen<sup>4</sup>  
<sup>1</sup>National Centre for Epidemiology and Population Health, Australian National University, Australia (Canberra, AU); <sup>2</sup>John Curtin School of Medical Research, Australian National University, Australia; <sup>3</sup>Faculty of Health, University of Canberra, Australia; <sup>4</sup>Center for Healthy Aging, University of Copenhagen, Denmark

**Aims:** This study aimed to determine whether genetic variability in biological processes that repair DNA damage, often caused by ageing/dementia risk factors, is associated with differences in cognitive function and brain structure.

**Methods:** Community-living participants (n=488,159; 56.54 years (8.09); 54.2% female) taking part in the UK biobank study for whom cognitive and genetic measures were available were included. In addition, 39,060 participants for whom neuroimaging measures were also available contributed to the genetic-brain analyses. Genes involved in base excision repair included OGG1, NEIL1/2/3, MUTYH, NTHL1. Cognitive outcome measures included fluid intelligence (FIQ), symbol-digit matching task (SDMT), visual matching (MATCH), and trail making (TRAIL). Brain outcome measures included total brain, grey matter, white matter, as well as left and right hippocampi volumes. Hierarchical regression analyses were used to test the associations between DNA repair variability and cognitive or brain outcomes.

**Results:** Several significant associations between base excision repair SNPs and cognitive outcomes were identified. Strongest associations accounted for 1-6% difference in cognitive function and were detected for OGG1, NEIL1/2/3, MUTYH. The cognitive domains most strongly associated with DNA repair variability were MATCH, FIQ, and SDMT). More limited associations were detected with brain volumes.

**Conclusion:** Variation in several genes coding for DNA repair mechanisms is associated with the cognitive function of older adults and to a lesser extent to their brain structure. Given the role played by these genes in repairing damage caused by oxidative stress/inflammation, their possible contribution to dementia, other related conditions, and their risk factors, needs further investigation.

### OP05.06 Cognitive Trajectories and Dementia Risk in Patients with Schizophrenia Spectrum Disorders compared to Affective Disorders

Kathy Liu<sup>1</sup>, Gayan Perera<sup>2</sup>, Robert Howard<sup>1</sup>, **Christoph Mueller**<sup>2</sup>  
<sup>1</sup>University College London (GB); <sup>2</sup>King's College London

**Aims:** Schizophrenia spectrum disorders confer an increased and earlier dementia diagnosis risk. We aimed to compare cognitive trajectories from the earliest cognitive concern in relation to a possible dementia syndrome, and subsequent dementia risk between schizophrenia spectrum and primary affective disorders.

**Methods:** This study used electronic clinical records from patients who accessed secondary mental healthcare in South London between 2008-2021. Patients had either a schizophrenia spectrum or primary affective disorder diagnosis, with at least two Mini Mental State Examination (MMSE) scores recorded at least six months apart. We examined annual MMSE change from the first recorded MMSE, dementia risk, dementia subtypes and rates of dementia assessment and treatment.

**Results:** Compared to affective disorders (n=2,264; 71.1 years), schizophrenia spectrum disorders (n=1,217; 65.0 years) had lower and earlier initial MMSE scores (by 6.1 years), earlier dementia diagnoses (by 2.3 years), but lower dementia risk (adjusted HR=0.81; 95% CI=0.69-0.95). Annual rates of cognitive decline and diagnosis of dementia subtypes did not differ between groups. Differences were more pronounced between schizophrenia and depression groups.

**Conclusion:** Initial cognitive concerns relating to a possible dementia syndrome arose at 65 years in schizophrenia spectrum disorders, six years earlier than affective disorders. Dementia prevention and treatment strategies should aim to reduce existing inequity in access to dementia services.

**OP06 Mental Health and Wellbeing****Thurs. 12 Sept., 14:00-15:30****3185****Chair:** Dimity Crisp, AU**OP06.01 Social Isolation in Mid-Life: Associations with Psychological Distress, Life Satisfaction and Self-Rated Health in Two Successive British Birth Cohorts****Rosie Mansfield**<sup>1</sup>, Marcus Richards<sup>1</sup>, George Ploubidis<sup>1</sup>, Morag Henderson<sup>1</sup>, Praveetha Patalay<sup>1</sup><sup>1</sup>University College London (London, GB)

**Aims:** Little is known about the way in which different forms of isolation differentially impact health and may interact or produce 'dose-response' effects. The current study focuses on social isolation in mid-life, a life stage often neglected by the field.

**Methods:** Data (N=32,391) were analysed from two successive British birth cohort studies (1970 British Cohort Study N=16,585 and 1958 National Child Development Study N=15,806). Linear multivariable regressions were run to investigate the independent, 'dose-response' and interactive associations of social isolation indicators on psychological distress, life satisfaction and self-rated general health. Latent class analysis identified how different forms of social isolation cluster in mid-life and are associated with mental health and wellbeing. All models were stratified by sex and included covariates and an interaction term to assess cohort effects.

**Results:** A lack of frequent contact with friends and relatives, no labour market participation and limited community engagement were associated with lower life satisfaction and self-rated general health. However, living alone was only associated with lower life satisfaction. Being out of education and employment was the social isolation indicator most strongly and consistently associated with poorer mental health and wellbeing. The detrimental effects of social isolation were more pronounced for those born in 1958. No significant sex differences were found.

**Conclusion:** Investigating a range of social isolation experiences independently and in combination provides a more nuanced picture, revealing the most toxic social conditions for health and identifying areas modifiable through policy.

**OP06.02 The Impact of the Covid-19 Pandemic on Negative Affect in Mid- and Long-Term in Switzerland: Pre-Registered Study Spanning 2018-2022****Dawid Gonddek**<sup>1</sup>, Marieke Voorpostel<sup>1</sup>, Núria Sánchez-Mira<sup>2</sup>, Teuta Mehmeti<sup>2</sup><sup>1</sup>FORS (CH); <sup>2</sup>University of Neuchâtel, Institute of Sociology

**Aims:** This paper examined to what extent pandemic-related worries and psychosomatic symptoms were associated with negative affect in the mid- and long-term.

**Methods:** We drew on longitudinal data from five waves (2018-2022) of the Swiss Household Panel, which included pandemic-specific information collected in May-June 2020 (n=5,657). Our key exposures were the frequency of psychosomatic symptoms (e.g., sweating, breathing difficulties) and worries (e.g., economy, health) associated with the pandemic. Negative affect (e.g., frequency of anxiety or sadness) was measured in 2020, 2021 and 2022.

**Results:** Our study showed that 18.5% experienced pandemic-associated psychosomatic symptoms in at least for 1-2 days. Those who reported psychosomatic symptoms had higher negative affect even two years later after the pandemic, compared with those without symptoms (1.26, 0.82 to 1.71) – after statistically accounting for pre-pandemic wellbeing along with other characteristics.

Participants reported greatest pandemic-related concerns about the impact on the economy (mean=5.82, sd=2.55), while being least worried about receiving medical treatment if in need (mean=2.15, sd=2.57). Nonetheless, worries about economy were not found to be associated with later negative affect, whereas greater concerns about receiving medical treatment along with other aspects of the pandemic (e.g., social cohesion, lifestyle, own health and health of close ones) were all strongly and persistently linked with higher negative affect up to 2 years after the pandemic (e.g., 0.24, 0.16 to 0.32).

**Conclusion:** Our study emphasises the importance of preventing pandemic-related worries and anxiety, as these can have long-lasting post-crisis consequences on people's wellbeing.



### OP06.03 Inequalities in Wellbeing Around Becoming a Young Carer in the UK

**Rebecca Lacey**<sup>1,2</sup>, Alejandra Letelier<sup>1</sup>, Baowen Xue<sup>2</sup>, Anne McMunn<sup>2</sup>

<sup>1</sup>St George's, University of London (London, GB); <sup>2</sup>UCL

**Aims:** To investigate changes in wellbeing around becoming a young carer and examine how this varies by care intensity (weekly hours spent caring), gender, ethnicity, and household income.

**Methods:** This study used data from the UK Household Longitudinal Study, focusing on individuals aged 10-25 from Waves 1 through wave 13 (spanning the years 2009-2023). Wellbeing was measured via self-reported life-satisfaction and self-esteem. Employing Propensity Score Matching, carers were paired with non-carers. Then, linear piecewise growth curve modeling examined wellbeing trajectories pre-, during, and post-caring. The analysis included 4,202 individuals, examining the trajectories of carers versus non-carers, with further stratification by care intensity, gender, ethnicity, and household income.

**Results:** Wellbeing declined when becoming a young carer and those undertaking high-intensity caregiving reporting lower life satisfaction and self-esteem had steeper declines, a trend persisting post-transition. We found declines in life satisfaction and self-esteem for both males and females, with no significant gender differences. Although not statistically significant, we found some differences in the changes in wellbeing reported around becoming a carer across ethnic groups. Young carers from lower-income households reported declining wellbeing at the transition to care in comparison with non-carers from the same background.

**Conclusion:** The findings reveal that young carers experience a decline in wellbeing, including overall life satisfaction and self-esteem, when they become a carer. This effect is particularly pronounced for those providing intense care, and individuals from socioeconomically disadvantaged backgrounds.

### OP06.04 The Complete Mental Health of Australia's Youth 2018-2022: Distress and Wellbeing in 3 National Community Samples

**Dimity Crisp**<sup>1</sup>, Debra Rickwood<sup>1</sup>, Richard Burns<sup>2</sup>, Emily Bariola<sup>3</sup>

<sup>1</sup>University of Canberra (AU); <sup>2</sup>Australian National University; <sup>3</sup>Orima Research

**Aims:** A high level of psychological distress in young people is often reported as a concern; however, few national surveys describe trajectories of mental health and wellbeing through adolescence into adulthood. Existing research has also largely overlooked positive wellbeing and instead focused exclusively on mental ill-health. This research provides a profile of the mental health and wellbeing of Australians aged 12-25 years from 2018 to 2022.

**Methods:** Young people completed a National Youth Mental Health survey in 2018 (n<sub>1</sub>=3832), 2020 (n<sub>2</sub>=974) or 2022 (n<sub>3</sub>=961). Using Keyes' Complete Mental Health framework, we examine the proportions of young people flourishing over time, and how rates of complete mental health differ by age and gender.

**Results:** High rates of psychological distress were reported; however, approximately half of those surveyed reported to be flourishing (reported high wellbeing without mental illness). Rates of flourishing declined between 2018 and 2022. Across each survey, flourishing rates were lowest for females and generally declined with increasing age.

**Conclusion:** The findings provide a unique contrast of youth mental health and wellbeing pre-, during, and post- the COVID-19 pandemic. The substantial proportion of young people reporting flourishing, despite high rates of psychological distress, highlights the need to consider all aspects of psychological functioning to accurately understand and respond to the mental health needs of youth.

### OP06.05 A Monte Carlo Simulation of the Impact of Improving Wellbeing to Reduce Depression in the Community: Just How Much Do I Need?

**Richard Burns**<sup>1</sup>, Nicolas Cherbain<sup>1</sup>, Peter Butterworth<sup>2</sup>

<sup>1</sup>Australian National University (AU); <sup>2</sup>Deakin University

**Aims:** There is increasing evidence that higher wellbeing (i.e. flourishing) is associated with lower risk for common mental disorders. Considerable effort to develop interventions (e.g. Positive Psychology



Interventions (PPI) that focus on improving wellbeing has been exerted. Meta-analyses suggest the efficacy of PPI in the community is small at best, and more efficacious in clinical populations.

**Methods:** This study reports a series of simulations which test the impact of improving individuals' wellbeing on the 4-year incidence of depression in the community. In line with Rose's argument for improving population health, Scenario 1 tested the impact of improving the whole population. Scenarios 2-5 specifically tested the impact of improving the wellbeing of 2) Languishers, 3) those with moderate wellbeing, 4) Flourishers, and 5) those with depression. Each scenario tested a range of effect sizes derived from published PPI and other interventions.

**Results:** Scenarios 1, 3 and 4 had only marginal reductions in the depression burden. Languishers and those with depression reported the greatest benefit for reduction in depression risk through an increase in wellbeing. The effect sizes needed for substantial reductions in depression prevalence were higher than those reported in PPI studies, but comparable to the effects reported for broader social-determinants on wellbeing.

**Conclusion:** In contrast to PPI, Policy makers may be better focused on interventions that focus on the 'six pillars' or other key social-determinants of health may have greater impact on improving wellbeing and mental health outcomes.

### OP06.06 Air pollution, Greenspace, Genetic Predisposition and Mental Wellbeing: An Integrative Study

**Lucie Burgess**<sup>1</sup>, Chiara Fabbri<sup>2</sup>, Oliver Pain<sup>1</sup>, Julian Mutz<sup>1</sup>, Zoe Reed<sup>3</sup>, Alexandra Gillett<sup>1</sup>, Helen L. Fisher<sup>1</sup>, Cathryn M. Lewis<sup>1</sup>

<sup>1</sup>King's College London (GB); <sup>2</sup>University of Bologna; <sup>3</sup>University of Bristol

**Aims:** Mental wellbeing is a multi-faceted concept, moderately heritable, and has been associated with environmental exposures. Yet previous studies investigating the relationship between air pollution/greenspace exposure and mental wellbeing have not tested for genetic effects. This research investigated whether (i) individuals with genetic predisposition to adverse mental wellbeing were more likely to be exposed to higher air pollution/less greenspace (*gene-environment correlation*), leading to *genetic confounding* of the environment-wellbeing relationship; (ii) associations were modified by genetic predisposition to mental wellbeing (*gene-environment interaction*).

**Methods:** This cross-sectional study used data from UK Biobank, a prospective cohort of mid-life to older adults, with pre-linked air pollution/greenspace exposures near participants' homes (N=233,837). Mental wellbeing was measured through a functioning wellbeing score, accounting for its complex dimensions. Genetic predisposition was estimated through a polygenic score (PGS) for wellbeing. Associations were tested using single-exposure ordinary least squares regression models, adjusted for confounders.

**Results:** Higher exposure to four common air pollutants (NO<sub>2</sub>, NO<sub>x</sub>, PM<sub>2.5</sub>, PM<sub>10</sub>) and lower percentage greenspace were associated with lower mental wellbeing scores, although effect sizes were small. Modest statistically-significant gene-environment correlations were observed. Despite this, there was weak evidence of genetic confounding, and no evidence of gene-environment interaction.

**Conclusion:** These results suggest that higher air pollution exposure adversely impacts mental wellbeing, and that more greenspace was promotive in this sample. Genetic predisposition played a limited role in these associations, and most of the individual differences in mental wellbeing were explained by environmental, rather than genetic effects.

**OP07 Child and Adolescent Mental Health****Thurs. 12 Sept., 16:00-17:30****A2064****Chair:** Christina Haag, CH**OP07.01 High Frequency of Residential Moves and Impact on Mental Distress Among Adolescents in South London**

**Haruka Goto**<sup>1,2</sup>, REACH cohort community champions<sup>2</sup>, REACH cohort team<sup>2-3</sup>, Charlotte Gayer-Anderson<sup>2-3</sup>, Craig Morgan<sup>2-3</sup>, Gemma Knowles<sup>2-3</sup>

<sup>1</sup>UCL Global Business School for Health, University College London, London, UK (London, GB); <sup>2</sup>ESRC Centre for Society and Mental Health, King's College London, London, UK; <sup>3</sup>Health Service and Population Research, King's College London, London, UK

**Aims:** Housing instability is a major problem in London due to a mismatch between housing supply and demand and legislation favouring landlords. Housing instability may negatively impact mental health, particularly in adolescence. However, our understanding of the extent of, inequalities in, and mental health consequences of housing instability among young people from diverse backgrounds is limited.

**Methods:** We analysed three waves of data from REACH (Resilience, Ethnicity, and AdolesCent Mental Health), a cohort study following >4000 secondary school students in South London. Mental Health was assessed by Strengths and Difficulties Questionnaire (SDQ). Self-reported frequency of home moves indicated housing instability. Multilevel and fixed-effects regression was used to examine cross-sectional and longitudinal associations between housing instability and distress.

**Results:** High proportions of adolescents experienced housing instability, with 16.6% moving once, 15.9% moving two-to-three times, and 3.8% moving four+ times in the 24-month period. There were striking inequalities by ethnic group, e.g., around 32.3% of Latinx had stable housing over the 24-months compared with 73.5% of white British. We found strong evidence of a linear association between housing instability and distress. Compared with those who did not move, mean SDQ scores were around 0.63 [-0.01–1.27], 0.88 [0.18–1.58], 2.02 [0.71–3.34], and 2.78 [1.73–3.83] points higher in those who experienced one, two+, three+, or four+ moves, respectively. Each additional move was associated with a within-person increase in distress of around 0.63 [0.25–1.00] points.

**Conclusion:** Policy interventions are urgently needed to tackle inequalities in housing instability in London.

**OP07.02 Major Life Events from Adolescence to Young Adulthood: A Longitudinal Natural Language Processing Investigation**

**Christina Haag**<sup>1,2</sup>, David Mike Bürgin<sup>3,4</sup>, Denis Ribeaud<sup>3</sup>, Manuel Eisner<sup>3,5</sup>, Viktor von Wyl<sup>1,2</sup>, Lilly Shanahan<sup>3,6</sup>

<sup>1</sup>Institute for University of Zurich (CH); <sup>2</sup>Epidemiology, Biostatistics & Prevention Institute, University of Zurich; <sup>3</sup>Jacobs Center for Productive Youth Development, University of Zurich, Zurich, Switzerland; <sup>4</sup>Child and Adolescent Psychiatric Research Department, University Psychiatric Hospitals Basel, CH; <sup>5</sup>Institute of Criminology, University of Cambridge, Cambridge, UK; <sup>6</sup>Department of Psychology, University of Zurich, Zurich, Switzerland

**Aims:** Rates of mental health problems among young people are at an all-time high, and new work is needed that investigates why these trends have emerged. An important approach to gaining new insights is to draw on young people's own first-hand reports. This study aims to investigate the events that young people report as important in their lives and the emotional valence of these events. This study also examines changes in the nature of significant life events from adolescence to young adulthood.

**Methods:** The Zurich Project on Social Development from Childhood to Adulthood (z-proso) is a prospective-longitudinal cohort study (N≈1500). At ages 13, 17, 20, and 24, participants responded to open-ended text question that asked about the most significant events in their lives since the last assessment. We analyzed the themes in these text data using dynamic topic modelling with the Python library 'BERTopic', which combines conventional techniques with large language models (LLMs). We also examined the emotional valence of these events.

**Results:** Young people often described key life events as positive, usually relating to personal relationships, academic success, securing an apprenticeship, or personal development. Conversely, negative experiences were often related to the loss of a loved one or the experience of mental distress or illness.

**Conclusion:** This study contributes to a deeper understanding of the events that young people today consider significant in their lives. It also illustrates how large-scale text data can be integrated in population-level research with the use of natural language processing techniques.

### OP07.03 Mental Illness and Uptake of HPV Vaccination among School-Aged Girls: a Population-Based Cohort Study in Sweden

**Mary Barker**<sup>1</sup>, Kejia Hu<sup>1</sup>, Eva Herweijer<sup>1</sup>, Jiangrong Wang<sup>1</sup>, Karin Sundström<sup>1</sup>, Fang Fang<sup>1</sup>

<sup>1</sup>Karolinska Institutet (SE)

**Aims:** Mental health-related disparities have been shown in cervical cancer screening, treatment and survival levels, however limited data currently exists on HPV vaccination. This study aimed to investigate the association between mental illness and HPV vaccine uptake among school-aged girls in Sweden.

**Methods:** Swedish register data on clinically diagnosed mental disorders and prescribed use of psychotropic medications were used to define mental illness among 115,104 girls eligible for the school-based HPV vaccination programme between 2012-2019, as well as their parents. Uptake of HPV vaccination (first and second dose), clinical, and sociodemographic characteristics were also identified from the Swedish registers. The relative risk (RR) and 95% confidence interval (CI) of HPV vaccination uptake according to individual and parental mental illness was calculated using multivariable Poisson regression models.

**Results:** Uptake of the first dose of HPV vaccination was statistically significantly lower among girls with a specialist diagnosis of mental disorder (RR: 0.89, 95% CI: 0.87-0.91) or prescribed psychotropic medication use (RR: 0.93; 95% CI: 0.92-0.95). Particularly large reductions in first dose uptake were observed for girls with autism or intellectual disability (RR: 0.79 and 0.78), and girls with prescribed use of antipsychotics (RR: 0.68). No strong associations were observed between individual mental illness and second dose uptake, or between parental mental illness and uptake of either vaccine dose.

**Conclusion:** Our findings show that girls with mental illness have significantly lower uptake of the HPV vaccination, which has important implications for the HPV vaccination programme, in order to ensure equitable protection.

### OP07.04 Psychiatric Sick Leaves Among Parents of Children With Mental Disorders: a Finnish Nationwide Register Study

**Mai Gutvilig**<sup>1,2</sup>, Ripsa Niemi<sup>1,2</sup>, Marko Elovainio<sup>1,3</sup>, Christian Hakulinen<sup>1,2</sup>

<sup>1</sup>Department of Psychology, Faculty of Medicine, University of Helsinki, Helsinki, Finland (FI); <sup>2</sup>Finnish Institute for Health and Welfare, Helsinki, Finland; <sup>3</sup>Research Program Unit, Faculty of Medicine, University of Helsinki, Helsinki, Finland

**Aims:** A child's mental disorder not only impacts the child themselves but also their family. We examined associations between children's mental disorder diagnoses and parents' first-time psychiatric sick leaves across a wide range of children's diagnoses.

**Methods:** The cohort comprised of parents whose children were all born in 2005–2016 when examining diagnoses with a typically early onset in childhood (ICD-10 diagnoses F70–F98) or 2001–2012 when examining diagnoses with a typically later onset (F10–F50). Data on psychiatric sick leaves contained all sick leave periods certified by a physician that lasted longer than 9 days and included an ICD-10 subchapter F diagnosis. Time to a parent's psychiatric sick leave was examined with Cox proportional hazards models where child's diagnosis was a time-varying covariate. Hazard ratios were estimated at five time points following the child's diagnosis.

**Results:** The 2005–2016 cohort consisted of 425 509 and the 2001–2012 cohort of 364 376 parents. Across most diagnosis categories, parents whose children were diagnosed with a mental disorder had a greater rate of receiving a first psychiatric sick leave especially in the six months following the child's diagnosis. Associations differed depending on parent's sex and child's diagnosis. The greatest associations were observed in women whose children had received an eating, mood, or anxiety disorder diagnosis.

**Conclusion:** Parents whose children were recently diagnosed with a mental disorder had a greater rate of receiving a first-time psychiatric sick leave suggesting difficulties in balancing paid employment and family life.

### OP07.05 Parents' Income and Employment After Child's Mental Disorder Diagnosis: Evidence from a Finnish Register Study

**Kaisla Komulainen**<sup>1,2</sup>, Ripsa Niemi<sup>1,2</sup>, Mai Gutvilig<sup>1,2</sup>, Petri Böckerman<sup>3,5</sup>, Marko Elovainio<sup>1,2</sup>, Christian Hakulinen<sup>1,2</sup>

<sup>1</sup>University of Helsinki (FI); <sup>2</sup>Finnish Institute for Health and Welfare; <sup>3</sup>University of Jyväskylä; <sup>4</sup>Labour Institute for Economic Research LABORE; <sup>5</sup>IZA Institute of Labor Economics

**Aims:** Mental disorders are associated with significant social and financial burden not only on the individual but also on their family. In this register study, we estimated associations of a child's mental disorder with their parents' income and employment before and after the child's diagnosis.

**Methods:** We recorded all mental disorder diagnoses (F00–99 in ICD-10) received at ages 1–25 in Finland in 1994–2019. Each individual whose child was diagnosed with a mental disorder was matched 1:1 to an individual with a child without a mental disorder based on psychiatric and sociodemographic characteristics. Generalized estimating equations were used to estimate the associations of a child's mental disorder with their parents' annual earnings, received social income transfers and employment status five years before and five years after the child's diagnosis.

**Results:** In 1994–2019, 647,342 individuals had at least one child diagnosed with a mental disorder at ages 1–25. A child's mental disorder was consistently associated with lower earnings, a greater amount of received social income transfers and a higher probability of unemployment among parents during the follow-up. These associations were largely similar across time, suggesting no evidence of an immediate change in parents' income or employment at the time of their child's diagnosis.

**Conclusion:** While parents of a child diagnosed with a mental disorder have lower earnings, receive more social income transfers and are more often unemployed, we saw no evidence of an immediate change in parents' income or employment at the time of their child's diagnosis.

### OP07.06 The Associations of Mental Disorders in Children with Parents' Subsequent Mental Disorders: a Register-Based Study from Finland and Denmark

**Christian Hakulinen**<sup>1,2</sup>, Mai Gutvilig<sup>1</sup>, Ripsa Niemi<sup>1</sup>, Natalie C. Momen<sup>3</sup>, Laura Pulkki-Råback<sup>1</sup>, Petri Böckerman<sup>4</sup>, Oleguer Plana-Ripoll<sup>3</sup>, Kaisla Komulainen<sup>1</sup>, Marko Elovainio<sup>1,2</sup>

<sup>1</sup>University of Helsinki (FI); <sup>2</sup>Finnish Institute for Health and Welfare; <sup>3</sup>Aarhus University and Aarhus University Hospital; <sup>4</sup>University of Jyväskylä

**Aims:** To examine the association of mental disorders in children with their parents' subsequent mental disorders.

**Methods:** All persons with children born in Finland or Denmark in 1990–2010 formed the study population. Information of mental disorders were acquired from national registers. The follow-up period began when the parent's eldest child was 5 years old (ICD-10 codes F10–F60) or 1 year old (ICD-10 codes F70–F98). Follow-up ended on December 31st, 2019, or when the parent received a mental disorder diagnosis, died, or emigrated from Finland or Denmark. Data was analyzed using Cox proportional hazards models and time to a parental mental disorder was used as the main outcome.

**Results:** The study cohort included over 1.6 million parents. The risk of a parent receiving a mental disorder diagnosis was higher among those who had a child with a mental disorder compared to those who did not. For both parents, the hazard ratios were greatest in the first six months after the child's diagnosis, followed by a subtle decline in the risk.

**Conclusion:** Mental disorders in children were associated with a greater risk of subsequent mental disorders among their parents. Although shared genetic and environmental mechanisms are likely to explain a share of these associations, the time-dependent associations suggest that offspring mental disorders may temporarily increase parental risk of mental disorders.

**OP08 Addiction****Thurs. 12 Sept., 16:00-17:30****3128****Chair: Marcel Miché, CH****OP08.01 Prospective Association between COVID-19 Related Parental Stress and Problematic Internet Use in Swiss Adolescents****Anita Meinke<sup>1</sup>**, Meichun Mohler-Kuo<sup>1,2</sup>, Sina Hunger, Kristin Mosler<sup>1</sup>, Susanne Walitza<sup>1</sup>, Simon Foster<sup>1</sup><sup>1</sup>Psychiatric University Hospital, University of Zurich (Zürich, CH); <sup>2</sup>HES-SO University of Applied Sciences and Arts of Western Switzerland

**Aims:** The aim of the study was to determine the prospective association of parental stress related to the COVID-19 pandemic with problematic internet use in a national sample of Swiss adolescents and investigate potential mechanisms by which the effect is conveyed.

**Methods:** Via the LINK Online panel, a national sample of 553 adolescents aged 12 to 18 years and one corresponding parent were recruited who participated in two online surveys. The first survey was presented after the first COVID-19 lockdown in 2020 and the second survey one year later. COVID-19-related stress was assessed using the Response to Stress Questionnaire and problematic internet use was assessed with a short version of the Compulsive Internet Use Scale.

**Results:** In total, 27 % of the adolescents fulfilled the criteria for problematic use of the internet in 2021. Logistic regressions revealed that parental COVID-19 related stress in 2020 was related to problematic use of the internet in adolescents in 2021 (OR = 2.08, 95% CI [1.33, 3.3],  $p = .001$ ), even after controlling for sociodemographic variables and mental health at baseline. Results from structural equation models did not show any evidence that this effect was mediated by adolescents' psychological health ( $p = .137$ ) or their own COVID-19 related stress ( $p = .132$ ).

**Conclusion:** Parents' COVID-19 related stress after the lockdown in 2020 was related to an increase in problematic internet use in adolescents in 2021, but this association was not transmitted by effects on psychological health and COVID-19 related stress of the adolescents.

**OP08.02 Media Use Time as an Indicator for Problematic Use of the Internet in Children and Adolescents in Switzerland****Kristin Mosler<sup>1</sup>**, Anita Meinke<sup>1</sup>, Susanne Walitza<sup>2</sup>, Meichun Mohler-Kuo<sup>2,3</sup>, David Berger, Gregor Berger<sup>2</sup>, Simon Foster<sup>2</sup><sup>1</sup>Child and Adolescent Psychiatry and Psychotherapy, University of Zurich (CH); <sup>2</sup>Child and Adolescent Psychiatry and Psychotherapy, Psychiatric University Hospital Zurich; <sup>3</sup>La Source, School of Nursing Sciences, HES-SO

**Aims:** We investigated the association of media use times for different types of media and problematic use of the internet (PUI) in children and adolescents. A better understanding of these associations may aid in developing recommendations for media use in youth.

**Methods:** A sample of 653 students from 4<sup>th</sup> to 12<sup>th</sup> grade participated in a school-based survey in the canton of St. Gallen, Switzerland. The mean age was 15.6 years, 56.1% of the sample was female. Questionnaires on demographic data, media use and PUI criteria were administered. Relationships between media use times and PUI were assessed for total use times and use on school days and weekends.

**Results:** PUI was positively associated with mean time spent on media ( $r = .24$ ,  $p < 0.0001$ ). Across all examined forms of media use, the time spent on social media had the most consistent association with PUI ( $r = .26$ ,  $p < 0.0001$ ), followed by watching movies or series ( $r = .18$ ,  $p < 0.001$ ) and gaming ( $r = .11$ ,  $p < 0.01$ ). No strong or consistent differences were observed for associations based on school days vs. weekend media use. The probability of having at least one PUI criteria increased from 0.465 with one hour of use to 0.641 with five hours of use (OR=1.21, 95% CI: 1.11-1.32,  $p < 0.0001$ ).

**Conclusion:** The results of this study indicate that media use time is a predictor for PUI. We will discuss the relevance of these relationships for detecting PUI.



### OP08.03 Psychosocial Correlates of Changes in Problem Gambling Risk Over Time

**Miranda Chilver**<sup>1</sup>, Aino Suomi<sup>1</sup>, Jeffrey Kim<sup>1</sup>, Nicole Watson<sup>2</sup>, Peter Butterworth<sup>1,3</sup>

<sup>1</sup>The Australian National University, Canberra, Australia (Canberra, AU); <sup>2</sup>Melbourne Institute, Melbourne, Australia;

<sup>3</sup>Deakin University, Melbourne, Australia

**Aims:** Problem gambling refers to a pattern of excessive gambling behaviour that causes harm to individuals, families, and communities, and is a major public health concern in Australia. The factors associated with transitions towards and away from problem gambling are still poorly understood. The aim of this study was to assess the demographic and psychosocial correlates of change in problem gambling risk over time.

**Methods:** Utilising data from three waves of the Household, Income, and Labour Dynamics in Australia (HILDA) panel study (2015, 2018, and 2021, with 2021 being the second year of COVID-19 restrictions in Australia), the current study used multivariate models stratified by baseline Problem Gambling Severity Index scores to identify demographic and psychosocial factors associated with increases and decreases in problem gambling behaviour over time.

**Results:** Overall, most individuals showed stability in problem gambling over time. This was driven by those with very low problem gambling scores, who made up the majority of the population. Socioeconomic disadvantage was associated with a higher risk of increasing problem gambling behaviours. There was a notable increase in problem gambling in the Australian population in 2021, which coincided with COVID-19 restrictions, relative to previous waves.

**Conclusion:** This study provided insight into how rates of problem gambling are changing over time and identified individual and community level risk factors. The results may be used to inform policy relating to gambling harm reduction.

### OP08.04 Development and Validation of a Clinical Prediction Model for Substance Use Disorders in Adults from the General Community

**Marcel Miché**<sup>1</sup>, Martin Preisig<sup>2</sup>, Marie-Pierre F. Strippoli<sup>2</sup>, Johannes Massell<sup>1</sup>, Roselind Lieb<sup>1</sup>

<sup>1</sup>Faculty of Psychology, University of Basel (CH); <sup>2</sup>Psychiatric Epidemiology and Psychopathology Research Center, University of Lausanne, Prilly, Switzerland

With the aim to prevent the development of substance use disorders in high-risk adults from the general community, we will develop a clinical prediction model (CPM) that identifies these high-risk adults accurately. CPMs of substance use disorders have been rarely developed so far (39 according to PubMed, April 2024), even though prevalence of substance use disorders among adults is around 10%. The CPM will use predictors that have been established in the literature. The CPM and the predictors must fulfil a number of requirements in order to meet real-world conditions, such as employing as few and as easy to assess predictors as possible and evidence of improved clinical decision making, compared to alternative decision strategies. Based on a general community sample of adults from the longitudinal CoLaus|PsyCoLaus study from Lausanne, Switzerland, CPMs will be developed and evaluated. We will use the so-called TRIPOD guidelines (Transparent reporting of a multivariable prediction model for individual prognosis or diagnosis) to ensure best research and reporting practices. Results will encompass all three essential groups of CPM performance metrics: Clinical utility, calibration, and discrimination. Our paper will present first results and conclusions of this approach.

Notes:

1. PubMed Advanced Search (2024-04-15) results in 39 search hits. Search term: (prediction model[Title/Abstract]) AND (substance use[Title/Abstract]); 2. <https://www.rti.org/publication/mental-and-substance-use-disorders-prevalence-study/fulltext.pdf>; 3. TRIPOD guidelines (Collins et al., 2015; <https://doi.org/10.7326/M14-0697>)



**OP09 Incidence and Prevalence of Mental Disorders****Thurs. 12 Sept., 16:00-17:30****3174****Chair:** Tim Slade, AU**OP09.01 Lifetime Incidence of Primary and Secondary Care Treated Mental Disorders in Finland****Kimmo Suokas**<sup>1</sup>, Ripsa Niemi<sup>1</sup>, Mai Gutvilig<sup>1</sup>, Christian Hakulinen<sup>1</sup><sup>1</sup>University of Helsinki (FI)

**Introduction:** Lifetime incidence of mental health disorders has not been estimated before using comprehensive primary and secondary care data. In addition, mental disorders commonly remit and relapse; and estimating age of onset and age-specific prevalence may further clarify the epidemiological landscape of mental disorders.

**Methods:** Nationwide register-based cohort study with full Finnish population between the years 2000 and 2020. Lifetime incidence of treated mental disorders in the general population was estimated taking into account the competing risk of all-cause death and emigration using the Aalen-Johansen estimator. Age-specific incidence rate and 12-month treated prevalence on December 31, 2019 was evaluated.

**Results:** Altogether, 6 318 773 individuals contributed for 98.6 million person-years. The cumulative incidence of any diagnosed mental disorder at age 100 years was 77.0% (95% CI, 76.9-77.0) for women and 69.9% (69.8-70.0) for men; in secondary care, it was 61.2% (61.1-61.3) for women and 55.7% (55.6-55.8) for men; and in psychiatric inpatient care, 40.3% (40.1-40.4) for women and 36.0% (35.9-36.2) for men. Neurotic, stress-related and somatoform disorders (F4) showed the highest cumulative incidence in women (46.2% [46.1-46.3]) and in men (26.7% [26.6-26.8]). Incidence peaked at adolescence and in the elderly. Overall 12-month prevalence of any medical contact with a diagnosis of mental disorder was 8.7%.

**Conclusion:** This nationwide register study adds precision to the notion that most individuals receive a diagnosis of a mental disorder at some point. Prevention at primary, secondary and tertiary levels is a challenge not only for healthcare but for all sectors of the society.

**OP09.02 Secular trends in prevalence, comorbidity, severity and service use for DSM-IV mental disorders in the Australian general population: results from two national surveys****Tim Slade**<sup>1</sup>, Cath Chapman<sup>1</sup>, Matthew Sunderland<sup>1</sup>, Meredith Harris<sup>2,3</sup>, Maree Teesson<sup>1</sup><sup>1</sup>Matilda Centre for Research in Mental Health and Substance Use, University of Sydney (Sydney, AU); <sup>2</sup>School of Public Health, The University of Queensland, Brisbane, Australia; <sup>3</sup>Queensland Centre for Mental Health Research, Brisbane, Australia

**Aims:** Tracking changes over time in the prevalence of mental disorders in the general population provides vital information for mental health service planning and policy. The aim of this study was to describe the epidemiology of mental disorders across two Australian surveys, 13 years apart.

**Methods:** Secondary analysis of data from the 2007 and 2020-22 Australian National Surveys of Mental Health and Wellbeing (N=8861 and 15893, respectively). Diagnoses of mood, anxiety and substance use disorders were made use the WHO Composite International Diagnostic Interview, v3.0. Weighted logistic regression was used to examine changes over time.

**Results:** The prevalence of any 12-month mental disorder in the most recent survey is 20.2%. The odds of meeting criteria for any mood and any anxiety disorder are higher in the 2020-22 survey compared to the 2007 survey while the odds of any substance use disorder are lower. Increases over time in mood disorders were driven by increases only in the 16-24 year age group. This age group are also more likely to experience co-occurring mental disorders. Service use for mental disorders has increased over time, Again, younger adults (16-24 and 25-44 years) used services and consulted general practitioners more commonly. The severity of substance use disorders has increased markedly over time.

**Conclusion:** Understanding shifts in risk factors associated with mental disorders, particularly for young people, will be critical in the coming years. Continued focus and investment on prevention and early intervention is also required to reduce the population burden of mental disorders.

### OP09.03 A Canadian Population Cross-Sectional Study Investigating Psychiatric Illnesses in Transgender and Gender Diverse Individuals

**Heidi Eccles**<sup>1</sup>, Ian Colman<sup>1</sup>

<sup>1</sup>University of Ottawa (CA)

**Aims:** The objectives of this study were to investigate the risk of mental disorders, substance abuse, and suicidal behavior in transgender and gender diverse individuals compared to cisgender individuals in a population representative study and identify if negative social interaction mediated these relationships.

**Methods:** This study used population-based cross-sectional data from the 2022 Mental Health and Access to Care Survey and included respondents across Canada above the age of 15. The exposure of interest was transgender and gender diverse status. Past 12 month and lifetime major depressive episode, generalized anxiety disorder, bipolar disorder, social phobia, alcohol abuse or dependence and drug abuse or dependence and suicidal ideation, plan and attempts were the outcomes. Modified Poisson regression with sandwich error variance estimation was used in the analysis.

**Results:** The risk of all past 12 month and life-time mental disorders, drug abuse or dependence and suicidal ideation was elevated in transgender and gender diverse individuals compared to cis-gender individuals with odds ratios ranging from 2.5-6 ( $p < 0.05$ ). Past alcohol abuse was not significantly different between the groups. Negative social interaction mediated the relationship between gender status and mental health outcomes.

**Conclusion:** This is one of the first population-based studies to investigate mental illness in transgender and gender diverse populations using structured diagnostic tools. The risk for mental illness and suicidal behaviors was higher for the transgender and gender diverse population; public health interventions should focus on reducing the burden of mental illness in this community by improving social interactions.

### OP09.04 Disentangling the Associations between Gender Dysphoria and Autistic Traits

**Fatih Özel**<sup>1,2</sup>, Isabelle Zejlon<sup>3</sup>, Konstantina Pagoni<sup>4</sup>, Hans Arinell<sup>3</sup>, Fotios C Papadopoulos<sup>3</sup>

<sup>1</sup>Department of Organismal Biology, Uppsala University, Uppsala, Sweden (SE); <sup>2</sup>Interdisciplinary Research Center – WOMHER, Uppsala University, Uppsala, Sweden; <sup>3</sup>Department of Medical Sciences, Uppsala University, Uppsala, Sweden; <sup>4</sup>Department of Women's and Children's Health, Uppsala University, Uppsala, Sweden

**Aims:** This study aims to examine if persons with gender dysphoria present a higher prevalence of autism spectrum disorder or different patterns of autistic traits in comparison to persons without gender dysphoria. Additionally, this study further investigates the relationships between symptoms of gender dysphoria and autistic traits.

**Methods:** This study is embedded in The Swedish Gender Dysphoria Study (SKDS), an ongoing multicenter cohort study, which was established in 2016 in Sweden. 321 participants with gender dysphoria and 337 participants without gender dysphoria were included. Gender dysphoria-related symptoms were measured with Transgender Congruence Scale (TCS). To measure autistic traits, The Ritvo Autism and Asperger Diagnostic Scale-14 Screen (RAADS-14) and The Autism Spectrum Quotient (AQ) were used. To examine the differences in autism spectrum disorder prevalence and autistic traits, Pearson's Chi-Square test and independent t-tests were used, respectively. Correlations between gender dysphoria-related symptoms and autistic traits were examined with Pearson's correlation coefficients.

**Results:** Individuals with gender dysphoria had a higher prevalence of autism spectrum disorder (14.4%) in comparison with individuals without gender dysphoria (3.3%). Similarly, participants with gender dysphoria showed significantly higher autistic traits than the control group. The correlation analyses revealed several significant correlations between subscales of gender dysphoria-related symptoms and autistic traits.

**Conclusion:** The results of the current study indicate a high co-occurrence between gender dysphoria and autistic traits, which aligns well with previous studies. The significant correlations between specific symptom domains are particularly important to better understand individuals seeking care for gender dysphoria.

## OP09.05 Treatment Seeking Delays for Mental and Substance Use Disorders: Results from the Australian National Survey of Mental Health and Wellbeing

Louise Birrell<sup>1</sup>, Katrina Prior<sup>1</sup>, Joshua Vescovi<sup>1</sup>, Matthew Sunderland<sup>1</sup>, Tim Slade<sup>1</sup>, **Cath Chapman<sup>1</sup>**

<sup>1</sup>Matilda Centre for Research In Mental Health and Substance Use, University of Sydney (Sydney, AU)

**Aims:** While treatment for mental disorders is often effective for those who receive it, many people do not seek out or receive timely treatment. Delay to seek treatment has been investigated for some but not all mental disorders. The current study estimates the probability of, and factors associated with, treatment contact for the major mood, anxiety and substance use disorders in the Australian general population.

**Methods:** Secondary analysis of data from the 2007 and 2020-22 Australian National Surveys of Mental Health and Wellbeing (N=8861 and 15893, respectively). Data were analysed with discrete-time survival models in a person-period framework to examine the relationship between demographic and clinical characteristics on time between onset of disorder and first treatment seeking.

**Results:** The probability of treatment contact was lowest for people with substance use disorders and highest for people with mood disorders (e.g. major depression). Among those who did seek treatment, the median time to first treatment seeking was longer for those with an anxiety disorder (median 11 years), followed by substance use disorders (8 years), while those with mood disorders had the shortest delay (3 years). Sex, birth cohort and comorbidity were all associated with treatment delay.

**Conclusion:** There is substantial variation in treatment delay cross individual mental disorders. This study highlights the need to understand barriers to treatment seeking and reinforces the need for investment in prevention and early intervention to avoid the substantial burden associated with long treatment delays.

**OP10 Mental Health and Physical Comorbidities****Thurs. 12 Sept., 16:00-17:30****3185****Chair:** Alex Luther, CA**OP10.01 Childhood Disability Moderates Associations between Chronic Physical Illness and Mental Illness****Shannon Reaume**<sup>1</sup>, Joel Dubin<sup>1</sup>, Christopher Perlman<sup>1</sup>, Mark Ferro<sup>1</sup>, Alexander Luther<sup>1</sup><sup>1</sup>University of Waterloo (Waterloo, CA); <sup>2</sup>University of Waterloo; <sup>3</sup>University of Waterloo; <sup>4</sup>University of Waterloo; <sup>5</sup>University of Waterloo

**Aims:** To quantify associations between chronic physical illness and mental illness and; investigate potential moderating effects of child age, sex, disability, household income, and mental health service contact on these associations.

**Methods:** Data come from 6,242 children aged 4 to 17 years in the Ontario Child Health Study (OCHS). Physical illness was measured using a standard list of chronic conditions developed by Statistics Canada. The Emotional Behavioural Scales assessed mental illness. Logistic regression models quantified associations between physical and mental illness. Product-term interactions identified moderating effects, which were subsequently examined in stratified models.

**Results:** Physical illness was associated with mood disorders (OR=2.25 [95% CI: 1.36, 3.74]). Stratified models showed that among children with no disability, those with physical illness had higher odds for any mental (OR=1.61 [1.12, 2.32]) and anxiety disorders (OR=2.30 [1.30, 4.06]) vs. those without physical illness. No associations were found for physical illness in the disability stratum (any mental disorder: OR=0.94 [0.60, 1.48], anxiety: OR=0.96 [0.54, 1.71]). No other moderating effects were found.

