

The 31st European Congress of Psychiatry - EPA 2023

A SUMMARY OF CONFERENCE PRESENTATIONS FROM 26TH TO 28TH MARCH 2023 AT THE PALAIS DES CONGRÈS IN PARIS, FRANCE UNDER THE MOTTO OF "SOCIAL COHESION, A COMMON GOAL FOR PSYCHIATRY".

SUNDAY 26TH MARCH

BO01: BEST OF 2022 - RESEARCH THAT ADVANCED PSYCHIATRY AND CHANGED OUR PRACTICE

Professor Nandini Chakraborty – United Kingdom

Key papers and take-home messages in psychosis

Psychosis is a heterogeneous condition with no 'one size fits all' treatment model and can take many patients and their families by surprise. Heritability of schizophrenia is 60–80%, and current research of genetic predictors for identifying schizophrenia risk shows promise in earlier identification of vulnerable individuals, potentially influencing clinical work in the future. ^[1]

A recent study of over 1000 adolescents demonstrated frontotemporal abnormality as a potential biomarker for vulnerability to psychotic experience and transition to psychosis in early adulthood. ^[2]

With a patient-centric emphasis, the multi-centre ODDESI (Open Dialogue: Development and Evaluation of a Social Network Intervention for Severe Mental Illness) trial in England will explore the role of 'Open Dialogue' services in the management of schizophrenia and psychosis. In this first randomised controlled trial of a social network model, patients' social networks will be brought into therapeutic network sessions to investigate an alternative to current care methods. ^[3]

A recent real-world analysis explored the relationship between schizophrenia, substance use and treatment. In two large cohorts, the risk of developing a substance use disorder or hospitalisation was reduced with clozapine therapy and long acting injectables. ^[4] In patients with schizophrenia, negative symptoms are more debilitating than positive symptoms and more challenging to treat. In a systematic review of case studies, the authors concluded that cariprazine is safe and effective and may be beneficial in treating negative symptoms. ^[5]

Dr Michael Bogenschutz – USA

Key papers and take-home messages in psychedelic medicine

Despite growing interest, psychedelics are not currently in clinical use. Their mechanism of action remains unknown and psychedelic effects make blinding studies to determine efficacy challenging. With the (Food and Drug Administration) FDA potentially approving 3,4-Methylenedioxymethamphetamine (MDMA) in 2024, more research is required to understand optimal dosing, the importance of parallel psychotherapy and identify the patients most likely to benefit.

In a phase 3 clinical trial MDMA has shown potential as a treatment for post-traumatic stress disorder (PTSD) in conjunction with psychotherapy with participants in the MDMA arm experiencing significantly greater improvement in their CAPS-5 (Clinician-Administered PTSD Scale) scores after three sessions (effect size, $d = 0.91$). Clinical remission rates were increased, and depression was less ($P = 0.0026$,

effect size, $d = 0.67$).^[6] Even in traditionally difficult-to-treat patients, such as those with dissociative subtype PTSD, a comparable benefit was seen.

Psilocybin-assisted therapy has been shown to safely reduce the number of heavy drinking days in patients with alcohol use disorder, with 48% abstinent after 36 weeks.^[7] In major depression disorder, a single high dose of psilocybin-assisted therapy has shown immediate benefit.^[8, 9]

Following drug approval, treatment models may need to change to increase accessibility. Research has shown that group therapy with single 25 mg psilocybin treatment is highly effective in treating depression and anxiety related to life-threatening cancer.^[10]

Mechanisms of action of psychedelics remain unknown, with small studies suggesting changes within- and between-network connectivity associated with alteration in thalamic connectivity during the psychedelic phase, may play a role.^[11]

Professor Philip Gorwood – France

Key papers and take-home messages in Major Depressive Disorders (MDD)

Treatment of MDD remains a serious unmet need. Finding rapid treatment for patients who traditionally wait 4–6 weeks to experience benefit, reducing suicide risk, and enhancing pharmaceutical approaches with additional therapeutic approaches are all major challenges.

A large phase 2B trial of 233 patients with treatment resistant depression involving a single dose of psilocybin and five therapy sessions found a dose-related response with those on 25 mg showing significant improvements in MADRS (Montgomery-Asberg Depression Rating Scale) scores, but effects past six weeks were not significant.^[12] Caution is advised with high rates of adverse effects (61%) being observed.

Comparisons using functional magnetic resonance imaging (fMRI) following psilocybin to escitalopram has shown a decrease in brain modularity and higher connectivity

of the brain following psilocybin administration.^[13] It has been established that neural networks, particularly those associated with rumination, play a key role in depression. The ability of psilocybin to significantly decrease activity in these neural networks and improve connectivity in executive networks may explain the long-term improvements in thought suppression and rumination from psilocybin-assisted therapy.^[14]

While ketamine has shown a short-term benefit, repeated dosing or additional enhancement may be required. A personalised computerised training programme designed to stimulate neuroplasticity, automated self-association training (ASAT), was found to enhance the long-term benefits of ketamine.^[15]

Folate deficiency predicts poorer selective serotonin reuptake inhibitor (SSRI) response and a large American observational study found those taking Folic Acid (B9) were half as likely to attempt suicide as those taking B12, providing a potentially safe and effective approach to reducing suicide risk.^[16]

DT01: WE NEED TO ABANDON THE CURRENT SCHIZOPHRENIA CONSTRUCT

Professor Silvana Galderisi – Italy

Despite the current construct, schizophrenia is not a homogeneous disease and likely to be a variety of conditions with different underlying causes.^[17, 18] Over a hundred years since the term “schizophrenias” was first used, it is time to reconsider the definition of the disease to reflect the variety of clinical presentations to not only reduce the associated stigma but to advance the study of the various underlying causes and develop a new and more precise taxonomy of psychotic disorders including identifying meaningful biomarkers improving prevention, diagnosis, and treatment of patients.^[19]