**Conclusion:** The association between physical and mental illness in children is nuanced, with disability moderating this association for any mental and anxiety disorders, specifically. Mental health screening programs should ensure that children with mild physical illness (i.e., no disability) are routinely assessed to reduce the incidence of physical-mental comorbidity early in life.

**OP10.02 Identifying Predictors of Physical-Mental Comorbidity in Children across Canada****Alex Luther**<sup>1</sup>, Dillon Browne<sup>1</sup>, Ian Colman<sup>2</sup>, Joel Dubin<sup>1</sup>, Laura Duncan<sup>3</sup>, Scott Leatherdale<sup>1</sup>, Mark Ferro<sup>1</sup><sup>1</sup>University of Waterloo (Fergus, CA); <sup>2</sup>University of Ottawa; <sup>3</sup>McMaster University

**Aims:** Physical-mental comorbidity (co-occurrence of physical and mental/neurodevelopmental illness) among children can have negative impacts on them and their families health and well-being. However, population estimates are outdated, and family- and community-level predictors are unknown. This study estimated the prevalence and predictors of physical-mental comorbidity in a representative population sample of Canadian children.

**Methods:** The sample consisted of 33,715 children aged 4 to 17 from the 2019 Canadian Health Survey on Children and Youth. Rao-Scott  $\chi^2$  tests determined whether prevalence of mental/neurodevelopmental illnesses differed across physical illness groups. Logistic regression determined associations between individual, family, community-level factors on the likelihood of physical-mental comorbidity. Separate regression models were computed for comorbidity among each physical illness group.

**Results:** Approximately one in ten children experienced physical-mental comorbidity (n=3,263). Mental/neurodevelopmental illnesses were more prevalent among those with physical illness (23.9%) vs those without (14.9%). The risk of mental/neurodevelopmental illnesses differed across physical illnesses ( $\chi^2$ : 172.92; <0.001). Compared to children without physical-mental comorbidity, higher odds of comorbidity was associated with older age (OR:1.12[1.12-1.13]), worse parental mental health (OR:2.85[2.71-3.01]), and more parent stress (OR:2.34[2.28-2.40]). Lower odds of comorbidity was associated with higher parent education (OR:0.78[0.76-0.79]) and household income (OR:0.97[0.96-0.97]), and if children and/or their parents were recent immigrants (OR:0.63[0.62-0.64]/OR:0.58[0.57-0.59]).

**Conclusion:** Physical-mental comorbidity is prevalent among children in Canada. Findings support a non-categorical approach, indicating tailored interventions to specific illness groups is necessary. Risk factors from

multiple levels are identified for universal interventions to target physical-mental comorbidity, and specific illness groups.

### OP10.03 Trajectories of Inflammation across Childhood and Adolescence and Risk of Mental and Cardiometabolic Disorders in Young Adulthood: a Longitudinal Birth Cohort Study

**Edward R Palmer**<sup>1</sup>, Isabel Morales-Muñoz<sup>1</sup>, Benjamin I Perry<sup>2</sup>, Steven Marwaha<sup>1</sup>, Ella Warwick<sup>1</sup>, Jack Rogers<sup>1</sup>, Rachel Upthegrove<sup>1</sup>

<sup>1</sup>University of Birmingham (GB); <sup>2</sup>University of Cambridge

**Aims:** There is growing evidence that inflammation is crucial in the development of particular mental health disorders. The aim of this study was to characterise the inflammatory trajectories across childhood, and how these trajectories would associate with a range of mental and physical health conditions in young adulthood.

**Methods:** We used data from the Avon Longitudinal Study of Parents and Children (ALSPAC) study. Groups of inflammatory trajectories across childhood were identified using latent class growth analysis (LCGA). Inflammation was assessed via CRP measures at ages 9, 15 and 17. We used regression analyses to investigate the prospective associations between inflammatory trajectories and different mental and physical health outcomes at age 24.

**Results:** *LCGA results.* We identified three trajectories of inflammation across childhood and adolescence. Class 1 had persistently low levels of CRP, Class 2 had a persistently raised level of CRP with a peak earlier at age 9, and Class 3 had persistently raised CRP levels and a peak later at age 17. *Regressions results.* The Early Peak was 4.5 times more likely to develop psychosis (4.39 (1.73-11.13) p=0.002) and severe depression (4.54 (1.69-12.20) p=0.003) at age 24. They were also 2 times more likely (2.48 (1.52-4.02) p<0.001) to develop insulin resistance at age 24.

**Conclusion:** Our results show that specific trajectories of low-grade systemic inflammation across childhood are related to the later onset of mental health disorders, particularly psychosis and depression, and physical health disorders like insulin resistance, with early rather than later inflammation potentially holding importance.

### OP10.04 Cardiometabolic Conditions in People with Autism Spectrum Disorder: a Nationwide Population-Based Cohort Study from the Netherlands

**Yiran Li**<sup>1</sup>, Tian Xie<sup>1</sup>, Lin Li<sup>2</sup>, Zheng Chang<sup>2</sup>, Harold Snieder<sup>3</sup>, Catharina Hartman<sup>1</sup>

<sup>1</sup>Department of Psychiatry, University Medical Center Groningen, University of Groningen (Groningen, NL); <sup>2</sup>Department of Medical Epidemiology and Biostatistics, Karolinska Institutet, Stockholm, Sweden; <sup>3</sup>Department of Epidemiology, University Medical Center Groningen, University of Groningen, Groningen

**Aims:** Previous studies suggested that autism spectrum disorder (ASD) is associated with cardiometabolic conditions, but little is known about the full risk profile of cardiometabolic conditions in autistic people across lifespan. Therefore, we aim to investigate the prospective associations between ASD and cardiometabolic conditions across the lifespan.

**Methods:** We conducted the largest prospective cohort study to date, using Dutch register data of 8,690,286 individuals aged 12-65 years. These individuals were followed from Jan 1 2014 to their first incidence of any cardiometabolic condition (including hypertension, diabetes, dyslipidemia, stroke, angina pectoris, myocardial infarction, and heart failure), emigration, death, or 31 Dec 2020 (end of the study), whichever occurred first. We calculated 7-year cumulative incidence and used Cox regression models to estimate hazard ratios (HRs) and 95% confidence intervals (CIs). Sex, birth year, social economic status, and psychiatric comorbidities were adjusted for in multiple steps of model fitting.

**Results:** ASD was associated with higher risks of cardiometabolic conditions (HR: 1.20; 95% CI: [1.18-1.23], specifically with hypertension (HR: 1.16; CI: [1.14-1.19]), dyslipidemia (HR: 1.17; CI: [1.12-1.23]), diabetes (HR: 1.22; CI: [1.14-1.30]), and stroke (HR: 1.23; CI: [1.14-1.34]). Associations were observed in adolescents, young (18-30 years), and middle-aged adults (31-40 years), but not in older individuals (41-65 years), indicating an earlier onset of cardiometabolic conditions in autistic compared to non-autistic individuals.



**Conclusion:** Our findings suggest that individuals with ASD are at an elevated risk of developing cardiometabolic conditions. Increased monitoring and treatment of cardiometabolic conditions are needed for people with ASD.

### OP10.05 Chronic Autoimmune Inflammatory Conditions in People with Psychiatric Disorders: A National Registry-based Matched-cohort Study

**Karolina Mlada**<sup>1,2</sup>, Marketa Husakova<sup>3</sup>, Tomas Formanek<sup>1,4</sup>

<sup>1</sup>National Institute of Mental Health (CZ); <sup>2</sup>Department of Psychiatry, Faculty of Medicine in Pilsen, Charles University, Czechia; <sup>3</sup>First Faculty of Medicine, Charles University and Rheumatology Institute, Czechia; <sup>4</sup>Department of Psychiatry, University of Cambridge, United Kingdom

**Aims:** To investigate the occurrence of chronic autoimmune inflammatory conditions in people with psychiatric conditions.

**Methods:** Using data from the Czech national register of inpatient care, we identified individuals with Alzheimer's dementia, schizophrenia, and depression. We exactly-matched each of these individuals with up to five unique counterparts without the respective psychiatric condition on sex, age, month and year at discharge. We assessed the risk of occurrence of rheumatoid arthritis and axial spondyloarthritis within the time period of up to five or more years using stratified Cox proportional hazards models.

**Results:** Relative to individually-matched counterparts without the psychiatric condition, people with Alzheimer's dementia had a lower rheumatoid arthritis occurrence risk (hazard ratio = 0.32; 95% confidence interval = 0.56 to 0.68), but they demonstrated null effects for ankylosing spondyloarthritis (0.96; 0.55 to 1.68). People with schizophrenia had a lower rheumatoid arthritis occurrence risk (0.49; 0.40 to 0.61), whereas the results for ankylosing spondyloarthritis were consistent with a null effect (0.77; 0.53 to 1.11). People with depression were more likely to have both rheumatoid arthritis (1.43; 1.35 to 1.53) and ankylosing spondyloarthritis (2.03; 1.73 to 2.37) than their matched counterparts.

**Conclusion:** The studied psychiatric conditions demonstrated differences in rheumatoid arthritis occurrence, with Alzheimer's dementia and schizophrenia being associated with decreased risk, whereas depression with an increased one. Whether these might be a consequence of biological mechanisms, medication effects, or other factors requires further exploration.

### OP10.06 Severe Mental Illness Contributing to Fatally Deleterious Effects of Physical Disorders: A National Cohort Study

**Tomas Formanek**<sup>1</sup>, Dzmitry Krupchanka<sup>2</sup>, Benjamin Perry<sup>1</sup>, Karolína Mladá<sup>3</sup>, Emanuele Osimo<sup>1</sup>, Jiří Masopust<sup>4</sup>, Peter Jones<sup>1</sup>, Oleguer Plana-Ripoll<sup>5</sup>

<sup>1</sup>University of Cambridge (GB); <sup>2</sup>World Health Organization; <sup>3</sup>National Institute of Mental Health; <sup>4</sup>Charles University; <sup>5</sup>Aarhus University

**Aims:** To investigate the risk of all-cause death and loss of life-years following the onset of a wide range of physical health conditions in people with severe mental illness compared with matched counterparts who had only these physical health conditions.

**Methods:** Using Czech national inpatient register data, we identified individuals with 28 physical health conditions recorded between 1999 and 2017, separately for each condition. In these people, we identified individuals who had severe mental illness recorded before the physical health condition, and exactly-matched them with up to five counterparts who had no recorded prior severe mental illness. We estimated the risk of all-cause death and lost life-years following each of the physical health conditions in people with pre-existing severe mental illness compared with matched counterparts without severe mental illness.

**Results:** People with severe mental illness had an elevated risk of all-cause death following the onset of seven out of nine broadly defined and 14 out of 19 specific physical health conditions, respectively. People with severe mental illness lost additional life-years following the onset of eight out of nine broadly defined and 13 out of 19 specific physical health conditions, respectively.

**Conclusion:** A wide range of physical illnesses are more likely to result in all-cause death in people with pre-existing severe mental illness. This premature mortality cannot be fully explained by having more clinically-recorded physical illness, suggesting that physical disorders are more likely to be fatally deleterious in this patient group.



**OP11 Parental Mental Health during Pregnancy and Post-Partum****Fri. 13 Sept., 08:30-10:00****3128****Chair:** Rebecka Keijser, SE**OP11.01 Knowledge and Awareness of Reproductive Rights among Women with Mental Illness****Gobinda Majhi**<sup>1</sup>, Ponnuchamy Lingam<sup>2</sup>, Shreedevi AU<sup>3</sup>, Vranda MN<sup>4</sup><sup>1</sup>Additional Professor, National Institute of Mental Health And Neuro Sciences (Bangalore, IN); <sup>2</sup>Associate Professor, National Institute of Mental Health And Neuro Sciences; <sup>3</sup>Assistant Professor, National Institute of Mental Health And Neuro Sciences; <sup>4</sup>Professor, National Institute of Mental Health And Neuro Sciences

**Background and Aim:** Female psychiatric patients are facing problems in reproductive health and lack knowledge and awareness about reproductive rights. The aim of the study was to understand knowledge and awareness regarding reproductive rights among women with mental illness.

**Methods:** The study employs a cross-sectional descriptive design. It is a preliminary finding of sample 150. Till date, 90 samples have been collected. All participants in the study were recruited from NIMHANS Psychiatric Hospital, Bangalore, Karnataka State, India. **Tools:** 1. Socio-demographic data sheet. The Clinical Global Impression (Improvement) and 3. A questionnaire, which consisted of questions related to knowledge and awareness about the reproductive rights of women with mental illness (content validated), was used for data collection.

**Results:** The majority of the respondents have had a feeling that reproductive rights are their fundamental rights (47.08 %). Many of them are not aware of the different contraceptive's methods available in India (47.08%) and do not know injectable as ways of contraception (50.00%). The majority of them lack of access to high – quality hygiene products is a significant impediment (75.06%), and feels that women and girls do not have access to adequate sanitation facilities (64.04%), and restrictions imposed on girls to sacred places during menstruation is suitable move (66.07%), and feel girls should receive comprehensive counseling on menstruation and other associated issue (83.03%).

**Conclusion:** Women with mental illness have lacked various contraceptive methods exist in India. Clinicians must address this gap in primary care settings.

**OP11.02 Family History of Depression, Modifiable Risk Factors, and Risk of Perinatal Depression: a Nationwide Register-Based Study in Sweden****Rebecka Keijser**<sup>1</sup>, Donghao Lu<sup>1</sup><sup>1</sup>Unit of Integrative Epidemiology, Institute of Environmental Medicine, Karolinska Institutet (Stockholm, SE)

**Aims:** To identify risk factors modifying the risk of perinatal depression (PND) among women with and without a family history of depression (FhD).

**Methods:** We conducted a cohort study of 2,195,838 pregnancies between 2001-2021 in Sweden. PND was defined as a depression diagnosed, or antidepressant prescribed during pregnancy or within a year postpartum. FhD was assessed as a depression diagnosed before pregnancy among parents/siblings. Modifiable factors, i.e., snuff use, smoking, and BMI in early pregnancy, were identified from registers. Multivariable logistic regression was used to estimate the RR of PND in relation to FhD, modifiable factors, and interactions.

**Results:** In total, 153,551 (7.0%) women were diagnosed with PND at a mean age of 31.24 (SD = 5.30) years. Women with a FhD had 2.59 higher risk of PND (95% CI 2.56-2.63), while modifiable factors were positively associated with PND (RRs from 1.15-2.42). Interactions were observed between FhD and all modifiable factors (all P-for-interaction <0.005). For instance, women with FhD and using snuff during early pregnancy had 4.81 times higher risk of PND (95% CI 4.47-5.17) compared to women without FhD and not using snuff. However, such increased risk was attenuated by half among women with FhD if not using snuff (RR=2.42, 95% CI 2.39-2.45). Similarly, risk reduction was found for heavy-smoking-to-no-smoking by 28% and obesity-to-normal-weight by 34%.

**Conclusion:** While women with a FhD are at risk for PND, a range of modifiable factors, such as smoking or snuff cessation and maintaining a healthy weight, may help lower such risk.

### OP11.03 Adverse Childhood Experiences and Prenatal Depressive Symptoms: A Person-Centered and Dimensional Approach

**Sara Avendano Lopez**<sup>1-4</sup>, Judith van der Waerden<sup>1-4</sup>

<sup>1</sup>Sorbonne Université (ST OUEN, FR); <sup>2</sup>INSERM; <sup>3</sup>Institut Pierre Louis d'Epidémiologie et de Santé Publique; <sup>4</sup>Social Epidemiology Research Team

**Background:** Adverse childhood experiences (ACEs) can negatively affect prenatal mental health. However, a cumulative ACEs score may not account for the diversity of experiences, making it difficult to understand the mechanisms of their long-term consequences.

**Aims:** To evaluate the association between ACEs and prenatal symptoms of depression using a person-centered approach and the Dimensional Model of Adversity and Psychopathology (DMAP) theoretical approach.

**Methods:** Data on childhood adversity, living conditions, and parental occupation were collected from 1,895 pregnant women in the French EDEN cohort. Symptoms of prenatal depression were assessed using the CES-D questionnaire. Latent class analysis (LCA) identified different ACEs patterns and childhood threat and deprivation scores were created for evaluation of the DMAP approach. Adjusted linear regressions were performed.

**Results:** Compared to the low risk for adversity class, family discordance ( $a\beta[95\%IC] = 2.0[1.0, 2.9]$ ) and multidimensional adversity ( $a\beta[95\%IC] = 2.3[0.45, 4.1]$ ) were associated with significant increases in CES-D scores. Threat experiences remained significantly associated with higher scores of symptoms of depression ( $\beta[95\%IC] = 4.0[2.7, 5.2]$ ) after adjustment for confounders and deprivation experiences.

**Conclusion:** Our findings indicate an increased risk of prenatal depressive symptoms in individuals who have experienced threatful events and family and multidimensional adversity. The LCA results suggest that childhood socioeconomic factors contribute to the increased risk of multidimensional adversity in prenatal depressive symptoms. The DMAP approach results are consistent with previous research and biological pathways explaining the effect of childhood threat experiences on later life internalizing symptoms.

### OP11.04 Risk Factors for Treatment-resistant Depression among Women with Postpartum Depression

**Yufeng Chen**<sup>1</sup>, Donghao Lu<sup>1</sup>

<sup>1</sup>Unit of Integrative Epidemiology, Institute of Environmental Medicine, Karolinska Institutet, Sweden (Stockholm, SE)

**Aims:** The occurrence of treatment-resistant depression (TRD) in women with postpartum depression (PPD) and the predictive factors for TRD remain less studied. This study aimed to describe the treatment response and determine risk factors associated with TRD in women with PPD in a nationwide setting.

**Methods:** We conducted a nationwide register-based cohort study of all women who gave birth during 2006-2021 in Sweden and were diagnosed with PPD up to 12 months postpartum. TRD is defined as having  $\geq 3$  treatment trials (antidepressant drugs, add-on medication, electroconvulsive therapy, or repetitive transcranial magnetic stimulation) in a year. Demographic, pregnancy characteristics and outcomes were obtained from national registers and were assessed in relation to TRD using multivariable Poisson regression.

**Results:** Out of 58,725 women with PPD (mean age 30.8, SD 5.3), 4,969 (8.5%) occurred treatment resistance. Younger age (<20 vs. 25-29: risk ratio (RR) 1.44, 95% CI 1.21-1.72), non-cohabitation (RR 1.11, 95% CI 1.01-1.23), primiparity (vs. multiparity: RR 1.38, 95% CI 1.29-1.48), smoking in early pregnancy (10+ cigarettes per day vs. no smoking: RR 1.34, 95% CI 1.14-1.57), and prior psychiatric history (depression: RR 1.81, 95% CI 1.67-1.95; other psychiatric disorders: RR 1.54, 95% CI 1.43-1.65) were significantly linked to higher treatment resistance. Maternal body mass index, hypertensive or diabetic disorders, delivery method, and pregnancy outcomes did not predict treatment resistance.

**Conclusion:** Treatment resistance in PPD is common and is notably associated with specific demographic and clinical profiles. These findings highlight the need for personalized management strategies, particularly for identified high-risk groups.

## OP11.05 Assessing Risk of Postpartum Depression and Postpartum Depression Literacy among Postpartum Mothers in a Rural Community Setting in South India

**Latha K<sup>1</sup>**, Suman G<sup>2</sup>, Dinesh Rajaram<sup>2</sup>, Mariamma Philip<sup>3</sup>, Sundarnag Ganjekar<sup>4</sup>, K S Meena<sup>1</sup>

<sup>1</sup>Department of Mental Health Education, National Institute of Mental Health and Neuro Sciences (Bengaluru, IN); <sup>2</sup>Department of Community Medicine, Ramaiah Medical College, Bengaluru; <sup>3</sup>Department of Bio-statistics, National Institute of Mental Health and Neuro Sciences, Bengaluru; <sup>4</sup>Department of Psychiatry, National Institute of Mental Health and Neuro Sciences, Bengaluru

**Background and Aims:** Maternal mental health is considered an important public health concern as it influences the health of both mother and child. According to a WHO report, the prevalence of Postpartum Depression (PPD) in India is 22%. The current study was aimed to examine the PPD literacy among postpartum mothers and its correlation with sociodemographic factors and to screen mothers for PPD using PHQ9.

**Methods:** This was a cross-sectional study conducted at Anganwadi centres of a Rural Primary Health Centre among 56 postpartum mothers within 9 months of delivery using PoDLiS (Postpartum depression literacy scale) and PHQ 9. The PoDLiS was validated in vernacular language (Kannada) with CVI of 0.94. The data was quantitatively analysed, Mann Whitney U test and Kruskal Wallis test were performed to find the association between PoDLiS and PHQ9 with sociodemographic data.

**Results:** The average age of mothers was  $25.26 \pm 3.54$ . The average PoDLiS score was  $91.06 \pm 16.61$  when compared to maximum score of 155 indicating low level of knowledge. The PHQ-9 score ranged from 0 (48.2%) to 10 (17.9%) and around 8 (14.28%) mothers had mild to moderate depression. There was no significant association between PoDLiS and PHQ9 with the sociodemographic data.

**Conclusion:** The postpartum depression literacy was low among mothers indicating poor help seeking behaviour. It also showed that few mothers were also at risk for depression. Hence, this study suggests there is need to develop intervention to improve PPD literacy and also to minimize the risk of PPD among mothers.

## OP11.06 Longitudinal Trajectories and Associated Risk Factors of Paternal Mental Illness in the Eight Years Surrounding the Transition to Fatherhood

**Honor Scarlett<sup>1</sup>**, Judith van der Waerden, Emmanuel Wiernik

<sup>1</sup>La sorbonne / INSERM (Paris, FR); <sup>2</sup>La sorbonne / INSERM; <sup>3</sup>Paris Cité University

**Aims:** The arrival of one's first child is a known risk factor for mental illness, yet investigations on fathers' mental health are limited. We conducted a longitudinal investigation on paternal depression and anxiety in the eight years surrounding the transition to fatherhood.

**Methods:** Using a nationally representative sample of French men (Constances cohort, n=6299), we investigated the prevalence and associated risk factors of mental illness among first-time fathers. Responses to the Center for Epidemiological Studies Depression (CES-D) and 12-item General Health Questionnaire (GHQ-12) scales were used to identify clinically significant symptom scores. Self-declared mental illness was also reported by participants. Group-based modelling was used to identify latent trajectory groups for both measures.

**Results:** Levels of self-reported anxiety (averaging 4.9% before fatherhood, 7.8% after) exceeded that of depression (1.9% pre-, 3.3% post-fatherhood) or other disorders. However, rates of clinically significant symptoms of mental illness (17-27%) were consistently higher. Participants' mental health appeared to worsen from two-years prior to their child's arrival and improve from two-years after for both symptom scales and self-reported diagnoses. We identified three trajectory groups for fathers' self-reported mental illness: Low stable (90.3%); low risk with high temporary increase (5.6%); and consistent high risk (4.1%). Risk factors associated with worsening mental health trajectories were being unemployed, not living with one's partner, having had adverse childhood experiences and having foregone healthcare due to financial reasons.

**Conclusion:** This study reveals an important window of vulnerability for first-time fathers, emphasising the need for increased paternal mental health screening during this period.

**OP12 Discrimination and Mental Health****Fri. 13 Sept., 08:30-10:00****3174****Chair:** Ruth Cunningham, NZ**OP12.01 An Umbrella Review of the Association Between Experiences of Racism and Psychosis Risk****India Francis-Crossley**<sup>1</sup>, Georgie Hudson<sup>1</sup>, Lasana Harris<sup>1</sup>, Juliana Onwumere<sup>2</sup>, James Kirkbride<sup>1</sup><sup>1</sup>University College London (GB); <sup>2</sup>King's College London

**Aims:** This umbrella review aims to examine current knowledge on the association between racism and psychosis.

**Methods:** We performed a systematic search in Embase, ProQuest Central, Medline, PsycInfo and Google scholar for meta-analyses and systematic reviews investigating racial/ethnic discrimination and psychosis, published in peer-reviewed academic journals. The search terms related to both racism (e.g. perceived discrimination, ethnic bias, prejudice) and psychosis (e.g. schizophrenia, severe mental illness, paranoia). We conducted forward and backward citation searching of included reviews. Data extraction and risk of bias assessment (AMSTAR-2) were carried out in duplicate.

**Results:** Seven reports met inclusion for this review. AMSTAR-2 assessment rated the reviews as low (n=2) or critically low (n=5) quality. All reviews found positive associations between racism and psychosis and the relevant meta-analyses reported statistically significant, positive associations between racism and psychosis ( $r = 0.21$  (95% CI: 0.08, 0.33;  $p = 0.002$ )); psychotic symptoms (unadjusted OR = 1.82 (95% CI: 1.41, 2.36)); adjusted OR = 1.77 (95% CI: 1.26, 2.49)); psychotic experiences (pooled OR = 1.94 (95% CI: 1.42, 2.67)); delusional symptoms (OR = 2.53 (95% CI: 1.60, 4.01)); and hallucinatory symptoms (OR = 1.65 (95% CI: 1.29, 2.14)).

**Conclusion:** Current evidence supports an association between racism and psychosis; however, the quality of reviews was low and most included studies were cross-sectional. We suggest considerations to increase future review quality and discuss the results within the wider social determinants of health. We propose future investigations into the temporality of the relationship and potential mechanisms that may underlie the associations.

**OP12.02 Perceived Need for Care and Help-Seeking Behaviour Among Ethnic Minority Groups Exhibiting Signs of Mental Illness****Ishika Obeegadoo**<sup>1</sup>, Engoute Olivier, Roberts Sharon, Sabourin-Jovel Maria Cristina, Simpson Nadine, Sodhi Pavna, Colman Ian<sup>1</sup><sup>1</sup>University of Ottawa (Ottawa, CA)

**Aims:** Ethnic minority groups are at a higher risk of mental illness but are also less likely to access mental health services. This study aims to explore how perceived need for care and help-seeking behaviour (formal and informal) differ between ethnic minority groups compared to non-minority groups.

**Methods:** We analyzed subsamples of respondents aged 15 and above exhibiting signs of mental illness (past 12-month suicidal ideation, major depressive disorder, generalized anxiety disorder, social phobia and bipolar disorder) from the 2022 Mental Health and Access to Care Survey (n>9000). This is a nationally representative cross-sectional survey of the Canadian population. We conducted multivariable logistic regression analysis, with perceived need for care, formal help-seeking behaviour and informal help-seeking behaviour as outcomes, and minority status as exposure.

**Results:** Ethnic minority groups had almost half the odds of perceiving a need for care and of seeking help in a formal context compared to non-ethnic minority groups across all disorders ( $p < 0.05$ ). These differences were not observed for informal help-seeking, apart from ethnic minority groups who experienced symptoms of anxiety, who had reduced odds of seeking informal help. Gender and migrant status modified several of these relationships.

**Conclusion:** Overall, people who are from an ethnic minority background and experiencing mental illness are less likely to perceive a need for care and to seek help in formal contexts. These effects vary by gender and migrant status.

### OP12.03 Co-STARS: A Co-Produced, Culturally Attuned Mental Health Literacy Training Package to Improve Mental Health Care Access for Black Youth in Underserved Communities

**Sian Griffiths**<sup>1</sup>, Megan Pope<sup>1</sup>, Polls Santos<sup>1</sup>, Elizabeth Cherrington<sup>1</sup>, Gerald Jordan<sup>1</sup>, Luke Brown<sup>1</sup>, Niyah Campbell<sup>1</sup>, Balachandran Kumarendran<sup>1</sup>, Joht Sing Chandan<sup>1</sup>.

<sup>1</sup>University of Birmingham (Birmingham, GB)

**Aims:** In the UK, people from Black ethnic backgrounds are more likely to experience a severe mental illness and be detained under the Mental Health Act than White British people. Factors contributing to these disparities are complex and influenced by wider inequities within and beyond health systems. This often perpetuates feelings of mistrust, disempowerment, and disengagement with services which is further compounded by stigma and lack of recognition of the symptoms of mental illness within Black communities.

**Methods:** Co-STARS is a participatory social action study, co-producing a culturally attuned mental health literacy training package delivered by Black youth with lived experience to underserved communities, and via an e-learning package implemented within mental health services.

**Results:** Eight young people (M= 24 years) from Black ethno-racial backgrounds with lived experience of mental illness participated in co-produced workshops and interviews. Data are subject to ongoing thematic analysis. Co-production was experienced positively by young people and engendered feelings of empowerment and belonging. Key themes included intergenerational trauma and the need to consider youth mental health in the context of family systems. Providing care that is culturally responsive, and developing trusting relationships that acknowledge the broader issues facing minoritized youth, was highlighted as important.

**Conclusion:** Co-STARS is a novel, culturally adapted mental health training package, co-developed to tackle mental health inequalities in care access and outcomes for underserved groups. The second phase of this project will co-evaluate the implementation of the training resources adopting participatory methods and novel epidemiological analyses to explore downstream effects.

### OP12.04 Mental Health Service Needs and Access Inequities for Urban Aboriginal and Torres Strait Islander People in Southeast Queensland

**Sandra Diminic**<sup>1,2</sup>, Imogen Page<sup>1,2</sup>, Claudia Pagliaro<sup>1,2</sup>, Xiaoyun Zhou<sup>1,2</sup>, Manuel Wailan<sup>1,2</sup>, Hania Hussain<sup>2</sup>

<sup>1</sup>Queensland Centre for Mental Health Research (Brisbane, AU); <sup>2</sup>School of Public Health, The University of Queensland

**Aims:** Australia's history of colonisation, intergenerational traumas, continuing social disadvantage, systemic racism, and lacking cultural capability contribute to significant health disparities for Aboriginal and Torres Strait Islander peoples, including high mental health needs. In partnership with local Community Controlled Health Services, this research aimed to identify mental health needs and service gaps for Aboriginal and Torres Strait Islander people in Southeast Queensland, a large urban area.

**Methods:** Mental health needs were modelled from the National Aboriginal and Torres Strait Islander Health Survey, local area population characteristics, and the National Mental Health Service Planning Framework (NMHSPF). We analysed 2021 mental health services data from direct data requests and the Person-Level Integrated Data Asset (PLIDA), a de-identified unit record linkage of Census, Medicare, and National Disability Insurance Scheme (NDIS) data. A systematic review collated barriers and facilitators to NDIS access.

**Results:** Estimated prevalence of mental health problems was 1.6-3.3 times higher for Indigenous versus non-Indigenous populations. For the former, K5 high psychological distress rates varied from 21.6%-34.4% across SA3 subregions, correlating with area-level socioeconomic disadvantage. Mental health service use was substantially below NMHSPF targets, especially for primary care, and access rates were generally lower or equivalent to non-Indigenous populations despite higher needs. Identified barriers to psychosocial disability support included challenges establishing eligibility, lack of information and support, and cultural inappropriateness of services.

**Conclusion:** Mental health service accessibility and suitability needs improvement, drawing on community-led solutions and partnerships. This research is helping to inform areas of greatest need to trial new integrated services.



## OP12.05 Identifying and Addressing Diagnostic Overshadowing in Health Care Settings

**Ruth Cunningham**<sup>1</sup>, Debbie Peterson<sup>1</sup>, Helen Lockett<sup>1</sup>

<sup>1</sup>University Of Otago Wellington (Wellington, NZ)

**Aims:** Diagnostic overshadowing, where a person's history of mental health and substance use conditions results in clinicians overlooking and undertreating physical health conditions, is an important cause of unequal physical health outcomes. This presentation presents findings from a survey of patient experiences of diagnostic overshadowing and a patient resource.

**Methods:** An online survey was conducted in 2022 to understand the experiences of physical health care of people with mental health and addiction issues. Quantitative and qualitative responses to questions about health care quality including diagnostic overshadowing in a number of settings were analysed. A group of researchers and advisors, 3 of whom had lived experience of mental health conditions, developed a resource for people using services based on the research findings.

**Results:** Experiences of discrimination and diagnostic overshadowing were commonly reported, particularly by indigenous respondents and by respondents with more stigmatized conditions. Experiences varied by health care setting, with diagnostic overshadowing being most common in emergency departments, but also common in GP and hospital services. An animated resource about diagnostic overshadowing aimed at empowering people with lived experience was produced and will be shared as part of the presentation.

**Conclusion:** Diagnostic overshadowing is common and an important contributor to unequal health outcomes. Approaches to addressing diagnostic overshadowing include empowering people using services and supporting clinicians to address biases, as well as structural changes to address the divide between physical and mental health care.

## OP12.06 Physical Health Inequalities for People with Serious Mental Illness in South East London: a Population Health Approach to Factors that Affect Quality of Life and Mortality

**Gracie Tredget**<sup>1</sup>, Julie Williams<sup>2</sup>, Mark Edwards<sup>2</sup>, Michael Dilley<sup>3</sup>, Siobhan Gee<sup>1</sup>

<sup>1</sup>King's Health Partners (London, GB); <sup>2</sup>King's College London; <sup>3</sup>King's College London; <sup>4</sup>King's College Hospital NHS Foundation Trust

**Aims:** Adults diagnosed with serious mental illness (SMI) are at greater risk of multimorbidity and premature mortality compared to the general population. This occurs due to significant health and social inequalities. This project aimed to understand the physical health needs and inequalities that exist for people with SMI in South East London (SEL), UK, by understanding available patient data and identifying key determinants of health that could improve outcomes and overall health for SMI patients.

**Methods:** The review involved a literature review on the prevalence of physical health conditions and mortality rates experienced by SMI adults, and the identification and interpretation of national, regional, and local datasets on the SMI population to ascertain common risk factors and inequalities relevant to the population.

**Results:** The review has identified 10 areas that need to be better understood to reduce widening inequality in physical health prevalence and mortality for people living with SMI in SEL, including: 1) Deprivation 2) Geography and place 3) Multimorbidity 4) Ethnicity 5) Gender differences 6) Aging 7) Underrepresented, marginalised, or excluded communities 8) Accuracy of patient data 9) The role of health systems 10) The experience of people with lived experience.

**Conclusion:** The review has identified key areas of need specific to the SMI population that if better addressed could reduce health burden and improve quality of life for people with SMI. The findings also have important applications to a wider audience interested in addressing health and social inequalities that impact longevity of life for people with SMI.

**OP13 Work Employment and Mental Health****Fri. 13 Sept., 08:30-10:00****3185****Chair:** Philipp Kerksieck, CH**OP13.01 Psychiatric Diagnoses of Young Adults Entering the Workforce: a Nationwide Register Based Study of 1.5 Million Employees in Denmark****Ida E. H. Madsen**<sup>1,2</sup>, Jeppe K. Sørensen<sup>1</sup>, Andreas Hoff<sup>3</sup>, Stephen Stansfeld<sup>4</sup>, Reiner Rugulies<sup>1,5</sup><sup>1</sup>National Research Centre for the Working Environment, Copenhagen, Denmark (DK); <sup>2</sup>National Institute of Public Health, Copenhagen, Denmark; <sup>3</sup>Copenhagen Research Centre for Mental Health – CORE, Mental Health Centre Copenhagen, Denmark; <sup>4</sup>Centre for Psychiatry and Mental Health, Queen Mary University of London, London, UK; <sup>5</sup>Section of Epidemiology, Department of Public Health, University of Copenhagen, Denmark

**Aims:** With the growing numbers of children and adolescents diagnosed with psychiatric conditions, the number of young employees with a psychiatric diagnosis will increase. From a societal and workplace perspective, gaining more knowledge about these individuals is important, as they may require special considerations regarding working conditions, to ensure a successful and sustainable workforce entry.

**Methods:** We analysed data from The Danish Worklife Course Cohort (DaWCo) - a registerbased cohort of all young individuals, first entering the Danish workforce during 1995 to 2018 (n ≈ 1.5 million individuals). Psychiatric diagnoses until 40 years of age were obtained from in- and outpatient treatments at Danish hospitals (ICD-10 coded). We examined the prevalence of diagnostic groups and analysed the risk of disability pensioning before age 40 using Cox proportional hazards analysis.

**Results:** We found that 229,943 (15.0%) of the population were diagnosed with a psychiatric condition. The three most prevalent diagnostic groups in men were: Stress-related and adjustment disorders (F43, 13.6%), Alcohol-related disorders (F10, 12.6%), Hyperkinetic disorders (F90, 7.6%). For women, they were: Stress-related and adjustment disorders (F43, 18.6%), Depressive episodes (F32, (11.6%)), Specific personality disorders (F60, 8.8). We found a clear association between these diagnoses and risk of disability pension, with hazard ratios ranging from 2.57 (F10) to 8.03 (F60).

**Conclusion:** A substantial proportion of young adults entering the workforce have or receive a psychiatric diagnosis. More knowledge about modifiable predictors of sustainable workforce entry for these individuals is important, to prevent their labour market exclusion.

**OP13.02 Competitive or Sheltered Employment? Job Preferences of People with Mental Disorders****Sonja Mötteli**<sup>1,2</sup>, Christine Adamus<sup>1,2</sup>, Simeon Joel Zürcher<sup>1,2</sup>, Dir Richter<sup>1,2,3</sup><sup>1</sup>Centre for Psychiatric Rehabilitation, Universitäre Psychiatrische Dienste Bern (UPD), Switzerland (CH); <sup>2</sup>University Hospital of Psychiatry and Psychotherapy, University of Bern, Switzerland; <sup>3</sup>Department of Health Professions, Bern University of Applied Sciences, Switzerland

**Aims:** The inclusion of people with mental disorders (MD) in competitive employment is an important therapeutic goal. Several vocational rehabilitation services have been established to support people with MD to return to work (e.g., pre-vocational training, Supported Employment). In three studies, we have investigated the preferences and attitudes of people with MD regarding competitive jobs.

**Methods:** We conducted a systematic review and meta-analysis of proportions, including 30 peer-reviewed publications from 1990 to 2023 (n=11,029), providing data on the job preferences of people with MD. Subgroup analyses were performed to examine characteristics associated with job preferences. In addition, we examined job preferences and goals in detail in two samples of day centre users (n=87) and sheltered workshop workers (n=109), with surveys and focus groups.

**Results:** In the meta-analysis, the overall proportion of participants who expressed a preference for competitive employment was 0.61 (95%-CI: 0.53-0.68; I<sup>2</sup>=99%). The subgroup analyses showed differences between world regions, publication years and support settings. Overall, 40% of day centre users and 30% of sheltered workshop workers wanted to return to competitive employment. Besides training in work skills, current goals focused on establishing a daily structure, social contacts, and meaningful occupation. Subjective workability was positively associated with social inclusion/participation.

**Conclusion:** A significant proportion of people with MD want to work competitively, depending on the psychiatric support setting (e.g., hospital setting > rehabilitation setting). More effort should be put into preventive approaches. Vocational interventions should start already at the beginning of treatment.

### OP13.03 Supporting Rapid and Sustainable Return to Work for Employees with Mental Disorders: New Avenues for a Randomised Controlled Trial

**Philipp Kerksieck**<sup>1</sup>, Sonja Mötteli<sup>2,3</sup>, Georg F. Bauer<sup>1</sup>, Dirk Richter<sup>2,3,4</sup>, Simeon J. Zürcher<sup>2,3</sup>

<sup>1</sup>Public and Organizational Health / Center of Salutogenesis, Epidemiology, Biostatistics, and Prevent (Zurich, CH); <sup>2</sup>Centre for Psychiatric Rehabilitation, Universitäre Psychiatrische Dienste Bern (UPD), Bern, Switzerland; <sup>3</sup>University Hospital of Psychiatry and Psychotherapy, University of Bern, Bern, Switzerland; <sup>4</sup>Department of Health Professions, Bern University of Applied Sciences, Bern

**Aims:** Mental disorders (MD) play an increasingly significant role in sickness absence and permanent labour market exclusion. Implementing and advancing interventions to facilitate reintegration into the workforce is imperative. Supported employment (SE) is well-established for reintegrating individuals with MD into competitive employment. Recently, SE has become popular to foster job retention. However, its effectiveness in job retention has yet to be established. In an observational study (OS), we aimed to identify job retention rates among individuals at risk of job loss due to MD. Building on this study, we are currently initiating an RCT comparing SE with conventional Case Management (CM). Furthermore, we aim to assess the feasibility of augmenting SE by incorporating Job Crafting strategies. This approach involves individual proactive modifications to working conditions that benefit employee mental health and may support sustained employment in the competitive job market.

**Methods:** OS with n = 556, including routine data. RCT with 60 employees long-term sick-listed due to MD, randomly assigned to SE and a control group receiving CM.

**Results:** The OS showed promising results in applying SE, with job retention rates of over 75%.

**Conclusion:** This study assesses whether an enriched and early implementation of SE is an effective strategy for maintaining competitive employment for employees with MD. It seeks to reduce the extended periods of sickness absence typically observed with current interventions.

### OP13.04 Young Adults with Mental Health Problems: the Role of Part-Time Sickness Absence for Staying in Paid Work in the Private Sector

**Jurgita Narusyte**<sup>1</sup>, Iman Alaie<sup>1</sup>, Annina Ropponen<sup>1,2</sup>, Pia Svedberg<sup>1</sup>

<sup>1</sup>Karolinska institutet (Stockholm, SE); <sup>2</sup>Finnish Institute of Occupational Health, Helsinki, Finland.

**Aims:** Little is known whether being on part-time sickness absence (SA) may promote remaining in paid work among individuals experiencing mental health problems. The aim was to investigate (a) to what extent part-time SA occurs among young privately employed adults experiencing depressive and/or anxiety symptoms as well as (b) whether it plays a role in future participation in paid work.

**Methods:** This prospective cohort study included 7 245 twin individuals born in Sweden in 1975-1986 and employed in the private sector. Extensive health-screening survey data were collected when the twins were 19-30 years old. All participants were followed regarding SA (part-time and full-time) and unemployment through linkage of the survey data with Swedish nationwide registries 2006-2021. The presence of depressive and/or anxiety symptoms was evaluated by the survey and prescribed medication data. Data were analyzed using descriptive and logistic regression models.

**Results:** Approximately 20% of the study participants with previous depressive and/or anxiety symptoms had a part-time SA-spell during follow-up. Preliminary results show that those who experienced depressive and/or anxiety symptoms as well as were on part-time SA, had lower odds for future SA (OR:0.58, 95%CI: 0.39-0.87) as compared to those with no part-time SA. The association with future unemployment was not significant (OR:0.85, 95%CI: 0.54-1.32).

**Conclusion:** Part-time SA seems to be associated with lower odds for future SA among young private employees with previous depressive and/or anxiety symptoms. This suggests that part-time SA, as compared to full-time SA, may promote participation in paid work among young adults.

### OP13.05 Leadership Behaviours at Work and Risk of Recurrence of Treatment with Antidepressants

**Kathrine Sørensen**<sup>1</sup>, Paul Maurice Conway<sup>1</sup>, Louise Dalsager<sup>2</sup>, Jian Li<sup>3</sup>, Ida EH Madsen<sup>2,4</sup>, Reiner Rugulies<sup>2,5</sup>

<sup>1</sup>Department of Psychology, University of Copenhagen, Copenhagen, Denmark (KØBENHAVN K, DK); <sup>2</sup>National Research Centre for the Working Environment, Copenhagen, Denmark; <sup>3</sup>Departments of Environmental Health Sciences and Epidemiology, Fielding School of Public Health, Sch; <sup>4</sup>National Institute of Public Health, University of Southern Denmark, Copenhagen, Denmark; <sup>5</sup>Section of Epidemiology, Department of Public Health, University of Copenhagen, Copenhagen, Denmark

**Aims:** This study aimed to examine the association between exposure to low levels of positive leadership behaviours at work and the likelihood of recurrence of antidepressant treatment among workers who had a history of antidepressant treatment, but were free of treatment at baseline.

**Methods:** Employed participants with a leader were drawn from the nationwide Work Environment and Health in Denmark survey and linked to the Danish National Prescription Registry. All included participants had a history of antidepressant treatment, but were not treated within the past six months, yielding a study sample of 9,198 participants. We assessed leadership behaviours with an eight-item index, dichotomized into high vs. low. We analysed risk of new antidepressant treatment using Cox proportional hazards modelling with a mean follow-up of 1.9 years, adjusted for demographic factors, months since last redeemed prescription, number of prior treatment episodes, and age at first treatment.

**Results:** We identified 961 cases of recurrent antidepressant treatment. There were 50.9 cases of recurrent antidepressant treatment per 1,000 personyears among participants exposed to high levels of positive leadership behavior (568 cases of 5,915 participants). The corresponding rate was 64.3 cases per 1000 personyears among participants with low levels (393 cases of 3,283 participants). Compared to high levels, low levels of positive leadership behaviours were associated with an increased risk of initiating new antidepressant treatment (HR: 1.21; 95% CI: 1.06-1.38).

**Conclusion:** Exposure to low levels of positive leadership behaviours may increase risk of recurrence of treatment for depressive disorder among workers with previous treatment.

### OP13.06 Employment and Income Trajectories before and after Partner's Depressive, Anxiety or Adjustment Disorder Diagnosis

**Jade Knop**<sup>1</sup>, Christian Hakulinen<sup>1</sup>, Marko Elovainio<sup>1</sup>

<sup>1</sup>University of Helsinki (Helsinki, FI)

**Aims:** There is a lack of studies examining individuals' labor market responses to a partner's mental disorders. We investigated whether exposure to a partner's depressive, anxiety or adjustment disorder is associated with employment and income trajectories before and after diagnosis.

**Methods:** We used register data covering the total Finnish population. All working-age individuals whose partner received the first depressive (DD), anxiety (AD) or adjustment disorder (AjD) diagnosis among the couple between 2000 and 2019 (n = 271,402) were matched to an unexposed individual according to sociodemographic, psychiatric and couple-level criteria. Individuals' employment and income were followed five years before and after diagnosis.

**Results:** Exposure to a partner's mental disorder was associated with a lower probability of employment and lower mean income before diagnosis. A partner's AjD was associated with decreases in employment and income around diagnosis. Among men, the differences continued to increase until the end of follow-up, whereas among women, the differences attenuated by the end of follow-up. Similar results were not found for a partner's DD or AD.

**Conclusions:** A partner's AjD is associated with decreases in employment and income around diagnosis. Further research is needed to understand the mechanisms behind this association.

**OP14 Risk Factors for Onset and Course of Depression****Fri. 13 Sept., 14:00-15:30****3128****Chair:** Johannes Massell, CH**OP14.01 Systematic Review of Key Symptoms in Child and Adolescent Depression: Implications for Diagnosis and Intervention****Sharon Neufeld**<sup>1</sup>, Pascal Schlechter<sup>2</sup><sup>1</sup>University of Cambridge, UK (GB); <sup>2</sup>University of Münster, Germany

**Aims:** Depressive symptoms appear to present differently in adolescents than adults, yet disorder classification systems largely do not reflect this. Symptom network analyses can help elucidate key symptoms, as indicated by their centrality or interconnectedness, which may inform diagnostic systems and improved interventions.

**Methods:** Systematic review of evidence from cross-sectional and longitudinal network studies assessing symptom centrality of child and adolescent depression measures.

**Results:** Network studies were predominantly conducted in adolescents (ages 10-19), with just one study assessing children (ages 6-12 years). Cross-sectional general population samples were the most common (n = 9), with one at-risk cross-sectional sample. There was only one longitudinal study, in a clinical sample, with separate network analyses during treatment and post-treatment. Studies encompassed developing nations (China, Brazil) as well as developed nations (USA, UK, Canada, New Zealand, South Korea). Anhedonia was not a key symptom in general population studies (in both developing and developed nations), the at-risk sample, and the clinical sample (both during and post-treatment). In contrast, worthlessness and loneliness emerged as key central symptoms.

**Conclusion:** Worthlessness and loneliness may be more central symptoms than anhedonia in child and adolescent depression. Although missing from DSM/ICD diagnostic criteria, loneliness should continue to be assessed in child and adolescent depression networks. Before changes in diagnostic criteria can be recommended, there is need for more longitudinal network studies of child and adolescent depressive symptoms. These will help clarify which key symptoms can influence change in other symptoms and thus may be more meaningful for diagnosis and intervention.

**OP14.02 Prospective Prediction of First Onset of Major Depressive Disorder in Midlife Using Machine Learning****Johannes Massell**<sup>1</sup>, Martin Preisig<sup>2</sup>, Marcel Miché<sup>1</sup>, Marie-Pierre Strippoli<sup>2</sup>, Giorgio Pistis<sup>2</sup>, Roselind Lieb<sup>1</sup><sup>1</sup>University of Basel (Basel, CH); <sup>2</sup>Lausanne University Hospital and University of Lausanne

**Background:** Major depressive disorder (MDD) is one of the most prevalent and debilitating mental health conditions. Prospective prediction models could facilitate early interventions, yet only a few heterogeneous studies have leveraged machine learning (ML) to predict the first onset of MDD. The clinical utility of such prediction models has rarely been assessed.

**Methods:** Data stemmed from CoLaus|PsyCoLaus, a population-based cohort study. In total, 1350 participants, age 35–66 years without lifetime MDD at baseline participated in the physical and psychiatric baseline and at least one psychiatric follow-up evaluation. Models based on logistic regression, elastic net, random forests, and XGBoost were trained using an extensive array of psychosocial, environmental, biological, and genetic predictors. Discriminative performance, calibration, clinical utility, and individual predictor contributions were assessed using nested cross-validation.

**Results:** Discriminative performance was comparable between models (areas under the precision-recall curve between 0.36 and 0.38; areas under the receiver operating characteristic curve between 0.65 and 0.68). Decision curve analysis suggested clinical utility of logistic regression, elastic net, and random forests for threshold probabilities between 10% and 40%. Across all models, neuroticism, sex, and age were the most important predictors.

**Conclusion:** Although the prediction models achieved discriminative performance levels above chance, further refinement is necessary. The addition of biological and genetic predictors did not elevate performance



markedly. Additional research seems warranted given the limited number and heterogeneous nature of existing studies, the burden associated with MDD, and the potential to improve overall outcomes for people at risk for depression.

### OP14.03 Do Coping Mechanisms Moderate the Effect of Stressful Life Events on Depression and Anxiety in Young People? A Case-Control Study from Latin America

**Georgie Hudson**<sup>1</sup>, Catherine Fung<sup>2</sup>, Diliniya Stanislaus Sureshkumar<sup>2</sup>, The OLA Group<sup>4-6</sup>, Stefan Priebe<sup>3</sup>, James B. Kirkbride<sup>1</sup>.

<sup>1</sup>UCL (London, GB); <sup>2</sup>Queen Mary University, UK; <sup>3</sup>East London NHS Foundation Trust, UK; <sup>4</sup>Pontificia Universidad Javeriana, Hospital Universitario San Ignacio, Colombia; <sup>5</sup>Universidad Peruana Cayetano Heredia, Peru; <sup>6</sup>University of Buenos Aires, Argentina.

**Background:** Stressful life events (SLEs) are associated with increased risk of depression or anxiety. Coping mechanisms may moderate this relationship but little is known on this topic in young people or in Latin America.

**Aims:** To investigate whether coping strategies predict odds of depression and/or anxiety and moderate the relationship between SLEs and depression and/or anxiety in young people in Peru, Lima, and Bogotá.

**Methods:** Using case-control data from people aged 15-24, we used logistic regression to examine associations between coping mechanism, SLEs, and caseness for depression or anxiety, adjusting for sociodemographic and socioeconomic factors. We included interaction terms to model whether this association varied depending on coping mechanisms (positive cognitive restructuring, problem-focused, support-seeking, distraction, avoidant).

**Results:** We included 1437 cases and 965 controls. Cases reported less use of positive cognitive restructuring (OR: 0.66; 95% CI: 0.57-0.75) and problem-focused coping (OR: 0.82; 95% CI: 0.73-0.93), and more use of avoidance than controls (OR: 1.33; 95% CI: 1.19-1.50) in adjusted models. They had greater odds of reporting lifetime (OR: 1.07; 95% CI: 1.04-1.10) and past-year (OR: 1.05; 95% CI: 1.01-1.10) SLEs than controls. We found weak, but consistent evidence of effect modification; the association between lifetime SLEs and case-control status was stronger in those who used less support-seeking ( $p=.09$ ), problem-focused coping ( $p=.08$ ), or positive cognitive restructuring ( $p=.09$ ). : **Conclusion**

Relationships between SLEs, coping mechanisms and depression/anxiety appear similar in these Latin American cities to other contexts. Active coping strategies may ameliorate the impact of SLEs on the mental health of young people.

### OP14.04 Anxiety and Depression of persons with Tuberculosis in Rural and Urban Communities in India

**Ponnuchamy Lingam**<sup>1</sup>, Gobinda Majhi<sup>2</sup>, Shreedevi AU<sup>3</sup>, Dhandasekara Pandian R<sup>4</sup>, Piryra Prakash<sup>5</sup>, Karthikeyan Kumaraswamy<sup>6</sup>, Rehana Begum<sup>7</sup>, Atreyee Sinha<sup>8</sup>

<sup>1</sup>Associate Professor, National Institute of Mental Health And Neuro Sciences, Bangalore, India (BANGALORE, IN); <sup>2</sup>Additional Professor, National Institute of Mental Health And Neuro Sciences, Bangalore, India; <sup>3</sup>Assistant Professor, National Institute of Mental Health And Neuro Sciences, Bangalore, India; <sup>4</sup>Professor, National Institute of Mental Health And Neuro Sciences, Bangalore, India; <sup>5</sup>Project Assistant, Breaking The Barriers Project, NIMHANS, Bangalore, India; <sup>6</sup>Thematic Lead, KHPT (Karnataka Health Promotion Trust), Bangalore, India.; <sup>7</sup>Project Lead, KHPT (Karnataka Health Promotion Trust), Bangalore, India.; <sup>8</sup>M&E Specialist, KHPT (Karnataka Health Promotion Trust), Bangalore, India

**Background and Aims:** The effect of Tuberculosis on the psychosocial status of patients and interventions to improve treatment outcome is neglected, especially in underdeveloped and developing countries. The aim of the current study was to assess the levels of anxiety and depression of persons with Tuberculosis.

**Methods:** The research design for the present study was descriptive research design and applied a cross-sectional approach. The sampling technique applied for the study was purposeful sampling. The data was collected with inclusion criteria and exclusion criteria. The standardized tools were used to collect the data on anxiety and depression of persons with Tuberculosis along with socio-demographic data sheet. The data was analysed through r-software to assess the current trends on anxiety and depression within the study.

**Results:** The majority (52.55%) of the sample were male and (47.44%) were females. The average age of the female participants was 32.53 years and their male were 41.63 years. The vast majority (83.21%) belong to the

low economic status. The participants were rural (49.63%) and urban (50.36%) domiciles. The participants' overall scores indicate no signs of anxiety and depression. The increased levels of social support may have played a vital role in the overall reduction of the levels of anxiety and depression among the participants.

**Conclusion:** The larger group of respondents felt well supported by the primary caretakers and community at large and had no discriminatory attitudes and stigmatizing beliefs among them.

### OP14.05 Unhealthy Lifestyle Factors and their Additive Effect on the Risk of Depression Onset in Older Adults: Findings from the Montpellier Esprit Cohort

**Joanna Norton**<sup>1,2</sup>, Isabelle Jausse<sup>1,2</sup>, Tasnime Akbaraly<sup>1,2</sup>, Catherine Gandubert<sup>1,2</sup>, Thibault Mura<sup>1,2,3</sup>, Isabelle Chaudieu<sup>1,2</sup>

<sup>1</sup>Inserm (Montpellier Cedex 5, FR); <sup>2</sup>University of Montpellier; <sup>3</sup>CHU Nîmes

**Aims:** There is increasing interest in lifestyle medicine for preventing and treating depression but the additive effect of the main components of an unhealthy lifestyle is seldom examined. We aimed to study the additive effect of the main lifestyle factors on the risk of incident depression in older adults.

**Methods:** In 1216 participants from the ESPRIT cohort of aged 65+ community-dwelling adults followed up every 2 years over 14 years and free of depression, 1 point was given per unhealthy lifestyle risk factor (ULF) among: 1-excessive alcohol consumption, 2-smoking, 3-poor diet quality, 4-excessive daytime sleepiness, low levels of 5-physical and 6-social activities. Delayed entry Cox proportional hazard models with age as the time-scale were constructed to analyse the associated risk of incident depression defined as a CES-D score $\geq$ 16, diagnosis of major depression or antidepressant use.

**Results:** The risk of incident depression (27.4% of the sample) increased with the number of ULFs (with 0-1 ULF (25.5%) as reference: HR =1.79 (95% CI: 1.31-2.44) for 2 ULFs (27.1%), HR=1.81 (1.26-2.58) for 3 ULFs (27.1%), and HR=2.21 (1.41-3.47) for 4+ ULFs (20.8%); global p=0.0004), adjusting for baseline socio-demographics (age, sex, marital status, living situation, income), cerebrocardiovascular diseases and their risk factors including obesity, hypertension, diabetes and hypercholesteremia. The association remained significant when further adjusting for deprivation index.

**Conclusion:** By showing that the risk of incident depression increased with the number of ULFs adjusting for a large range of potential confounders including deprivation, our findings suggest that ULFs are independent risk factors for depression.

### OP14.06 Trajectories of Depression Symptoms and All-Cause Mortality among Older Adults in Japan

**Tao Jiang**<sup>1</sup>, Hisashi Kawai<sup>2</sup>, Yichi Yang<sup>1</sup>, Masahiro Hashizume<sup>3</sup>, Takeaki Takeuchi<sup>3</sup>, Hiroyuki Sasai<sup>2</sup>, Yoshinori Fujiwara<sup>2</sup>, Hirohiko Hirano<sup>2</sup>, Shuichi Obuchi<sup>2</sup>, Kazushige Ihara<sup>1</sup>

<sup>1</sup>Faculty of Medicine, Hirosaki University, Aomori, Japan (Hirosaki city, Aomori Prefecture, JAPAN, JP); <sup>2</sup>Tokyo Metropolitan Institute for Geriatrics and Gerontology, Tokyo, Japan; <sup>3</sup>Faculty of Medicine, Toho University, Tokyo, Japan

**Aims:** Different depression types have different impacts on health outcomes. Compared to the non-depressed group identified with trajectory analysis, the persistent depression group had higher all-cause mortality in community-dwelling older Americans and Australians. However, an inconsistent significant association was observed between the mild/subthreshold depression group and all-cause mortality. We aimed to identify aging trajectories of depression symptoms in Japan and to examine the association between the trajectories and all-cause mortality.

**Methods:** Participants were 1131 community-dwelling Japanese older adults (468 men), aged 65–89 years, who responded twice or more to an interview of cohort study conducted between 2011 and 2020. Depression symptoms were assessed through the depression subscale of the Kihon checklist. We used group-based trajectory models to identify trajectories of depression.

**Results:** Three trajectories were identified: non-depressed, minimal depressive symptoms, and persistent depression groups. Average scores remained at zero points for the first group and remained below the cutoff point for depression for the second group. The average score of the third group started around the cutoff point at the age of 65 and kept stable around that level until increasing rapidly after the age of 80. Membership of

the second group had lower all-cause mortality than the first group (adjusted hazard ratio was 0.342,  $P=0.001$ ), while the membership of the third group was not associated with mortality.

**Conclusion:** The persistent depression group did not have higher all-cause mortality compared to the nondepressed group among Japanese elderly. We found the minimal depressive symptoms group with significant lower all-cause mortality.

**OP15 Socio-Economic Factors, Work Stress and Mental Health****Fri. 13 Sept., 14:00-15:30****3174****Chair:** Sayyed Haybatollahi, UK**OP15.01 Examining Individual and Concurrent Associations of Trajectories of Physical and Mental Functions with Common Mental Disorders, Work Stress and Wellbeing****Sayyed Haybatollahi<sup>1</sup>**<sup>1</sup>Manchester Metropolitan University (GB).

**Aims:** Adverse working conditions are more detrimental to the physical ability and cognitive functioning of older employees than they are to younger employees. A decline in work performance due to adverse working conditions is associated with disability and early retirement, resulting in a decrease in skilled workers, which causes the economy to suffer and shortens the career life cycles of individuals.

**Methods:** This study used Whitehall II cohort data from phase 1 through phase 12, which included 10308 participants aged 35-55 at baseline (33.1% women and 66.9% men). The Whitehall study investigates the psychosocial factors associated with health inequalities, work stress, and work-family conflicts. This study also used clinical data for physical and mental health linked to cohort data. The SF-36 subscales for physical and mental functions were used to extract the trajectories of work functioning using Latent Class Growth Analysis (LCGA). Depression and anxiety were measured using GHQ-12 and their degrees of predictability by each trajectory were tested using random effect logistic regression for panel data.

**Results:** The LCGA identified four major trajectories for physical and psychological functioning (moderate high, low, moderate recovering, and worsening). The results of comparing the trajectories with health indicators showed that common mental disorders were significantly higher among people with low and worsening trajectories. Anxiety decreased and depression was stable over time as they experienced a decline in their physical and mental functions.

**Conclusion:** Mental disorders are more strongly predicted when the trajectories of mental functioning are congruent with the physical functioning trajectories.

**OP15.02 “You’re Just a Healthcare Assistant” Workplace Experiences, Mental Health and Occupational Outcomes of Lower Paid UK Healthcare Workers****Bethany Croak<sup>1,2</sup>, Simon Wessely<sup>1,2</sup>, Danielle Lamb<sup>3</sup>, Sharon A.M Stevelink<sup>1,2</sup>**<sup>1</sup>Psychological Medicine, King's College London (GB); <sup>2</sup>King's Centre for Military Health Research, King's College London; <sup>3</sup>Department of Applied Health Research, UCL, London, UK

**Aims:** The UK's National Health Service (NHS) is grappling with staff shortages and lengthy waiting lists. Mental illness is the top reason for sickness absence among healthcare workers (HCWs), and some evidence suggests lower-paid staff are at greater risk of mental health problems. This study aimed to qualitatively explore workplace experiences of this group including challenges unique to lower-paid roles and access to support.

**Methods:** Participants of a large HCWs cohort study (NHS CHECK) were invited to participate. Eligibility included being a current or previous employee of the NHS in England and being a member of staff paid below £27,596. Semi-structured interviews via Microsoft Teams were conducted, transcribed verbatim and analysed using thematic analysis.

**Results:** 15 interviews have been conducted, with another five to be completed. The analysis is due to be complete by August 2024. Preliminary findings indicate that staff in these roles experience a dichotomy of demand where they are persistently told their lack of formal qualifications restricts their capability but are expected to adopt responsibilities beyond their job description. This left staff feeling resentful and undervalued; both clinical and non-clinical staff echoed this sentiment. Other preliminary themes included gatekeeping of support services by management.

**Conclusion:** Lower-paid HCWs face distinct challenges in the NHS, largely influenced by its hierarchical nature and perceptions of their roles. A deeper understanding of these roles across the hierarchy could alleviate

tensions between employees and managers. Moreover, establishing independent avenues for accessing workplace support could circumvent gatekeeping experienced by junior staff, enhancing wellbeing.

### OP15.03 Mental Health Trajectories and Cost-of-Living Crisis: Evidence at the Intersection of Gender and Socioeconomic Position from Two British Birth Cohorts

**Darío Moreno-Agostino**<sup>1,2</sup>, Vanessa Moulton<sup>1</sup>, Sam Parsons<sup>1</sup>, Bożena Wielgoszewska<sup>1</sup>, Jayati Das-Munshi<sup>2,3,4</sup>, George B. Ploubidis<sup>1,2</sup>

<sup>1</sup>Centre for Longitudinal Studies, UCL Social Research Institute, University College London, UK (GB); <sup>2</sup>ESRC Centre for Society and Mental Health, King's College London, UK; <sup>3</sup>Department of Psychological Medicine, IoPPN, King's College London, UK; <sup>4</sup>South London and Maudsley NHS Trust, London, UK

**Aims:** The pre-existing long-term trajectories of mental health were disrupted with the COVID-19 pandemic, with disproportionate negative impacts on some population groups, including women. Using novel data from two British Birth cohorts, the 1970 British Cohort Study (BCS70) and the 1958 National Child Development Study (NCDS), we aim to document a) changes in population mental health levels in the aftermath of the COVID-19 lockdowns and the ongoing cost-of-living crisis, whether gender inequalities have continued to increase, and how gender inequalities may intersect with socioeconomic and generational inequalities.

**Methods:** We will use data on mental health as measured by the 9-item Malaise Inventory, prospectively collected in BCS70 and NCDS at multiple time points: six time points between 1996/age 26 and 2022-2023/age 52-53 in BCS70, five time points between 1981/age 23 and 2020-2023/age 62-65 in NCDS, and three additional time points in both BCS70 and NCDS between May 2020 and March 2021 as part of the COVID-19 survey. We will use growth curve modelling to study overall and group-specific longitudinal changes, and contrasts of marginal predictions to analyse changes in the gender inequalities observed during the COVID-19 pandemic. We will report the extent of those inequalities across the two generations under study and by socioeconomic position.

**Results/Conclusion:** Results are not available at submission. These results will provide timely evidence on gender and socioeconomic inequalities in how the mental health of two different generations has been impacted by challenging times such as the COVID-19 post-lockdown period and the ensuing cost-of-living crisis.

### OP15.04 Can Frequency of GP Visits Explain Some of the Gender Gap in Sickness Absence in Norway?

**Eivor Hovde Hoff**<sup>1,2,3</sup>, Yana Zykova<sup>3</sup>, Kristian Amundsen Østby<sup>3</sup>, Kristian Bandlien Kraft<sup>1,3</sup>, Arnstein Mykletun<sup>1,3,4,5</sup>

<sup>1</sup>Department of Community Medicine, UiT - The Arctic University of Norway (Oslo, NO); <sup>2</sup>Office of the Auditor General of Norway, Oslo, Norway; <sup>3</sup>Norwegian Institute of Public Health (NIPH), Cluster for Health Services Research, Oslo, Norway; <sup>4</sup>Centre for Work and Mental Health, Nordland Hospital Trust, Bodø, Norway; <sup>5</sup>Centre for Research and Education in Forensic Psychiatry and Psychology, Haukeland Uni. Hospital; <sup>6</sup>Institute of Health and Society, University of Oslo, Oslo, Norway

**Background:** Norway has a substantial, and marginally increasing, gender gap in sickness absence rates. The causes of the gender gap are not sufficiently understood. A range of possible explanations have been tested, including health-related and occupational factors, the "double burden" hypothesis, and attitudes and norms. Women visit their general practitioner (GP) 1.5 to 2 times as often as men, and might be inclined to seek help or advice early and for a broader range of symptoms. When met with unspecific health complaints for which the GP has no easy solution, a sick note might be granted to provide some solution for the patient. Research on GPs' sickness certification practices indicates that GPs are inclined to certify sick notes if the patient prefers, including when this conflicts with the GP's own professional judgment.

**Aims:** To study whether frequency of GP visits can explain some of the gender gap in sickness absence rates in Norway.

**Methods:** Data consists of linked register data on the whole Norwegian population from 2008-2021, including GP-patient relations, visits to the GP, demographic information (income, age, sex, urban/rural residence), and certified sickness absence episodes. We will apply regression analysis to the data. The panel structure of the



data allows to account for individual-specific effects and examine changes in the relationships between variables over time.

**Results:** The project is still in its early stages, and the presentation will focus on the research design, methodological approach, and preliminary findings.

**Conclusion:** Not applicable.

### OP15.05 Gender Differences in Sickness Absence

**Lise Gulli Brokjob**<sup>1</sup>, Amber McKenzie<sup>2</sup>, Bethany Croak<sup>2</sup>, Sharon Stevelink<sup>2</sup>, Nils Abel Aars<sup>1</sup>, Arnstein Mykletun<sup>1</sup>  
<sup>1</sup>Nordland Hospital (Tromsø, NO); <sup>2</sup>King's College London

**Aims:** There are some reports that women have higher sickness absence than men in some Scandinavian and Northern European countries. This study aims to establish if the higher rates of sickness absence in women is a general phenomenon observed across countries, and if gender differences in sickness absence are higher in economies with higher employment rates of women.

**Methods:** National public statistics were analyzed, focusing on gender ratios within countries to minimize bias from varying legislation and systems. We used regression analyses to assess gender differences in sickness absence and employment rates over time.

**Results:** Not all Norwegian data for the last 24 years alongside preliminary data from Sweden and Denmark indicate higher rates of sickness absence in women than men. In this period, the employment rates in women and men have remained relatively stable, and there has been a steady increase in educational levels in women relative to men, indicative of a lower risk of sickness absence in women.

**Conclusion:** The gender differences in sickness absences are found in the Scandinavian countries, which also have high employment rates in women. Hypotheses with strong face validity propose reasons for this gender difference, i.e., higher prevalence of mental disorders and muscle-skeletal pain in women, a double burden combining domestic duties with employment, and occupational risks specific to women. However, these lack substantial empirical support in previous research. Further research is needed to understand the prevalent gender differences in sickness absence.

### OP15.06 Work- and Family-related Stress and the Risk of Hazardous Alcohol Use: Role of Sex and Social Support. A Cohort Study in Sweden

**Katalin Gémes**<sup>1</sup>, Julia Goppers<sup>1</sup>, Jette Möller<sup>2</sup>, Karin Engström<sup>2</sup>, Anna Sidorchuk<sup>3-4</sup>, Ellenor Mittendorfer-Rutz<sup>1</sup>, Ridwanul Amin<sup>1</sup>

<sup>1</sup>Department of Clinical Neuroscience, Division of Insurance Medicine, Karolinska Institutet, Sweden (SE); <sup>2</sup>Department of Global Public Health, Karolinska Institutet, Sweden; <sup>3</sup>Department of Clinical Neuroscience, Centre for Psychiatry Research, Karolinska Institutet, Sweden; <sup>4</sup>Stockholm Health Care Services, Region Stockholm, Sweden

**Aims:** To determine the association of work- and family-related stressors with developing hazardous alcohol use over time among habitual drinkers, and to examine the role of sex and social support in these associations.

**Methods:** A sample of 4,046 individuals, working and living in Stockholm, age 25-55 years, habitual drinkers, who answered the PART study (Swedish acronym for Mental Health, Work and Social Relations) questionnaire regarding work- and family-related stress (exposures) in 1998-2000 (wave1) and 2001-2003 (wave2) were followed until 2010 (wave3) regarding hazardous alcohol use (outcome) measured using Alcohol-Use-Disorder-Identification-Test (AUDIT) score ( $\geq 8$  in men,  $\geq 7$  in women). Weights for selective attrition were calculated, and crude and multivariate (adjusting for sociodemographic, health- and previous stress-related factors) logistic regression models, yielding Odds Ratios (OR) with 95% Confidence Intervals (CI), were used to estimate the exposure-outcome associations. Analyses were stratified for sex and social support in general and at work.

**Results:** Job strain (a combination of high demand and low control) was not statistically significantly associated with hazardous alcohol use (OR, 95% CI: 1.3, 0.9-1.9). Among those reporting any family-related stress, a significantly higher risk was observed (OR, 95% CI: 1.5, 1.1-2.1), particularly among women (OR, 95% CI: 1.7, 1.02-2.7) and those with low social support (OR, 95% CI: 2.1, 1.2-3.6). These associations became non-significant after adjusting for previous family-related stress.

**Conclusion:** Public health measures aiming to prevent transitions from habitual to hazardous alcohol use should give special attention to individuals with family-related stress, especially among women and those with low social support.

**OP16 Migration and Mental Health****Fri. 13 Sept., 14:00-15:30****3185****Chair:** Kelly Anderson, CA**OP16.01 Understanding Social Related-Factors of Mental Health in Unaccompanied Minor Migrants in Spain****Marta Franch-Roca**<sup>1</sup>, Rachid el Hafi<sup>2</sup>, Helena Sainz<sup>3</sup>, Josep Maria Haro<sup>4</sup>, Paula Cristóbal-Narváez<sup>5</sup><sup>1</sup>Research and Development Unit, Institut de Recerca Sant Joan de Déu, Barcelona (ES); <sup>2</sup>Centre for Biomedical Research on Mental Health (CIBERSAM), Madrid, Spain

**Background:** There are more than 12.000 unaccompanied minor migrants in Spain, and they are considered a vulnerable group to suffer from mental health and well-being problems and social exclusion. Factors related to the migratory process (such as travel alone as a minor, living away from family and discrimination after arrival) negatively impact their mental health and increase the risk of social exclusion.

**Aims:** To identify the risk factors of mental health and well-being in unaccompanied minor migrants in Spain.

**Methods:** This is a cross-sectional study of 100 minors from foster care placements interviewed face-to-face in Barcelona. Sociodemographics, COVID-19, employment situations, factors related to the migratory process, and health and well-being situations were assessed. Quantitative and qualitative data analysis was required.

**Preliminary results:** All participants were 15 to 17-year-old males. 54% were from Morocco. 84% agreed with their family to migrate, and most of them used dangerous routes to reach Spain. 96% perceived discrimination (EDS) in their daily life, and 68% suffered from acculturative stress. They report low levels of psychological distress (15.46 [SD: 3.73] K10), but 87% consider the host country situation worse than they thought.

**Conclusion:** Findings establish that there are relevant risk factors that impact unaccompanied minor migrants' mental health. By knowing these factors allow public institutions might to develop targeted and effective interventions.

**OP16.02 Family Income Trajectories in Childhood and Diagnosis of Psychosis or Bipolar Disorder by Parental Migrant Status: A Swedish Population-based Study****Merle Schlieff**<sup>1,2</sup>, James B Kirkbride<sup>1,2</sup>, Anna-Clara Hollander<sup>2</sup>, Christina Dalman<sup>2</sup>, Jennifer Dykxhoorn<sup>1,2</sup><sup>1</sup>Division of Psychiatry, University College London, London, UK (GB); <sup>2</sup>Department of Global Public Health, Karolinska University, Stockholm, Sweden

**Aims:** We investigated associations between family income trajectories in childhood and non-affective psychosis, affective psychosis, and non-psychotic bipolar disorder in adulthood, by parental migrant status.

**Methods:** We used annual family income from the Swedish population registers and generated family income trajectories from birth through age 14 using Latent Class Growth Modelling. We estimated associations between income trajectories and psychiatric diagnoses by parental migrant status using unadjusted and adjusted logistic regression.

**Results:** We included 767,337 individuals born in Sweden between 1990 and 1997. We identified six income trajectories: lowest (22.0%), low-increasing (22.4%), medium-increasing (17.4%), medium-fluctuating (17.5%), high-stable (13.8%), and highest (6.9%). Associations between income trajectories and psychiatric diagnoses varied by parental migrant status. For children of Swedish-born parents, adjusted odds of non-affective psychosis were higher in the lowest-income and medium-fluctuating-income trajectories compared to the highest trajectory. Adjusted odds of affective psychosis were increased in the medium-fluctuating-income trajectory (aOR: 1.96; 95% CI 1.09-3.53). There were no associations between income trajectories and non-psychotic bipolar disorder among children of Swedish-born parents. For children of migrant parents, adjusted odds of non-affective psychosis were increased in all income trajectories, except the high-stable-income trajectory, compared to the highest trajectory. There were no associations between income trajectories and affective psychosis among children of migrant parents. Adjusted odds of non-psychotic bipolar disorder were increased in all income trajectories, except the lowest, compared to the highest trajectory.

**Conclusion:** We found differences between childhood income trajectories and risk of psychiatric diagnosis between children of migrant parents and children of Swedish-born parents.

### OP16.03 Migrant Differences in Antipsychotic Treatment in First Episode Psychosis: a Swedish Population-Based Cohort Study

**Nathalie Rich**<sup>1</sup>, Jennifer Dykxhoorn<sup>1</sup>, Anna-Clara Hollander<sup>2</sup>, Christina Dalman<sup>2</sup>, Milagros A. Ruiz<sup>3</sup>, James B. Kirkbride<sup>1</sup>

<sup>1</sup>Division of Psychiatry, University College London (London, GB); <sup>2</sup>Department of Global Public Health, Karolinska Institutet; <sup>3</sup>School of Health and Social Care, University of Essex

**Aims:** Ethnic and migrant inequalities in psychosis incidence, recovery and treatment have been widely observed in the UK, USA and Netherlands. We sought to examine differences in antipsychotic (AP) treatments by migrant status and region of origin in the 12-months after FEP in Sweden.

**Methods:** We conducted a population-based cohort study of individuals aged 14-65 at first episode psychosis (FEP) diagnosis using the Swedish National Patient Register. Binary measures (Yes/No) for the receipt of: any AP, First-Generation AP (FGA), Clozapine, Long-Acting Injectable (LAI) AP, and AP Polypharmacy were investigated by migrant status and region of origin for migrants and children of migrants (COM). We ran multivariable logistic regression models adjusted for clinical, demographic and socioeconomic factors, including area-level contextual factors prior to the year of diagnosis (or the closest recorded year).

**Results:** Of 41,665 individuals with FEP, 17,995 (43.2%) had a migrant background. In adjusted models, we found migrant groups were less likely to have received all outcomes, and COM groups were more likely to have received FGA (OR=1.14, 95%CI: 1.01-1.27) and LAI (OR=1.34, 95%CI: 1.14-1.56) than Swedish-born non-migrant groups. Effects were observed in migrants and COM migrants from regions such as Eastern Europe, Middle East and North Africa and Sub-Saharan Africa.

**Conclusion:** We identified robust differences in the receipt of AP treatments between some migrant and non-migrant groups not attributable to clinical, sociodemographic, or contextual factors. Further research is needed to understand and address these inequalities.

### OP16.04 Age-at-Migration, Ethnicity and Psychosis Risk: Findings from the EU-GEI Case-Control Study

**Humma Andleeb**<sup>1</sup>, Bettina Moltrecht<sup>1</sup>, Craig Morgan<sup>2</sup>, Hannah Jongasma<sup>3</sup>, Julian Edbrooke-Childs<sup>1</sup>, James Kirkbride<sup>1</sup>

<sup>1</sup>University College London (London, GB); <sup>2</sup>King's College London; <sup>3</sup>University Medical Centre Groningen

**Background:** Psychosis risk is increased in migrant and ethnic minority populations. A systematic review found that migrating before the age of 18 increased risk, however evidence on risk during specific periods of childhood and adolescence is unclear.

**Aims:** We aimed to explore whether psychosis risk was differentially associated with migration during key socio-developmental periods during upbringing and whether this risk differed for ethnic minorities. We hypothesised that migration in childhood and adolescence would be most strongly associated with increased odds of psychosis, and this would be more pronounced for ethnic minorities.

**Methods:** We used data from the EU-GEI case-control study from five countries to examine association between migration in infancy (0-4 years), childhood (5-10 years), adolescence (11-17 years) or adulthood (18+ years) and first episode psychotic disorder. We fitted multiple logistic regression models to estimate odds ratios and 95% confidence intervals. We used stratification to examine associations by ethnicity.

**Results:** Of 937 cases and 1,195 controls, migration at all ages was associated with increased odds of psychosis compared with the white majority non-migrant group, after adjusting for all confounders except ethnicity. After additional adjustment for ethnicity, only migration during adolescence (OR: 1.94; 95%CI: 1.11-3.36) remained associated with psychosis. In stratified analyses, migration during adolescence increased odds of psychosis in Black and North African groups.

**Conclusion:** Migration during adolescence is associated with increased psychosis risk, particularly in ethnic minority groups. This suggests that development of interventions for minoritised young migrants that alleviate stressors associated with migration and acculturation are warranted.

## OP16.05 Incidence of Non-Affective Psychotic Disorders Among First- and Second-Generation Migrant Groups in Canada: New Findings from a Population-Based Birth Cohort

**Kelly K. Anderson**<sup>1</sup>, Rebecca Rodrigues<sup>1</sup>, Martin Rotenberg<sup>2</sup>, Jordan Edwards<sup>3</sup>, Britney Le<sup>4</sup>

<sup>1</sup>Western University, London Ontario CANADA (London, Ontario, CA); <sup>2</sup>Centre for Addiction and Mental Health, Toronto Ontario CANADA;

<sup>3</sup>McMaster University, Hamilton Ontario CANADA; <sup>4</sup>ICES Western, London Ontario CANADA

**Aims:** Migration is a risk factor for psychotic disorders, with persistence of risk into the second generation; however, there has been a lack of evidence from a Canadian context, particularly for second-generation migrants. We sought to examine the risk of psychotic disorder among migrant groups in Ontario (Canada), and explore the role of region of birth, generation status, and migrant class.

**Methods:** We constructed a retrospective birth cohort using health administrative data, which included 560,262 children born in Ontario between 1992 and 1996 and followed to age 25-30 years. Linkages with immigration data and hospital birth records allowed us to identify first- and second-generation migrants. We estimated incidence rate ratios (IRR) and 95% confidence intervals (CI) for the association between migrant status and the incidence of non-affective psychotic disorder.

**Results:** We found distinctive patterns of risk by region of birth, with migrants from Africa (IRR=1.58, 95%CI=1.42-1.76) and the Caribbean (IRR=1.50, 95%CI=1.34-1.67) having elevated rates of psychotic disorder. Migrants from Europe (IRR=0.90, 95%CI=0.82,0.99), South Asia (IRR=0.84, 95%CI=0.76,0.92), East Asia (IRR=0.63, 95%CI=0.56,0.69), and North Africa and the Middle East (IRR=0.83, 95%CI=0.73-0.95) had lower rates of psychotic disorder than the Canadian-born population. Models for migrant class and generation status are currently underway and will be presented at the conference.

**Conclusion:** Our population-based health administrative datasets that include migrants from a wide range of countries have produced the first Canadian evidence on psychosis among second-generation migrant groups. Our unique migration context can inform international efforts to ameliorate known disparities for migrant groups with psychosis.



**OP17 Environmental exposures and Mental Health**

Fri. 13 Sept., 16:00-17:30

A2064

Chair: Lais Bhering Martins, CH

**OP17.01 The Impact of Early Life Exposure to Green Space on Developing a Schizophrenia Spectrum Disorder in Adolescence and Early Adulthood: a Population-Based Birth Cohort Study**

**Martin Rotenberg**<sup>1</sup>, Amy Mizen<sup>4</sup>, Britney Le<sup>3</sup>, Rebecca Rodrigues<sup>5</sup>, Jordan Edwards<sup>6-7</sup>, Paul Kurdyak<sup>1-3</sup>, Kelly Anderson<sup>3,5,8</sup>

<sup>1</sup>University of Toronto, Department of Psychiatry, Toronto, Canada (Toronto, CA); <sup>2</sup>Centre for Addiction and Mental Health, Toronto, Canada; <sup>3</sup>ICES, Ontario, Canada; <sup>4</sup>Swansea University, Swansea, United Kingdom; <sup>5</sup>Department of Epidemiology and Biostatistics, Western University, London, Canada; <sup>6</sup>Department of Psychiatry & Behavioural Neurosciences, McMaster University, Hamilton, Canada; <sup>7</sup>Offord Centre for Child Studies, Hamilton, Canada; <sup>8</sup>Department of Psychiatry, Western University, London, Canada

**Aims:** There is a small but growing literature demonstrating that green spaces may be protective against developing a schizophrenia spectrum disorder (SSD). We aimed to examine this association using a developmental approach using population-based health administrative data to examine the role of early life exposure to green space on the risk of developing a SSD in adolescence and early adulthood.

**Methods:** We created a population-based birth cohort of all children born in Ontario between 1992 and 1996. A validated algorithm was used to identify incident cases of SSD. Cumulative green space exposure was defined using normalized difference vegetation index values from birth to age 12. Cox proportional hazards models were used to estimate the associations between cumulative exposure to green space and the risk of developing a SSD while accounting for potential confounders.

**Results:** The analytic cohort included 814,531 children. Preliminary modelling found the risk of developing a SSD decreased in children exposed to greater amounts of green space during childhood (aHR = 0.78, 95% CI = 0.62 – 0.98). Full model outputs are to be presented at the conference.

**Conclusion:** Green space may be an important risk-reducing factor that warrants further investigation. Our study underscores the importance of exposures to environmental factors during development and how these exposures may impact the risk of developing a SSD. Future work will examine how other environmental factors, including air pollution, may impact risk. Further understanding of environmental risk may help inform public mental health interventions and targeted policies addressing childhood exposures.

**OP17.02 Environmental Greenness and Children Emotional and Behavioral Difficulties**

**Eloi Chazelas**<sup>1</sup>, Alexandre Ramchandrar Gomajee<sup>1,2</sup>, Devin Parker<sup>1</sup>, Florencia Barreto-Zarza<sup>1,3,4</sup>, Maria Melchior<sup>1</sup>

<sup>1</sup>Sorbonne University, INSERM U1136, Pierre Louis Institute of Epidemiology and Public Health (IPLESP) (FR); <sup>2</sup>French School of Public Health (EHESP), Doctoral Network, Rennes, France; <sup>3</sup>Faculty of Psychology, University of the Basque Country (UPV/EHU), San Sebastian, Spain; <sup>4</sup>Environmental Epidemiology and Child Development Group, Biodonostia Health Research Institute, Sebastian, Spain

**Aims:** Recent observational studies have reported improvements in children's development and mental health associated with greenness exposure. The objective of this study was to evaluate the associations between environmental greenness and children's behavioral and emotional symptoms at age 5.

**Methods:** Overall, 10,092 participants from the French ELFE (*Étude Longitudinale Française depuis l'Enfance*) birth cohort were included. Participants' addresses were collected and geocoded at 2 months, 3.5 and 5.5 years. The greenness surrounding the addresses (250m walkable buffers modelling the child's real-life environment) was assessed using the Normalized Difference Vegetation Index (NDVI). To assess the trajectories of greenness around the children's homes, the group-based trajectory modelling (GBTM) method was used. Children's mental health difficulties were assessed at 5.5 years by parents using the Strengths and Difficulties Questionnaire (SDQ), a validated 25-item questionnaire that evaluates children's emotional difficulties. Associations between greenness trajectories and SDQ scores (internalizing and externalizing) were evaluated using weighted linear models, adjusted on known confounders.

**Results:** The highest greenness trajectory was associated with a lower SDQ internalization score (OR=-0.21, 95% CI -0.35 to -0.08; p=0.002). Stratified analyses showed that the association was only present in boys

(OR=-0.29, 95% CI -0.49 to -0.09; p=0.004), particularly for the emotional symptoms scale (OR=-0.22, 95% CI -0.36 to -0.08, p=0.003).

**Conclusion:** In this study, higher greenness trajectory associated with better internal symptoms among boys, with potential effect on emotional symptoms, suggesting improved stress recovery. These results need replication in other cohort studies.

### OP17.03 Longitudinal Associations Between Environmental Worries and Mental Health in Adolescence: Findings from the Longitudinal Study of Australian Children

**Marie A. E. Mueller**<sup>1</sup>, Ramya Srinivasan<sup>1</sup>, Glyn Lewis<sup>1</sup>, Gemma Lewis<sup>1</sup>, Francesca Solmi<sup>1</sup>

<sup>1</sup>Division of Psychiatry, University College London (GB)

**Aims:** Climate change is a global health issue. Around 60% of young people globally report being very/extremely worried about climate change. The evidence for associations with mental health is limited and mostly cross-sectional. We aimed to investigate the longitudinal association between environmental worries in early adolescence and subsequent disordered eating, self-harm, and depressive symptoms.

**Methods:** We used data from the Longitudinal Study of Australian Children. Young people reported on how worried they were about the environment (1='not at all worried' to 4='very worried') at ages 10/11 and 12/13. Outcomes were binary measures of disordered eating and self-harm (at 14/15, 16/17, 18/19), and a continuous score of depressive symptoms (at 14/15, 16/17). We imputed missing outcome and confounder data and ran multilevel regression models adjusted for individual- and family-level confounders, including pre-existing worries.

**Results:** A total of 3,710 adolescents had data on environmental worries: 46% (at 10/11) and 34% (at 12/13) reported being fairly/very worried about the environment. In unadjusted models, adolescents with greater environmental worries had worse mental health. In adjusted models, we found weak evidence that children reporting greater environmental worries at 10/11 had higher odds of disordered eating (OR=1.15, 95% CI: 1.03–1.29) and self-harm (OR=1.16, 95% CI: 1.00–1.35).

**Conclusion:** We did not find strong evidence for an association between environmental worries and mental health. Adolescents who express severe worries at an early age might be at increased risk of disordered eating and self-harm. This could have implications for interventions (e.g. discussions about climate change in schools).

### OP17.04 The Association between Prenatal Exposure to Mixtures of Environmental Chemicals and Neurodevelopment: a Mediation Analysis of Thyroid Hormones

**Marlene Stratmann**<sup>1</sup>, Chris Gennings<sup>2</sup>, Carl-Gustaf Bornehag<sup>1,2</sup>

<sup>1</sup>Karlstad University (SE); <sup>2</sup>Icahn School of Medicine at Mount Sinai

**Aims:** To explore if the association between prenatal exposure to environmental chemicals and child neurodevelopment is mediated by thyroid hormones, in boys and girls respectively, and for high and low gestational age measurements.

**Methods:** The mixture of 26 environmental chemicals (phenols, phthalates, PFAS and persistent chlorinated compounds) and thyroid hormones, as measured by a ratio between total T4 and total T3 (TT4/TT3) were measured in the mother's serum and urine. Neurodevelopment of the child was measured by assessing the intelligence quotient using the Wechsler Intelligence Scale for Children. 572 mother-child pairs were included in the study population which is based on the Swedish Environmental Longitudinal, Mother and child, Asthma and allergy (SELMA) study. The mixture of 26 chemicals was handled by using a weighted quantile sum regression index that parts the mixtures into deciles in order to make it one exposure variable with different levels. The linear regression analyses were adjusted for relevant confounders and stratified by sex, as well as higher or lower gestational age when the biological samples were taken.

**Results:** For boys, whose mothers had the biological samples taken later in pregnancy ( $\geq 10$  weeks gestation), the average causal mediation effect is -0.29 (95% CI -0.76, 0.02). For boys with the measurements taken in earlier pregnancy ( $< 10$  weeks) and girls in both categories of gestational age, no effects could be detected.

**Conclusion:** There is some indication that TT4/TT3 might be of importance in boys, whose mothers' biological samples were taken earlier in pregnancy.

### **OP17.05 Environmental-Diet Study: Preliminary Results on the Association Between a Sustainable Diet and Depression**

**Laís Bhering Martins**<sup>1</sup>, Martin Preisig<sup>2</sup>, Pedro Marques-Vidal<sup>2</sup>, Séverine Vuilleumier<sup>3</sup>, Angéline Chatelan<sup>1</sup>

<sup>1</sup>Department of Nutrition and Dietetics, Geneva School of Health Sciences, HES-SO, Switzerland (Lausanne, CH); <sup>2</sup>Department of Medicine, Lausanne University Hospital (CHUV), Lausanne, Switzerland; <sup>3</sup>La Source School of Nursing, HES-SO, Lausanne, Switzerland

**Aims:** Our preliminary cross-sectional analyses aim to assess the association between the adherence to EAT-Lancet diet, a dietary pattern proposed to be healthy and environmentally sustainable, and major depressive disorder (MDD).

**Methods:** We used existing data from the first follow-up of CoLaus|PsyCoLaus cohort. Sociodemographic, clinical, and anthropometric data were collected. Dietary intake was assessed through a semi-quantitative food frequency questionnaire. Adherence to the EAT-Lancet diet was calculated using Stubbendorff et al. (2019)'s scoring system. MDD was assessed using the Diagnostic Interview for Genetic Studies (DIGS).

**Results:** The analyses included 3,473 individuals of those 1,511 had diagnoses of MDD. Individuals with MDD were younger [55.4 (47.2-63.1) vs. 58.7 (49.8-67.1) years,  $p < 0.01$ ], predominantly women (66% vs. 47%,  $p < 0.01$ ), more often retired or unemployed (62% vs. 56%,  $p < 0.01$ ), consumed less alcohol [3 (1-8) vs. 4 (1-10) units/week,  $p < 0.01$ ], and had a lower BMI [25.3 (23.0-28.5) vs. 25.6 (23.0-28.5),  $p = 0.04$ ] compared to individuals without MDD diagnosis. Those diagnosed with MDD showed greater adherence to the EAT-Lancet diet than individuals without the diagnosis (20 (17-22) vs. 19 (17-22),  $p < 0.01$ ). However, adherence to the EAT-Lancet diet was not associated with increased odds of having MDD when controlling for confounding factors, as indicated by the regression analysis ( $\beta$ : -0.003;  $p = 0.75$ ).

**Conclusion:** The preliminary results of this study suggest that adherence to the EAT-Lancet dietary pattern is not associated with having MDD.

**OP18 Childhood and Adolescent Mental Health****Fri. 13 Sept., 16:00-17:30****3128****Chair:** Giorgio Pistis, CH**OP18.01 Early Childcare from Birth to Age 3 and Behavioural Difficulties at Age 5.5 years: Insight from the French ELFE Cohort****Alexandre Ramchandar Gomajee**<sup>1,2</sup>, Katharine Barry<sup>1</sup>, Eloi Chazelas<sup>1</sup>, Marie-Noëlle Dufourg<sup>3</sup>, Florencia Barreto-Zarza<sup>1,4-5</sup><sup>1</sup>Sorbonne University, INSERM U1136, IPLESP (Paris, FR); <sup>2</sup>Ecole des Hautes Etudes de Santé Publique; <sup>3</sup>ELFE Joint Unit INED-INSERM-EFS; <sup>4</sup>Faculty of Psychology, University of the Basque Country (UPV/EHU); <sup>5</sup>Environmental Epidemiology and Child Development Group, Biodonostia Health Research Institute

**Aims:** We aim to study the link between childcare in the first three years of life and children's behavioural difficulties at age 5.5 years in the French context.

**Methods:** Parents participating in the ELFE mother-child cohort, in France, reported the main childcare type of their child (n = 10,184) in the first three years of life: (centre-based (24.0%), childminder (46.5%), informal (7.4%) or parents only (22.2%)), as well as the child behaviour via the Strengths and Difficulties Questionnaire (SDQ) at age 5.5 years. Adjusting for socio-demographic factors, parents' and child's characteristics using propensity scores and inverse probability weighting, we carried out logistic regression analyses to evaluate the association between childcare type and total SDQ score as well as subscale scores.

**Results:** Taking children who were cared by their parents only as reference, being in centre-based childcare (OR<sub>a</sub> = 0.88 [95% CI: 0.69 – 1.11]), or in childminder childcare (OR<sub>a</sub> = 0.95 [95% CI: 0.75 – 1.20]), or in informal childcare (OR<sub>a</sub> = 1.24 [95% CI: 0.99 – 1.55]) were not significantly associated to abnormal total SDQ score. Further analyses showed a significantly higher likelihood of conduct problems among children in centre-based childcare (OR<sub>a</sub> = 1.21 [95% CI: 1.03-1.42]) and informal childcare (OR<sub>a</sub> = 1.32 [95% CI: 1.13 – 1.55]). No other significant association was found, even in stratified analysis.

**Conclusion:** Contrary to previous studies based in France, in the ELFE cohort, we did not find significant associations between childcare, especially centre-based childcare, and lower likelihood of externalising or internalising symptoms.

**OP18.02 Tic Talk - Ten Years Later: Long Term Outcomes for Tourette's and Tic Disorders****Tore Hofstad**<sup>1,2</sup>, Olav Nytingnes<sup>1,3</sup>, Anne Hege Strand<sup>4</sup>, Ingvar Bjelland<sup>5,6</sup>, Arnstein Mykletun<sup>1,7,8</sup><sup>1</sup>Centre for Population Health, Haukeland University Hospital, Bergen, Norway (NO); <sup>2</sup>Centre for Medical Ethics, University of Oslo, Norway; <sup>3</sup>Health Services Research Unit, Akershus University Hospital, Lørenskog, Norway; <sup>4</sup>Fafo, Oslo, Norway; <sup>5</sup>Department of Clinical Medicine, University of Bergen, Norway; <sup>6</sup>Department of Child and Adolescent Mental Health Services, Haukeland University Hospital; <sup>7</sup>Division for Health Services, Norwegian Institute of Public Health, Oslo, Norway; <sup>8</sup>Centre for Work and Mental Health, Nordland Hospital Trust, Bodø, Norway

**Aims:** Tic disorders and Tourette Syndrome, involve sudden, rapid, non-rhythmic movements or vocalizations. Although symptoms generally diminish during adolescence, tic disorders can impact educational and employment outcomes, mental health, self-harm tendencies, social integration, and overall quality of life. Long-term outcomes are often unknown due to loss of contact between patients and clinicians. In this study we aimed to investigate the long-term independent living capabilities of individuals with tic disorders, addressing potential adverse outcomes during adolescence.

**Methods:** We compared a cohort of 3,020 individuals diagnosed with tic disorders to a control group of 69,931 individuals without child and adolescent mental health services (CAMHS) contact, matched by age and sex. For each adverse event, we calculated proportions with 95% confidence interval, by sex and age cohort. Combined outcomes were stratified by comorbidity and parents' education.

**Results:** Adolescents with tic disorders experienced more adverse events compared to controls, including welfare dependence, serious crime charges, and hospitalisation for self-harm. 46-52% of those diagnosed managed independent living ten years post-CAMHS, versus 77-78% of controls. Persons with tic disorders, but no comorbidity, fared no worse than the general population.

**Conclusion:** Persons who received a tic disorder diagnosis often experienced hardship, but many still managed independent living ten years later. This study provides a comprehensive view of long-term outcomes for persons with tic disorders, aiding families, mental health professionals, and policymakers in understanding and improving these individuals' quality of life.

### OP18.03 Peer-friendship Networks and Self-Harm among Adolescents from Inner-city Schools: Using Social Network Analysis to Inform Self-harm Prevention

**Holly Crudgington**<sup>1</sup>, Rachel Blakey<sup>2</sup>, Molly Copeland<sup>3</sup>, the REACH cohort team<sup>1</sup>, Gemma Knowles<sup>1</sup>, Craig Morgan<sup>1</sup>.

<sup>1</sup>King's College London (London, GB); <sup>2</sup>University of Bristol; <sup>3</sup>Michigan State University

**Aims:** During adolescence, peers play a crucial role in social development, yet little is known about the relationship between in-school peer-friendship networks and self-harm. This study aims to explore this among adolescents in inner-London schools.

**Methods:** We analysed cross-sectional data on lifetime self-harm and sociometric peer-friendship networks from the Resilience, Ethnicity and AdolesCent Mental Health (REACH) study (n, 2203). Network metrics were developed that represent exposure to friends' self-harm and network integration (popularity [in-degree,] sociality [out-degree], friendship group [ego-network] density, "bridging" [betweenness centrality], and isolation. Analyses used mixed-effects logistic regression.

**Results:** Social network metrics were associated with self-harm, independent of gender, age, free-school meals, and ethnic group. Having at least one friend report self-harm was associated with increased odds of self-harm (aOR 1.63, 95%CI 1.25, 2.13). The effect of friends' self-harm was cumulative (2 friends' self-harm (aOR 2.34, 95%CI 1.59, 3.45), 3+ friends' self-harm (aOR 3.72, 95%CI 2.20, 6.28). Structurally, both under- and over-integration in the network were associated with self-harm. Being under-integrated (isolated [vs. not]) (aOR 1.86, 95%CI 1.12, 3.08) and over-integrated in the wider network (bridging [aOR 1.02, 95%CI 1.00, 1.05], popularity [aOR 1.05, 95%CI 0.99, 1.12]) was associated with increased odds of self-harm. However, being part of a high-density friendship group (vs medium) was associated with reduced odds of self-harm (aOR 0.51, 95%CI 0.31, 0.85). Gender did not moderate observed associations.

**Conclusion:** Peer-friendship networks are important to consider for adolescent self-harm. Network-informed interventions targeting friendships or integration in schools may prove beneficial in self-harm prevention efforts.

### OP18.04 The Healthy Context Paradox: a Cross-Country Analysis of the Association between Bullying Victimization and Adolescent Mental Health

**Tracy Odigie**<sup>1</sup>, Esme Elsdon<sup>2</sup>, Mariko Hosozawa<sup>3</sup>, Praveetha Patalay<sup>4,5</sup>, Jean-Baptiste Pingault<sup>1,6</sup>

<sup>1</sup>Department of Clinical, Educational and Health Psychology, University College London (GB); <sup>2</sup>Department of Epidemiology and Public Health, University College London; <sup>3</sup>National Centre for Global Health and Medicine, Institute for Global Health Policy Research; <sup>4</sup>Centre for Longitudinal Studies, Social Research Institute, University College London; <sup>5</sup>MRC Unit for Lifelong Health and Ageing, University College London; <sup>6</sup>Social, Genetic and Developmental Psychiatry Centre, King's College London

**Background:** Bullying victimisation is an increasing global health problem among adolescents, associated with adverse mental health outcomes. Investigating whether associations with mental health vary across national contexts can provide insights into mechanisms underlying those associations.

**Aims:** To examine: (i) whether associations between bullying victimisation, psychological distress and life satisfaction are observed in all countries, and the extent to which they vary; (ii) whether moderators i.e. bullying prevalence, inequality and wealth, can partly explain the variation.

**Methods:** We used data from 479,685 adolescents participating in the 2018 Program for International Student Assessment cross-sectional survey and examined whether the associations between bullying victimisation, psychological distress and life satisfaction vary across 63 countries. We further tested the modifying role of country-level factors – bullying prevalence, income inequality and national wealth, by implementing multilevel cross-country analyses.

**Results:** We found significant associations between bullying victimisation, increased psychological distress (b=0.181; 95%CI: 0.178, 0.184) and decreased life satisfaction (b=-0.158; 95%CI: -0.162, -0.155). Associations between bullying victimisation, psychological distress and life satisfaction among adolescents were



consistent across countries in terms of direction but effect sizes varied substantially. The effects ranged from  $b=0.08$  to  $b=0.40$  for psychological distress and from  $b=-0.05$  to  $b=-0.36$  for life satisfaction. Consistent with the "healthy context paradox" effect, associations between bullying and mental health were larger in countries where the prevalence of bullying was lower, as well as in higher-income countries.

**Conclusion:** Interventions aiming to reduce bullying victimisation should aim to provide additional targeted support for those who still experience bullying after the intervention.

**OP19 COVID-19 Pandemic and Mental Health****Fri. 13 Sept., 16:00-17:30****3174****Chair:** Meichun Mohler-Kuo, CH**OP19.01 The Longitudinal Impacts of Parents' Mental Health Status and Children's Stress on Children's Anxiety during Covid Pandemic in Switzerland****Meichun Mohler-Kuo**<sup>1,2</sup>, Susanne Walitza<sup>2</sup>, Simon Foster<sup>2</sup><sup>1</sup>La Source, School of Nursing Sciences, HES-SO University of Applied Sciences and Arts of Western (Lausanne, CH); <sup>2</sup>Department of Child and Adolescent Psychiatry and Psychotherapy, University Hospital of Psychiatry

**Aims:** The COVID-19 pandemic has been both an acute and chronic threat to the well-being of the general population and adolescents are especially vulnerable to these challenges, since they are facing significant changes in all aspects of life. The present study aims to assess the longitudinal association between perceived stress in both parents and children, coping strategies and anxiety symptoms in adolescents during Covid-19 pandemic.

**Method:** The present longitudinal study was conducted among a large national sample of adolescents 12-17 years old from all three language regions in Switzerland. The baseline (wave 1) was conducted from July-October 2020 and the follow-up survey was conducted one year later, from July-September 2021 through online survey. About 553 children and adolescents participated both baseline surveys. A structural equation model (SEM) was fitted to examine the longitudinal association between perceived covid-related stress among adolescents and their parents, the adolescents' anxiety symptoms and coping strategy.

**Results:** Parents' perceived covid-related stress during the lockdown is associated both parents and adolescents' perceived stress one year later. Parents' stress is also indirectly associated with adolescents' anxiety symptoms in 2021 mediated by adolescents' stress. Adolescent's perceived covid-related stress during lockdown is directly associated with their anxiety symptoms one year later. After controlling for all these association, adolescents' use of positive coping is associated with less anxiety symptoms in adolescents.

**Conclusion:** Parents' stress during Covid-19 pandemic has short-term and long term effects on children's stress and indirect effects on children's anxiety symptoms mediated by children's stress. The implication will be discussed.

**OP19.02 Life Events during the COVID-19 Pandemic and Suicidal Ideation in the General Population in France: Effect Modification by Psychiatric Disorder History****Camille Davaisse-Paturet**<sup>1</sup>, Massimiliano Orri<sup>2</sup>, Cécile Vuillermoz<sup>1</sup>, Marie-Claude Geoffroy<sup>2</sup>, Maria Melchior<sup>1</sup>, Alexandra Rouquette<sup>1,3</sup><sup>1</sup>INSERM, France (Paris, FR); <sup>2</sup>McGill University, Canada; <sup>3</sup>Université Paris-Saclay, France

**Aims:** We studied associations between life events in 2020-2021 and suicidal ideation in 2022 by pre-pandemic psychiatric disorder history in the nationwide French EpiCoV cohort.

**Methods:** Suicidal ideation in the last 12 months were collected in Autumn 2022. Studied life events included moving, partner separation, perceived deterioration of financial situation, unemployment, COVID-19 like symptoms, severe COVID-19, severe COVID-19 among relatives, a new somatic condition diagnosis, and a new psychiatric disorder diagnosis, at least once in 2020-2021. Psychiatric disorder history was defined as a self-reported medical diagnosis of any psychiatric disorder before the COVID-19 pandemic. Associations between each life event and suicidal ideation were assessed using adjusted modified Poisson regression models and the effect modification of psychiatric disorder history was systematically tested.

**Results:** Among 54,841 participants, association between severe COVID-19 in relatives (relative risk [95% CI]: 1.53 [1.14–2.06]) and suicidal ideation was stronger in participants with a psychiatric disorder history. Associations between unemployment (1.52 [1.08–2.12]), new somatic condition (1.86 [1.51–2.30]) or new psychiatric disorder (5.39 [4.14–7.02]) and suicidal ideation were stronger in participants without a psychiatric disorder history. A new psychiatric disorder was also associated with suicidal ideation in participants with a

psychiatric disorder history but to a lesser extent (2.94 [2.37–3.64]). No effect modification of psychiatric disorder history was found on associations between other life events and suicidal ideation.

**Conclusion:** During the COVID-19 pandemic, apart from severe COVID-19 in relatives, life events in 2020-2021 did not disproportionately impact suicidal ideation risk in individuals with a pre-pandemic psychiatric disorder history.

### OP19.03 Mental Impact of Covid-19 among Spanish Healthcare Workers. 3-year Longitudinal Study (MINDCOVID): Proximal and Distal Risk Factors and Trajectories

**Jordi Alonso**<sup>1,2,3</sup>, Gemma Vilagut<sup>1,2</sup>, Ferrer Montse<sup>1,2,3</sup>, Franco Amigo<sup>1,2</sup>, Víctor Pérez<sup>4,5</sup>, Eduard Vieta<sup>5,6</sup>, Juan D Molina<sup>5,7,8,9</sup>, Enric Aragonès<sup>10,11</sup>, Isabel Del Cura-González<sup>12</sup>, Philippe Mortier<sup>1,2</sup>

<sup>1</sup>Hospital Mar Research Institute Barcelona, Spain (ES); <sup>2</sup>CIBER de Epidemiología y Salud Pública ISCIII Madrid, Spain; <sup>3</sup>Universitat Pompeu Fabra, Barcelona Spain; <sup>4</sup>Hospital del Mar, Barcelona, Spain; <sup>5</sup>CIBER de Salud Mental, ISCIII, Madrid Spain; <sup>6</sup>CIBER de Salud Mental, ISCIII, Madrid Spain; <sup>7</sup>Institute of Neuroscience, Hospital Clinic, University of Barcelona, IDIBAPS, Barcelona, Spain; <sup>8</sup>Villaverde Mental Health Center, Clinical Manag. Area of Psych and Mental Health, Hosp U 12 Octubre; <sup>9</sup>Research Institute Hospital 12 de Octubre (i+12), Madrid, Spain; <sup>10</sup>Faculty of Health Sciences, Universidad Francisco de Vitoria, Madrid, Spain; <sup>11</sup>Institut d'Investigació en Atenció Primària IDIAP Jordi Gol, Barcelona, Spain; <sup>12</sup>Atenció Primària Camp de Tarragona, Institut Català de la Salut, Spain; <sup>13</sup>Fund Investig e Innov. Biosanitaria de AP, Com.Madrid,Spain; Madrid HServices; King Juan Carlos Univ

**Aims:** We assessed mental health of Spanish healthcare workers (HCWs) during 3 years after first wave of the COVID-19 pandemic and identified distal and proximal risk factors and trajectories.

**Methods:** Prospective cohort study, including 8,996 HCWs of 18 Spanish health institutions (census sampling), assessed 7 times (May 2020-May 2023) via web-based surveys. Mental health outcomes: -Any Probable Mental Disorder [any MD] (Depression [PHQ-8 $\geq$ 10]; Anxiety [GAD-7 $\geq$ 10]; Panic; PTSD [4-item PCL-5 $\geq$ 7]; and SUD [CAGE-AID $\geq$ 2]); and -Any Suicidal Thoughts or Behaviors [any STB] [CSSRS]. Eight distal (pre-pandemic) factors (sociodemographic; professional category; mental/physical conditions) and 13 proximal (pandemic-related) stressful experiences (COVID-19 infection status; work conditions; health/ financial/family- related stress) were assessed. Generalized Estimation Equations (GEE) modeled association of proximal stressors with mental health outcomes, adjusting for distal factors. Mental health outcome trajectories were created using Latent Classes Growth models.

**Results:** Up to 4,809 HCWs were followed (77% female). Prevalence of any MD significantly decreased from 45.5% (May 2020) to 31.2% (May 2023) while STB slightly increased (8.4% to 9.4%, respectively). Common distal risk factors for any MD and STB were: female gender, country of birth not Spain, being an auxiliary nurse, primary care setting, and physical, and most notably previous mental conditions. Six out of 13 proximal stressors showed positive associations with any MD or STB. (Latent trajectories are currently analyzed.)

**Conclusion:** Mental health outcomes among Spanish HCWs remained worryingly high during the 3 years of the COVID pandemic observed. Timely interventions on pandemic-related stressors might have mitigated mental health impairment.

**Funding:** This work was supported by grants from the Instituto de Salud Carlos III (ISCIII)/ Ministerio de Ciencia e Innovación/ FEDER COV20/00711 (Jordi Alonso); ISCIII-FEDER (Jordi Alonso, grant number PI17/00521); ISCIII-FSE Miguel Servet CP21/00078 (Philippe Mortier); ISCIII Sara Borrell CD18/00049 (Philippe Mortier); ISCIII cofinanced by the European Union through the European Social Fund Plus (ESF+) PFIS grant FI23/00004 (Ana Portillo-Van Diest); the Secretaria d'Universitats i Recerca del Departament d'Economia i Coneixement of the Generalitat de Catalunya AGAUR 2021 SGR 00624 (Jordi Alonso); PERIS, Departament de Salut SLT017/20/000009 (Itxaso Alayo); CIBER of Epidemiology & Public Health (CIBERESP) CB06/02/0046. Additional partial funding was received from the Gerencia Regional de Salud de Castilla y León (SACYL) GRS COVID 32/A/20 (José María Pelayo Terán).

### OP19.04 A Longitudinal Study of Obsessive-Compulsive Disorder (OCD) in Older Adults: Prevalence, Correlates, and COVID-19 impact, Across Multiple Cohorts

**Isak Fredén Klenfeldt**<sup>1,2</sup>, Robert Sigström<sup>1,2</sup>, Margda Waern<sup>1,2</sup>, Ingmar Skoog<sup>1,2</sup>

<sup>1</sup>Gothenburg University (Gothenburg, SE); <sup>2</sup>Institute of Neuroscience and Physiology

**Aims:** To longitudinally study subclinical and clinical OCD in older adults in relation to prevalence, correlates, and COVID-19.

**Methods:** Two cohorts (born 1930 and 1944) of 70-year-olds (N=1252) from Sweden, examined at age 70 and 75 years. At age 75 years (1944-cohort), 391 participants were examined before COVID-19 (<200316) and 435 after COVID-19 (>200907). Clinical OCD was diagnosed according to DSM-5.

**Results:** Cohort 1930 and 1944: The prevalence of OCD among 70-year-olds was 1.0% (1.4% in 1930-cohort; 0.7% in 1944-cohort). Among those, 92% (42% subclinical and 50% clinical) continued to have OCD-symptoms at follow-up at age 75 years. The prevalence of OCD among 75-year-olds was 3.2% (3.8% in 1930-cohort; 2.9% in 1944-cohort). Among those, 35% (subclinical 20% and clinical 15%) had OCD-symptoms at the previous examination at age 70 years. The cumulative prevalence was 3.7% (n=44), similar in the 1930-cohort (4.2%) and the 1944-cohort (3.4%).

Cohort 1944 before and after COVID-19: There was no difference in OCD prevalence between those examined before (n=12, 3.1%) and after (n=12, 2.8%) COVID-19, at age 75 years. Those examined after COVID-19, had more subclinical OCD (n=98, 22.5%) than those examined before COVID-19 (n=63, 16%). This difference was not seen at baseline.

**Conclusion:** Those with OCD at age 70 years have persisting OCD-symptoms getting older. The OCD prevalence increased from age 70 (1%) to the mid-70s (3%) in all cohorts studied. Not including mid-70s in population-studies might underestimate OCD prevalence in older adults. The COVID-19 pandemic seems to be associated with subclinical but not clinical OCD.

### OP19.05 Do Different Levels of Severity of Food Insecurity Affect Mental Health? Individual Fixed-Effects Analysis during the Covid-19 Pandemic

**Marina Kousta**<sup>1</sup>, Karen Glaser<sup>1</sup>, Rachel Loopstra<sup>2</sup>

<sup>1</sup>King's College London (GB); <sup>2</sup>University of Liverpool

**Aims:** While the link between food insecurity and poor mental health is established, few studies use longitudinal data, and causality remains uncertain. We aimed to assess the impact of different food insecurity measures on mental well-being during Covid-19.

**Methods:** We employed data from 5 waves of the Covid-19 survey of Understanding Society, the UK's largest nationally representative household survey (N=67,554). Mental health was captured using the GHQ-36 score and GHQ-12 (caseness,  $\geq 4$ ). Several food insecurity measures were used reflecting varying levels of severity, from milder (access to healthy food) to moderate (cutting/skipping meals) and severe (hunger and food bank use). Two Way Fixed Effects (TWFE) models, adjusted for several time-variant confounders, were employed to evaluate the effects of food insecurity on mental health.

**Results:** Hunger was statistically associated with a 1.26-point increase in GHQ-36 score ( $p=0.010$ , CI: 0.56, 1.94), whilst using a foodbank  $\geq 4$  times was associated with a 2.14 increase ( $p=0.033$ , CI: 0.28, 3.99). Using a food bank  $\geq 4$  times also increased the probability of GHQ-12 caseness by 11% ( $p=0.020$ , CI: 0.03, 0.20), whereas cutting/skipping meals increased the probability by 12% ( $p=0.030$ , CI: 0.02, 0.22). The remaining food insecurity measures did not demonstrate any significant associations.

**Conclusion:** To our knowledge, this is the first, longitudinal, nationally representative study employing robust fixed effects models to assess the likely causal impact of food insecurity on mental health. Milder manifestations of food insecurity were not associated with poor mental health, unlike more severe forms like hunger or food bank use.

### OP19.06 Post Covid-19 Syndrome among 5,248 Healthcare Workers in England: Longitudinal Findings from NHS CHECK

**Danielle Lamb**<sup>1</sup>, Brendan Dempsey<sup>1</sup>, Sharon Stevelink<sup>2</sup>, Ira Madan<sup>3</sup>, Bethany Croak<sup>2</sup>

<sup>1</sup>UCL (GB); <sup>2</sup>King's College London; <sup>3</sup>Guy's and St Thomas NHS Foundation Trust

**Aims:** To examine Post Covid-19 Syndrome (PCS), also known as 'Long Covid', among healthcare workers (HCWs) in England and to explore risk factors.

**Methods:** Data were collected by NHS CHECK, a longitudinal cohort study exploring the mental and physical wellbeing of HCWs during and after the Covid-19 pandemic. NHS CHECK collected data at four timepoints: the baseline survey between April 2020 and January 2021, and three follow-up surveys at 6, 12, and 32 months post baseline. Data on PCS were collected at 12 and 32 months, while risk factor data were collected at baseline.

Participants who reported a previous Covid-19 infection were asked what symptoms they experienced and for how long, and staff were classified as having PCS if they had any symptom for 12 or more weeks. Multi-level regression modelling was used to examine risk factors for PCS.

**Results:** This study included 5,248 HCWs with a previous Covid-19 infection. While 33.6% (n=1,730) reported prolonged symptoms consistent with PCS, only 7.4% (n=385) reported a formal diagnosis of PCS or Long Covid. Baseline risk factors for PCS included reporting symptoms of common mental disorders, direct contact with Covid-19 patients, pre-existing respiratory illnesses, female sex, and older age.

**Conclusion:** The difference in the number of HCWs reporting symptoms consistent with PCS and reporting a formal diagnosis suggests that many of those impacted by prolonged symptoms may not seek diagnosis. We also replicate findings that female sex, age, and symptoms of common mental disorders prior to Covid-19 infection increase risk of developing PCS.



**OP20 Epidemiological and Statistical Methods****Fri. 13 Sept., 16:00-17:30****3185****Chair: Matthew Sunderland, AU****OP20.01 How to Address Missingness in Mental Health Research: Insights from the Longitudinal Study of Young People in England (LSYPE/NEXT STEPS)****Corine Driessens<sup>1</sup>**, Peter WF Smith<sup>2</sup><sup>1</sup>University of Southampton (ARC Wessex) (Chilworth, Southampton, GB); <sup>2</sup>Department of Social Statistics & Demography, School of Economic, Social and Political Sciences, Uni

**Aims:** Our aim is to demonstrate the critical influence of a well-designed analysis plan on mental health research. As example, we will consider a researcher interested in studying mental health trajectories of participants included in LSYPE/NEXT STEPS, a frequently analysed English cohort dataset, with a sample size of 16117 Year-9 students (age 13/14) at the onset of the study in 2004.

**Methods:** Through a detailed examination of the data, we will explore the mechanism of attrition and the impact of participant mental wellbeing on attrition using logistic regression models. These analyses will help inform us if missingness is completely at random, at random, or not at random.

We will employ latent class growth analyses (LCGA) to study the fluctuations of participants' mental wellbeing from age 13 to age 30 and determine different pathways followed by young people during this transitional phase in life.

Different approaches have been recommended to deal with missing data depending on the mechanism of missingness. We will compare the most frequently used approaches and show the impact of these approaches on research.

**Results:** The impact of using missingness approaches on the findings are best demonstrated visually and thus will be presented at the conference.

**Conclusion:** All longitudinal studies suffer from attrition. It is therefore important to understand whether drop-out was selective and if it will bias the outcome of ones' research. In this demonstration we will show that there are different missingness approaches available that enable one to adjust for the bias caused by selective nonresponse.

**OP20.02 Influence of Data Collection Methodology on Prevalence Estimates of Common Mental Disorders during the COVID-19 Pandemic****Libor Potočár<sup>1,2</sup>**, Karolína Mladá<sup>1,3</sup>, Matěj Kučera<sup>1,4,5</sup>, Pavel Mohr<sup>6,7</sup>, Petr Winkler<sup>1,8</sup>, Tomáš Formánek<sup>1,9</sup><sup>1</sup>Department of Public Mental Health, National Institute of Mental Health, Klecany, Czechia; <sup>2</sup>PROMENTA Research Center, Department of Psychology, University of Oslo, Norway; <sup>3</sup>Department of Psychiatry, Faculty of Medicine in Pilsen, Charles University, Pilsen, Czech Republic; <sup>4</sup>Department of Health Sciences, Vrije Universiteit Amsterdam, Amsterdam, the Netherlands; <sup>5</sup>Second Faculty of Medicine, Charles University, Prague, Czech Republic; <sup>6</sup>Clinical Center, National Institute of Mental Health, Klecany, Czech Republic; <sup>7</sup>Third Faculty of Medicine, Charles University, Prague, Czech Republic; <sup>8</sup>Health Service and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience; <sup>9</sup>Department of Psychiatry, University of Cambridge, Cambridge, United Kingdom

**Aims:** Multiple studies suggested a deterioration of population mental health during the COVID-19 pandemic; however, more recent evidence using household sampling and in-person interviewing indicates broadly stable prevalence rates across time. We aimed to investigate the potential influence of data collection methodology, particularly sampling strategy and mode of interviewing, on the prevalence estimates of common mental disorders during the COVID-19 pandemic.

**Methods:** We used data from nationally representative cross-sectional surveys on Czech adults conducted in November 2017, in May and November 2020, and in November and December 2022. The 2017 data collection involved household probability sampling and in-person interviewing, the 2020 data collections used panel sampling and telephone and online interviewing, whereas the 2022 data collection used all the above methodologies simultaneously. The presence of current mental disorders was ascertained using the Mini International Neuropsychiatric Interview. We calculated prevalence rates and 95% confidence intervals stratified by data collection waves, sampling strategy, and mode of interviewing.

**Results:** Using household probability sampling and in-person interviewing, 20.02% (18.64, 21.40) and 19.90% (18.45, 21.34) of individuals had at least one mental disorder in 2017 and 2022, respectively. The 2022 panel sample interviewed online by telephone produced substantially higher prevalence estimates, reaching 34.29% (32.65, 35.94) and 26.7% (23.87, 29.53), respectively.

**Conclusion:** This study suggests that changes in data collection methodology, particularly the shift away from household sampling, might have introduced a bias during the early phases of the COVID-19 pandemic, with the most likely direction being the overestimation of true prevalence rates.

### OP20.03 A Scoping Review of Australian Epidemiological Datasets that Measure Psychological Distress: Examining Population Trends via Large Scale Harmonisation

**Matthew Sunderland**<sup>1</sup>, Jillian Halladay<sup>1,2</sup>, Katherine Keyes<sup>3</sup>, Andrew Baillie<sup>1</sup>, Tim Slade<sup>1</sup>

<sup>1</sup>University of Sydney, Sydney, Australia (Sydney, AU); <sup>2</sup>McMaster University/St Joseph's Healthcare Hamilton, Ontario, Canada; <sup>3</sup>Columbia University, New York, USA

**Aims:** Measures of psychological distress are often included in representative epidemiological surveys to provide a snapshot of mental health and wellbeing. These data can reveal long-term trends by age, period, and cohort, and compare distress across locations and high-risk populations. This review aimed to identify publicly available representative epidemiological surveys that contain  $\geq 1$  psychological distress measure and describe their scope, sampling frame, and contents.

**Methods:** Search terms were designed to capture manuscripts that use nationally, or state representative survey data conducted in Australia. Study eligibility included cross-sectional or longitudinal cohort designs with  $\geq 1$  self-report measure of psychological distress. Searches were conducted in PubMed in February 2024 with no year range set.

**Results:** A total of 1,395 articles were identified. Of those articles, initial screening excluded 850 leading to 545 articles that were further inspected to identify the data source. From those articles, a total 124 one-off or repeated cross-sectional surveys from 27 studies and a total of 157 waves from 23 longitudinal cohorts met the inclusion criteria. Most surveys were representative of the Australian adult population, with other surveys carried out in samples designed to represent individual Australian states, child/adolescents, or Indigenous peoples. The most common distress measure was the Kessler 10 (or short form variants), followed by the Mental Health Inventory (MHI-5), and other symptom-specific measures.

**Conclusion:** The surveys represent a valuable resource for researchers attempting to detect long term trends in psychological distress. Additional research is now required to harmonise and equate the different measures of psychological distress.

### OP20.04 Continuous Reporting of Epidemiological Insight: A Study Protocol Applying Covid-Era Learnings to Mental Health in Ukraine

**Andreas Michael Baumer**<sup>1</sup>, Viktoriia Yasenok<sup>2</sup>, Andriana Kostenko<sup>3</sup>, Viktor Von Wyl<sup>1,2</sup>, Milo Alan Puhan<sup>2</sup>, MAP Studies Team

<sup>1</sup>Institute for Implementation Science in Health Care, University of Zurich, Switzerland (Zürich, CH); <sup>2</sup>Epidemiology, Biostatistics and Prevention Institute, University of Zurich, Zurich, Switzerland; <sup>3</sup>Center for Social Research, Sumy State University, Sumy, Ukraine

**Background:** The Covid-19 pandemic forced researchers to develop new approaches to public health monitoring (e.g., Corona Immunitas) that provide near real-time information on public health to decision makers. The Russian war in Ukraine presents an ongoing and continuously changing public mental health crisis that similarly requires up-to-date information to enable effective responses.

**Aims:** The Mental Health Assessment of the Population of Ukraine (MAP-U) study protocol aims to apply the lessons learned during the Covid-19 pandemic to continuously provide current estimates of the prevalence of common mental health symptoms, within Ukraine, Ukrainian refugees in Zurich, Switzerland, and a Swiss comparison group.

**Methods:** Three separate age-stratified representative random samples are currently being recruited via mail, email, phone, and social media using contact details provided by each country's statistical office. We aim to recruit 17'400 Ukrainians living in ten regions of Ukraine with differing proximity to the front line, 1'220 Ukrainian refugees living in Zurich, Switzerland and 1'740 members of the local Swiss population as a

comparison group. Participants will be followed for at least two years. We use online survey tools and an R-Shiny based platform to continuously gather data and create interactive visualizations and statistics of the situation in near real-time.

**Results/Conclusion:** We were able to successfully apply an approach developed to monitor the Covid-19 pandemic to the public mental health of the Ukrainian population, by combining remote recruiting, data gathering and reporting tools. This demonstrates that online-centered agile study designs can provide near real-time information on changing public health challenges.

**OP21 Suicidal Thoughts and Behaviors****Sat. 14 Sept., 09:00-10:30****3128****Chair:** Gregory Armstrong, AU**OP21.01 Transition to a First Suicide Attempt among Young and Middle-Aged Males with a History of Suicidal Thoughts: a Two-Year Cohort Study****Gregory Armstrong**<sup>1</sup>, Phil Batterham<sup>2</sup>, Tilahun Haregy<sup>1</sup>, Matthew Spittal<sup>1</sup><sup>1</sup>University of Melbourne (Melbourne, AU); <sup>2</sup>Australian National University

**Aims:** To determine the probability and predictors of transition to a suicide attempt among young and middle-aged males with a history of suicidal thoughts but no prior history of attempting suicide.

**Methods:** We used data from the first two waves of the Australian Longitudinal Study on Male Health, approximately two years apart. We followed the cohort of males aged 18–55 years who, at wave 1, reported a lifetime history of suicidal ideation but no history of a prior suicide attempt. We report transition probabilities to a first suicide attempt at Wave 2 and used logistic regression models to examine baseline predictors of transition to a first suicide attempt over the two-year period among males aged 18 years and older.

**Results:** From the 1,564 males with suicidal thoughts at wave 1, 1,140 participants (8.9%) reported to have had their first suicide attempt in the two-year period. In multivariate analyses, the odds of a first suicide attempt were significantly higher for males who were: in the youngest age group (aged 18-29), living in inner regional areas; homosexual or bisexual; working night shift; and living with a disability. Clinical indicators such as symptoms of depression and illicit substance use were not significant predictors of transition to a first suicide attempt in multivariate models, nor were indicators of social connection.

**Conclusion:** We estimated that 8.9% of Australian males aged 15–55 years with a history of suicidal thoughts and no prior history of suicide attempts will progress to a first suicide attempt within two-years.

**OP21.02 Experiences of Suicide Survivors of Sharing their Stories about Suicidality and Overcoming a Crisis in Media and Public Talks: a Qualitative Study****Stefanie Kirchner**<sup>1</sup>, Thomas Niederkrotenthaler<sup>1</sup><sup>1</sup>Medical University of Vienna, Center for Public Health, Department of Social and Preventive Medicine (AT)

**Aims:** Little is known about how individuals sharing their suicidal experiences of hope and recovery perceive any effects of their storytelling. This study aims to qualitatively assess the experiences of individuals who shared their personal story of overcoming a suicidal crisis in media and determine key aspects perceived as important in this process.

**Methods:** Three focus groups were conducted with a total of n= 12 individuals. These included n= 5 participants with experience of suicidal ideation or a suicide attempt, n= 4 individuals who had been bereaved through suicide, and n= 3 participants who experienced both. Participants were recruited from the American organization "United Suicide Survivors International". Thematic analysis was used to assess the participants' perception and experiences of sharing their story.

**Results:** Participants were motivated by the intention to help others and reported positive effects on themselves and the audience, including improved help-seeking attitudes. Recommendations were compiled for others who would like to share their story of hope and recovery, which involves a process of careful personal preparation and practice before going public. The type of media was dependent on personal preference. Media training was considered essential to help new or unexperienced storytellers, especially when doing storytelling in live media.

**Conclusion:** Sharing personal stories of hope and recovery in media may benefit both storytellers and audiences. Support and guidance, including media training, are essential throughout the storytelling process, particularly for unexperienced storytellers to help them go public and effectively using their personal narratives to help prevent suicide.

### OP21.03 Suicide Behavior and Ideation in Lusaka

**Sarai Villa**<sup>1</sup>, Chimuka Muleya<sup>2</sup>, Rumbidzai Taguma<sup>2</sup>, Thandiwe Tembo<sup>3</sup>, Ravi Paul<sup>4</sup>, Günther Fink<sup>5</sup>, Irene Falgas<sup>5</sup>  
<sup>1</sup>Bellvitge University Hospital, Spain (Barcelona, ES); <sup>2</sup>University of Zambia, Zambia; <sup>3</sup>Chainama Hills Mental Hospital, Zambia; <sup>4</sup>University Teaching Hospital (UTH), Zambia; <sup>5</sup>Swiss Tropical and Public Health Institute (Swiss TPH), Switzerland

**Introduction and Aims:** According to WHO more than 700000 people die by suicide every year, being the fourth leading cause of death among 15-29 years old. In 2019, 77% of suicide deaths occurred in Low- and Middle-Income Countries showing an increased trend of suicidality in low-resourced settings. However, there's still a knowledge gap on understanding this trend and the current status of services and suicide management for youth in Sub-Saharan Africa. With this study, we aim to describe the current pathway for suicide attempts in Lusaka (Zambia) and uncover the needs for improving suicide secondary prevention in low-resourced settings.

**Methods:** We interviewed 30 key informants in the area of Lusaka, including physicians attending suicidal cases at medical facilities, nurses and counselors from four hospitals, and key stakeholders. We're currently complementing the data with 15 interviews of young people with lived experiences of suicide attempt. Data is analyzed using a qualitative analysis approach.

**Results and conclusion:** So far, the interviews have described the current pathway for suicide attempts in Lusaka. Health care providers and stakeholders agree in the current focus on medical stabilization, the lack of follow up after discharge and the need of training on suicide prevention management. In this presentation, we'll show a description of this current pathway and complement the qualitative results with perceptions and understanding of suicide and experiences from youth with history of suicide attempts. We expect this study will inform the development of interventions targeting secondary prevention of suicide among youth living in low-resourced settings.

### OP21.04 Predicting Suicidality in Youth Seeking Help from a Crisis Text Line: Development and Validation of an Explainable Transformer-Based Artificial Intelligence (AI) Text Classifier

**Julia Thomas**<sup>1,2,3</sup>, Antonia Lucht<sup>1</sup>, Jacob Segler<sup>1</sup>, Richard Wundrack<sup>1</sup>, Marcel Miche<sup>2</sup>, Roselind Lieb<sup>2</sup>, Lars Kuchinke<sup>4</sup>, Gunther Meinlschmidt<sup>2,3,5,6</sup>

<sup>1</sup>Krisenchat gGmbH; <sup>2</sup>Division of Clinical Psychology and Epidemiology, Department of Psychology, University of Basel, Basel, Switzerland;

<sup>3</sup>Division of Clinical Psychology and Cognitive Behavioural Therapy, International Psychoanalytic University (IPU) Berlin, Berlin, Germany;

<sup>4</sup>Division of Methods and Statistics, International Psychoanalytic University (IPU) Berlin, Berlin, Germany; <sup>5</sup>Department of Digital and Blended Psychosomatics and Psychotherapy, Psychosomatic Medicine, University Hospital and University of Basel, Basel, Switzerland;

<sup>6</sup>Department of Psychosomatic Medicine, University Hospital and University of Basel, Basel, Switzerland

**Background:** Suicide is an important and pressing avenue for public health and artificial intelligence (AI) models can be used to help identify individuals at risk. Leveraging transfer-learning from pre-trained language models (LMs) to predict suicidal ideation and behaviors in speech and text is promising, according to studies using benchmark datasets and realworld social media data.

**Aims:** We set out to i) apply ML methods in predicting suicidal ideation and behaviors in a real-world crisis-helpline dataset, using transformer-based pretrained models as a building block ii) evaluate, cross-validate, and benchmark the model against traditional text classification approaches, and iii) train an explainer model, informing about relevant risk-associated features.

**Methods:** We used chat protocols from youth seeking help from a German crisis helpline, to train a machine learning (ML) model, utilizing a transformer-based language model architecture with pre-trained weights combined with Long-Short-Term-Memory-Layers. We predicted Suicidal Ideation (SI) and Advanced Suicidal Engagement (ASE), indicated by composite Columbia-Suicide-Severity-Rating Scale (C-SSRS) scores, and compared predictions against those of a classical word-vector based ML model. We obtained explainability information using a Shapley value-based post-hoc estimation (SHAP) model.

**Results:** Based on data from 1,348 help-seeking encounters, the transformer-based classifier yielded a macro-averaged area under the curve (AUC) of 0.93 (95% CI [0.87, 0.99]) and a macro-averaged F1 score of 0.79 (95% confidence interval [CI] [0.60, 0.96]). It outperformed the word-vector-based baseline model (AUC = 0.77; 95% CI [0.63, 0.89]; F1 score = 0.56; 95% CI [0.0, 0.65]). The SHAP model highlighted language features like 'I-talk,'

phrases indicating low self-esteem and self-hatred, lethal means, hopelessness, and body issues as predictive of suicidal ideation and behaviors.

**Conclusion:** Neural Networks, using LM-based transfer learning, can effectively identify suicidal ideation and advanced suicidal engagement and reveal language features indicating respective suicidal phenomena. Such models may potentially support clinical decision-making in the context of suicide prevention.

## OP21.05 The Relationship between Stress Sensitivity and Subtypes of Suicidal Ideation among University Students in Spain

**Ana Portillo-Van Diest**<sup>1-3</sup>, Gemma Vilagut<sup>1-2</sup>, Laura Ballester<sup>1-2</sup>, Jordi Alonso<sup>1-3</sup>, Philippe Mortier<sup>1-2</sup>

<sup>1</sup>Hospital del Mar Research Institute (Barcelona, ES); <sup>2</sup>CIBER de Epidemiología y Salud Pública, Instituto de Salud Carlos III; <sup>3</sup>Department of Medicine and Life Sciences, Universitat Pompeu Fabra

**Aims:** To (1) identify suicidal ideation (SI) subtypes, and (2) describe their relationship with stress sensitivity and history of self-injurious thoughts and behaviors (SITB) history.

**Methods:** 756 university students completed a 2-week Ecological Momentary Assessment (EMA) study with 4 daily assessments collecting momentary stress sensitivity. 24-hours passive SI was evaluated in the evenings. Measures used Likert-type scales from 1-7. Preceding EMA, an web-based baseline survey assessed SITB history, which had a 12-month follow-up. Subtypes were identified through latent profile analysis using 5 summary SI indicators from EMA for each person: mean, maximum score, % of answered assessments with non-1 response, SD and RMSSD.

**Results:** A 4-class solution was found to fit the data best, leading to 4 subtypes: Subtype 1 (53.4% of the sample) with no SI during the EMA study. Subtypes 2 and 3 (24.9% and 14.3%, respectively) with intermediate values in all indicators, subtype 4 (7.4%) with highest values in all indicators, except % of assessments with non-1 response where subtypes 3 and 4 had similar values.

Stress sensitivity gradually increased across subtypes 2-4 (OR range= 1.4- 2.2, P= <0.001), which also presented significantly rising odds in most SITB baseline variables. Subtype 4 presented lower age of SI onset, higher duration and lower controllability of suicidal thoughts, and higher rates (13%) and odds of future suicide attempts (OR= 71; P= <0.001).

**Conclusion:** SI subtypes with higher SI intensity, severity and variability presented higher levels of stress sensitivity, and had higher odds of future attempted suicide.



**OP22 Socio-Demographic Factors and Mental Health****Sat. 14 Sept., 09:00-10:30****3174****Chair:** Peter Butterworth, AU**OP22.01 The Longitudinal Relationship between Financial Hardship and Mental Health - A Systematic Review of the Evidence****Joel Tibbetts**<sup>1</sup>, Tim Slade<sup>1</sup>, Cath Chapman<sup>1</sup>, Siobhan O'Dean<sup>1</sup>, Peter Butterworth<sup>2</sup><sup>1</sup>The University of Sydney (AU); <sup>2</sup>Deakin University

**Background:** A compelling body of evidence has accumulated in recent years highlighting the association between various socioeconomic conditions and a wide range of mental health outcomes. This includes financial hardship - elegantly surmised by Mack & Lansley (1985) as "an enforced lack of socially perceived necessities" - the experience of which, has demonstrated a strong negative effect on mental health. To date however, no systematic review of the evidence assessing the longitudinal relationship between financial hardship and common mental disorders has been undertaken.

**Aims:** The broad aim of this review is to better understand the longitudinal relationship between financial hardship and mental health, to critically appraise the quality of existing evidence, and to identify factors that may explain heterogeneity in this association.

**Methods:** Scopus, PsycINFO, MEDLINE, Embase, PubMed were searched from inception to July, 2023 and yielded a total of 8,672 records. Following de-duplication, abstract and full-text screening, 94 studies met inclusion criteria. Included studies were published between 1987 and 2023, and spanned 24 countries.

**Results:** The reviewed literature overwhelmingly demonstrated a positive longitudinal association between financial hardship experience and poorer mental health. Despite a diversity of study designs, analytic techniques, modelled confounders, and measures of mental health and financial hardship, 99 of 114 multivariate assessments demonstrated a positive relationship between financial hardship and poorer mental health, particularly depression.

**Conclusion:** This body of evidence highlights a clear association between financial hardship and poorer mental health, reinforcing the necessity of intervention that can mitigate economic hardship and promote mental health.

**OP22.02 Patterns of Disability Benefit Receipt and Variations by Psychiatric Diagnosis: Findings from a Novel Data Linkage Study****Sarah Ledden**<sup>1</sup>, Ray Leal<sup>1</sup>, Ava Phillips<sup>1</sup>, Matthew Hotopf<sup>1,2</sup>, Nicola Fear<sup>1,3</sup>, Sharon Stevelink<sup>1,3</sup><sup>1</sup>Department of Psychological Medicine, King's College London (GB); <sup>2</sup>NIHR Maudsley Biomedical Research Centre; <sup>3</sup>King's Centre for Military Health Research, King's College London

**Aims:** In 2013, a new disability benefit named Personal Independence Payment (PIP) was introduced in the UK. It intended to assist with additional costs arising from one's disability. PIP is awarded for a limited period of time, with most PIP awards granted for two years or less. It is unknown how this disability benefit has been allocated in populations with mental health conditions. We aim to explore how the average duration and number of PIP spells differs by psychiatric diagnosis using registry data.

**Methods:** Using a linked dataset established by combining electronic secondary mental health records from Europe's largest mental health service provider and UK national benefits administrative data. Number of PIP spells, average number of days per PIP-benefit spell, and total number of days patients received PIP-benefit across all spells will be calculated for each individual. Multivariable linear and poisson regression models will be used to test associations between psychiatric diagnosis and PIP-benefit duration variables.

**Results:** Of 448,404 patients successfully linked, 34,900 patients accessed secondary mental health services and received PIP in the coverage window. 30.6% of patients receiving PIP had a severe mental illness (SMI) diagnosis. We hypothesize that average duration of PIP-benefit receipt will be higher among patients with an SMI diagnosis compared to other psychiatric diagnoses. Results describing the patterns of PIP-benefit receipt will be available from July 2024.

**Conclusion:** Our findings could be used to inform frequency of reviews for disability benefit for certain psychiatric conditions to reduce individual burden and cost to the state.

### OP22.03 A Spatial Lag Analysis of the County-Level Associations of Social Structure and Social Disparities are Associated with Lexical Markers of Depression on Twitter

**Eric Mayor**<sup>1</sup>, Lucas Bietti<sup>2</sup>

<sup>1</sup>University of Basel (Basel, CH); <sup>2</sup>Norwegian University of Science and Technology

**Aims:** User-contributed social media data have been increasingly used in large-scale mental health assessments as their analysis can closely match official statistics (in anticipation). There is no doubt that minority group membership and social disparity have an impact on mental health and well-being. How are these factors reflected in the lexical indicators of depression used in social media users' posts?

**Methods:** Relying upon a sample of approximately 30 million content-coded tweets, aggregated at the U.S. county level. We employed spatial lag regression to investigate the relationships between lexical indicators associated with well-being and mental health, specifically depression (e.g., first-person singular pronouns, negative emotions), and county-level markers of social disparity (e.g., the Area Deprivation Index-3) and ethnicity at the county level (N = 1069).

**Results:** Results confirmed most expected associations: Area disparities (such as economic hardship and inequality) and minority groups percentages were positively correlated with lexical indicators of depression at the county level. Such lexical indicators were associated with future health and mental health outcomes (predictive validity).

**Conclusion:** Public health campaigns could be prioritized based on lexical indicators of depression and adjustment coded from social media aggregated at the county level.

### OP22.04 Where You Live or How You Live: Examining How Psychological Distress Varies across Individual- and Area-Level Socioeconomic Conditions

**Peter Butterworth**<sup>1</sup>

<sup>1</sup>Deakin University (Melbourne, AU)

**Aims:** The current study is part of a larger project using administrative health-service data linked to Census data to examine inequalities in access to mental health treatment in Australia at the population level. Understanding variability in rates of service use must consider how need for treatment varies across based on both area- and individual-level differences. This presentation will report on analysis examining such socioeconomic variation in the prevalence of psychological distress.

**Methods:** Pooled data from eight waves of the national HILDA Survey provided over 115,000 observations on the K10 scale of psychological distress (from 25,700 different individuals). The analyses examined the (weighted) prevalence of high or very high psychological distress stratified by quintiles of equivalised household income and by quintiles of area-level socioeconomic dis/advantage assessed using a widely used composite index.

**Results:** There was evidence of an inverse social gradient for both the individual- and area-level indicators of socioeconomic circumstances, with the prevalence of high/very high psychological distress increasing as socioeconomic conditions worsened. This effect was stronger for the individual-level measure than for the area-level measure. The large sample size enabled analysis of the combination of area- and individual-level categories, with the results showing the mental health detriment of low income was greatest for those living in the most disadvantaged areas, while there was little area-level variation in rates of distress among respondents with the highest income.

**Conclusion:** The profile of psychological distress in Australia reflects the combination of individual- and area-level socioeconomic conditions.

## OP22.05 Labour Market Marginalization in Individuals with Bipolar Disorder: A Swedish Nationwide Register-Based Sibling Comparison Study

**Bergný Ármannsdóttir**<sup>1</sup>, Heidi Taipale<sup>1,2,3</sup>, Aemal Akhtar<sup>1</sup>, Johannes Lieslehto<sup>2</sup>, Ridwanul Amin<sup>1</sup>, Ellenor Mittendorfer-Rutz<sup>1</sup>

<sup>1</sup>Karolinska Institutet, Department of Clinical Neuroscience, Stockholm, Sweden (Stockholm, SE); <sup>2</sup>University of Eastern Finland, Department of Forensic Psychiatry, Kuopio, Finland; <sup>3</sup>University of Eastern Finland, School of Pharmacy, Kuopio, Finland

**Aims:** There is a lack of large-scale studies exploring labour market marginalization (LMM) among individuals diagnosed with bipolar disorder (BD). We aimed to investigate the association of BD and subsequent LMM in Sweden using large-scale register data.

**Methods:** Individuals aged 19-60 years living in Sweden with a first-time diagnosis of BD between 2007-2016 (n=25,231) were followed from date of diagnosis for a maximum of 14 years. Risk of disability pension (DP), long-term sickness absence (SA) (>90 days) and long-term unemployment (>180 days) was compared to their unaffected siblings (n=24,098) as well as a matched comparison group from the general population without BD, matched 1:5 on sex and birth year (n=126,155), using Cox Regression Analysis, yielding Hazard Ratios (HR) with 95% confidence intervals (95% CIs).

**Results:** After adjusting for socioeconomic factors, baseline labour market status and comorbid disorders, individuals with BD had significantly higher risk of receiving DP compared to the general population (HR=16.67, 95% CI 15.33-18.13) and their unaffected siblings (HR=5.49, 95% CI 4.92-6.13). Individuals with BD were also more likely to experience long-term SA compared to the general population (HR=3.19, 95% CI 3.09-3.30) and their unaffected siblings (HR=2.80, 95% CI 2.67-2.94). Moreover, individuals diagnosed with BD had an elevated risk of long-term unemployment relative to both comparison groups (HR range: 1.75-1.78).

**Conclusion:** Individuals with BD face elevated risks of LMM compared to both a matched comparison group and unaffected siblings. These findings can offer insights for policymakers and health services to better understand and reduce LMM in individuals with BD.

**OP23 Treatment Seeking and Mental Health Care Intervention**

Sat. 14 Sept., 09:00-10:30

3185

Chair: Eugenia Romano, UK

OP23.01 --- OP09.05 ---

OP23.02 --- WITHDRAWN ---

**OP23.03 Effects of a Multi-Domain Intervention against Cognitive Decline on Dementia Risk Profiles – Results from the AgeWell.de-trial**

**Andrea Zülke**, Melanie Lupp, David Czock, Birgitt Wiese, Wolfgang Hoffmann, Jochen Gensichen, Hans-Helmut König, Hanna Kaduszkiewicz, Jochen René Thyrian, Steffi G. Riedel-Heller

<sup>1</sup>Institute of Social Medicine, Occupational Health and Public Health (ISAP), University of Leipzig; <sup>2</sup>Institute of Social Medicine, Occupational Health and Public Health (ISAP), University of Leipzig; <sup>3</sup>Department of Clinical Pharmacology and Pharmacoepidemiology, Heidelberg University Hospital; <sup>4</sup>MHH Information Technology – Science & Laboratory, Hannover Medical School; <sup>5</sup>German Center for Neurodegenerative Diseases (DZNE), site Rostock/ Greifswald; Institute of General Practice/Family Medicine, University Hospital of LMU Munich; <sup>7</sup>Department of Health Economics and Health Service Research, UMC Hamburg-Eppendorf; <sup>8</sup>Institute of General Practice, University of Kiel; <sup>9</sup>German Center for Neurodegenerative Diseases (DZNE), site Rostock/ Greifswald; <sup>10</sup>Institute of Social Medicine, Occupational Health and Public Health (ISAP), University of Leipzig

**Aims:** Dementia risk scores have been suggested a promising surrogate outcome for lifestyle interventions targeting cognitive function. We investigated effects of the multidomain AgeWell.de-intervention on dementia risk, assessed using the Lifestyle for BRAin health (LIBRA)-index.

**Methods:** Secondary analyses of AgeWell.de, a multicomponent intervention (including optimization of nutrition, medication, physical, social and cognitive activity) in older adults at increased risk for dementia. We analyzed data from n=461 participants (age: 60-77 years) with available information on all n=12 risk/protective factors comprised by the LIBRA (coronary heart disease, diabetes, hypercholesterolemia, hypertension, depression, obesity, smoking, physical inactivity, renal disease, low-to-moderate alcohol use, high cognitive activity, healthy diet) at baseline and 24 months-follow-up. Intervention effects on LIBRA and individual LIBRA-components were assessed using generalized linear models.

**Results:** The intervention reduced total LIBRA-scores, indicating decreased dementia risk at 24 months follow-up (b = -0.63, 95% CI: -1.14, -0.12). Intervention effects were particularly due to favorable changes in diet (OR = 1.60, 95% CI: 1.16, 2.22) and hypertension (OR = 1.61, 95% CI: 1.19, 2.18). In younger participants (60-69 years), the intervention increased the odds of high cognitive activity at follow-up (OR = 2.00; 95% CI: 1.20, 3.34).

**Conclusion:** The intervention reduced dementia risk, assessed using the LIBRA-score, underscoring the usefulness of the LIBRA as a surrogate outcome for multidomain lifestyle interventions. However, several risk factors for dementia captured in the LIBRA, e.g., physical inactivity, did not change due to the intervention, possibly requiring more intensive interventions and support of participants in conducting the intervention.

**OP23.04 Adherence and its Key Factors – Analysis of the AgeWell.de Intervention against Cognitive Decline**

**Felix Wittmann**<sup>1</sup>, Alexander Pabst<sup>1</sup>, Andrea Zülke<sup>1</sup>, AgeWell.de study group<sup>1-10</sup>, Jochen René Thyrian<sup>2-4</sup>, Steffi G. Riedel-Heller<sup>1</sup>

<sup>1</sup>Institute of Social Medicine, Occupational Health and Public Health (ISAP), University of Leipzig (Leipzig, DE); <sup>2</sup>Institute for Community Medicine, University Medicine Greifswald; <sup>3</sup>German Centre for Neurodegenerative Diseases (DZNE), site Rostock/ Greifswald; <sup>4</sup>Faculty V: School of Life Sciences, University of Siegen; <sup>5</sup>Department of Clinical Pharmacology and Pharmacoepidemiology, Heidelberg University Hospital; <sup>6</sup>Institute for General Practice, Hannover Medical School; <sup>7</sup>Institute of General Practice and Family Medicine, Martin-Luther-University Halle-Wittenberg; <sup>8</sup>Institute of General Practice/Family Medicine, University Hospital of LMU Munich; <sup>9</sup>Department of Health Economics and Health Service Research, University Medical Centre Hamburg; <sup>10</sup>Institute of General Practice, University of Kiel.

**Aims:** Latest research on preventing dementia put multi-domain interventions into focus, suggesting effects on cognition and mental health. Recent intervention trials share a positive effect of adherence to the interventions on outcomes. We aimed to examine possible predictors of the adherences of AgeWell.de as

multi-domain lifestyle intervention against cognitive decline to get a better understanding of the effectiveness.

**Methods:** We analyzed n=317 participants of the intervention group of AgeWell.de. Inclusion criteria was age 60-77 and increased risk of dementia (CAIDR score $\geq$ 9). Generalized linear regression models were run to analyse the relationship between predictors (sociodemographic, cognitive, psychosocial, lifestyle and chronic conditions, all assessed at baseline) and adherence to the components nutritional counselling, enhancement of social and physical activity and cognitive training. Adherence was measured as degree of individual goal achievement per component by study nurses at seven time points and used as sum-score.

**Results:** Higher education, unimpaired mental state and self-efficacy were found to predict better adherence, whereas increased age, depressive symptoms, smoking and partwise higher body mass index were found to be negatively associated with adherence. We found no effect for chronic conditions.

**Conclusion:** We identified both factors that increase and reduce adherence. This finding is relevant for designing future intervention studies focused on improving adherence, which is essential for effectiveness. It must be considered that while age and education cannot be modified, self-efficacy emerged as a promising and adjustable predictor. Considering the goal of enhancing effectiveness, it is advisable to incorporate self-efficacy as a component in future intervention studies.

### OP23.05 --- WITHDRAWN ---

### OP23.06 Inequalities in Recording of Physical Health Indicators in People with Severe Mental Illness - The Case of Alcohol Consumption

**Eugenia Romano**<sup>1</sup>, Ruimin Ma<sup>1</sup>, Matthew Broadbent<sup>2</sup>, Giovanni Sala<sup>3</sup>, Mark Ashworth<sup>4,1</sup>, Gayan Perera<sup>1</sup>, Robert Stewart<sup>1,2</sup>, Brendon Stubbs<sup>1</sup>

<sup>1</sup>King's College London (London, GB); <sup>2</sup>NIHR Maudsley Biomedical Research Centre; <sup>3</sup>University of Liverpool; <sup>4</sup>South London and Maudsley NHS Foundation Trust.

**Background:** There is evidence for a lack of continuity in primary care for people with severe mental illness (SMI) despite their poorer health compared to the general population. The Quality and Outcomes Framework (QOF) is a programme aiming at incentivising care among GP practices in England, and alcohol consumption is one of the health indicators recommended for people with SMI. This study analysed the likelihood of people SMI being screened for alcohol consumption compared to control over a timespan ranging from 2006 to 2020.

**Methods:** The sample consisted of 12,729 controls and 9,250 SMI cases from South London, aged over 18. A mixed effects logistic regression controlling for confounding factors, checking for the interaction between time and patient groups, was performed, as well as subgroup analysis for SMI patients.

**Results:** Both during the incentivisation and de-incentivization period, SMI patients were more likely than controls to be checked on alcohol consumption compared to the pre-incentivisation period (79% and 69% more likely respectively, log-odds 1.32 and .80,  $p < .001$ ). However, subgroup analysis for SMI patients showed that, while patients were 2.7 times more likely of being checked on alcohol consumption in the incentivisation period compared to the pre-incentivisation period (log-odds .98,  $p < .001$ ), they were about 32% less likely of being checked on it in the de-incentivisation period compared to the pre-incentivisation period (log odds -.74,  $p < .001$ )

**Conclusion:** The de-incentivisation of the QOF scheme could strongly impact quality of care among patients with SMI.

## POSTERS

### P1 Suicide and Self-Harm

Thurs. 12 Sept., 13:00-14:00

H1130/H1131

Chair: Femke Lamers, NL

#### P1.01 Suicide Risk after Discharge from In-patient Psychiatric Care: A 15-year Retrospective Cohort Study of Individual Patient Data

**Sabine Weber**<sup>1</sup>, Daniel König<sup>1</sup>, Andreas Gleiss<sup>2</sup>, Lea Sommer<sup>1</sup>, Stephan Listabarth<sup>1</sup>, Andreas Wipfel<sup>1</sup>

<sup>1</sup>Medical University of Vienna, Department of Psychiatry and Psychotherapy (Vienna, AT); <sup>2</sup>Medical University of Vienna, Center for Medical Data Science

**Background and aims:** Suicide rates are known to be increased in patients after discharge from in-patient psychiatric treatment. However, evidence on risk factors for suicide within this patient group are contradictory. Thus, this study aims to investigate suicide after discharge from a sizeable psychiatric care facility to determine associated risk factors.

**Methods:** Data on individual patient level from a 15-year single-centre cohort were linked to data from the national death registry and cumulative incidence rates were calculated applying competing risk models. Independent variables included the patients' sex, age at admission, diagnosis, and length of admission.

**Results:** In our sample of 18,425 discharges, when using patients with the diagnosis of substance-use disorders as a comparator, a significant increase in hazard of post-discharge suicide for male sex (SHR=1.67;p=0.037) as well as the discharge diagnoses of affective disorders (SHR=3.56;p=0.017) and neurotic stress and somatoform disorders (SHR=3.73;p=0.024) were found. Interestingly, the hazard of suicide significantly decreased in more recent discharges (SHR=0.93;p=0.006).

**Limitations:** Suicides may have been mis-identified as natural death in the national death register.

**Conclusion:** This study provides a detailed analysis of risk factors for suicide after discharge from in-patient psychiatric care. Male sex and distinct diagnoses were associated with an increased risk for suicide after discharge. The markedly increased risk within this patient collective highlights the need for the development of tools to assess suicidal behaviour in this group of patients reliably.

#### P1.02 Suicidality in Low- or Middle-Income Countries (LMICs): Methods Used in Attempted Suicides

**Tiffany S.W. Ma**<sup>1</sup>, Francis P. Flores<sup>1</sup>, Yongle Zhan<sup>2</sup>, Yoona Kim<sup>3</sup>, Ke Ning<sup>4</sup>, Michaela Theilmann<sup>5</sup>, Michael Y. Ni<sup>1,6,7</sup>, HPACC Consortium

<sup>1</sup>School of Public Health, The University of Hong Kong, HKSAR, China (Pokfulam, HK); <sup>2</sup>Department of Surgery, The University of Hong Kong, HKSAR, China; <sup>3</sup>Moon Soul Graduate School of Future Strategy, KAIST, Daejeon, Republic of Korea; <sup>4</sup>Research Division, Institute of Mental Health, Singapore; <sup>5</sup>Brigham and Women's Hospital, Harvard Medical School, Boston, Massachusetts, United States; <sup>6</sup>State Key Laboratory of Brain and Cognitive Sciences, The University of Hong Kong, HKSAR, China; <sup>7</sup>Urban Systems Institute, The University of Hong Kong, HKSAR, China

**Aims:** Means restriction is a crucial evidence-based intervention for suicide prevention, according to the World Health Organization (WHO). However, comprehensive data on suicide methods are often lacking in low- or middle-income countries in the WHO Mortality Database. This study aims to leverage existing nationally representative surveys to inform public health strategies for means restriction.

**Methods:** Individual-level data from eight nationally representative surveys conducted under the WHO STEPwise approach to NCD risk factor surveillance (STEPS) were analysed. Proportion of suicide methods used were calculated based on participants' self-reported suicide attempts, stratified by sex and location of residence.

**Results:** Hanging, pesticide poisoning, and medication overdose were the most common non-fatal suicide methods. Hanging accounted for one-fifth of suicide attempts (19.4%, 95% CI: 16.2–22.7). Males reported higher rates of hanging (26.4%, 95% CI: 19.6–33.3), and using sharp objects (14.5%, 9.0–19.3). Females were more likely to report medication overdose (21.9%, 17.6–25.9) and pesticide poisoning (20.1%, 16.2–24.1). Urban



residents reported using hanging (32.8%, 27.8–37.9) and medication overdose (22.4%, 15.9–29.0), while rural residents report using sharp instruments (14.3%, 7.10–21.5) and pesticide poisoning (12.1%, 5.4–18.8).

**Conclusion:** Our findings aligned with the most common methods observed in completed suicides, except for firearm use. Hanging emerged as a prevalent method due to its accessibility and difficulty in implementing means restriction. Multisectoral collaboration among health ministries, agriculture, pesticide and firearm regulators, and commercial actors is essential in reducing the accessibility and lethality of these means.

### P1.03 Practicality of Suicide Reduction Targets in Korean Suicide Prevention Policies: Insights from Time Series Analysis

**Seunghyong Ryu**<sup>1</sup>, Hee Jung Nam<sup>2</sup>, Sung-Wan Kim<sup>1</sup>

<sup>1</sup>Department of Psychiatry, Chonnam National University Medical School (Gwangju, KR); <sup>2</sup>Department of Psychiatry, Seoul Medical Center

**Aims:** For the past decades, Korea has experienced high suicide rates exceeding 25 per 100,000. The government has implemented a series of national suicide prevention policies, setting a seemingly challenging goal of reducing the suicide rate by 30% within 5 years. This study aimed to examine the practicality of the suicide rate reduction target set by the latest policy, the fifth Master Plan for Prevention of Suicide (2023–2027), which aims to reduce the suicide rate from 26 per 100,000 in 2021 to 18.2 per 100,000 by 2027.

**Methods:** Using monthly suicide statistics data since 2011, this study built prediction models. It employed Causal Impact analysis to estimate the effect of the previous policy (2018–2022) on suicide rates. It also used Bayesian regression and Seasonal Autoregressive Integrated Moving Average (SARIMA) models to simulate and project future suicide rates from 2023 to 2027, incorporating the estimated policy effect.

**Results:** The Causal Impact analysis showed no significant reduction in suicide rates due to the previous policy. Virtually none of the simulations using the Bayesian and SARIMA models could meet the policy target of 18.2 per 100,000. Both models also projected suicide rates of around 23 per 100,000 by 2027.

**Conclusion:** The findings suggest that the Korean government's suicide rate reduction target for 2027 is likely unattainable based on current trends and the limited effectiveness of previous policies. The goals of suicide prevention policies should be evidence-based, attainable, and accountable.

### P1.04 Age Group Differences in Prevalence of Lifetime Suicide Attempts in Females and Males over the Past Two Decades in France

Helen Maria Vasiliadis<sup>1</sup>, Christophe Léon<sup>2</sup>, **Mathilde Husky**<sup>3</sup>

<sup>1</sup>Université de Sherbrooke (Longueuil, CA); <sup>2</sup>Santé Publique France; <sup>3</sup>Université de Bordeaux

**Aims:** The objective was to examine age group differences in the prevalence of lifetime suicide attempts in females and males across national surveys covering the past twenty years.

**Methods:** Data were drawn from six cross-sectional survey waves from the Health Barometer which included representative samples of the general population of France. Data from the 2000, 2005, 2010, 2014, 2017 and 2021 surveys were pooled (n=125 354). Age was categorized into 6 age groups: 18-24; 25-34; 35-44; 45-54; 55-64; 65-75 years. Prevalence differences and ratios were reported.

**Results:** Overall, the prevalence of lifetime suicide attempts in males by ascending age group was 3.4 %, 4.3%, 4.9%, 5.1%, 3.6% and 2.2%. Between 2000 and 2021 among males, there was a significant increase in reported suicide attempts in the 45 to 54, the 55 to 64, and the 65 to 75 age groups. The prevalence of suicide attempts in females by ascending age group was 8.9%, 8.5%, 9.0%, 9.3%, 9.6% and 7.4%. Between 2000 to 2021 among females, there was a significant increase in the 18 to 24 and in the 65 to 75; but a decrease in the 35 to 44 age group.

**Conclusion:** Differential age group differences in the prevalence of lifetime suicide attempts were observed in males and females over the past twenty years.

## P1.05 Suicide Attempt and Mortality in Refugees, Non-Refugee Migrants and Swedish-born Individuals after First Diagnosis of Non-Affective Psychotic Disorder

**Aemal Akhtar**<sup>1</sup>, Alexis E. Cullen<sup>1</sup>, Jakob Bergstrom<sup>1</sup>, Christopher de Montgomery<sup>1,3</sup>, Heidi Taipale<sup>1,4,5</sup>, Ellenor Mittendorfer-Rutz<sup>1</sup>

<sup>1</sup>Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden (SE); <sup>2</sup>Department of Psychosis Studies, King's College London, United Kingdom; <sup>3</sup>Department of Public Health, University of Copenhagen, Copenhagen, Denmark; <sup>4</sup>Department of Forensic Psychiatry, University of Eastern Finland, Finland; <sup>5</sup>School of Pharmacy, University of Eastern Finland, Kuopio, Finland

**Aims:** This study aimed to explore differences in the risk of suicide attempts and deaths due to suicide and natural causes between Swedish-born, non-refugee migrants, and refugees following their first treatment for a non-affective psychotic disorder (NAPD).

**Methods:** A prospective register-based cohort study was conducted using Swedish national registers. All individuals aged 18-35 residing in Sweden who received an incident diagnosis of NAPD in inpatient/specialist outpatient care from 2006-2019 were identified and followed for a maximum of 15 years. The risks of suicide attempt, suicide, and non-suicide mortality for refugees and non-refugee migrants were compared to native born individuals. Risks were computed as hazard ratios (HR) through a multi-state competing risk model, which included the three outcomes of interest and emigration.

**Results:** In total, 28,721 individuals (64.5% male) received treatment for an index NAPD from 2006-2019. Refugees and non-refugee migrants with NAPDs had a lower risk of suicide attempts (HR=0.36, 95%CI 0.32-0.40; HR=0.68, 95%CI 0.63-0.75, respectively), suicide (HR=0.61, 95%CI 0.47-0.79; HR=0.57, 95%CI 0.43-0.76), and natural causes (HR=0.81, 95%CI 0.64-1.02; HR=0.66, 95%CI 0.51-0.85) compared to Swedish-born individuals. Both refugees and non-refugee migrants had significantly higher rates of emigration (HR=2.70; 95%CI 2.20-3.31; HR=5.36; 95%CI 4.53-6.35).

**Conclusion:** Refugees and non-refugee migrants had lower risks of suicide attempts, suicide, and non-suicide mortality following an incident diagnosis of NAPD. However, they were also more likely to emigrate, indicating that these risks are likely underestimated. These patterns mimic those seen for migrants in the general populations, which have seldom been explored in NAPD populations.

## P1.06 Post-Discharge Premature Mortality and Suicide Risk among Psychiatric Hospitalized Patients with Substance Use Disorders in Catalonia

**Laura Ballester**<sup>1,2</sup>, Gemma Vilagut<sup>1,2</sup>, Susana Conde<sup>1,2</sup>, Marc Olivella<sup>1,2</sup>, Itxaso Alayo<sup>2,3</sup>, Cristina Casajuana<sup>4</sup>, Lúdia Segura<sup>4</sup>, Joan Colom<sup>4</sup>, Jordi Alonso<sup>1,2,5</sup>, Philippe Mortier<sup>1,2</sup>

<sup>1</sup>Biomedical Research Networking Centre Epidemiology & Public Health (CIBERESP, ISCIII), Madrid, Spain (ES); <sup>2</sup>Health Services Research Group, Hospital del Mar Research Institute, Barcelona, Spain; <sup>3</sup>Asociación Instituto de Investigación en Sistemas de Salud Biosistemak, Barakaldo, Spain; <sup>4</sup>Agència de Salut Pública de Catalunya (ASPCat), Barcelona, Spain; <sup>5</sup>Universitat Pompeu Fabra, Barcelona, Spain.

**Aims:** To investigate premature death (i.e., death before age 70) and suicide following psychiatric hospitalization among patients with a diagnosis of substance use disorder (SUD), stratifying by sex.

**Methods:** Registry-based, retrospective cohort study of 18,814 psychiatric hospitalized patients in the region of Catalonia, Spain, between 2014-2018 (70.6% male), with SUD as primary or secondary diagnosis associated to first hospitalization, age  $\geq 10$  at discharge, and minimum follow-up of 1 year. Data come from the Catalan Data Analytics Program for Health Research and Innovation (PADRIS). Sex-stratified premature death and suicide Incidence Rates (IR) were calculated; by substance type and number of SUDs. Standardized Mortality Rates (SMR) were estimated for comparison with the general population.

**Results:** Alcohol, cannabis and cocaine were the most frequently used substances (61.1%, 44.1% and 35.3%, respectively). 54% had 1 SUD, while 8.1% had 4+ SUD. IR of premature death was 1,686/100,000 person-years. Psychiatric hospitalized individuals with associated SUD had 9.65 times higher premature mortality than general population (12.8 women; 9.07 men), being significantly higher for hallucinogens (18.5), opioids (16.6), and for 4+ SUD (16.1). For suicide, IR was 273/100,000 person-years and SMR, was 32.2 (63.5 women; 21.3 men), being SMR significantly higher in women than in men for sedatives (111.7 vs. 34.2) and cocaine (78.9 vs. 27.0).

**Conclusion:** Psychiatric hospitalized patients with SUD have high rates for premature mortality and suicide, compared to the general population. It is necessary to identify specific risk factors to tailor interventions accordingly and, to increase suicide prevention efforts in patients with SUD.

**Funding:** Fundació la Marató de TV3 202220-30-31; ISCIII-FSE Miguel Servet CP21/00078; Project PI22/00107, funded by ISCIII and co-funded by the European Union; Grant AC22/00006 funded by ISCIII and by the European Union NextGenerationEU, Mecanismo para la Recuperación y la Resiliencia; PERIS, Departament de Salut SLT017/20/000009; Subdirecció General d'Addiccions, VIH, Infeccions de Transmissió Sexual i Hepatitis Víriques Exp. SA-2023-328; 2021 SGR 00624; CB06/02/0046

## P1.07 --- WITHDRAWN ---

## P1.08 Exploring Bidirectional Relationships between Alcohol Use and Psychological Distress on the Mediation of Suicide Attempts and Suicidal Thoughts

**Sarah Ledden**<sup>1,2</sup>, Jen Dykxhoorn<sup>1</sup>, Andreas Lundin<sup>3</sup>, David Osborn<sup>1,4</sup>, Alexandra Pitman<sup>1,4</sup>

<sup>1</sup>Division of Psychiatry, University College London (GB); <sup>2</sup>Department of Psychological Medicine, King's College London; <sup>3</sup>Department of Global Public Health, Karolinska Institutet; <sup>4</sup>Camden and Islington NHS Foundation Trust

**Aims:** It has been suggested that poor mental health may lead to increased alcohol intake, and, conversely, that high consumption of alcohol can lead to poorer mental health. In this study we aimed to understand the bidirectional relationships between alcohol consumption behaviours and psychological distress and their mediation on suicide attempts and suicidal thoughts.

**Methods:** Using a longitudinal, 10,957 adults from the Stockholm Public Health Cohort (SPHC) were included. Weekly alcohol consumption and heavy episodic drinking (HED) were self-reported. Psychological distress was measured using the general health questionnaire (GHQ-12). The primary outcome was suicidality (a combined measure of past year suicide attempt or suicidal thoughts), self-reported in SPHC surveys. Logistic regressions and four-way decomposition methods were used to address study aims.

**Results:** High baseline weekly alcohol consumption had no association with either future psychological distress or suicidality. Baseline HED was associated with higher odds of both future psychological distress (OR=1.14, 95%CI 1.01-1.28) and suicidality (OR=1.35, 95%CI 1.02-1.79). Baseline psychological distress had no association with future weekly alcohol consumption or HED, and was associated with future suicidality (OR=1.86, 95%CI 1.40-2.47). No significant mediating or interacting effects were observed in any of the four-way decomposition models.

**Conclusion:** The relationship between alcohol use, psychological distress, and suicidality is complex, with no clear pathways identified in this analysis. A person-centred approach is necessary in treating individuals with mental health, alcohol use or suicidality concerns, regardless of comorbidities. Mental health and substance misuse services should be adequately equipped to deal with co-occurrence of these.

## P1.09 Lifetime Self-Harm, Suicidal Ideation and Suicide Attempts among UK Serving and Ex-Serving Military Personnel: Prevalence and Associated Factors

**Charlotte Williamson**<sup>1</sup>, Marie-Louise Sharp<sup>1</sup>, Sharon Stevelink<sup>1,2</sup>

<sup>1</sup>King's Centre for Military Health Research, King's College London, London, UK (London, England, GB); <sup>2</sup>Department of Psychological Medicine, King's College London, London, UK

**Aims:** There is limited research exploring self-harm and suicide behaviours among the UK Armed Forces. The study aims were (1) to explore the lifetime prevalence of self-harm, suicidal ideation and suicide attempts among a sample of Afghanistan and Iraq era UK serving and ex-serving personnel, and (2) to identify the factors associated with these behaviours.

**Methods:** This secondary data analysis utilises data from Phase 4 of an existing longitudinal cohort study consisting of serving and ex-serving personnel of the UK Armed Forces (n=4,104), the King's Centre for Military Health Research Health and Wellbeing Study. Data was collected via an online or postal questionnaire between 2022 and 2023. Lifetime self-harm, suicidal ideation and suicide attempts were measured using the Clinical Interview Schedule Revised. Associations between self-harm and suicide behaviours with sociodemographic, military, and mental health/wellbeing characteristics were investigated using logistic regressions.

**Results:** Data collection is complete. Analysis is underway (expected completion August 2024). Data on prevalence and associated factors will be presented, alongside descriptive data on the timing of these behaviours (before, during or after military service).

**Conclusion:** Expanding understanding is important, particularly given the change in prevalence of these behaviours among certain groups within the UK military community in recent years. For example, suicides among serving Army males have increased since 2017. This work will help inform military mental health services and policies in the UK, including where to target suicide prevention policy by identifying potentially at-risk groups, and could improve the health and wellbeing of the Armed Forces community.

**P1.10** --- WITHDRAWN ---

**P1.11** --- WITHDRAWN ---

### **P1.12 Impact of Distress Overtolerance on the Onset and Severity of Nonsuicidal Self-Injury**

**Harin Chung**<sup>1</sup>, Hayoung Bae<sup>1</sup>, Ji-Won Hur<sup>1</sup>

<sup>1</sup>Korea University (KR).

**Aims:** Distress overtolerance refers to an individual's inflexible tendency to endure excessively through very high levels of distress, potentially leading to negative mental health outcomes. This study aimed to investigate the impact of distress overtolerance on the onset and severity of nonsuicidal self-injury (NSSI), the maladaptive coping strategy for emotional distress.

**Methods:** A total of 2,088 young adults, with a mean age of 23.1 ( $\pm$  3.0), participated in either the control group ( $n = 1,021$ ) or the NSSI group ( $n = 1,067$ ). Individuals with NSSI were further divided into low NSSI versatility (engaging in one method;  $n = 152$ ) and high NSSI versatility (engaging in multiple methods;  $n = 915$ ) groups. Two logistic regression models were used to evaluate the role of distress overtolerance in the NSSI onset and severity (i.e., versatility, number of NSSI methods), controlling for sex and socioeconomic status.

**Results:** Suicide-specific hopelessness (odds ratio [OR], 1.05; 95% confidence interval [CI], 1.04-1.06), emotion dysregulation (OR, 1.03; 95% CI, 1.02-1.04), and distress overtolerance (OR, 1.02; 95% CI, 1.01-1.03) were identified as significant predictors of lifetime NSSI. Within the NSSI group, distress overtolerance (OR, 1.03; 95% CI, 1.01-1.05) and suicide-specific hopelessness (OR, 1.03; 95% CI, 1.00-1.05) significantly predicted greater NSSI versatility.

**Conclusion:** This is the first study to identify distress overtolerance as a significant predictor of NSSI. Further research is needed to develop a comprehensive understanding of the role of distress overtolerance in the etiology of NSSI.

**P2 Investigation Methods****Thurs. 12 Sept., 13:00-14:00****H1130/H1131****Chair: Setareh Ranjbar, CH****P2.01 Differences in Stress Perceiving Depending on the Day of the Week in a Descriptive Study Design****Jakub Rojek**<sup>1</sup>, Przemysław Waszak<sup>1</sup>, Jakub Grabowski<sup>1</sup><sup>1</sup>Medical University of Gdańsk (PL)

**Aims:** The aim of the study was to evaluate the relationship between perceived stress and particular days of week. The questionnaires were distributed during first wave of SARS-Cov-2 pandemic. The study addressed importance of proper methodology usage during designing and planning self-reported based research.

**Methods:** A descriptive study based on an online survey available in Polish and Italian, distributed using the snowball sampling, sent online to potential participants was conducted. Data were assessed using Perceived Stress Scale (PSS-10), completed by the respondents as a self-report. The sample size was 7113 completed questionnaires. For assessing differences between groups post hoc tests were applied. Lowest Significant Differences and Scheffé's test indicated significant differences in reporting intensity of perceived stress between days of the week.

**Results:** Participants reported significantly lower stress on Sundays than on other days (mean PSS 17.98;  $p < 0.001$ ). In comparison, the highest stress perception was noted on Tuesdays, Wednesdays, and Thursdays (22.48, 22.13 and 22.13;  $p < 0.001$ ). The highest reported PSS score was given by respondents in days May 10-12, 2020.

**Conclusion:** The research showed that non-modifiable features, as specific time of data collection, can affect results of a conducted study. This study highlights importance of proper methodology in the discipline of public health. Researchers should be aware of biases resulting from data collecting scheduling issues.

**P2.02 Common Mental Disorders and Capacity to Work – a Rasch Analysis of a Newly Developed Instrument for Epidemiological Studies in Working Populations****Blomberg A**<sup>1</sup>, Hensing G<sup>1</sup>, Bertilsson M<sup>1</sup>, Emina Hadžibajramović<sup>1,2</sup><sup>1</sup>School of Public Health and Community Medicine, Institute of Medicine, Sahlgrenska Academy at the of University of Gothenburg, Gothenburg, Sweden; <sup>2</sup>Institute of Stress Medicine, Region Västra Götaland, Gothenburg, Sweden

**Aims:** Common mental disorders (CMD) have a large impact on work participation. There is a need for nuanced assessments of capacity to work in diverse occupational settings. The Capacity to Work Index (C2WI<sup>cmd</sup>) was developed for use in epidemiological studies of general working populations. The aim of this study was to evaluate the construct validity of the C2WI<sup>cmd</sup> using Rasch analysis.

**Methods:** A subsample (n=8201) from the "Work participation and Mental Health at Work" project provided cross-sectional data via a web-based survey. The analysis focused on the scale's unidimensionality, the appropriateness of the response categories, and the potential differential item functioning by gender and age.

**Results:** Two versions of the C2WI<sup>cmd</sup> were assessed: the original 17-item scale and a reduced 7-item scale. The 17-item scale showed inadequate discrimination among items, while the 7-item scale exhibited a better fit to the Rasch model but lacked invariance in response categories, as indicated by significant  $\chi^2$  statistics. A subgroup analysis of persons with low mental wellbeing yielded improved results but did not achieve overall model fit.

**Conclusions:** The instrument, C2WI<sup>cmd</sup> did not meet Rasch model criteria for construct validity. Capacity to work and common mental disorders are multifaceted and context dependent. Further research is therefore warranted to explore the ability of C2WI<sup>cmd</sup> to predict future work participation and sickness absence.



## P2.03 Test-retest Reliability of Standardized Diagnostic Interviews for Adult Psychiatric Disorders: A Systematic Review and Meta-analysis

**Laura Duncan**<sup>1</sup>, Weiyi Xie<sup>1</sup>, Julie Noordgaard<sup>2</sup>, Fabiano Alvez Gomes<sup>1</sup>, Benicio Frey<sup>1</sup>

<sup>1</sup>McMaster University (CA); <sup>2</sup>University of Copenhagen & Psychiatry East

**Aims:** Standardized diagnostic interviews (SDIs) are regarded as the gold standard for psychiatric disorder classification. However, concerns exist about the validity and reliability of their classifications. Given the extensive reliance on SDIs in psychiatric epidemiology, summary information about the reliability of SDIs is needed.

**Methods:** A systematic review was conducted in PsycINFO, Embase, Emcare, MEDLINE and ASSIA databases (Prospero: CRD42024517970). Following screening and data extraction, meta-analysis and meta-regression of Cohen's kappa (a chance-corrected measure of agreement) were conducted. A multilevel random effects meta-analysis was conducted to produce a pooled estimate of Cohen's kappa. Sub-group analyses provided pooled estimates for specific disorders. Univariate multilevel meta-regressions determined whether between-study heterogeneity in reliability estimates is explained by study and outcome characteristics.

**Results:** 6,778 records were screened for inclusion. Following full-text review of 129 articles, 46 articles published from 1987 to 2022 from 21 countries were selected for inclusion. Based on preliminary analysis, average reliability across studies was 0.64 (95%CI 0.62-0.65). Reliability estimates ranged from -0.03 (alcohol abuse) to 1.00 (reported for 7 disorders). Finalized results and results of meta-regression will be presented at the conference. We expect between-study heterogeneity may be explained by diagnostic criteria, retest interval, disorder or sample characteristics.

**Conclusion:** Preliminary results show that the reliability of SDIs to assess adult psychiatric disorder is moderate, variable and we anticipate it will be influenced by study factors. Our findings raise questions about the strength of published evidence on the test-retest reliability of SDIs and their usefulness in clinical and research contexts.

## P2.04 Assessing the Impact of Recall Period and Response Option Order on Self-Reported Psychological Distress

**Miranda Chilver**<sup>1</sup>, Richard Burns<sup>1</sup>, Ferdi Botha<sup>2</sup>, Peter Butterworth<sup>1,3</sup>

<sup>1</sup>The Australian National University, Canberra, Australia (Canberra, AU); <sup>2</sup>Melbourne Institute, Melbourne, Australia; <sup>3</sup>Deakin University, Melbourne, Australia

**Aims:** Self-report measures are widely used in psychological research and practice, but scores may be impacted by minor variations in administration. This research assessed whether psychological distress ratings varied according to the recall period and response option presentation order.

**Methods:** A sample of 327 adults completed the Kessler Psychological Distress Scale (K10) and a new single-item measure of psychological distress with a 7-day and 30-day recall period, and an additional 326 adults completed the scales with a descending and ascending response option presentation order. Repeated measures regression models were used to assess whether the distribution of psychological distress scores varied according to recall period and response option order.

**Results:** Self-reported psychological distress was lower when using a 7-day recall period compared to a 30-day recall period on the K10, but there was no effect when only considering the items included in the shorter K6 scale, and no effect on the single-item psychological distress scale. The recall period did not alter the proportion of respondents who were classified as having a serious mental illness. Conversely, there was no impact of the response option presentation order on mean distress scores, but there was a small increase in the proportion who were classified as having a serious mental illness when a descending scale was presented.

**Conclusion:** The findings indicate that different administration methods may have subtle effects on self-reported psychological distress symptoms, but do not substantively alter score distributions.



## P2.05 Exploring the Dynamics of Self-Rated Health, Personality Traits, and Functional Disability in the Gothenburg H70 Birth Cohort Study

**Hanna Falk Erhag**<sup>1</sup>, Ingmar Skoog<sup>1</sup>

<sup>1</sup>University of Gothenburg (Gothenburg, SE)

**Aims:** Given the established relevance of self-rated health (SRH) as a predictor of morbidity and mortality, it is important to understand what determines an individual's self-evaluation of health in old age. More needs to be known about when and for whom functional disability results in poorer SRH and which personal characteristics contribute to favorable SRH even when health restrictions have set in. This study is part of the Gothenburg H70 Birth Cohort Studies in Sweden using data from the 1944 birth cohort examined at ages 70 and 75 (n=816, 54% female), and the 1930 cohort examined at ages 85 and 88 (n=767, 64% female).

**Results:** Between ages 70-88, the proportion rating their SRH as good decreased in both men (91% vs.76%, p<.001) and women (84% vs. 70%, p<.001). Limitations in ADL increased in both men and women. Controlling for functional disability and sex, there was a positive association between SRH and extraversion at ages 70 (OR 1.66, 95% CI 1.32-2.09), 75 (OR 1.49, 95% CI 1.26-1.76), 85 (OR 1.21, 95% CI 1.11-1.53), and 88 (OR 1.19, 95% CI 1.03-1.33), and a negative association with neuroticism at age 70 (0.67, 95% CI 0.59-0.84).

**Conclusion:** Extraversion emerged as a consistent predictor of good SRH at all ages, emphasizing the role of sociability and positive interpersonal attributes in shaping individuals' subjective health assessments. Neuroticism at age 70 exhibited a negative association with SRH, highlighting the impact of emotional instability. These findings shed light on the nuanced relationship between personality traits, disability, and SRH.

## P2.06 Study for Revision of Hwa-Byung Scale: The Delphi Method

**Yeonju Lee**, Sungeun Lee<sup>1</sup>, Yunna Kwan, Sungwon Choi

<sup>1</sup>Dankook University (KR); <sup>2</sup>Duksung University; <sup>3</sup>National Institute of Mental Health; <sup>4</sup>Duksung University

**Aims:** This study aims to revise the Hwa-Byung diagnostic scale, enhancing its sensitivity and specificity in the context of the modern clinical presentation of this culturally specific syndrome prevalent in Korea. Given the overlaps with other psychiatric disorders and the evolving sociocultural context influencing its symptoms, a more nuanced scale is essential for accurate diagnosis and effective treatment.

**Methods:** We utilized the Delphi method, engaging a panel of 16 experts with substantial experience in diagnosing Hwa-Byung. Over four rounds of surveys, the experts refined consensus on the disorder's symptomatic and diagnostic characteristics, which distinctly define Hwa-Byung from other mental health disorders. The process aimed to capture both traditional and emerging symptom patterns, particularly under contemporary sociocultural stressors.

**Results:** The expert panel reached a consensus on several key diagnostic criteria, including the presence of suppressed anger, heat sensations, and chest tightness. Modern manifestations such as anger outbursts and failure to control anger, especially in younger patients, were also identified and incorporated into the revised scale. The panel agreed upon the necessity of including symptoms indicative of emotional suppression and attribution to external factors, which are pivotal for differentiating Hwa-Byung from related disorders.

**Conclusion:** The refined Hwa-Byung scale, backed by expert consensus, offers improved diagnostic precision. It acknowledges both traditional and modern symptomatology, facilitating more effective intervention and contributing to a broader understanding of the disorder within and beyond its cultural confines.

## P2.07 Development and Validation of the Psychological Response Scale (PRS)

**Sungwon Choi**<sup>1</sup>, Hyeyoung Shin<sup>1</sup>, Dayeon Kim<sup>1</sup>

<sup>1</sup>Duksung Women's University (KR)

**Background:** People experience psychological changes during adaptation process to stress; a person is angry to others or the environment but later he falls in depression. Although there are so many scales for measuring stress, they only measure the severity of stress or evaluate single emotions. None of them can track the psychological changes during the adaptation to stress.

**Aims:** This study aims to develop a scale that can measure various psychological symptoms occurring in stressful situations all at once. Furthermore, the objective is to accurately understand the individual's current state and stress adaptation patterns, enabling appropriate interventions at each point in time.

**Methods:** We established subscales based on the Kubler-Ross stages which defines general psychological change to five phase: denial, anger, bargaining, depression, acceptance. Through review of literatures, constructs and initial items for each subscale were developed. Clinical psychologists rated the items for clarity and relevance using content validity indices(CVI).

**Results:** A total of 110 initial items were developed based on literature analysis and discussions. After the content validation, items with a CVI below .78 were removed. As a result, 97 items remained and ranged from .83 to 1.0: denial(22 items), anger(19 items), bargaining(15 items), depression(21 items), and acceptance(24 items).

**Conclusion:** These results indicate that the PRS is highly valid, and that it can be utilized as an effective measure of the person's current state. PRS can help the clinicians to understand how the patients percept the stressful situation and their stress adaptation pattern.

## P2.08 Investigating Survey Mode Differences in a Large National Survey of Youth Psychological Distress and Wellbeing

**Dimity Crisp**<sup>1</sup>, Richard Burns<sup>2</sup>

<sup>1</sup>University of Canberra (AU); <sup>2</sup>Australian National University

**Aims:** National surveys of health and wellbeing reflect important sources of data for assessing community welfare. However, modes of data collection for these large surveys can vary greatly. The aim of this study was to examine mode differences within a large national Australian survey of youth mental health and wellbeing.

**Methods:** Australians aged 12-25 years completed a national mental health survey in 2020 (n<sub>1</sub>=5627) and 2022 (n<sub>1</sub>=3668) utilizing either a computer assisted telephone interview (CATI) or online survey methodology. Comparisons are made between modes of data collection for indicators of psychological distress, wellbeing, resilience, and loneliness, across survey years.

**Results:** Examination of mean and median differences between modes indicated lower levels of distress, and higher wellbeing and resilience in the CATI sample (small-medium effects). Regression models adjusting for age and gender indicated significant interactions between mode and resilience, and loneliness, on K10 scores. The greatest variability in item response was reported for items assessing psychological distress, which was most pronounced within the online survey.

**Conclusion:** While it is impossible to identify one mode as most accurate, the greater variability in use of the response scales for the online survey suggest that participants may have been more comfortable reflecting their feelings in this mode. Importantly, our findings highlight the need to be mindful of the potential impact of survey mode, especially where multiple methods of collection are employed within a study, or data relates to topics that may be influenced by perceived stigma or expectation for some populations.

## P2.09 A Strength-Based Approach to Measuring Mental Health and Wellbeing

**Stefan Sebastian Heinz**<sup>1</sup>, Anthony John O'Brien, Matthew Parson, Hamish Crocket, Michael O'Sullivan, Cameron Walker, Paul Rouse

<sup>1</sup>University of Waikato (NZ); <sup>2</sup>University of Waikato; <sup>3</sup>University of Waikato; <sup>4</sup>University of Waikato; <sup>5</sup>University of Auckland; <sup>6</sup>University of Auckland; <sup>7</sup>University of Auckland

Two decades since the New Zealand mental health study, aimed at understanding mental health of the population, researchers highlighted the need for different approaches to measure mental health and wellbeing. While epidemiological studies such as the WHO World Mental Health (WMH) Surveys highlight prevalence of illnesses through a biomedical model, they fail to incorporate the latest WHO definition on health and wellbeing that is more than the absence of disease and includes thriving and flourishing in life. Little is known about the factors related to people flourishing. A strong emerging paradigm shift indicates a need for measuring collective wellbeing, while others recommend a value-based approach to measuring the intricate notion of mental health. Understanding the collective experience is crucial as it allows to grasp the support networks, assets, and health services surrounding individuals, enabling them to thrive and flourish within their communities. The emphasis on resilience is essential to comprehending why some individuals not

only survive but thrive despite facing adversity. I will elaborate on the use of data from large centralized databases, which hold de-identified microdata about people and households. Additionally, I will discuss strength-based approaches to measuring mental health and wellbeing in individuals and communities, as well as the theoretical framework that underpins these approaches.

## **P3 Stress, Socio-Demographic, Family Related Factors and Mental Health**

**Thurs. 12 Sept., 13:00-14:00**

**H1130/H1131**

**Chair: Charles Bonsack, CH**

### **P3.01 The Impact of Childhood Trauma on Mentalization across Psychiatric Disorders: A Systematic Review**

**Marianna Gorgellino**<sup>1</sup>, Geetanjali Kumar<sup>2</sup>, Yusra Parkar<sup>2</sup>, Martin Debbané<sup>3</sup>, Luis Alameda<sup>1,2</sup>, Marco Armando<sup>1</sup>

<sup>1</sup>Department of Psychiatry, Lausanne University Hospital (CHUV) (Lausanne, CH); <sup>2</sup>King's College, London; <sup>3</sup>Department of Psychology, University of Geneva

**Aims:** Mentalizing defines the set of social cognitive imaginative activities that enable to interpret behaviors as intentional mental states. Mentalization impairments have been related to childhood trauma (CT) and are widely present in people suffering from mental disorders. Nevertheless, the link between CT exposure, mentalization abilities and further psychopathology remains unclear. Our aim is to systematically review the evidence in this domain.

**Methods:** We conducted a PRISMA-compliant systematic review of literature published until December 2022 that could elucidate the link between CT, mentalization capacity and psychiatric disorders. Twenty-nine studies were included.

**Results:** Twenty-one studies (72%) showed a significant association between CT and mentalization, with twenty (69%) showing a negative correlation and one (3%) showing a positive correlation. There was solid evidence for this association in patients with psychotic disorders, unipolar depression, personality disorders and opioid addiction, while there was conflicting evidence for PTSD and no evidence for bipolar disorder. When stratifying for subtypes of CT, there was solid evidence that neglect (physical and emotional) decreased mentalization capacity, while abuse (physical, emotional or sexual) wasn't associated with mentalization impairments.

**Conclusion:** Although no causality can be implied, there is clear evidence that mentalization is negatively impacted by CT across multiple psychiatric disorders, with most studies focusing on psychotic disorders, where this link seems to be stronger. This holds important implications for future research as it identifies mentalization impairments to be a valid target for new prevention and treatment strategies aiming to reduce the incidence and the social functioning burden of mental illness.

### **P3.02 A Population-Based Pilot Study in Germany to Examine Intergenerational Transmission of Health and Health Behaviors**

**Sarah Rau**<sup>1</sup>, Mahdieh Shojaa<sup>2</sup>, Diego Montano<sup>2</sup>, Norbert Schimtz<sup>1,2,3</sup>

<sup>1</sup>University Hospital Tübingen (Tübingen, DE); <sup>2</sup>University of Tübingen; <sup>3</sup>McGill University

**Aims:** This pilot study was conducted to assess the feasibility of establishing and conducting a population-based cohort study of families in German communities. Secondary objectives were to examine the familial influence over health protective or health-adverse outcomes, and the acceptability and logistical implementation of collection of selected biomarkers.

**Methods:** Phase 1: A one-stage stratified sampling scheme was used. A total of 2100 residents aged 70-85 years from 5 communities in Germany were invited to participate. Trained interviewers carried out in-person interviews using standardized questionnaires. Interviewees were asked to provide blood and saliva samples to measure HbA1c and cortisol. Phase 2: Interviewees of phase 1 who reported children or grandchildren were asked to invite their descendants to participate. The family members from the 2nd and 3rd generations who consented were sent an individual link to the online survey only, without biological sample collection.

**Results:** Interviews were carried out with 253 participants in phase 1, with an average age of 76.6 years. For phase 2, 85 surveys were completed. Initial evaluations show a good level of agreement in terms of lifestyle factors and general health perception. Further results will be presented in the conference poster.

**Conclusions:** The enrollment rates indicated that the establishment of a cohort study of families in German districts is feasible, however relatively large samples are required. The response rates among children and

grandchildren revealed that the willingness to participate is very high, but data protection regulations were a challenge to the recruitment of children and grandchildren.

### **P3.03 Social Gradient in Mental Health from Adolescence to Midlife: A Population-Based 28-year Longitudinal Study**

**Libor Potočár**<sup>1,2</sup>, Michal Kozák<sup>1</sup>, Tormod Bøe<sup>3,4</sup>, Tilmann von Soest<sup>1,5</sup>

<sup>1</sup>PROMENTA Research Center, Department of Psychology, University of Oslo, Norway (NO); <sup>2</sup>Department of Public Mental Health, National Institute of Mental Health, Klecany, Czechia; <sup>3</sup>Department of Psychosocial Science, University of Bergen, Norway; <sup>4</sup>Regional Centre for Child and Youth Mental Health and Child Welfare, NORCE Norwegian Research Centre, Bergen, Norway; <sup>5</sup>Norwegian Social Research (NOVA), OsloMet – Oslo Metropolitan University, Norway

**Aims:** Social inequalities in mental health are well-documented in adolescents. However, evidence on the life-course development of the social gradient in mental health assessing concurrently multiple problem areas is scarce. We aim to investigate a) the magnitude of the social gradient across multiple mental health areas and b) its development across the lifespan.

**Methods:** In the present population-based 28-year longitudinal study (n = 3,116), using the latent growth curve modeling approach and standardized psychological scales to measure outcomes, we will investigate the social gradient across internalizing (anxiety, depression, loneliness) and externalizing (conduct problems, problematic alcohol use) problems and self-esteem, and their long-term development from adolescence (T2) to midlife (T5). Parental socioeconomic background (T1) will be measured using parental occupation and education. We hypothesize that parental socioeconomic background prospectively predicts a) reduced mental health in adolescence and b) mental health development across the lifespan.

**Results and conclusion:** Expected findings will provide novel insights into how early-life exposure to disadvantaged social circumstances is related to subsequent mental health development. In turn, this will help to inform policies aiming to reduce mental health disparities and guide future behavioral prevention efforts supporting individuals from disadvantaged families.

### **P3.04 Changes in Characteristics of Patients Diagnosed with Mental Disorders during 2000-2022 in Denmark**

**Mette Lise Lousdal**<sup>1</sup>, Magnus Kjærsgaard Tarp<sup>1</sup>, Oleguer Plana-Ripoll<sup>1,2</sup>

<sup>1</sup>Department of Clinical Epidemiology, Aarhus University and Aarhus University Hospital (Aarhus N, DK); <sup>2</sup>National Centre for Register-Based Research, Aarhus University

**Aims:** The incidence of clinically diagnosed mental disorders has increased during the last decades. This may be due to increases in environmental risk factors or explained by other factors, such as a widening of diagnostic criteria, increased public and professional awareness, or changes in capacity and referrals. We aim to describe demographic, economic, social, and health-related changes for patients diagnosed with a mental disorder during 2000-2022.

**Methods:** In the Danish Psychiatric Central Research Register, we will identify patients with organic mental disorders (ICD-10 codes: F00-F09), substance-use disorders (F10-F19), schizophrenia spectrum disorder (F20-F29), mood disorders (F30-F39), neurotic disorders (F40-F48), or personality disorders (F60). Patient populations will be compared to a representative sample of the general population. From the Danish National Patient Registry and the Danish National Health Service Register, information on comorbidity and health service use will be obtained. From Statistics Denmark, information on income and education will be retrieved. Individuals will be categorized based on date of diagnosis and place of residence. First, age and sex distributions will be plotted for each calendar time period. Second, the subpopulations for each calendar period will be directly standardized according to age and sex before comparing other demographic, economic, social, and health-related characteristics.

**Results:** Analyses are ongoing (preliminary results expected to be available in September 2024).

**Conclusion:** In-depth knowledge about the characteristics of diagnosed individuals is a prerequisite to understand changes over time in the burden of psychiatric disorders. Outcome measures estimating changes over time should be adjusted for patient characteristics and severity.

### P3.05 Relative Income and Its Relationship with Mental Health in UK Employees: A Conceptual and Methodological Review.

**Bethany Croak**<sup>1,2</sup>, Laura E. Grover<sup>2</sup>, Simon Wessely<sup>2</sup>, Danielle Lamb<sup>3</sup>, Sharon A.M. Stevelink<sup>1,2</sup>

<sup>1</sup>Department of Psychological Medicine, King's College London, London, UK (GB); <sup>2</sup>King's Centre for Military Health Research, King's College London, London, UK; <sup>3</sup>Department of Applied Health Research, UCL, London, UK

**Aims:** The relative income hypothesis theorises that one's earnings relative to others exert a greater influence on subjective well-being than absolute income. Understanding the nuanced relationship between relative income and mental health could contribute to employee wellbeing. This review narratively synthesised the defining features and measurement of relative income, and its impact on mental health among employed individuals in the UK.

**Methods:** This systematic review was conducted following Cochrane methodology and PRISMA guidelines and registered with PROSPERO (CRD42023408657). Nine electronic databases were searched in February 2023 and updated in March 2024.

**Results:** Systematic searches of qualitative and quantitative research evidence identified 13 studies. A conceptualisation of relative income revealed that an income comparison is either researcher-defined using averages or self-assessed based on a person's perception. Having a lower income than the reference group was commonly associated with diminished well-being, though moderating factors are discussed, such as gender, regional income inequality and the reference group (friends vs colleagues). Identified gaps in the literature included a deficit in validated mental health measures and a limited qualitative understanding of how relative income is defined and its relationship to well-being.

**Conclusion:** Comparing one's income to others can impact on wellbeing, in particular life satisfaction. Implications for practice and policy are considered amidst the UK's 'cost of living crisis and ongoing pay disputes in various sectors. For example, policymakers should consider relative income and how individuals compare their income, and to whom, in designing pay standards such as public sector pay and living wage levels.

### P3.06 --- WITHDRAWN ---

### P3.07 Unravelling the Mental Health Impact of Household Crowding in Urban Hong Kong

**Corine Sau Man Wong**<sup>1</sup>, Wai Chi Chan<sup>2</sup>, Eric Yu Hai Chen<sup>2-5</sup>, Linda Chiu Wa Lam<sup>6</sup>

<sup>1</sup>School of Public Health, LKS Faculty of Medicine, The University of Hong Kong, Hong Kong (Hong Kong, HK); <sup>2</sup>Department of Psychiatry, LKS Faculty of Medicine, The University of Hong Kong, Hong Kong; <sup>3</sup>Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore; <sup>4</sup>Department of Psychosis, Institute of Mental Health, Singapore; <sup>5</sup>State Key Laboratory of Brain and Cognitive Sciences, The University of Hong Kong, Hong Kong; <sup>6</sup>Department of Psychiatry, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong

**Aims:** The impact of household crowding on mental health remains uncertain. The study aimed to examine the association between household crowding, psychological symptoms, and mental disorders in the general population of Hong Kong.

**Methods:** Data were collected from 962 Chinese adults interviewed between November 2014 and November 2016 as part of the Hong Kong Mental Morbidity Survey's 3-year follow-up study. Household crowding was measured as household size in square feet, divided into quantiles. Participants rated the severity of psychological symptoms (irritability, fatigue, bodily pain, and feelings of hopelessness) experienced during the past week on a scale of 0 to 5. Common mental disorders (CMD) were assessed using Revised Clinical Interview Schedule. ANCOVA was used to analyse the association between household crowding and psychological symptoms, while logistic regression models were fitted to study the association between household crowding and CMD.

**Results:** Of all participants, the mean household size was 491.5 square feet (SD 264.8, range 65-2500). Participants with the smallest household size ( $\leq 20\%$  quantile) had higher levels of irritability, fatigue, bodily pain, and feelings of hopelessness compared to those in the two largest household size quantiles. In the unadjusted model, the smallest household size was associated with increased odds of a depressive episode (OR=4.7, 95%CI=1.4-16.3). However, this effect was attenuated in the adjusted model.



**Conclusion:** Our findings reveal a significant association between household crowding and adverse psychological symptoms. These results underscore the importance of considering household crowding as a potential risk factor for mental health issues in densely populated urban cities.

### P3.08 Neighbourhood Deprivation and Smoking Cessation: The French Constances cohort study

**Kate Dotsikas**<sup>1</sup>, Emilie Lanoy<sup>1</sup>, Emeline Lequy<sup>2,3</sup>, Emmanuel Wiernik<sup>2</sup>, Murielle Mary-Krause<sup>1</sup>

<sup>1</sup>Sorbonne Université, INSERM, Institut Pierre Louis d'Epidémiologie et de Santé Publique (Paris, FR); <sup>2</sup>Université Paris Cité, Paris Saclay University, Université de Versailles Saint-Quentin-en-Yvelines ; <sup>3</sup>Université Paris-Saclay, UVSQ, Inserm, Gustave Roussy, Exposome and Heredity team, CESP

**Background:** There exists a growing socioeconomic disparity in smoking prevalence in France, which may be partially explained by lower socioeconomic groups being less likely to successfully quit. Research suggests this socioeconomic gradient may extend to the neighbourhood level, as deprived neighbourhoods present characteristics that reduce the likelihood of quitting. However, longitudinal studies are very limited.

**Aims:** This study aims to investigate the association between neighbourhood deprivation and the likelihood of quitting smoking.

**Methods:** Data from Constances, a French national population-based cohort collecting annual data from adults aged 18 to 69 at inception, were used. Participants who enrolled between 2012-2018 with at least one follow-up wave, and with information on a first quit attempt before 2020, were included. The hazard of quitting was estimated by the decile of the French Deprivation Index (FDEP) using a Cox model on a cohort of 22,451 smokers at baseline, with first attempt of smoking cessation as the outcome.

**Results:** After adjustment for relevant demographic and individual-level socioeconomic factors, individuals in the highest deprivation decile were less likely to quit smoking compared to those in the lowest, with a hazard ratio of 0.88 (95% CI 0.80, 0.97). Stratified analyses indicated this effect was present for those with the least education.

**Conclusion:** In the first French study of its kind, we found that smokers living in highly deprived neighbourhoods are less likely to attempt quitting. Such smokers may be facing multiple barriers to cessation, underscoring the importance of targeting highly deprived neighbourhoods in smoking cessation interventions.

### P3.09 The Impact of Climate Change on Mental Health in Vulnerable Groups: A Systematic Review

Ridha Mahmood<sup>1</sup>, **Philippa Clery**<sup>1,2</sup>, Justin Yang<sup>1</sup>, Liyang Cao<sup>1</sup>, Jennifer Dykxhoorn<sup>1</sup>

<sup>1</sup>Division of Psychiatry, University College London, London, UK; <sup>2</sup>Camden and Islington NHS Foundation Trust, London, UK

**Aims:** The impact of climate change on mental health disproportionately affects vulnerable groups. We aimed to summarise current evidence regarding the mental health of vulnerable populations exposed to climate events.

**Methods:** We performed a systematic review investigating the association between climate events and mental health outcomes in vulnerable populations. We searched five databases up to July 2023. Data from included studies underwent qualitative summarization and quality assessment, with results presented in a narrative synthesis. PROSPERO registration: CRD42023442489.

**Results:** Of 1,197 articles retrieved, 32 were included. Articles explored acute (n=27), sub-acute (n=2), gradual (n=2), and combined (n = 2) climate events. Vulnerable populations included: low socioeconomic status (n=26), racial and ethnic minorities (n=12), Indigenous populations (n=2), and housing insecure (n=1) groups. Mental health outcomes included: general mental health (n=8), psychological distress (n=6), psychiatric symptoms (n=2), perceived stress (n=1), probable mental illness (n=1), depressive disorder (n=12), anxiety disorder (n=6), post-traumatic stress symptoms/disorder (n=15), and severe mental illness (n=2). Seventeen studies reported worse mental health outcomes in vulnerable groups following climate events, six presented mixed findings, and nine found no evidence.

**Conclusion:** There is evidence that several vulnerable groups exhibit poorer mental health outcomes than the general population following exposure to climate events. However, high-quality evidence is lacking, particularly for: low- and middle-income countries; sub-acute and gradual climate events; and specific groups such as housing insecure and Indigenous populations. Given increasing climate change related events

globally, further research to better understand how pre-existing inequalities exacerbate mental health impacts of climate change is needed.

### P3.10 --- WITHDRAWN ---

### P3.11 The Longitudinal Association Between Work-family Conflict and Mental Health: A Systematic Review and Meta-analysis

**Dongyu Liu**<sup>1</sup>, Yanyan Ni<sup>1</sup>, Tiffany S.W. Ma<sup>1</sup>, Xiaoyan Fan<sup>1</sup>, Yongle Zhan<sup>2</sup>, Ivan H.L. Lam<sup>3</sup>, Mathew C.L. Lui<sup>3</sup>, Tarani Chandola<sup>4</sup>, Michael Y. Ni<sup>1,5,6</sup>

<sup>1</sup>School of Public Health, LKS Faculty of Medicine, The University of Hong Kong (Hong Kong, HK); <sup>2</sup>Department of Surgery, LKS Faculty of Medicine, The University of Hong Kong; <sup>3</sup>LKS Faculty of Medicine, The University of Hong Kong; <sup>4</sup>Department of Sociology, The University of Hong Kong; <sup>5</sup>State Key Laboratory of Brain and Cognitive Sciences, The University of Hong Kong; <sup>6</sup>Urban Systems Institute, The University of Hong Kong

**Aims:** Work-family conflict has become a public health concern globally. However, evidence from longitudinal studies remains inconsistent regarding the association between work-family conflict and mental health. This study aimed to comprehensively synthesise current evidence regarding the longitudinal associations of both work-to-family conflict (WTFC) and family-to-work conflict (FTWC) with mental health outcomes.

**Methods:** We searched PubMed, Web of Science, Scopus, PsychInfo and SinoMed. We used the following inclusion criteria to identify eligible studies: (1) original research with a longitudinal design, (2) conducted in the adult working population, (3) published in English or Chinese journals, and (4) having WTFC or FTWC as the exposure and mental health as the outcome. Three-level meta-analyses were conducted to synthesise the results with effect sizes quantified using standardised regression coefficients ( $\beta$ ) and 95% confidence intervals (CI). Sub-group analyses were conducted to explore potential moderators. Paper quality was assessed using the Newcastle-Ottawa Scale.

**Results:** A total of 33 studies were suitable for meta-analysis, encompassing 47,589 participants. Our results supported longitudinal associations between both directions of work-family conflict and mental health outcomes ( $\beta$  range: 0.09-0.23), which remained significant after controlling for confounders. Despite overlapping confidence intervals, a relatively stronger association between WTFC and depressive symptoms was identified in females ( $\beta = 0.10$ , 95%CI [0.05-0.15]) compared to males ( $\beta = 0.06$ , 95%CI [0.02-0.11]).

**Conclusion:** Our findings highlight work-family conflict as a pressing stressor for public mental health and the importance of promoting policies to reconcile work and family spheres and to improve mental health in working adults.

### P3.12 "Soldier, Mother, Wife: the Multiple Roles of British Military Women." A Qualitative Exploration of UK Ex-Servicewomen's Transition from the Armed Forces to Civilian Life.

**Bethany Croak**<sup>1,2</sup>, Rafiyah Khan<sup>1,2</sup>, Marie-Louise Sharp<sup>1</sup>, Sharon A.M Stevelink<sup>1,2</sup>, Alexandria Smith<sup>1</sup>, Neil Greenberg<sup>1</sup>, Nicola T. Fear<sup>1</sup>

<sup>1</sup>King's Centre for Military Health Research, King's College London, UK (GB); <sup>2</sup>Department of Psychological Medicine, King's College London, UK

**Aims:** Women have served in the British military for over 100 years, yet their role has changed substantially in that time, including the inclusion of women in close combat roles. As the UK government seeks to increase the proportion of women serving in the military, research must consider the impact of both service and transition into civilian life on the health and wellbeing of ex-servicewomen. This study aimed to understand the gendered experience of transition into civilian life and barriers and facilitators for a successful transition.

**Methods:** Participants were recruited from an existing cohort exploring UK Armed Forces' health and wellbeing in those who served during the Iraq and Afghanistan conflicts. Eligibility included being a woman and having served in the UK Armed Forces. Semi-structured interviews (n=31) were conducted via Microsoft Teams, transcribed verbatim, and analysed using thematic analysis.

**Results:** Preliminary findings identified a range of barriers to successful transition impeded by gender-specific challenges. While navigating a male-dominated environment, women reported identity-related conflicts,

forms of gendered harassment and anxiety stemming from perceptions of career satisfaction and achievement. However, as women occupied multiple roles, they were equipped to navigate conflicting identities, such as soldier and mother, which facilitated integration into civilian life and fostered resilience and adaptability.

**Conclusion:** Gendered experiences drive unique transition barriers for servicewomen. Policies which seek to make the UK Armed Forces more inclusive for women could subsequently improve their transition. Resettlement interventions should address the emotional element of transition to create more holistic support for service leavers.

### **P3.13 Socioeconomic Inequalities in Excess Mortality in Mental Disorders across Multiple Levels and Scales**

Danni Chen<sup>1</sup>, Natalie Momen<sup>1</sup>, Linda Ejlskov<sup>1</sup>, Julie Dreier<sup>2</sup>, Lisbeth Laustsen<sup>1</sup>, **Oleguer Plana-Ripoll**<sup>1,2</sup>

<sup>1</sup>Department of Clinical Epidemiology, Aarhus University and Aarhus University Hospital, Denmark (Aarhus N, DK); <sup>2</sup>National Centre for Register-based Research, Aarhus University, Denmark

**Aims:** Mental disorders are associated with elevated mortality rates, but it is unclear whether these associations could be modified by socioeconomic position (SEP). This study aims to investigate the role of individual and neighbourhood SEP separately and collectively in mortality in mental disorders.

**Methods:** Using Danish nationwide registers, we identified people diagnosed with mental disorders between January 1, 2000, and December 31, 2020, exact matched with five counterparts on age, sex, individual and neighborhood SEP at the date of first contact. Individual SEP was measured by household income and education attainment, while neighborhood SEP was defined using a composite measure of income, education levels, employment status, manual workers, car ownership, and household crowding. Mortality rate ratios (MRRs) and differences (MRDs) were estimated using Poisson regression models. To estimate neighborhood effects, we will use hierarchical models nesting individuals within their neighborhood at the start of follow-up.

**Results:** In analyses of individual SEP, people with mental disorders had elevated mortality rates across SEP groups. For natural causes of death, mortality rate ratios between people with and without mental disorders were similar regardless of SEP, whilst mortality rate differences were larger in low-SEP rather than high-SEP groups. For external causes, we observed similar mortality rate differences across SEP.

**Conclusion:** This study provides a comprehensive analysis of effect modification by SEP across multiple scales and levels in the associations between specific types of mental disorders and cause-specific mortality. The identified socioeconomic gradients should be prioritized for mortality prevention for people with mental disorders.

**P4 Mood Disorders****Thurs. 12 Sept., 13:00-14:00****H1130/H1131****Chair: Jennifer Glaus, CH****P4.01 Developing and Evaluating the Impact of a Video-Based Narrative Intervention on Stigma and Help-Seeking Behavior for Depression in Young Adults****Latha K<sup>1</sup>**, Chandrasen Yadav<sup>2</sup>, K S. Meena<sup>1</sup>, Rashmi A<sup>1</sup>, Adithya Aneesh<sup>1</sup><sup>1</sup>National Institute of Mental Health and Neuro Sciences (NIMHANS) (Bengaluru, IN); <sup>2</sup>LGBRIMH, Tezpur

**Aims:** Depression in India often remains unnoticed and untreated, primarily due to the pervasive stigma surrounding mental health disorders and lack of awareness. Stigma is one of the most significant impediments to obtaining help. This study aims to develop a narrative video intervention with partially/fully recovered persons diagnosed with depression and evaluating its effectiveness in reducing personal, perceived stigma and encouraging help-seeking behaviour among college students.

**Methods:** A quasi-experimental study design with the initial phase of development of narrative video intervention on depression followed by evaluating its effectiveness among 102 college students, in the age group of 18 to 25 years. The structured tools Depression stigma scale (DSS), General Help seeking questionnaire (GHSQ) and Depression literacy questionnaire (D-Lit) were used to measure stigma, help-seeking intentions, and depression literacy respectively. The data was quantitatively measured using paired T test.

**Results:** The mean age of students was  $22.02 \pm 1.706$ . The depression literacy results showed only half of the participants had moderate literacy. Post-intervention, there was a significant reduction in personal and perceived stigma ( $t = 6.348$ ,  $p < 0.001$ ) towards depression. There was a substantial increase in the intention to seek help from various sources, as assessed by the GHSQ. (pre-intervention  $M = 3.64 \pm 1.97$ ; post-intervention  $M = 4.84 \pm 1.81$ ;  $t = -6.536$ ,  $p < 0.001$ )

**Conclusion:** The narrative video intervention can effectively reduce stigma, enhance help-seeking intentions and improve awareness on depression among young adults, emphasising its potential as an innovative anti-stigma strategy for mental health promotion.

**P4.02 Childhood Adversities, Family Depression History and Risk of Depression in Adulthood among 1,461,034 Danish Individuals****Frederikke Hørdam Gronemann<sup>1</sup>**, Martin Balslev Jørgensen<sup>2,3</sup>, Merete Osler<sup>1,4</sup>, Terese Sara Høj Jørgensen<sup>1,5</sup><sup>1</sup>Center for Clinical Research and Prevention, Copenhagen University Hospital, Frederiksberg, Denmark (Frederiksberg, DK); <sup>2</sup>Psychiatric Center Copenhagen, Frederiksberg, Copenhagen, Denmark; <sup>3</sup>Department of Clinical Medicine, University of Copenhagen, Denmark; <sup>4</sup>Section of Epidemiology, Department of Public Health, University of Copenhagen, Copenhagen, Denmark; <sup>5</sup>Section of Social Medicine, Department of Public Health, University of Copenhagen, Copenhagen, DK

**Aims:** To investigate the modifying impact of childhood adversities (CA) on the association between family major depression (MD) history and the risk of adult MD.

**Methods:** Adjusted Poisson regression models were conducted to analyze the modifying impact of CAs on the association between family MD history and incidence rate ratios (IRRs) of MD in adulthood among all Danish citizens born 1977-2000. Data were obtained from nationwide registers from 1977 until 2022, including hospital diagnoses of MD. CAs included poverty, long-term parental unemployment, foster care, parental alcohol abuse, parental drug abuse, parental and sibling somatic illness, parental long-term unemployment, parental separation, and parental and sibling death.

**Results:** This study included 1,461,034 individuals (Male: 51.5%). During the mean follow-up of 14.5 years ( $SD \pm 7.2$ ), 50,231 (3.5%) of the study population were diagnosed with first-time MD. Family MD history was associated with an IRR of 1.94 (95% CI [1.88-2.00]) for MD in adulthood. In all models, both the CA and family MD, separately and combined, were associated with an increased IRR for MD (e.g.  $IRR_{\geq 1 \text{ family member MD} - \text{no alcohol abuse}} 1.95$  (95% CI [1.88-2.02]),  $IRR_{\text{no family MD} - \text{alcohol abuse}} 1.56$  (95% CI [1.51-1.61]),  $IRR_{\geq 1 \text{ family member MD} - \text{alcohol abuse}}$

2.26 (95% CI [2.14-2.40])). The IRRs for those with a family MD history with or without a CA, respectively, were generally relatively comparable.

**Conclusion:** Overall, the elevated risk of MD was relatively comparable for individuals with a family history of MD regardless of whether they had experienced CAs or not.

#### **P4.03 Depressed, But Not for Life? 10 Years Health and Social Outcomes Following Child and Adolescent Depression**

**Olav Nytingnes**<sup>1,2</sup>, Tore Hofstad<sup>1,3</sup>, Anne Hege Strand<sup>4</sup>, Ingvar Bjelland<sup>1,5</sup>, Arnstein Mykletun<sup>1,6,7</sup>

<sup>1</sup>Haukeland University Hospital (Bergen, NO); <sup>2</sup>Akershus University Hospital; <sup>3</sup>University of Oslo; <sup>4</sup>Fafo, Oslo, Norway; <sup>5</sup>University of Bergen; <sup>6</sup>Norwegian Institute of Public Health; <sup>7</sup>Nordland Hospital Trust

**Aims:** Depression denotes feeling down, often together with irritability, and reduced interest and pleasure, and sometimes accompanied by suicidal thoughts. In addition to the aversive mood state, symptoms can impact relations, school performance, and risk-taking behaviour. Being specialists, clinicians in Child and Adolescent Mental Health Services (CAMHS) usually lose contact with their patients, and rarely observe long-term outcomes in their work-life.

We aim to describe the long term prognosis for CAMHS patients diagnosed with depression, including independent living as adults, following an adolescent depressive episode.

**Methods:** We used register data on treatment, school and social outcome for all adolescents in CAMHS care in 2009-2011 diagnosed with depression (F32-33, F341, F381, n = 8.358) combined with a control cohort from Statistics Norway with similar age and sex distribution (n = 69.931). Long term outcomes are described comparing the proportion that experience the outcomes with 95% confidence interval, by sex and age cohort. We also stratify the sample by comorbidity and by parents' socio-economic position.

**Results:** The patient cohort showed increased likelihood of future mental disorders, self harm and death. Achievements was lower in school and work, and depressed boys had a higher risk of committing serious crime, compared to their controls. Nevertheless, ten years after the CAMHS contact, ca 45-60% of persons diagnosed with depression lived independently, compared to 76-79% in the control cohort.

**Conclusion:** Depression in CAMHS predict a range of adverse outcomes; in particular for future self-harm, other mental health problems, and inpatient mental health care.

#### **P4.04 --- WITHDRAWN ---**

#### **P4.05 Working Life Sequences After Sick Leave Due to Depression: A 15-Year Register-Based Prospective Cohort Study**

**Gerda Stutaite**<sup>1</sup>, Ellenor Mittendorfer-Rutz<sup>1</sup>, Magnus Helgesson<sup>1,2</sup>, Alexander Kautzky<sup>1,3</sup>, Katalin Gémes<sup>1</sup>

<sup>1</sup>Karolinska Institutet (Stockholm, SE); <sup>2</sup>Uppsala University; <sup>3</sup>Medical University of Vienna

**Aims:** To identify long-term working-life trajectories individuals follow after sickness absence (SA) due to depression and to investigate how sociodemographic and morbidity-related factors are distributed among these trajectories.

**Methods:** In this longitudinal register-based cohort study, we included all individuals, aged 25-40, who started a new SA spell due to depression in 2005 (n = 9139). We followed the cohort from 2006 to 2020, computing yearly, mutually exclusive labor market states. Using sequence and hierarchical cluster analyses, we identified individuals with similar labor market sequences and examined how sociodemographic factors, SA history, and somatic and mental comorbidities were distributed among the identified clusters.

**Results:** We identified 3573 distinct labor market sequences that formed seven working-life typologies (ASW = 0.46): 1) "Economic activity (EA)" (67.5% of the cohort), 2) "Long-term SA/DP followed by EA" (18.4%), 3) "EA followed by long-term SA/DP" (5.7%), 4) "Combination of EA and SA/DP with recurring long-term SA/DP" (2.2%), 5) "Predominant long-term SA/DP" (3.2%), 6) "Emigration" (1.6%), and 7) "Death" (1.4%). Somatic and mental comorbidities, a history of long-term SA, immigrant background, lower educational level, and employment in the public sector were more frequent among individuals belonging to clusters characterized by continuous or recurring long-term SA/DP, compared to those belonging to the "EA" cluster. Only small differences in the distribution of sex and occupation were observed between the clusters.



**Conclusion:** While most individuals kept their attachment to the labor market after depression-related SA, 11.1% followed working-life trajectories characterized by recurring long- and short-term SA/DP.

#### **P4.06 Changes in Emotional Demands at Work and Subsequent Risk of Antidepressant Treatment. A Nationwide Cohort Study in Denmark**

**Nanna P. Larsson**<sup>1</sup>, Louise Dalsager<sup>1</sup>, Kathrine Sørensen<sup>1,2</sup>, Jeppe K. Sørensen<sup>1</sup>, Ida E.H. Madsen<sup>1,3</sup>, Reiner Rugulies<sup>1,4</sup>

<sup>1</sup>The National Research Centre for the Working Environment (Copenhagen, DK); <sup>2</sup>Department of Psychology, University of Copenhagen; <sup>3</sup>National Institute of Public Health, University of Southern Denmark; <sup>4</sup>Section of Epidemiology, Department of Public Health, University of Copenhagen

**Aims:** The study aims to examine if changes in emotional demands at work are associated with subsequent risk of antidepressant treatment.

**Method:** We measured emotional demands in nationwide biennial Danish surveys from 2012 to 2018 among 16,759 workers, aged 18 to 64 years. We assessed changes in emotional demands over a two-year period and subsequently followed the participants for an additional two years in a nationwide register on prescription medication purchases. We used Cox regression to estimate the risk of antidepressant treatment among participants with changes in emotional demands, compared to participants without changes. Estimates were adjusted for sex, age, and educational level.

**Results:** Participants increasing from low to high emotional demands were more likely to be subsequently treated with antidepressants (9.6 cases per 1,000 person-years), compared to those with persistent low emotional demands (7.5 cases per 1,000 person-years). Conversely, participants decreasing from high to low emotional demands were less likely to be subsequently treated with antidepressants (10.1 cases per 1,000 person-years), compared to those with persistent high emotional demands (16.2 cases per 1,000 person-years). In the adjusted Cox regression model, the hazard ratio for antidepressant treatment was 1.25 (95%CI: 0.85;1.85) for increasing versus persistent low emotional demands and 0.61 (95%CI: 0.41;0.90) for decreasing versus persistent high emotional demands.

**Conclusion:** Changes in emotional demands at work may affect risk of antidepressant treatment, however, results had some uncertainty and should be replicated in larger samples.

#### **P4.07 Pre-existing Chronic Physical Morbidity and Excess Mortality in People with Bipolar disorder: A Population-Based Cohort Study in 2008-2018**

**Joe Kwun Nam Chan**<sup>1</sup>, Corine Sau Man Wong<sup>2</sup>, Catherine Zhiqian Fang<sup>1</sup>, Nicholas Chak Lam Yung<sup>1</sup>, Wing Chung Chang<sup>1</sup>

<sup>1</sup>Department of Psychiatry, School of Clinical Medicine, University of Hong Kong (Hong Kong, HK); <sup>2</sup>School of Public Health, LKS Faculty of Medicine, University of Hong Kong

**Aims:** Bipolar disorder (BD) is associated with increased risk of premature mortality and physical comorbidity. This study aimed to examine prevalence of pre-existing chronic physical morbidity and association between physical multimorbidity and mortality risk in newly-diagnosed BD patients.

**Methods:** This population-based study investigated patients with first-recorded BD diagnosis between January-2008 and December-2018 using territory-wide medical-record database of public healthcare services in Hong Kong. Pre-existing physical morbidities were measured by Charlson-Comorbidity Index (CCI), and grouped into nine broad categories for analyses. Physical multimorbidity burden was stratified according to CCI=0, 1 or  $\geq 2$ . Cox-proportional hazard regression and population-attributable-fractions (PAF) estimation were performed to assess association between physical multimorbidity level and all-cause mortality.

**Results:** Of 6730 patients, 9.4% ( $n=597$ ) had pre-existing physical morbidity. Patients with physical morbidity showed higher all-cause mortality rate (HR: 2.22 [95% CI: 1.65–2.99]) than those without physical morbidity. 23.65% (PAF, 17.43%–29.72%) of BD mortality could be avoided if pre-existing physical morbidity were not present. Among nine disease categories, gastrointestinal diseases represented the most frequently-diagnosed physical morbidity, and cancers displayed the highest mortality rate (HR: 3.24 [1.83–5.72]). Cardiovascular diseases showed largest contribution to mortality (PAF: 10.20% [6.12%–13.60%]). An increase in physical



multimorbidity level was associated with increasing mortality rate (CCI=1: 1.62 [1.05–2.52]; CCI ≥2: 2.75 [1.95–3.89]; CCI=0 as reference) and PAF (CCI=1:7.64% [2.58%–12.48%]; CCI≥2: 19.66% [13.09%–24.81%]).

**Conclusion:** Our findings underscore an urgent need for comprehensive screening and prompt intervention of physical morbidity in the initial phase of BD to reduce preventable mortality.

#### **P4.08 Adjusting Excess Mortality in Major Depressive Disorder for Lifestyle Factors using Survey Data to Complement Registers: Propensity Score Calibration**

**Katrine Bødkergaard**<sup>1</sup>, Mette Lise Lousdal<sup>1</sup>, Timothy L. Lash<sup>1,2</sup>, Oleguer Plana-Ripoll<sup>1</sup>

<sup>1</sup>Department of Clinical Epidemiology, Aarhus University Hospital and Aarhus University (Aarhus N, DK); <sup>2</sup>Department of Epidemiology, Rollins School of Public Health, Emory University, Atlanta, GA, USA

**Aims:** Major depressive disorder (MDD) is a leading contributor to the global burden of disease and associated with excess mortality. This might be partly explained by lifestyle factors such as smoking, alcohol consumption, and over- or underweight. Information on lifestyle factors is not available for the entire population in registers but sometimes for smaller subsamples using e.g. health surveys. We will investigate how lifestyle factors affect the MDD-mortality association by combining register and survey data using propensity score (PS) calibration.

**Methods:** We will conduct a cohort study including all individuals aged 16+ years living in Denmark on January 1<sup>st</sup> 2017 and follow them for 5 years or until emigration or death, whatever comes first. From Danish registries, we will obtain information on MDD, hospital contacts, socioeconomic position etc. To further adjust for lifestyle factors, we will consider the subsample of the 2017 Danish National Health Survey participants and perform PS calibration. We will report PS-adjusted mortality rate ratios (MRRs) using a register-based PS for the entire population and a PS based on both registers and survey-reported lifestyle factors for the restricted subsample. Combining both PSs will result in a calibrated MRR for the entire population, taking account of lifestyle factors.

**Results:** Analyses are ongoing (preliminary results expected to be available in September 2024).

**Conclusion:** This study will provide more valid and precise estimates of the MDD-mortality association by including survey information to adjust for lifestyle factors using PS calibration.

**P5 Psychosis****Fri. 13 Sept., 13:00-14:00****H1130/H1131****Chair:** Caroline Vandeleur, CH**P5.01 The LONG-Term Follow-up TIPP Project: LOFT Study Protocol, a 20-year Prospective Study of Early Psychosis Patients**

**Teya Petrova**<sup>1</sup>, Philippe Golay<sup>1,2</sup>, Paul Klauser<sup>3</sup>, Sandra Vieira<sup>1</sup>, Inès Lepreux<sup>1</sup>, Boshra Hedrazavi<sup>1</sup>, Raoul Jenni<sup>3</sup>, Nadir Mebdouhi<sup>1</sup>, Caroline Conchon<sup>1</sup>, Philippe Conus<sup>1</sup>, Luis Alameda<sup>1</sup>

<sup>1</sup>Service of General Psychiatry, Lausanne University Hospital (Lausanne, CH); <sup>2</sup>Community Psychiatry Service, Department of Psychiatry, Lausanne University Hospital; <sup>3</sup>Center for Psychiatric Neuroscience, Department of Psychiatry Lausanne University Hospital

**Aims:** Early intervention (EI) in psychosis is the gold standard for treating patients after a first episode of psychosis (FEP). However, understanding the evolution and long-term effects of such interventions is limited, highlighting the need to enhance comprehension of early detection and intervention. This study aims to gain insight into the long-term evolution of physical and mental health, as well as the neurobiological outcomes of patients treated after a first psychotic episode in the Treatment and Intervention in Psychosis Program (TIPP).

**Methods:** The Long-term Follow-up of TIPP (LOFT) is a longitudinal study spanning up to 20 years within a cohort of patients who completed a three-year EI treatment at TIPP in Lausanne, Switzerland. They underwent deep phenotyping prospective multimodal assessment during these three years. A total of 720 patients will be recontacted and invited to participate in LOFT at either 5(±2), 10(±2), 15(±2), or 20(±2) years after entering TIPP. Participants will be evaluated for psychopathological, functional, and physical health outcomes, including anthropometric measures and metabolic disturbances. A subsample of patients who participated in a neurobiological research program (n = 168) at TIPP will be invited to undergo additional neurobiological and biofluid assessments, including MRI, MRS, EEG, peripheral redox and immune markers, and genetics. Traditional group-level and machine learning analyses will be conducted.

**Conclusion:** Ethical approval has been obtained, and recruitment began in March 2024. We hope LOFT will help reshape and redefine current interventions for subgroups of patients at risk of poorer long-term outcomes and understand the underlying neurobiological mechanisms.

**P5.02 Ecological Monitoring of Physical Activity, Emotions, and Daily Life Activities in Schizophrenia: The Diapason Study**

**Giovanni de Girolamo**<sup>1</sup>, Stefano Calza<sup>2</sup>, Cristina Zarbo<sup>3</sup>, DIAPASON Consortium<sup>1</sup>.

<sup>1</sup>IRCCS Fatebenefratelli, Brescia, Italy (Brescia, IT); <sup>2</sup>University of Brescia, Italy; <sup>3</sup>University of Milan Bicocca, Italy

**Background:** Schizophrenia Spectrum Disorders (SSD) compromise psychosocial functioning, including daily time use, emotional expression, and physical activity.

**Aims**

We performed a cohort study aimed at investigating: (1) the differences in physical activity (PA), daily activities, and emotions between patients with SSD and healthy controls (HC); (2) the strength of the association between these variables and clinical features among patients with SSD.

**Methods:** Ninety-nine patients with SSD (53 residential patients, 46 outpatients) and 111 matched HC were assessed for several clinical variables, and levels of functioning by means of standardized clinical measures. Self-reported daily activities and emotions were assessed with a smartphone application for Ecological Momentary Assessment, and PA levels were assessed with a wearable accelerometer for 7 consecutive days.

**Results:** Patients with SSD, especially those living in residential facilities, spent more time being sedentary, and self-reported more sedentary and self-care activities, experiencing higher levels of negative emotions compared to HC. Moreover, higher functioning levels among patients were associated with more time spent in moderate-to-vigorous activity and less time in self-reported sedentary activities.

**Conclusion:** Sedentary behaviour and negative emotions are particularly critical among patients with SSD and are associated with more impaired clinical outcomes.

Clinical implications: mobile-EMA and wearable sensors are useful for monitoring the daily life of patients with SSD and the level of PA. This population needs to be targeted with specific rehabilitative programmes aimed at improving their commitment to structured daily activities.

### **P5.03 Exploring Sex Differences in Physical Activity Patterns Among Individuals With Schizophrenia Spectrum Disorders: Insights from the Diapason Project**

**Giovanni de Girolamo**<sup>1</sup>, Giulia Moncalieri<sup>1</sup>, Elena Toffol<sup>1</sup>, Silvia Leone<sup>1</sup>, Stefano Calza<sup>2</sup>, Martina Carnevale<sup>2</sup>, DIAPASON Consortium<sup>1</sup>

<sup>1</sup>IRCCS Fatebenefratelli, Brescia, Italy (Brescia, IT); <sup>2</sup>IRCCS Fatebenefratelli, Brescia, Italy

**Aims:** Schizophrenia Spectrum Disorders (SSD) affect females differently than males, yet there is limited research on Physical Activity (PA) levels and possible sex differences in patients with SSD. This prospective cohort study, part of the DiAPASON project, aimed at comparing PA levels between female and male patients with SSD and control participants.

**Methods:** One hundred thirty-two patients with SSD, living either in a residential facility or treated as outpatients (48 females and 84 males), and 113 healthy controls (46 females and 67 males) were assessed using standardised clinical tools. PA levels were monitored for seven consecutive days using a wearable accelerometer. Descriptive and regression analyses were conducted.

**Results:** Levels and patterns of PA did not differ among patients with SSD, while female controls spent longer times in sedentary activity than male controls (787.3 vs 706.8 minutes,  $p < 0.001$ ). Male patients spent more time in sedentary activity ( $p < 0.001$ ) but less time in light PA ( $p < 0.001$ ) and MVPA (respectively,  $p < 0.001$  and  $p = 0.004$ ) compared to male controls. Outpatient and female residents spent longer sedentary time (respectively,  $p = 0.006$  and  $p = 0.020$ ) than female controls; female outpatients spent significantly less time in daily light PA ( $p = 0.008$ ), and female residents in MVPA ( $p = 0.002$ ) than female controls. Higher levels of psychosocial functioning were associated with higher moderate PA and MVPA bouts per weekday in male patients only.

**Conclusion:** Our findings suggest that male patients with SSD may benefit from MVPA-focused interventions across settings, while personalised PA interventions tailored to specific settings could be more beneficial for female patients.

### **P5.04 A Geospatial Analysis of Early Psychosis Intervention Programs in Toronto, Canada**

**Martin Rotenberg**<sup>1,2</sup>, Justin Graffi<sup>1</sup>, Kelly Anderson<sup>3,4</sup>, Paul Kurdyak<sup>1,2,5</sup>, Nicole Kozloff<sup>1,2,5</sup>, George Foussias<sup>1,2</sup>

<sup>1</sup>Department of Psychiatry, University of Toronto (Toronto, CA); <sup>2</sup>Centre for Addiction and Mental Health, Toronto; <sup>3</sup>Department of Epidemiology and Biostatistics, Western University; <sup>4</sup>Department of Psychiatry, Western University; <sup>5</sup>Institute of Health, Policy, Management and Evaluation, University of Toronto

**Aims:** Early Psychosis Intervention (EPI) programs play a crucial role in detecting and treating psychosis early, yet disparities in access persist. This study aimed to assess the spatial accessibility of EPI programs in Toronto, Canada, and to explore the association between access and indicators of neighbourhood-level marginalization.

**Methods:** We conducted a geospatial analysis using Floating Catchment Area (FCA) and Two-Step Floating Catchment Area (2SFCA) methods, examining EPI program locations, census population estimates for the 158 Toronto neighbourhoods, and area-level marginalization data. Spatial regression models were used to estimate the association between marginalization factors and access.

**Results:** On average, the closest EPI program is 4 km away from the centre of any given neighbourhood, with variability across the city. Clustering is observed in some neighbourhoods, indicating better accessibility, whereas other neighbourhoods face lower access. A full spatial regression model found increasing levels of housing and dwelling marginalization, as well as material resource marginalization, to be associated with better access.

**Conclusion:** We identified low-access neighbourhoods where there may be a need for EPI services. Some neighbourhood-level marginalization indicators previously found to be associated with psychosis risk are also associated with better access. The study underscores the importance of geospatial analyses to identify and address potential disparities in access.

## P5.05 Socioeconomic Trajectories throughout Childhood and Risk of Psychotic Disorders During Adolescence and Early Adulthood: a Birth Cohort Study

**Kelly K. Anderson**<sup>1</sup>, Rebecca Rodrigues<sup>1</sup>, Martin Rotenberg<sup>2</sup>, Jordan Edwards<sup>3</sup>, Britney Le<sup>4</sup>

<sup>1</sup>Western University, London Ontario CANADA (London, Ontario, CA); <sup>2</sup>Centre for Addiction and Mental Health, Toronto Ontario CANADA;

<sup>3</sup>McMaster University, Hamilton Ontario CANADA; <sup>4</sup>ICES, London Ontario CANADA

**Aims:** Socioeconomic deprivation is a known risk factor for psychotic disorders, however less is known about the impact of longitudinal trajectories of deprivation. We sought to examine the association between neighbourhood-level income trajectories during childhood and the risk of psychotic disorder during adolescence and early adulthood.

**Methods:** We constructed a population-based retrospective birth cohort using health administrative data, which included 560,262 children born in Ontario between 1992 and 1996 and followed to age 25-30 years to identify incident cases of non-affective psychotic disorder. We used longitudinal latent class modelling to classify neighbourhood-level income trajectories from birth to age 12. We estimated the incidence rate ratios (IRR) and 95% confidence intervals (CI) for the association between childhood income trajectories and the incidence of psychotic disorder, adjusting for key confounding factors.

**Results:** We identified four distinct trajectories: (i) Stable Moderate/High Income (39.1%), (ii) Upwardly Mobile (19.4%), (iii) Downwardly Mobile (18.6%), and (iv) Stable Low Income (22.9%). The risk of psychotic disorder was elevated among all people who were exposed to low neighbourhood-level income during childhood, and was highest among people who had stable low income (IRR=1.59, 95%CI=1.51-1.67), relative to those who had stable moderate/high income.

**Conclusion:** Our findings suggest that exposure to any degree of socioeconomic deprivation during childhood is associated with a higher risk of psychotic disorder, with a larger magnitude of effect with increased persistence of exposure. Further research on factors that mitigate the adverse effects of socioeconomic deprivation on psychosis risk could help to identify targets for primary prevention.

## P5.06 Transgender Identity and Suicidality in Psychosis

**Freddie Holmberg Kohler**<sup>1,2</sup>, Ariel Currie<sup>1</sup>, Caroline Demro<sup>1</sup>, Rachel Roeske<sup>1</sup>, Deidre Bellmore<sup>1</sup>, Jamie Fisher<sup>1</sup>, Madelyn Neil<sup>1</sup>, Sophia Vinogradov<sup>1</sup>

<sup>1</sup>University of Minnesota Department of Psychiatry and Behavioral Science (Minneapolis, US); <sup>2</sup>University of Minnesota School of Public Health

**Aims:** Transgender (trans) people and people with psychosis are at higher risk of suicide. Potentially exacerbating this risk, psychotic disorders are more prevalent in trans people. Improved understanding of the interaction between trans status, psychosis, and suicidality is needed to inform treatment and prevent suicide.

**Methods:** Participants with early psychosis (N=155; 59 trans, 96 cis) were recruited as part of an ongoing research project. Symptom severity was assessed using the Brief Psychiatric Rating Scale (BPRS), suicidality with the Columbia-Suicide Severity Rating Scale (C-SSRS), and social functioning with the Global Functioning: Social (GFS) Scale. Cross-sectional analysis was performed and Mann-Whitney U tests were used to compare groups of non-normally distributed data.

**Results:** Trans participants had more severe positive symptoms (e.g., hallucinations, delusions) as measured with the BPRS (U = 995.5, p = .002) and were more likely to endorse passive suicidal ideation (RR = 2.18, 95% CI [1.36, 3.48]). There were no group differences in social functioning (U = 1359.50, p = .427), however, there was an interaction effect between social functioning and trans status on risk of current suicidal ideation. Trans participants with low social functioning had 3.56 times the risk of suicidal ideation compared to cis participants with similar social functioning (95% CI [1.82, 6.98]).

**Conclusion:** Trans participants reported more positive psychosis symptoms and passive suicidal ideation compared to cis participants, especially among those with low social functioning, suggesting that trans people may be especially vulnerable to the consequences of poor social functioning.

## P5.07 --- WITHDRAWN ---

## P5.08 Psychosocial Functioning and Quality of Life in People with Psychotic Experiences

**Ryan S.T. Chu**<sup>1</sup>, CoCo H.Y. Tong<sup>1</sup>, Corine S.M. Wong<sup>2</sup>, Charlotte C.L. Chan<sup>1</sup>, Wesley C.Y. Tang<sup>1</sup>, Christy L.M. Hui<sup>1</sup>, Sherry K.W. Chan<sup>1</sup>, Edwin H.M. Lee<sup>1</sup>, Simon S.Y. Lui<sup>1</sup>, Y.N. Suen<sup>3</sup>, Eric Y.H. Chen<sup>4</sup>, Wing Chung Chang<sup>1</sup>

<sup>1</sup>Department of Psychiatry, School of Clinical Medicine, University of Hong Kong (Hong Kong, HK); <sup>2</sup>School of Public Health, LKS Faculty of Medicine, University of Hong Kong; <sup>3</sup>School of Nursing, LKS Faculty of Medicine, The University of Hong Kong; <sup>4</sup>Lee Kong Chian School of Medicine, Nanyang Technological University

**Aims:** There has been no population-based studies examining psychosocial functioning and quality of life (QoL) in Chinese youths with psychotic experiences (PEs). The current study aimed at comparing psychosocial functioning and QoL between individuals with and without PEs. It was hypothesized that PEs would be associated with poorer psychosocial functioning and QoL than non-PEs.

**Methods:** We recruited 100 individuals with PEs and 100 demographically-matched healthy controls based on Psychosis Module of Composite International Diagnostic Interview (CIDI), from Hong Kong Youth Epidemiology Study of Mental Health (HK-YES), a population-based mental health study examining over 3500 youths in Hong Kong. Participants with lifetime diagnosis or family history of psychotic or bipolar disorder, or history of antipsychotic treatment were excluded. Psychosocial functioning was measured by Social and Occupational Functioning Scale (SOFAS). Subjective QoL was evaluated by Short form-12 Health Survey (SF-12), and divided into physical health and mental health. Between-group differences in psychosocial functioning and QoL were examined using independent t-test.

**Results:** Our results revealed that individuals with PEs (mean=68.08; SD=10.3) had a poorer psychosocial functioning than individuals without PEs (mean=77.69; SD=11.5) ( $p<0.001$ ). In terms of QoL, our findings showed that PEs individuals (mean=52.17; SD=7.3 and mean=39.79; SD=11.0, respectively) had a poorer physical and mental health than non-PEs individuals (mean=55.29; SD=5.5 and mean=49.54; SD=8.9, respectively) ( $p<0.001$ ).

**Conclusion:** Our findings indicated PEs individuals had poorer psychosocial functioning and QoL. Our results were concordant with previous studies.

## P5.09 Does Gender Matter in Therapeutic Alliance? Patient-Staff Dyads in Schizophrenia Spectrum Disorder

**Giovanni de Girolamo**<sup>1</sup>, Giulia Moncalieri<sup>1</sup>, Martina Bona<sup>2</sup>, Elena Toffol<sup>1</sup>, Benedetta Capetti<sup>3</sup>, Katherine Berry<sup>4</sup>, Gianluca Castelnuovo<sup>2</sup>, Manuel Zamparini<sup>1</sup>, Fabrizio Starace<sup>5</sup>, DIAPASON Consortium<sup>1</sup>

<sup>1</sup>IRCCS Fatebenefratelli, Brescia, Italy (Brescia, IT); <sup>2</sup>IRCCS Fatebenefratelli, Brescia, Italy; <sup>3</sup>Catholic University, Milan; <sup>4</sup>IRCCS Fatebenefratelli, Brescia, Italy; <sup>5</sup>Dept of Mental Health, ASST Pavia, Italy

**Aims:** Despite the significance of the Therapeutic Alliance (TA), there is limited evidence on the impact of gender and gender correspondence in patient-staff pairs, particularly for patients with severe mental disorders. This study analyzed the role of gender and gender correspondence on TA, assessed with the Working Alliance Inventory (WAI) completed by both patients (WAI-P) and staff (WAI-T), in a group of patients with schizophrenia spectrum disorder (SSD).

**Methods:** WAI-P and WAI-T ratings were analyzed across four gender dyad groups: male patients with male staff, male patients with female staff, female patients with male staff, and female patients with female staff. Anova and paired t-tests were employed for dyad comparisons, and linear regression models were constructed to understand the association of gender and gender correspondence with patient and staff-reported ratings.

**Results:** No significant differences among gender-based dyads were found in WAI total or subscale ratings. Gender correspondence only positively affected WAI-P task ratings (coefficient=1.312;  $p=0.030$ ). In the complex model, the gender of patients and staff interacted with a significant positive effect when both were male ( $p=0.013$ ). There were no significant differences between patient and staff ratings across dyads; however, male patients had higher Goal ratings compared to both, their paired female ( $M=20.4$ ;  $SD=5.0$ , vs.  $M=19.5$ ;  $SD=3.6$ ;  $p=.022$ ) and male staff ( $M=21.1$ ,  $SD=4.5$ , vs.  $M=19.5$ ;  $SD=3.8$ ;  $p=.034$ ).

**Conclusion:** Gender and gender correspondence are not significantly associated with different levels of TA among patients with SSD living in residential facilities.



## P5.10 Emotional Experiences in Male and Female Patients with Schizophrenia Spectrum Disorders and Healthy Controls: An Experience Sampling Method Study

**Giovanni de Girolamo**<sup>1</sup>, Elisa Caselani<sup>1</sup>, Alessandra Martinelli<sup>1</sup>, Chiara Grigis<sup>2</sup>, Manuel Zamparini<sup>1</sup>, Elena Toffol<sup>1</sup>, Philip D. Harvey<sup>3</sup>, DIAPASON Consortium<sup>1</sup>.

<sup>1</sup>IRCCS Fatebenefratelli, Brescia, Italy (Brescia, IT); <sup>2</sup>IRCCS Fatebenefratelli, Brescia, Italy; <sup>3</sup>IRCCS Fatebenefratelli, Brescia, Italy; <sup>4</sup>Catholic University, Brescia; <sup>5</sup>IRCCS Fatebenefratelli, Brescia, Italy;

**Aims:** Schizophrenia spectrum disorders (SSD) are associated with disturbances in emotional experience, yet the understanding of these disturbances across sexes and compared to healthy controls (HC) remains limited. This study aimed to explore emotional experiences, including variability and instability, in individuals with SSDs and HC using the Experience Sampling Method (ESM).

**Methods:** 137 SSD patients (79 residential, 58 outpatients) were compared to 113 HC who were similar in sex and age. Sociodemographic, clinical, functioning and quality of life data were collected. ESM was employed for one week to assess daily and hourly variability and instability in emotional experiences across groups and sexes.

**Results:** Residents presented more severe psychopathology and lower functioning across sex than outpatients. HC males exhibited higher positive emotions than females ( $p=.010$ ), and male residents reported significantly higher negative emotions than male HC ( $p=.024$ ). No significant differences in daily and hourly variability and instability were observed between male and female patients, but among HC females displayed higher emotional variability and instability than males. Male residents exhibited higher variability in weekly positive emotions than male outpatients ( $p=.035$ ), and in daily negative emotions and weekly positive and negative emotions than male HC ( $p=.003$ ,  $p=.019$ ,  $p=.010$ ). Female residents and outpatients exhibited significantly lower positive emotion weekly variability than female HC ( $p=.032$ ,  $p=.048$ ).

**Conclusion:** Reduced emotional intensity, variability, and instability in SSD patients, across sex, suggests that symptom severity may influence emotional experience. Using ESM to understand these dynamics can guide tailored interventions to enhance emotional regulation and functioning in SSDs.

**P6 Mental Health Care**

Fri. 13 Sept., 13:00-14:00

H1130/H1131

Chair: Robert Stewart, UK

**P6.01 Religion/Spirituality, Perceived Need for Care, and Treatment-Seeking Behaviour Among a Distressed Canadian Sample****Asia Akther**<sup>1</sup>, Béatrice Landry<sup>2</sup>, Tara Elton-Marshall<sup>1</sup>, Ian Colman<sup>1</sup><sup>1</sup>School of Epidemiology and Public Health, University of Ottawa, Ottawa, ON, Canada (CA); <sup>2</sup>Interdisciplinary School of Health Sciences, University of Ottawa, Ottawa, ON, Canada

**Aims:** Although religion/spirituality has been shown to play an essential role in the treatment of mental health problems, there is a growing body of evidence suggesting that it may be misconceptualized as a substitute for the treatment among individuals in the community. Therefore, this study aims to 1) examine the association between religiousness/spirituality and perceived need for care, and 2) determine if there is an inverse relationship between religion/spirituality and treatment-seeking behaviour, among a distressed Canadian population.

**Methods:** Cross-sectional data from a subsample of 2,300 distressed Canadians in the 2022 Mental Health and Access to Care Survey was analyzed. Multivariable logistic regression analysis was conducted, with perceived need for care and treatment-seeking behaviour as the outcomes and religiousness/spirituality as the exposure. Effect modification by race and immigrant status was examined, and associations were adjusted for age, gender, education, and income.

**Results:** Perceived need for care was lower among distressed individuals who were religious/spiritual compared to non-religious/non-spiritual individuals ( $p < 0.05$ ). The likelihood of perceived need for care among those who were religious/spiritual was lower among visible minorities and immigrants compared to non-visible minority non-immigrants. No statistically significant association was found between religiousness/spirituality and treatment-seeking behaviour.

**Conclusion:** Differences in the relationship between religiousness/spirituality among visible minorities and immigrants suggest integration of religion/spirituality into treatment approaches may be warranted to address the needs of at-risk groups.

**P6.02 The Effectiveness of Interventions for Improving Chronic Pain Symptoms Among People With Mental Illness: A Systematic Review****Ruimin Ma**<sup>1</sup>, Eugenia Romano<sup>1</sup>, Mark Ashworth<sup>1</sup>, Robert Stewart<sup>1</sup>, Brendon Stubbs<sup>1</sup><sup>1</sup>King's College London (London, GB)

**Aims:** Chronic pain (CP) and mental illness (MI) are leading causes of years lived with disability and commonly co-occur. However, it remains unclear if available interventions are effective in improving pain outcomes in patients with co-existing CP and MI. This systematic review synthesised evidence for the effectiveness of interventions to improve pain outcomes for people with comorbid CP and clinically diagnosed MI.

**Methods:** Ten electronic databases were searched from inception until May 2023. Randomised controlled trials (RCTs) were included if they evaluated interventions for CP-related outcomes among people with comorbid CP and clinically diagnosed MI. Pain-related and mental health outcomes were reported as primary and secondary outcomes, respectively. 26 RCTs (2,311 participants) were included.

**Results:** Four trials evaluated the effectiveness of cognitive-behavioural therapy, 6 mindfulness-based interventions, 1 interpersonal psychotherapy, 5 body-based interventions, 5 multi-component interventions, and 5 examined pharmacological-based interventions. Overall, there was considerable heterogeneity in sample characteristics and interventions, and included studies were generally of poor quality with insufficient trial details being reported. Despite the inconsistency in results, preliminary evidence suggests interventions demonstrating a positive effect on CP may include cognitive-behavioural therapy for patients with depression (with a small to medium effect size) and multi-component intervention for people with substance use disorders (with a small effect size).

**Conclusion:** Despite the high occurrence/burden of CP and MI, there is a relative paucity of RCTs investigating interventions and none in people with severe MI. More rigorously designed RCTs are needed to further support our findings.

### **P6.03 A Descriptive Characterisation of Social Worker Contacts in Routine Mental Healthcare and Its Distribution Over Time by Patient Characteristics.**

**Norah Alothman**<sup>1</sup>, Amelia Jewell<sup>2</sup>, Gayan Perera<sup>1</sup>, Robert Stewart<sup>1</sup>

<sup>1</sup>Institute of Psychiatry, Psychology & Neuroscience, King's College London (GB); <sup>2</sup>Maudsley Biomedical Research Centre, South London and Maudsley NHS Foundation Trust

**Aims:** Social workers provide a core component of mental health care, but quantitative research has been limited on social worker contacts. We therefore sought to utilise routine real-world mental health service data resource to present the first descriptive data on the distribution of contacts over time and by patient characteristics.

**Methods:** The Clinical Record Interactive Search (CRIS) data resource was used for this project. CRIS provides researcher access to de-identified information from the electronic health records (EHR) for mental health care provided to a geographic catchment of 1.3m residents in south London. These were used initially to evaluate all contacts by social workers within the mental health service and are currently being deployed to characterise care coordination episodes by professional background.

**Results:** From 2008 to 2023, 1,541,078 social worker contacts were ascertained for 101,117 patients. Social worker contacts were most common with the 20-39 age group, most likely with patients who were male, from white and black ethnic groups, non-cohabiting and living in more deprived neighbourhoods. The majority of social work contacts occurred with people diagnosed with schizophrenia. Males had the highest number of face-to-face social worker contacts, and females were more represented in phone and video contacts.

**Conclusion:** We believe this to be the first large-scale quantitative study investigating social work involvement within mental health care. These descriptive data highlight the characteristics of patients receiving mental health social worker contact as a first step towards more detailed evaluation of professional roles as keyworkers and care coordinators.

### **P6.04 Health Service Use Outcomes of Flexible Assertive Community Treatment vs. Assertive Community Treatment & Intensive Case Management: a Propensity Score Matched Cohort Study**

**Martin Rotenberg**<sup>1,2</sup>, Ling Zhuang<sup>2</sup>, Raquel Williams<sup>2,3</sup>, Diane Versace<sup>2</sup>, Michelle DeSanti<sup>2</sup>, Farooq Naeem<sup>1,2</sup>, Frances Abela-Dimech<sup>2</sup>, Paul Kurdyak<sup>1,2,4</sup>, Farhat Farrokhi<sup>2</sup>, George Foussias<sup>1,2</sup>

<sup>1</sup>University of Toronto (Toronto, CA); <sup>2</sup>Centre for Addiction and Mental Health, Toronto; <sup>3</sup>Department of Occupational Science & Occupational Therapy, University of Toronto; <sup>4</sup>Institute of Health, Policy, Management and Evaluation, University of Toronto

**Aims:** There is a dearth of evidence supporting the effectiveness of Flexible Assertive Community Treatment (FACT) compared to other service models, particularly in North America where there is increasing uptake of this service model to provide care for people with serious mental illness.

**Methods:** A quasi-experimental study using propensity score matching to minimize confounding factors compared acute mental health service use among people receiving FACT, Assertive Community Treatment (ACT) or Intensive Case Management (ICM) services at a large Canadian mental health hospital. Data from the transition period (June 2021–September 2021) and implemented period (October 2021–March 2022) were analyzed.

**Results:** The matched cohort included 237 FACT and 237 ACT/ICM service users. During the transition period, no significant differences were observed in emergency department (ED) visits, inpatient hospitalizations, or hospitalization days. However, during the implemented period, the FACT group had a 65% increase in ED visits compared to ACT/ICM (IRR = 1.65, 95% CI = 1.02–2.67) but no significant difference in the risk of inpatient admission days or number of admissions.

**Conclusion:** While the risk of ED service use increased in the FACT group post-transition, it did not translate to increased hospitalizations, indicating the potential responsiveness of the FACT model. Our findings support the effectiveness of FACT when compared to ACT/ICM. The greater risk of ED service use in the FACT group

warrants further study. This study contributes less biased estimates of acute mental health service use outcomes to the FACT literature which has most often relied on pre-post study designs.

## P6.05 Can Thiamine Substitution Restore Cognitive Function in Alcohol Use Disorder?

**Lea Sommer**<sup>1</sup>, Stephan Listabarth<sup>1</sup>, Benjamin Vissoki<sup>1</sup>, Andreas Gleiss<sup>2</sup>, Armin Trojer<sup>1</sup>, Sabine Weber<sup>1</sup>, Daniel König<sup>1</sup>

<sup>1</sup>Department of Psychiatry and Psychotherapy, Medical University of Vienna (AT); <sup>2</sup>Center for Medical Statistics, Medical University of Vienna

**Aims:** While clinical consequences of thiamine deficiency in alcohol use disorder (AUD) are severe, evidence on dosage, type of administration, duration of thiamine substitution (TS) and its' target levels remain sparse. This study aimed to compare the effect of oral with intravenous TS regimens on thiamine blood levels (i.e. thiamine pyrophosphate, TPP) and cognitive function.

**Methods:** In 50 patients undergoing in-patient alcohol-withdrawal treatment, TPP levels were determined at baseline and end of weeks 1, 2 and 8 following administration of oral TS (100 mg/day) either after receiving prior oral TS (7 days; 3x 100mg/day) or intravenous TS (5 days; 3 × 100 mg/day). An extensive psychiatric assessment was also conducted at baseline, including an evaluation of AUD severity, depressive symptoms and cognitive function. Additionally, cognitive function and depressive symptoms were repeatedly evaluated.

**Results:** Relevant increases (mean increase: 100.2 nmol/l [CI 76.5-123.8], P < 0.001) in peripheral blood TPP levels were observed in all patients at the end of weeks 1 and 2. Furthermore, no relevant difference between the intravenous and the oral group was found (average difference between increases: 2.3 nmol/l, P = 0.912). Importantly, an association between the 'extent of the response' to TS and the performance in a memory task was revealed in secondary analyses.

**Conclusion:** TS was associated with improving cognitive function in patients with AUD, independently of the substitution regime. Thus, in clinical practice, oral TS might be a sufficient but obligatory medication to prevent cognitive decline in AUD in the absence of Wernicke-Korsakoff syndrome.

## P6.06 A MOOC to Improve Knowledge and Mental Health Literacy in Personal Recovery

**Pascale Ferrari**<sup>1-2</sup>, Susana Ramos<sup>3</sup>, Anne Leroy<sup>4</sup>, Laurent Frobert<sup>1</sup>, Philippe Golay<sup>2</sup>, Laura Cefalù<sup>1</sup>

<sup>1</sup>HEdS La Source (Lausanne, CH); <sup>2</sup>DP-CHUV; <sup>3</sup>Re-Pairs; <sup>4</sup>PositiveMinders

**Aims:** The literacy in mental health is generally poor and the possibility of recovering from a psychiatric disorder largely unknown. These knowledge gaps concern the people suffering from mental disorders, their relatives, as well as the professionals in the field.

**Methods:** To address this challenge, a free massive open online course (MOOC) has been developed in partnership with peers and carers. Taking place twice a year, this MOOC aims to raise awareness on recovery, to deconstruct negative representations in order to destigmatize psychiatric disorders, and to promote mental health and self-management. An online questionnaire assessed participants' satisfaction and perceived level in recovery knowledge, as well as their progression and retention rate. Opportunity was offered to make proposals for improvements. Descriptive and comparative statistics using IBM SPSS software® were conducted.

**Results:** To date, over 5000 participants attended the course and more than 2000 completed the questionnaire. All audiences concerned were represented and increased significantly their level in knowledge. The overall satisfaction rate ranged from 3.53 to 3.8/5. Videos were viewed by more than 90% of the participants, texts were read by 60% of them and the supplementary exercises were completed by more than 72%. Retention rate was over 40%. Online navigation improvements were made and lots of grateful messages were left.

**Conclusion:** The good satisfaction level, the high retention rate and the progression in knowledge indicate that, although challenging, the same training format can address heterogeneous audiences.

MOOCs are relevant and efficient course formats to disseminate quality knowledge in mental health.

## P6.07 The Efficacy of Digital Interventions for Social Anxiety Disorders on Secondary Outcomes: A Systematic Review and Meta Analysis

**Minjeong Jeon**<sup>1</sup>, Da-in Kim<sup>1</sup>, Han-Gil Ji<sup>1</sup>, Hayoung Bae<sup>1</sup>, Ji-Won Hur<sup>1</sup>

<sup>1</sup>Korea University (KR)

**Aims:** A number of empirical and meta-analytic studies have shown that digital interventions are significantly effective in treating social anxiety. However, despite its frequent co-occurrence with other mental health issues (i.e., depression and generalized anxiety), there is limited evidence on how well these interventions work the psychological symptoms that often accompany social anxiety. This systematic review and meta-analysis aim to investigate the efficacy of digital interventions in addressing secondary mental health problems in individuals with social anxiety disorder.

**Methods:** We searched PubMed, PsycINFO, and Web of Science from their inceptions to 30 November 2023. Following the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines, we screened for randomized controlled trials that examined the efficacy of digital interventions for social anxiety disorder, with particular attention to secondary mental health outcomes. We conducted the analysis using a fixed-effects model and Hedge's  $g$ . The study protocol was registered in PROSPERO on 24 November 2024 (CRD42023469425).

**Results:** Out of 1448 identified trials, we selected seven studies with 643 participants for analysis. These studies had a high overall heterogeneity ( $Q = 6.93$ ;  $I^2 = 79.1\%$ ;  $p < .001$ ) and demonstrated a significant reduction in depression symptoms, with a medium size ( $g = 0.42$ ; 95% confidence interval [CI], 0.25-0.60).

**Conclusion:** Digital interventions for social anxiety disorder show encouraging results in addressing not only the primary symptoms of social anxiety disorder but also the related issues such as depression and generalized anxiety.

## P6.08 Learnings from a Human-Centered Design Approach for Co-Creation of a Mobile App to Support Young People with Emotion Regulation in Daily Life

**Annika Stefanie Reinhold**<sup>1</sup>, Sarah Schnabel<sup>1</sup>, Christian Paret<sup>2</sup>, Jessica Hartmann<sup>1</sup>, Christian Schmahl<sup>2</sup>, Ulrich Reininghaus<sup>1</sup>

<sup>1</sup>Central Institute of Mental Health, Dept of Public Mental Health, Heidelberg University (Mannheim, DE); <sup>3</sup>Central Institute of Mental Health, Psychosomatic Medicine and Psychotherapy, Heidelberg University

**Aims:** Mobile apps hold promise in providing accessible and equitable mental health support. However, acceptance and usage still present a challenge to many digital interventions. In this mixed methods study, we explored human-centered design to co-create neurofEMI, a mobile app based on ecological momentary intervention (EMI) to support emotion regulation in daily life.

**Methods:** Young people aged 14 and 25 with difficulties in emotion regulation took part engaged in 1) an interactive focus group discussion, 2) semi-structured interviews to EMPATHIZE with their context-specific needs and IDEATE first ideas, and 3) think aloud protocols of a first PROTOTYPE. Based on feedback from participants and app developers, we 4) conducted interactive workshops to IDEATE and PROTOTYPE ideas in small groups.

**Results:** In total, 18 participants were included in the study. All participants liked the general concept of neurofEMI. Many participants had concrete ideas for improving the in terms of handling, additional functions, and content. Further options to personalize the app as well as the existing gamification and additional visual feedback were identified as motivational factors. In addition, participants asked for more control and customization options. Participants created digital and paper prototypes of 4 different components of the app.

**Conclusion:** For high acceptability and usage of mobile apps, greater consideration should be given to user needs and contextual factors, potentially allowing for individual customization of design and content. Eye-level interaction, clear communication of expectations and limitations, and allocation of sufficient resources are needed for meaningful co-creation.



## **P6.09 Transforming Mental Health Care: Enhancing Diagnosis and Management of Borderline Personality Disorders. The Fatebenefratelli Experience in the Framework of IMPLEMENTAL**

**Giovanni de Girolamo**<sup>1</sup>, Roberta Rossi<sup>2</sup>, Silvia Leone<sup>1</sup>, Serena Meloni<sup>2</sup>

<sup>1</sup>Unit of Epidemiological Psychiatry, IRCCS Fatebenefratelli, Brescia (Italy); <sup>2</sup>Unit of Psychiatry, IRCCS Fatebenefratelli, Brescia (Italy)

**Aims:** This project aimed to enhance the diagnosis and management of Borderline Personality Disorder (BPD) in young adults (18-30 years) by promoting best practices and specialized training among mental health professionals of the entire Lombardy Region in the framework of the European IMPLEMENTAL initiative.

**Methods:** The project involved a comprehensive stepped training programme involving 25 Depts of Mental Health (DMH) of Lombardy. Initial step included conducting baseline training on diagnostic evaluation using standardized tools (e.g., BSL-23, ZAN-BPD, C-SSRS). Subsequent training steps focused on evidence-based pharmacotherapy, Good Psychiatric Management (GPM), and advanced therapeutic approaches such as Dialectical Behavior Therapy (DBT) and Family Connections (FC). The training was entirely delivered through in-person sessions.

**Results:** The project successfully recruited 25 DMH and trained a significant number of psychiatrists, psychologists and nurses (N=250). Diagnostic training sessions equipped participants with skills to utilize efficient, standardized evaluation methods. Pharmacotherapy training promoted consistent and UpToDate prescription practices based on international guidelines. The GPM and DBT training modules provided in-depth, practical approaches to managing BPD, emphasizing multimodal and biopsychosocial models. The FC training enhanced the capability of professionals to support families, reducing emotional burden and improving communication strategies.

**Conclusion:** The project demonstrated the feasibility and effectiveness of structured, stepped training programmes in improving the diagnostic and therapeutic management of BPD. By integrating evidence-based practices and fostering specialized skills among mental health professionals, the initiative contributed to better outcomes for young adults with BPD, supporting both patients and their families.

**P7 Mental Health in Childhood and Young Adulthood****Fri. 13 Sept., 13:00-14:00****H1130/H1131****Chair:** Yuri Milaneschi, NL**P7.01 Major Psychiatric Disorders in Childhood and Early Adulthood and Siblings' Subsequent Socioeconomic Status: A Nationwide Cohort Study****Wen Yang<sup>1</sup>**, Kaisla Komulainen<sup>1</sup>, Christian Hakulinen<sup>1</sup>.<sup>1</sup>Department of Psychology, Faculty of Medicine, University of Helsinki (Helsinki, FI)

**Aims:** Previous studies show the aggregation of major psychiatric disorders (MPDs), referring to a combined category of depression, anxiety, schizophrenia, and bipolar disorder, among siblings. However, few studies have directly examined whether MPDs in childhood and early adulthood are associated with the future socioeconomic status (SES) of siblings.

**Methods:** This cohort study included 54,742 full-siblings, 4,490 paternal, and 4,858 maternal half-siblings of individuals with a diagnosis of MPD between ages 5–25 born in Finland between 1975-1985 (affected probands). We defined the reference groups as identical types of siblings of individuals without any MPD diagnosis and followed them up to December 31, 2020. MPDs were obtained from the Finnish Care Register. SES was defined as employment status, annual disposal income (EUR), and educational achievement. Conditional logistic regression models and a quantile regression model were used to estimate the adjusted odds ratios (aORs) and the median difference.

**Results:** Compared to the reference group, the odds of unemployment were 52% higher (95% CI:1.47-1.56) in full-siblings of affected probands, particularly in full-siblings with an affected proband diagnosed before age 15 (aOR:1.75, 95% CI 1.54-1.98). Full siblings of affected probands were less likely to achieve a higher education level (aOR: 0.72, 95% CI 0.70-0.74). The median annual disposal income was 1,558 EUR lower (95% CI: -1719.0, -1397.5) in full siblings of affected probands. Similar associations were observed in maternal and paternal half-siblings.

**Conclusion:** Our findings suggest that the socioeconomic consequences associated with MPDs might extend to siblings. Intervention within a family can be considered.

**P7.02 Defining Neighborhood Walkability for Children in the ELFE Cohort Study****Devin Parker<sup>1</sup>**, Maria Melchior<sup>1</sup>, Eloi Chazelas<sup>1</sup><sup>1</sup>INSERM, Sorbonne University (PARIS, FR)

**Introduction:** Although walkability is known to be associated with obesity in adults, there is a paucity of data evaluating the association of walkability and health outcomes in children. In particular, little is known regarding the possible association with children's mental health.

**Methods:** We used data from the Etude Longitudinale Française depuis l'Enfance (ELFE) cohort study. Participating mothers gave birth in 2011 in a representative sample of 320 maternity hospitals in mainland France. This pilot study is limited to participants in Paris and children at 5.5 years old. Walkability is defined by three parameters: population density (defined by census data), street connectivity (defined by intersection density), and land-use mix (entropy index). To approximate walkable areas, 500-meter street-network buffer zones were created around each participants address using a geographic information system. Children's mental health was assessed using parent-reported Strengths and Difficulties Questionnaire at age 5.5 years.

**Results:** There was a total of 280 children in this pilot study. On measures of land-use mix, we found a mean of 0.78 (SD: 0.11), representing high accessibility. Residential and intersection density were highly correlated ( $r=0.578$ ;  $p<0.01$ ). The walkability index demonstrated high variability among participants (mean: 2.4; SD: 13.28; range: -14.66 – 30.53).

**Conclusion:** Developing a walkability index is a multifactorial measure to describe a children's neighborhood environment. Future work includes determining the association with children's mental health disorders, while accounting for individual and neighborhood variables. This ecological model can inform social epidemiology and contextual disparities in children's health.

### P7.03 Beyond the Screen: Family Dynamics and Individual Behaviors as Predictors of Smartphone Dependence in Children

**Sangha Lee**<sup>1</sup>, Donghee Kim<sup>1</sup>, Saebom Jeon<sup>2</sup>, Yunmi Shin<sup>1</sup>

<sup>1</sup>Ajou University School of Medicine (Suwon, KR); <sup>2</sup>Mokwon University

**Aims:** This research investigates the complex interactions between individual, family, and environmental factors influencing children's smartphone overdependence and develops a predictive model.

**Methods:** Using a longitudinal design, the study collected data through parent-reported questionnaires on children's use of TVs, PCs, smartphones, and tablets on weekdays and weekends. Additional demographic data, family life details, parents' marital satisfaction, and psychological assessments were also gathered, including the Korean ADHD Rating Scales and Korea-Child Behavior Checklist. Variable selection was conducted using backward elimination within a generalized linear model framework. The data were split into training (70%) and testing (30%) datasets to validate the importance of the factors and the model's robustness.

**Results:** The findings revealed that higher frequency and duration of screen use were linked with increased smartphone overuse scores across both weekdays and weekends. The final model, significant at  $F=44.79$  with a  $p$ -value less than .0001 and an adjusted R-square of 0.694, explained 69.4% of the variance in children's smartphone dependence. It highlighted key predictors such as parental marital discord, low family activity participation, and excessive unsupervised time as risk factors. Conversely, positive family interactions like dining out and engaging in outdoor activities significantly reduced this risk.

**Conclusion:** The study underscores the need for an integrated approach to effectively manage children's smartphone use, suggesting that strengthening family interactions and careful monitoring of screen use can prevent the escalation of dependent behaviors. The research supports tailored policy interventions and educational programs to help families navigate the challenges of the digital environment.

### P7.04 Parental Income and Low Mental Health among Danish Young People: A Cross-Sectional Study of 60,437 High-School Students (15-19 Years)

**Magnus Kjærsgaard Tarp**<sup>1</sup>, Maja Bramming<sup>2</sup>, Janne Tolstrup<sup>2</sup>

<sup>1</sup>Department of Clinical Epidemiology, Aarhus University Hospital (Aarhus N, DK); <sup>2</sup>National Institute of Public Health

**Aims:** We aimed to investigate the association between parental income and low mental health in youth (15-19 years). Additionally, we investigated whether this association differed between genders and whether the association followed a linear pattern.

**Methods:** We conducted a cross-sectional study by combining data from The Danish National Youth Study on 60,437 high school students aged 15-19 years, with multiple different national registers. Mental health was measured on The Short Warwick-Edinburgh Mental Health Well-being Scale and low mental health was defined as the lowest decile. Parental income was categorised into quintiles. Associations between parental income and low mental health were analysed with multivariable logistic regression, and the linearity of this association was examined using restricted cubic spline regression.

**Results:** Compared with the highest parental income quintile the adjusted odds ratios of low mental health were 1.02 (95% CI: 0.93-1.12), 1.13 (95% CI: 1.03-1.24), 1.20 (95% CI: 1.10-1.32), and 1.24 (95% CI: 1.12-1.37) for Q4, Q3, Q2, and Q1 respectively, with no significant gender differences. Furthermore, the results suggest that the association between parental income and low mental health is non-linear.

**Conclusion:** Higher parental income was associated with higher odds of low mental health during adolescence, indicating a dose-response association. The indication of non-linearity suggests the existence of thresholds from which a decrease in parental income is more strongly associated with a higher odd of low mental health.

### P7.05 Relationship Between Social Media Use and Mental Health Service Use in Adolescents in the UK Millennium Cohort Study

**Thomas E. Metherell**<sup>1</sup>, Luisa Fassi<sup>2</sup>, Joseph F. Hayes<sup>1</sup>, George B. Ploubidis<sup>1</sup>, Darío Moreno-Agostino<sup>1,3</sup>

<sup>1</sup>University College London (London, GB); <sup>2</sup>University of Cambridge; <sup>3</sup>King's College London

**Aims:** Concerns that excessive use of social media platforms may be driving increased incidence of mental health conditions in adolescents have attracted significant media and research attention. However, epidemiological studies investigating these concerns generally focus on self-reported symptom ratings and not on diagnosed mental health disorders. With the linkage of the NHS Healthcare Episode Statistics dataset to the Millennium Cohort Study, it is possible to directly analyse the health service use of study participants. Therefore, we aim to relate measures of social media use collected in the Millennium Cohort Study with health service use related to diagnosed mental health disorders. In so doing, we can assess the plausibility of a population-level effect of social media on the incidence of said disorders.

**Methods:** We will use data from the Millennium Cohort Study of more than 19 000 UK residents born between 2000 and 2002. Social media use was assessed by self-reported measures at ages 11, 14 and 17, and health records linkage is currently available up to 2020. We will adopt either a modified Poisson regression or a time-to-event model approach, depending on the prevalence of the outcome (i.e. health service use related to a diagnosed mental health condition). The inclusion of covariates in the model will be governed by a theoretical framework co-produced with Lived Experience Advisors.

**Results/Conclusion:** Results are not available at the time of submission. We will compare the associations we find with both our assessment of a meaningful effect size, and with competing exposures and negative controls.

## **P7.06 Contribution of Positive and Adverse Experiences to Adolescent Mental Health: A Longitudinal Study**

**Yanyan Ni**<sup>1</sup>, Ying Chen<sup>2</sup>, Xiao Xiao<sup>1</sup>, Corine SM Wong<sup>1</sup>, Sunita Stewart<sup>3</sup>, Michael Y. Ni<sup>1,4,5</sup>

<sup>1</sup>School of Public Health, LKS Faculty of Medicine, The University of Hong Kong (HK); <sup>2</sup>Department of Epidemiology, Harvard T.H. Chan School of Public Health; <sup>3</sup>Department of Psychiatry, UT Southwestern; <sup>4</sup>State Key Laboratory of Brain and Cognitive Sciences, The University of Hong Kong; <sup>5</sup>Urban Systems Institute, The University of Hong Kong

**Aims:** To examine the longitudinal associations of adverse and positive experiences with adolescent mental health, and whether positive experiences may serve as protective factors in the context of adversity.

**Methods:** Data were drawn from two waves of the youth survey of a population-based cohort in Hong Kong (wave 1: March 2009 to April 2011; wave 2: August 2011 to March 2014). Adolescents aged 10-14 (n=3,475) completed a questionnaire about their positive experiences, adverse experiences, and mental health (i.e., behavioural and emotional well-being) at wave 1 and 2,696 of them were followed up at wave 2. Those who completed both waves were included in the analysis (n=2,171). Longitudinal associations of baseline experiences with mental health at wave 2 were analysed.

**Results:** Baseline positive experiences, including positive self-evaluation, high family cohesion, positive peer relationship, and positive school experience, were significantly associated with better behavioural and emotional well-being at wave 2 after adjusting for baseline sociodemographics (incidence rate ratios (IRRs) range: 1.02–1.05). Exposure to  $\geq 3$  stressful events, bullying victimisation, and physical fighting were associated with poorer behavioural well-being (IRRs range: 0.96–0.98). Exposure to  $\geq 2$  stressful events was associated with poorer emotional well-being. We did not find significant interactive effects between positive and adverse experiences.

**Conclusion:** Adolescents who had positive experiences at the individual, family, peer, and school levels tend to have better mental health. Interventions that focus on childhood experiences should collaborate with families and schools to actively foster positive experiences, ultimately enhancing health and well-being in children and adolescents.

## **P7.07 Predicting Mental Health at 5-years from Routinely Collected Data at Birth: Findings from Etude Longitudinale Francaise depuis l'Enfance(ELFE) Cohort**

**Emma Butler**<sup>1</sup>, Michelle Spirtos<sup>2</sup>, Linda M.O. Keeffe<sup>3</sup>, Mary Clarke<sup>1</sup>

<sup>1</sup>RCSI (IE); <sup>2</sup>TCD; <sup>3</sup>UCC; <sup>4</sup>RCSI

**Aims:** To develop and internally validate a prediction model, used at birth, to predict risk of child mental health problems at 5-years old at population-level.

**Methods:** Using ELFE, data from 9,768 children, recruited via 320 maternity hospitals and who participated in the 5-year follow-up was analysed. The study was pre-registered on OSF.io. Candidate predictors were routinely collected data from the perinatal period. The outcome was a clinical level of mental health difficulties as measured by the Strengths and Difficulties Questionnaire completed by the primary caregiver at 5-years. Least Absolute Shrinkage and Selector Operator was utilised for variable selection and shrinkage, followed by bootstrapping for internal validation.

**Results:** 6.1% of 5-year olds had clinical levels of mental health difficulties. The identified model combined 10 variables (total number pregnancy adverse experiences, cumulative sociodemographic risk, maternal premorbid hypertension, maternal premorbid psychological difficulties or mental health problems in a previous pregnancy, parity, smoking and alcohol use whilst pregnant, how labour started and infant sex). Model performance was quantified using: Brier Score (0.06) for overall fit, CITL (-0.03), calibration plot, slope (1.09) and expected/observed (1.03) for calibration and C-statistic (0.67) for discrimination. Optimism adjusted values: CITL -.02, calibration slope 1.02, C-statistic 0.66.

**Conclusion:** This model's overall performance approached fair, it over-classified children as having mental health difficulties. In the context of screening at population-level, this could still have clinical utility as given that interventions to support children's mental health can only be of benefit, providing nonessential intervention is superior to failing to provide necessary intervention.

## **P7.08 Mental Disorders in Adolescent Peer Networks and Spillover Effects to Education: A Finnish Nationwide Registry Study**

**Jussi Alho**<sup>1</sup>, Mai Gutvilig<sup>1,2</sup>, Ripsa Niemi<sup>1,2</sup>, Kaisla Komulainen<sup>1,2</sup>, Marko Elovainio<sup>1,2</sup>, Christian Hakulinen<sup>1,2</sup>

<sup>1</sup>University of Helsinki (FI); <sup>2</sup>Finnish Institute for Health and Welfare

**Aims:** In our earlier Finnish nationwide registry study, we found an association between having ninth grade classmates diagnosed with a mental disorder and later risk of being diagnosed with a mental disorder, implying that mental disorders may transmit within adolescent peer networks. Here, we used the same school-class design to examine whether mental-health-related peer effects influence graduating from upper secondary education.

**Methods:** The cohort comprised 713,809 individuals born in 1985–1997, of whom 47,433 were diagnosed with mental disorder before finishing ninth grade (at age ~16). Of the remaining cohort members, 389,452 started high school and 276,691 started vocational school after finishing ninth grade. In both groups, 62% had at least one classmate with a diagnosed mental disorder during ninth grade (i.e., were exposed). To estimate how much graduation from upper secondary education is directly influenced by the exposure and how much is mediated by the possible transmission of mental disorders, we used causal mediation analysis with one's own mental disorder diagnosis received during upper secondary education as the mediator.

**Results:** Those who had ninth grade classmates with a mental disorder diagnosis were less likely to graduate both from high school (OR=0.96, 95% CI 0.94–0.98) and vocational school (OR=0.93, 95% CI 0.90–0.95), with 16% and 12% of the total effect explained by own mental disorder diagnosis received during the school, respectively.

**Conclusion:** Our findings suggest a spillover effect where having peers with a mental disorder in adolescence may have a negative influence on later educational attainment.

## **P7.09 Internalizing Symptoms in Adolescence and Being Not in Education, Employment, or Training (NEET): The Role of Genetic and Environmental Factors**

**Vera Atarodi**<sup>1</sup>, Iman Alaie<sup>1</sup>, Pia Svedberg<sup>1</sup>, Jurgita Narusyte<sup>1</sup>

<sup>1</sup>Karolinska Institutet (SE)

**Aims:** Mental health problems in adolescence are associated with being not in education, employment, or training (NEET) in young adulthood, yet the underlying etiological mechanisms are poorly understood. We therefore aimed to examine the overlap between genetic and environmental factors contributing to the association between adolescent internalizing symptoms and subsequent NEET-status.



**Methods:** The study included 16 703 twins born 1985-2002 in Sweden, identified in the Swedish Twin Registry. Internalizing symptoms were measured by CBCL and SDQ in two surveys, when twins were aged 15-17 years. Survey data were linked at the individual level to nationwide population-based registries to obtain information on NEET-status from 2004 to 2021. Descriptive statistics were calculated including intrapair tetrachoric correlations and cross-twin cross-trait correlations. Classical twin models will be applied to estimate the overlap of genetic and environmental contributions to the association.

**Results:** Approximately five percent of participants self-reported clinical levels of internalizing symptoms. The average prevalence of NEET-status in this cohort was 12 percent across the follow-up. For NEET, the intrapair correlations were 0.49 for monozygotic (MZ), 0.29 for same-sexed dizygotic (DZ), and 0.27 for opposite-sexed DZ twin pairs. For internalizing symptoms, the intrapair correlations were 0.53, 0.38, and 0.08 for MZ, DZ, and opposite-sexed DZ, respectively. Cross-twin cross-trait correlations were 0.12 for MZ, 0.09 for DZ, and 0.04 for opposite-sexed DZ twins. Hence, the intrapair correlations among MZ exceeded the correlations among DZ twin pairs.

**Conclusion:** Genetic factors may partially explain the association between adolescent internalizing symptoms and NEET-status in young adulthood.

### **P7.10 What Predicts Trust in Others from Adolescence to Young Adulthood? Findings from a Prospective Longitudinal Cohort Study in Switzerland**

**David Bürgin**<sup>1,2</sup>, Laura Bechtiger<sup>1</sup>, Clarissa Janousch<sup>1,3</sup>, Denis Ribeaud<sup>1</sup>, Manuel Eisner<sup>1,4</sup>, Lilly Shanahan<sup>1,5</sup>

<sup>1</sup>Jacobs Center for Productive Youth Development, University of Zurich, Zurich, Switzerland (Zürich, CH); <sup>2</sup>Child and Adolescent Psychiatric Research Department, University Psychiatric Hospitals, Basel; <sup>3</sup>Experimental and Clinical Pharmacopsychology, University Hospital of Psychiatry, Zurich; <sup>4</sup>Institute of Criminology, University of Cambridge, Cambridge, UK.; <sup>5</sup>Department of Psychology, University of Zurich, Zurich, Switzerland

**Background:** Trust in others has long been viewed as an important factor benefiting psychological development and contributing to resilience following adversity. Trust in others linked to risk factors for mental and physical health, such as threat perception, unpredictability, and perceived social (un-)safety. Despite the importance of trust for well-being and participation in society, the developmental literature on trust is sparse and disjunct across different disciplines within the social sciences.

**Aims:** This study aims to investigate a broad range of childhood antecedents and correlates of generalized trust in adolescence and young adulthood in an urban multiethnic longitudinal cohort study in Switzerland.

**Methods:** Generalized trust was measured from age 13 onwards in the Zurich Project on the Social Development from Childhood to Adulthood (z-proso; N≈1500), using a three-item scale adapted from the World Values Survey. Using regression models, we tested the association between individual-level (e.g., gender, migration background, socio-economic status, mental health), family-level (e.g., harsh parenting, lack of parental involvement, family conflict), and community-level (e.g., neighborhood characteristics, school bonding) predictors (age 7-11) and co-occurring correlates of trust in adolescence (age 13/15) and in young adulthood (age 20/24).

**Results:** In this presentation, we will present results on how trust develops across the adolescent years, and also its predictors and correlates. We will also compare correlates of trust before and after adult transitions.

**Conclusion:** Building trust in others is an important target for psychological interventions and public-health measures, as trust will likely remain an important contributor to well-being and health.

### **P7.11 Repression and Its Association with Mental Health, Trauma and Resilience in Young Adults Who Arrived in France as Unaccompanied Migrant Minors**

**Sydney Gaultier**<sup>1,2</sup>, Catherine Gandubert<sup>3</sup>, Sonia Pellissier<sup>2</sup>, Isabelle Chaudieu<sup>3</sup>, Joanna Norton<sup>3</sup>

<sup>1</sup>Département de psychiatrie, SUPEA - Unité transculturelle de l'enfant et de l'adolescent, Centre Hos (Montpellier Cedex 5, FR); <sup>2</sup>Laboratoire Inter-Universitaire de Psychologie (LIP/PC2S), Université de Chambéry; <sup>3</sup>Institut des Neurosciences, Inserm, Université de Montpellier

**Aims:** Repression is a coping mechanism characterised by low expressed distress, high self-restraint and high defensive strategies, despite underlying symptoms of stress and anxiety. This adaptive mechanism has seldom been studied in young adults who arrived as unaccompanied migrant minors (YA-UM), with high trauma exposure.

**Methods:** Questionnaires were administered to 110 YA-UM (median age 19.7 (18.1-22.8)) on leaving child protection care, including the Patient Health Questionnaire (PHQ) somatoform, anxiety and depression modules, scales for post-traumatic stress (PCL-5) and resilience (CD-RISC), the short-form Weinberger Adjustment Inventory (WAI) and the WAI long-form anxiety denial module. Repression as a composite binary variable, scores on its three sub-dimensions Distress, Restraint, Repressive Defensiveness, and Anxiety Denial were examined for associations with socio-demographics and mental health, using Spearman coefficients, Wilcoxon and chi<sup>2</sup> tests.

**Results:** Of the sample, 33% reached criteria for repression. Repression was associated with higher resilience scores ( $p=0.02$ ), lower post-traumatic stress ( $p=0.03$ ), and a lower number of traumatic events ( $p=0.04$ ). Of the subdimensions, distress was positively correlated with number of traumatic events ( $p=0.03$ ), depression, anxiety and post-traumatic stress (all  $p<0.0001$ ); and negatively correlated with resilience ( $p<0.0001$ ), whereas anxiety denial was negatively correlated with number of traumas ( $p=0.0005$ ), depressive and post-traumatic stress symptoms and positively with resilience (all  $p<0.008$ ).

**Conclusion:** Whereas distress appears to measure similar dimensions to the PHQ, repression was associated with lower trauma exposure, lower post-traumatic stress and higher resilience. This suggests a better ability at adopting restraint and a 'socially desirable' behaviour in youth less exposed and distressed by traumatic experiences.

**P8 Mental Health and Physical Comorbidity****Fri. 13 Sept., 13:00-14:00****H1130/H1131****Chair:** Giorgio Pistis, CH**P8.01 Investigating Psychosocial and Health Behaviour Correlates of Child Physical-Mental Comorbidity in Canada.****Alex Luther**<sup>1</sup>, Dillon Browne<sup>1</sup>, Ian Colman<sup>2</sup>, Joel Dubin<sup>1</sup>, Laura Duncan<sup>3</sup>, Scott Leatherdale<sup>1</sup>, Mark Ferro<sup>1</sup><sup>1</sup>University of Waterloo - School of Public Health Sciences (Fergus, CA); <sup>2</sup>University of Ottawa; <sup>3</sup>McMaster University

**Aims:** There is scarce research on how psychosocial and behavioural factors are associated with physical-mental comorbidity among children (co-occurrence of physical illness and mental/neurodevelopmental illness). This study investigated psychosocial and health behaviour correlates of physical-mental comorbidity within a population sample of Canadian children, and whether associations differed across physical illness groups.

**Methods:** The sample consisted of children aged 4 to 17 from the Canadian Health Survey on Children and Youth (n=33,715). Regression modelling was used to compare associations between morbidity groups (physical-mental, physical only, mental only, neurodevelopmental only, no disorders) and life satisfaction, stress, bullying, disability, academic achievement, physical activity, and substance use among children. Separate regression analyses were also conducted for physical-mental comorbidity among each physical illness group.

**Results:** Physical-mental comorbidity was reported for 9.7% of children in the sample (n=3,263). Life satisfaction (OR:1.21[1.20-1.23]), bullying (OR:1.11[1.09-1.12]), academic achievement (OR:1.28[1.26-1.29]), and physical activity (OR:1.43[1.42-1.44]) worsened with increasing severity of physical-mental comorbidity. Greater stress (OR:1.68[1.67-1.69]) and disability (OR:1.98[1.95-2.03]) were positively associated with increasing severity of physical-mental comorbidity. Similarly, higher odds of substance use were associated with increasing severity of physical-mental comorbidity. Differences were observed across physical illness groups.

**Conclusion:** Findings advance knowledge of important correlates of physical-mental comorbidity, which can inform intervention targets and resource allocation to reduce the impact of physical-mental comorbidity on various domains of children's health and well-being.

**P8.02 An Epidemiological Study of Physical-Mental Multimorbidity in Youth****Shannon Reaume**<sup>1</sup>, Joel Dubin<sup>1</sup>, Christopher Perlman<sup>1</sup>, Mark Ferro<sup>1</sup>, Alexander Luther<sup>1</sup><sup>1</sup>University of Waterloo (Waterloo, CA); <sup>2</sup>University of Waterloo; <sup>3</sup>University of Waterloo; <sup>4</sup>University of Waterloo; <sup>5</sup>University of Waterloo.

**Aims:** This epidemiological study estimated lifetime prevalence of chronic physical illness and six-month prevalence of mental disorder and multimorbidity (i.e.,  $\geq 1$  physical illness and  $\geq 1$  mental disorder) in youth; quantified associations between physical illness and mental disorder; and, investigated risk factors for mental disorder, adjusting for the presence of chronic physical illness.

**Methods:** Data come from 10,303 youth aged 4 to 17 years in the 2014 Ontario Child Health Study. Physical illness was measured using a standard list of chronic conditions developed by Statistics Canada. The Emotional Behavioural Scales assessed mental disorder. Overall functional health was measured using the Health Utility Index Mark III.

**Results:** Weighted prevalence estimates showed 550,090 (27.8%) youth had physical illness, 291,986 (14.8%) had mental disorder, and 108,435 (5.4%) had multimorbidity. Overall, physical illness was not associated with mental disorder. However, youth with two physical illnesses, as compared to no physical illnesses, had increased odds of having any mental (OR=1.75 [95% CI: 1.08, 2.85]), mood (OR=2.50 [1.39, 4.48]) and anxiety disorders (OR=2.40 [1.33, 4.31]). Functional health scores demonstrated a dose-response association across health status categories, with highest scores among healthy youth and lowest scores among multimorbid youth (all  $p < .05$ ).

**Conclusion:** Chronic physical illness and mental disorder are prevalent in youth. Youth with two physical illnesses have higher likelihood for mental disorder. Higher functional health scores were associated with

lower likelihood of mental disorder. Mental health interventions for youth, especially among those with physical illness should promote overall functional health.

### **P8.03 Characteristics of Cardiovascular Disease Prediction Models Considering Mental Disorders: A Systematic Review**

**Sara Siddiqi**<sup>1,2</sup>, Asia Akther<sup>1</sup>, Dawn-Li Blair<sup>1</sup>, Saredo Bouraleh<sup>1</sup>, Heidi Eccles<sup>1</sup>, Brianna Frangione<sup>1</sup>, Teagan Haggerty<sup>3,4</sup>, Jessica Yu<sup>2</sup>, Risa Shorr<sup>5</sup>, Jodi Edwards<sup>1,4</sup>, Ian Colman<sup>1</sup>, Jess G. Fiedorowicz<sup>1,2,6</sup>

<sup>1</sup>School of Epidemiology and Public Health, University of Ottawa, Ottawa, ON, Canada (Ottawa, CA); <sup>2</sup>Ottawa Hospital Research Institute, Ottawa, ON, Canada; <sup>3</sup>Department of Cellular and Molecular Medicine, University of Ottawa, Ottawa, ON, Canada; <sup>4</sup>University of Ottawa Heart Institute, Ottawa, ON, Canada; <sup>5</sup>Learning Services, The Ottawa Hospital, Ottawa, ON, Canada; <sup>6</sup>Department of Psychiatry, University of Ottawa, Ottawa, ON, Canada

**Background:** Cardiovascular disease (CVD) encompasses a group of diseases impacting the vasculature and the heart. Given a comprehensive understanding of CVD risk factors, there have been many models developed for CVD prediction. Mental disorders may increase CVD risk and associated mortality by two-fold; meta-analyses have shown a 1.95x[95%CI:1.41-2.70] increased risk of CVD among patients with schizophrenia. Without consideration of mental disorders, CVD prognostic calculators may not correctly project risk among these populations, yet few prediction models have considered mental disorders.

**Aims:** We aimed to assess existing CVD model characteristics, predictive performance, and critically appraise the potential for bias among models that consider mental disorders.

**Methods:** A literature search with key words and MeSH terms related to prognostic modelling, CVD and mental disorders was conducted in Medline and Embase. Studies concerning CVD model development with internal validation, external validation or recalibration studies that considered mental disorders as covariates or a population of interest were included. Mental disorders were classified according to: diagnoses/screening/self-report. Screening and data extraction was conducted by two independent reviewers. The PROBAST tool was used to assess risk of bias and a narrative synthesis was conducted.

**Results:** The search yielded 14113 records, after duplicate removal and abstract screening 462 full text articles were assessed for eligibility. Many studies included depression as a predictor in their model. Assessment of study quality, summarization of evidence, and interpretation of the findings are ongoing; final results will be presented at the conference.

**Conclusion:** This review will be helpful for informing CVD model development/validation.

### **P8.04 --- WITHDRAWN ---**

### **P8.05 Autism Spectrum Disorder and the Risk of Rheumatoid Arthritis: A Matched National Cohort Study**

**Evora Hailin Zhu**<sup>1</sup>, Stephen Z Levine<sup>2</sup>, Johan Askling<sup>3,4</sup>, Sven Sandin<sup>1,5,6,7</sup>, Benjamin Yip<sup>1,7</sup>

<sup>1</sup>Jockey Club School of Public Health and Primary Care, The Chinese University of Hong Kong, Hong Kong SAR; <sup>2</sup>School of Public Health, University of Haifa, Haifa, Israel; <sup>3</sup>Clinical Epidemiology Division, Department of Medicine Solna, Karolinska Institutet, Stockholm, Sweden; <sup>4</sup>Rheumatology, Theme Inflammation and Ageing, Karolinska University Hospital, Stockholm, Sweden; <sup>5</sup>Department of Psychiatry, Icahn School of Medicine, Mount Sinai, New York, USA; <sup>6</sup>Seaver Autism Center for Research and Treatment at Mount Sinai, New York, USA; <sup>7</sup>Department of Medical Epidemiology and Biostatistics, Karolinska Institutet, Stockholm, Sweden

**Aims:** To test the hypothesis that Autism Spectrum Disorder (ASD) is associated with an increased risk of Rheumatoid Arthritis (RA).

**Methods:** A matched national cohort study was implemented using Swedish national health registers. Individuals diagnosed with ASD from 1987 to 2017 were identified in the Swedish Patient Register and entered the cohort on the date of their ASD diagnosis. Each individual with ASD was matched to 100 individuals without ASD by sex and birth year. The cohort was followed-up until the youngest age of: an RA diagnosis (in the Patient Register after the age of 18 years), emigration, death, or the end of follow-up on 31-December-2018. The instantaneous relative risk of RA associated with ASD was quantified from Hazard Ratios (HRs) and their associated 95% Confidence Intervals (CI) by fitting Cox proportional hazards regression models.

**Results:** The cohort comprised 46,164 individuals with ASD (RA(%): 58 (0.13%)), matched with 4,634,895 individuals without ASD (RA(%): 5,484 (0.12%)). Cohort members were followed-up for 0-30 years (median: 6

years), until age from 18 to 67 (median age: 28 years). In the primary analysis, ASD was not statistically significantly associated with all-cause RA (HR=1.06, 95% CI 0.82 - 1.37), seropositive RA (HR=1.00, 95% CI 0.67 - 1.48), or seronegative RA (HR=1.11, 95% CI: 0.79-1.57). Five complementary analyses were consistent with the primary results.

**Conclusions:** In a large population-based study, individuals diagnosed with ASD did not show an increased risk of rheumatoid arthritis; either seropositive or seronegative.

## **P8.06 Social Disconnectedness, the Rate of Medical Conditions, and the Role of Pre-Existing Mental Disorders: A Population-Based Cohort Study**

Lisbeth Mølgaard Laustsen<sup>1</sup>, Mathias Lasgaard<sup>2,3</sup>, Natalie C. Momen<sup>1</sup>, Jaimie L. Gradus<sup>4,5</sup>, **Oleguer Plana-Ripoll**<sup>1,6</sup>

<sup>1</sup>Department of Clinical Epidemiology, Aarhus University and Aarhus University Hospital, Denmark (Aarhus N, DK); <sup>2</sup>DEFACTUM – Public Health Research, Central Denmark Region, Denmark; <sup>3</sup>Department of Psychology, University of Southern Denmark, Denmark; <sup>4</sup>Boston University School of Public Health, USA; <sup>5</sup>Boston University School of Medicine, USA; <sup>6</sup>National Centre for Register-based Research, Aarhus University, Denmark

**Aims:** Socially disconnected individuals are at increased risk of medical conditions such as depression, dementia, and coronary heart disease. We aimed to comprehensively examine differences in incidence rates of medical conditions according to social disconnectedness, including potential sex differences and the role of pre-existing mental disorders.

**Methods:** We conducted a cohort study using data on social disconnectedness (loneliness, social isolation, low social support, and a composite measure) from the 2013 and 2017 Danish National Health Survey. Survey data was linked with register data on 11 categories of medical conditions through 2021. Poisson regression was applied to estimate incidence rate ratios (IRRs), incidence rate differences, and explore interaction with pre-existing mental disorders.

**Results:** Among 162,497 survey participants, 7.6%, 3.5%, and 14.9% were identified as lonely, socially isolated, and with low social support, respectively. Lonely individuals and individuals with low social support had a higher incidence rate of all 11 categories of medical conditions (interquartile range of IRRs, respectively 1.23–1.48 and 1.10–1.13), whereas this was the case for nine categories among socially isolated individuals (interquartile range of IRRs, 1.01–1.31). Applying the composite measure, the highest IRR was 2.60 for a mental disorder (95% CI, 2.33–2.87) and the lowest 1.03 for cancer (95% CI, 0.96–1.11). We found neither major sex differences nor substantial interaction with pre-existing mental disorders.

**Conclusion:** Our study extends the available evidence on social disconnectedness and the risk of medical conditions. The attained knowledge can be used to identify and target the disease burden among socially disconnected individuals.

## **P8.07 Association of Nightmares with Cardio-cerebrovascular Disease, Hypertension, and Hyperlipidemia in Older Adults: A Population-Based Cross-Sectional Study**

**Sooyeon Suh**<sup>1</sup>, Youjin Lee<sup>1</sup>, Dasom Park<sup>1</sup>, Soriul Kim<sup>2</sup>, Chol Shin<sup>2,3</sup>

<sup>1</sup>Sungshin Women's University, Dept. of Psychology (Seoul, KR); <sup>2</sup>Institute of Human Genomic Study, College of Medicine, Korea University; <sup>3</sup>Biomedical Research Center, Korea University Ansan Hospital

**Aims:** This cross-sectional study investigated the relationship of nightmares with cardio-cerebrovascular disease (CVD), hypertension and hyperlipidemia which are major preceding diseases of CVD in older adults.

**Methods:** Participants (n=2,824; mean age 63.6 ± 6.6 years, females 49.3%) completed the Disturbing Dream and Nightmare Severity Index (DDNSI), which was used to divide the sample into either the Nightmare or Non-Nightmare group (cut-off score ≥10). Demographic information, history of CVD (cerebrovascular disease, myocardial infarction, congestive heart failure, coronary artery disease, and arrhythmia), hypertension, hyperlipidemia, and self-report questionnaires about stress (Perceived Stress Scale), depression (Beck Depression Inventory), sleep quality (Pittsburgh Sleep Quality Index), and insomnia symptoms were also collected.

**Results:** Among the sample, 379 participants (13.4%) reported experiencing nightmares more than once a year, and 73 participants (2.6%) were classified as having nightmare disorder based on DDNSI scores (≥10). 11.3% of



participants (n=319) reported having more than one CVD. Approximately half of the participants reported a history of hypertension (52.1%, n=1,471) and hyperlipidemia (47.7%, n=1,346). Logistic regression analysis indicated the Nightmare group was 2.04 times at higher risk for hyperlipidemia (OR = 2.04, 95% CI 1.22-3.40,  $p=0.006$ ) after controlling for covariates compared to the Non-Nightmare group. Although non-significant, there was a trend toward a higher risk of hypertension in the Nightmare group (OR = 1.67, 95% CI 0.99-2.84,  $p=.056$ ).

**Conclusion:** Results of this study indicate frequent nightmares in older adults may be associated with hyperlipidemia, which are risk factors for CVD.

## P8.08 Risk of Dementia in Different Types of Cancer Survivors: A Nationwide Cohort Study

**Che-Sheng Chu**<sup>1,2,3,4</sup>, Ya-Mei Bai<sup>5,6</sup>, Tung-Ping Su<sup>5,6,7</sup>, Fu-Chi Yang<sup>8</sup>, Mu-Hong Chen<sup>5,6\*</sup>, Chih-Sung Liang<sup>9,10\*</sup>

\*Contributed equally to this article as corresponding authors

<sup>1</sup>Department of Psychiatry, Kaohsiung Veterans General Hospital, Kaohsiung City, Taiwan; <sup>2</sup>Center for Geriatrics and Gerontology, Kaohsiung Veterans General Hospital, Kaohsiung City, Taiwan; <sup>3</sup>Non-invasive Neuromodulation Consortium for Mental Disorders, Society of Psychophysiology, Taipei, Taiwan; <sup>4</sup>Graduate Institute of Medicine, College of Medicine, Kaohsiung Medical University, Kaohsiung, Taiwan; <sup>5</sup>Department of Psychiatry, Taipei Veterans General Hospital, Taipei, Taiwan; <sup>6</sup>Department of Psychiatry, College of Medicine, National Yang Ming Chiao Tung University, Taipei, Taiwan; <sup>7</sup>Department of Psychiatry, Cheng Hsin General Hospital, Taipei, Taiwan; <sup>8</sup>Department of Neurology, Tri-Service General Hospital, Taipei, Taiwan; <sup>9</sup>Department of Psychiatry, Beitou Branch, Tri-Service General Hospital, Taipei, Taiwan; <sup>10</sup>Department of Psychiatry, National Defense Medical Center, Taipei, Taiwan

**Aims:** Several observational studies have identified a positive association between cancer survivors and subsequent dementia whereas others have negative or no association. This study aimed to determine the association in Taiwanese patients using a large, community-based national claim data.

**Methods:** Using the Taiwan National Health Insurance Research Database, we recruited 32,250 patients surviving malignancies and 322,500 controls between 1998 and 2011 and followed them up until the end of 2013. A diagnosis of dementia, Alzheimer's disease (AD), vascular dementia (VaD), and unspecified dementia were identified during the follow-up period. Cox regression analyses were performed with adjustments for confounders. Sensitivity analysis was conducted to exclude patients with prodromal dementia.

**Results:** Cancer survivors were more likely to develop AD (hazard ratio [HR]: 1.68, 95% confidence interval [CI]: 1.38–2.06), unspecified dementia (HR: 1.19, 95% CI: 1.07–1.32), and any dementia (HR: 1.26, 95% CI: 1.16–1.37) compared with controls after adjusting for potential confounders. Specifically, cancers of digestive and genitourinary organs seemed to be associated with such risks, while only malignant neoplasm of the brain was more likely to develop VaD. Sensitivity analyses after exclusion of the first three years or first five years of observation and after exclusion case enrollment before 2009 or 2007 showed consistent findings.

**Conclusions:** Cancer survivors were associated with higher risk of subsequent dementia. Further studies are necessary to investigate the underlying mechanisms of cancer survivors and dementia.

## P8.09 Severe Mental Illness and Infectious Disease Mortality: a Systematic Review and Meta-Analysis

**Amy Ronaldson**<sup>1</sup>, Alex Dregan<sup>1</sup>, Jayati Das-Munshi<sup>1</sup>, Temi Lampejo<sup>2</sup>, Ioannis Bakolis<sup>1</sup>

<sup>1</sup>King's College London (London, GB); <sup>2</sup>King's College Hospital NHS Foundation Trust

**Aims:** The aim of this systematic review and meta-analysis was to describe and quantify the risk of death from infections (excluding COVID-19) in people with SMI.

**Methods:** PubMed, Web of Science, PsycINFO, and EMBASE were searched for relevant studies up to June 2023. Studies were included if they assessed the impact of SMI (bipolar disorder, schizophrenia, other psychoses) on risk of mortality from any infectious disease excluding COVID-19. Random-effects meta-analyses of the risk of death from 'infectious disease', respiratory infections, sepsis, and 'other' infections in SMI were performed. The review protocol was registered in PROSPERO (CRD42023422151).

**Results:** Twenty-seven studies were eligible for review. All were observational cohort studies carried out in high income countries and 55% of studies were of good quality. Narrative analysis indicated that having SMI was associated with increased risk of death from infectious disease (22/27 studies), with mixed results for sepsis. People with SMI were more than 2 times more likely to die from 'Infectious diseases' than those without SMI (pooled standardised mortality ratio (SMR) = 2.31, 95% CI=1.89 to 2.83) and were more than 4 times more

likely to die from respiratory infections (pooled SMR=4.27, 95% CI=3.11 to 5.87). Sources of heterogeneity included SMI diagnosis, gender, and infection type.

**Conclusions:** People with SMI are at an increased risk of death from infection, particularly from respiratory infections like influenza and pneumonia and should be prioritised for pneumococcal and influenza vaccines. More work is needed to fully understand why infection mortality risk is increased in SMI.

## **P8.10      Epilepsy in the Psychiatric Setting: Retrospective Study in 1369 Patients Collected at the Center for Mental Health DALAL XEL of Thies from 2014-2017**

**Georges Hermann Njial<sup>1</sup>**, Kamadore Toure<sup>1</sup>, Mamadou Moustapha Sarr<sup>1</sup>, Abdoulaye Diallo<sup>1</sup>, Abdoulaye Danfa<sup>2</sup>  
<sup>1</sup>Universite Iba Der Thiam de Thies (SN), <sup>2</sup>Centre for Mental Health Dalal Xel of Thies

**Aims:** Epilepsy is a neurological condition that still poses a real public health problem in Africa in general and in Senegal in particular. This work aimed to determine the epidemiological profile of epilepsy at the Dalal Xel Mental Health Center in Thiès.

**Methods:** To achieve this objective, we conducted a retrospective study of the files of patients followed at the DALAL XEL psychiatric center in Thies between 2014 and 2017. The patients were selected when the epilepsy diagnosis was based on electronical arguments, and their records were exploitable for our purposes.

**Results:** Our study showed that the prevalence of epilepsy at Dalal Xel Mental Health Center was 13.7%. The most representative age group was between 10 and 19 years old with 41.4%. The male sex predominated with 54%. More than half of the patients studied, 54.7%, were not in school. 23.7% had a psychiatric history. Only out of 320 patients with epilepsy, 25.6% had a family history of psychiatric disorders. Epileptic seizures were the most frequent reason for consultation because they were found in 86.8% of our patients. From a therapeutic standpoint, sodium valproate was the most widely used molecule (58.6%). Out of 1369 patients files collected, 1000 patients or 73.9% took herbal treatments. We noticed a decrease in the relapse rate of patients from 2014 to 2017.

**Conclusion:** Epilepsy occupies an important place in the clinical activities of the Dalal Xel Mental Health Center in Thiès. It is important to improve resources for better management of this pathology.

## **P8.11      National Survey for the Psychiatric and Substance Use Disorders Post COVID-19 Pandemic**

**Sally Noby<sup>1</sup>**, Noha Sabry

<sup>1</sup>General Secretariat of Mental Health and Addiction Treatment - Ministry of Health- Egypt (Cairo, EG); <sup>2</sup>General Secretariat of Mental Health and Addiction - Ministry of Health

The current survey was planned to help in national assessment profile of current situation and drawing a trend for the country and studying the impact of COVID-19 on mental health and substance use profile.

**Objectives of survey:** To conduct a household national survey to assess the current mental health status and substance use disorder prevailing in Egypt post COVID-19 Pandemic

**Study Design:** Observational Cross Sectional Epidemiological Study, Study Setting: Community-Based Household Survey. The target population of the survey included both sexes in the age groups above 7 years old extending to elder age with no limit.

**Sample Size:** The sample size of 30,000 eligible household/members.

**Survey Tools:** A well Designed sheet was created to collect data from survey participants. It included general information about the geographical region- General Health Questionnaire (GHQ-12) - Mini International Neuropsychiatric Interview (M.I.N.I.) (Sheehan et al.1998)-The Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime version- Montreal Cognitive Assessment-Basic (MoCA-B)-The Geriatric Depression Scale (GDS)- The Activity of Daily Living (ADL).

**Data collection:** The first step included screening for possible psychiatric morbidity, while the Second step included in-depth interviews to diagnose the type of psychiatric disorder if the screening is positive.

**Data Entry:** Manual data entry was performed, and three SPSS data sheets - Data Analysis: Comparison between qualitative variables was done using chi square test for qualitative variables. P value less than 0.05 was consider of statistically significant.

**Conclusion:** The survey revealed several significant findings regarding the psychiatric morbidity in Egypt.

## P8.12 Positive Outcomes in the Wake of the COVID-19 Pandemic

Charlotte Maguet<sup>1</sup>, Aji-Mary Jagne<sup>1</sup>, Irene Pinucci<sup>2,3</sup>, Marit Sijbrandij<sup>2</sup>, **Camille Davisse-Paturet**<sup>1</sup>, Judith van der Waerden<sup>1</sup>.

<sup>1</sup>INSERM, France (Paris, FR); <sup>2</sup>Vrije Universiteit, Netherlands; <sup>3</sup>Sapienza University of Rome, Italy

**Aims:** While both the pandemic and the public health measures aimed at containing it have negatively impacted mental health and well-being, little is known about the potential positive outcomes of the COVID-19 pandemic. This study aims to identify different profiles of positive experiences two years after the onset of the COVID-19 pandemic using data from a longitudinal multi-country cohort, and to identify associated factors.

**Methods:** Using data from the international COVID-19 Mental Health survey (COMET), positive feelings and life improvement experiences were collected during the fifth data collection wave in Summer 2022. Using seven individual items, a series of latent class analysis models (LCA) were estimated to identify distinct subgroups of persons within the study population characterized by the same pattern of responses. Multinomial logistic regressions are used to quantify the associations of associated factors with the identified subgroups.

**Results:** Among 1725 participants from the COMET survey with available data, a LCA model with 4 classes had the best fit. Most of the participants who checked a negative reply were classified as "No Improvement" (n=550, 31.9%). Participant's distributions across the other latent subgroups were as follows: Life Choices (n=2059, 15.0%), Work/Life Balance (n=766, 44.4%), and Time with Loved Ones (n=150, 8.7%). Depending on latent class, different sociodemographic, COVID-19-related, psychological, and (mental) health related factors were associated with reporting positive experiences.

**Conclusion:** Identification of positive outcomes of the COVID-19 pandemic and associated factors helps shed light on potential resources to foster during future health crisis.

## P8.13 Changes in Psychological Distress Levels Among Czech Healthcare Workers During the COVID-19 Pandemic

Pavla Brennan Kearns<sup>1</sup>, **David Novak**<sup>1</sup>, Barbora Frycova<sup>1</sup>, Jana Seblova<sup>1,2</sup>, Dominika Seblova<sup>1</sup>

<sup>1</sup>Department of Epidemiology, Second Faculty of Medicine, Charles University Prague, Czechia (CZ); <sup>2</sup>Paediatric Emergency Department, Motol University Hospital, Prague, Czechia

**Aims:** We aimed to assess the evolution of psychological distress levels among healthcare workers in Czechia throughout the COVID-19 pandemic. We sought to understand how cumulative exposure to pandemic-related stressors impacted their psychological well-being.

**Methods:** We analyzed responses from 264 healthcare workers (73% female) in the Czech arm of the HEROES study, participating in all three waves of a structured questionnaire. Cumulative exposure scores, based on identified stressors (including patient prioritization, experience of death in a workplace and distrust in the workplace), were calculated at three time points (2020-2022) and ranged between 0 and 6 points. A paired t-test assessed the hypothesis that healthcare workers' symptoms of psychological distress measured by the 12-item General Health Questionnaire varied significantly during the pandemic as well as the cumulative stress exposure.

**Results:** Psychological distress symptoms significantly increased from the first (2020) to the second wave (2021) among healthcare workers (mean difference = 2.08, p<.001). Similarly, cumulative exposure stress also rose significantly (mean difference = 0.80, p<.001). A positive correlation between psychological distress and exposure was observed across all three time points (0.29, p<.001).

**Conclusion:** The findings of this study highlight the dynamic nature of psychological distress among healthcare workers during the COVID-19 pandemic, underscoring the importance of ongoing support and interventions tailored to the evolving challenges faced by this critical workforce.

## P8.14 --- WITHDRAWN ---

## P8.15 Healthy Ageing in Cities - A Pilot Study on Digital, Dynamic Health Monitoring (DDGM)

Simon Dinse<sup>1</sup>, Sarah Rau<sup>1</sup>, Stefan Eehalt<sup>2</sup>, **Norbert Schmitz**<sup>1,3</sup>

<sup>1</sup>Tuebingen University (DE); <sup>2</sup>Gesundheitsamt Stadt Stuttgart; <sup>3</sup>McGill University, Department of Psychiatry, Montreal, QC, Canada

**Aims:** Healthy ageing in cities is not only important for older people, but also for society as a whole, as it leads to longer life expectancy and less use of medical resources. Recent epidemics such as COVID-19, but also other environmental influences such as heat waves, have shown how important it is to dynamically survey health determinants and healthcare. The aim of the present project was to conduct a pilot study on the continuous measurement of health and psychological problems (digital dynamic health monitoring, DDGM) among older people in Stuttgart, Germany.

**Methods:** A random sample of 250 community members aged 60-80 years in Germany was recruited. A face-to-face interview with standardized questionnaires was conducted to collect information on health outcomes, including lifestyle, medical, social, and psychological factors in participants' lives. Participants receive health related questions every two weeks on randomly selected days and times over a one-year period. Participants will be reassessed after one year.

**Results:** Data collection for the baseline interview has been completed. The dynamic assessment has started. Written informed consent has been obtained from all participants. Results from the current study regarding feasibility and trajectories of psychological problems will be presented at the conference.

**Conclusion:** The results will provide important information for the implementation of such an approach on a broad basis. Such dynamic health monitoring is unique in Germany and will provide important information both for the city of Stuttgart and for other cities in Germany.