Despite Bleuler using the term “Groups of Schizophrenias” neither the Diagnostic and Statistical Manual of Mental Disorders (DSM) nor the International Classification of

Diseases and Related Health Problems (ICD) recognise the heterogeneity of the disorder. Efforts to address the heterogeneity of the disease are ongoing. ^[20]

The lack of pathognomonic symptoms for diagnosis remains challenging. ^[21] While first-rank symptoms have been identified in the current DSM-5 or ICD-11, they are not assigned priority and are symptoms found in various psychotic disorders. Additionally, the lack of consideration of negative symptoms (particularly cognitive impairment etc.) in the diagnosis of schizophrenia presents a significant gap. While defined as essential in the ICD-11, they are not defined as essential in DSM-5, and not mandatory for diagnosis in either system. ^[19]

The current construct lacks credibility. There is disagreement amongst clinicians and scientists on everything from the definition of delusions to the length of time symptoms are required for a diagnosis (DSM-5 requires six months of positive symptoms, ICD-11 requires at least one month). ^[22] Patients may receive the same diagnosis but are heterogenous with a variety of aspects including response to treatment, and genetic and environmental risk factors. ^[19]

Currently no validated alternative to the existing construct exists with wide support. Any new construct must detail characterization of psychotic symptoms, the temporal patterns associated with positive and negative symptoms, and neurodevelopment pathways as a step towards a transdiagnostic approach to mental disorders.

Artificial intelligence may increase the probability of identifying meaningful biomarkers to improve prevention, diagnosis, prognosis, and treatment in people with psychotic disorders. ^[19]

Professor Wolfgang Gaebel – Germany: a rebuttal

The current construct should not be abandoned, but potentially reinvented, revised, and updated. A key step will be implementing the ICD-11 globally and improve harmonization between ICD and DSM. ^[23, 24] Any revised construct requires international collaboration between researchers, industry, and patients. The future will lie not in subtypes, but fluid “neuro-mental” constructs within a transnosological concept of modularity of the brain. ^[25]

Within mental health there are many “fuzzy borders” between conditions, making diagnosis complex. Given the current lack of biomarkers, and neurobiological and genetic data, validating any diagnosis is also difficult. Identification of biomarkers for better diagnosis of subgroups of conditions remains a knowledge gap. ^[26]

This lack of biomarkers in DSM-5 or ICD-11 means a descriptive approach to mental disorders remains but with expanded dimensional components to account for the growing science and the heterogeneity of schizophrenia. ^[27] Digital ICD-11 coding allows more specific details to be entered reflecting severity of symptoms, episode number, etc., to provide a more specific final ICD cluster code. ^[28]

Chapter 6 of ICD-11 is starting to expand the clinical description and diagnostic requirements for various Mental, Behavioural or Neurodevelopmental Disorders (MBND) including details on boundaries with normality, coded specifiers which could include biomarkers. In the future, evidence may identify unique features e.g., features of the brain, unique symptoms etc., that could identify subclasses of schizophrenia.

The ICD allows for clinicians to make proposals on classifications in the ICD via their website and clinicians and researchers are invited to submit comments here: <https://icd.who.int/dev11>

Machine learning may allow for better grouping of patients by phenotype with a view to earlier diagnosis, prediction of disease trajectory and better use of precision medicine. ^[29,30]

PL01: NON-SUICIDAL SELF INJURY (NSSI) IN BORDERLINE PERSONALITY DISORDER (BPD)

Professor Dr Sabine Herpertz - Germany

NSSI peaks between 20-25 years of age but can start before adolescence and is particularly prevalent in patients, often as a co-occurrence with BPD. While the triggers for NSSI vary, social reinforcement does not play a central role in motivation. Increasing severity and frequency are risk factors for suicide attempts in adolescents, meaning

clinicians should be aware. Treatment should focus on Mentalization and Dialectical Behaviour Therapy in BPD patients when NSSI is the dominant symptom, identifying the triggers for NSSI and developing alternative behavioural skills and conflict resolution strategies and treatment for comorbid mental health issues^[31]. Given high prevalence in adolescents, school-based interventions could prevent NSSI in many individuals.

NSSI is now a separate category in the DSM-5, defined as deliberate self-inflicted destruction of body tissue without suicidal intent for purposes not socially sanctioned on five or more days in the past year. NSSI is strongly associated with BPD, addictions, eating disorders, prior suicidal thoughts, and PTSD.^[32] Presentations include scraping skin (51.6%), beating (37.6%, mainly males), and cutting (33.7%, predominantly females), with 6% resulting in accidental death^[33] with higher rates in women, particularly in their early 20s.^[34] Research shows 60% of adults and 90% of adolescents who performed NSSI did not contact medical or psychological services afterwards.^[35] Increasing frequency of NSSI is a strong suicide risk factor^[36], particularly in young adults with BPD, where 88% seek help in the last six weeks of life.^[37]

Strong predictors of NSSI include frustration and conflicts with close connections.^[38, 39] Increases in intense negative affect lead to an increasing state of tension followed by NSSI to relax and decrease negative affect and induce tension relief.^[40] Resisting NSSI urges did not reduce tension but did reduce negative affect.^[41]

Differences in sensitivity to pain in BPD patients^[42, 43], increases in β -endorphins^[44] and brain imaging showing decreased amygdala activity following NSSI may contribute to NSSI behaviour.^[45]

CS02: ACADEMIC PSYCHIATRY: IS GENDER EQUALITY WITHIN REACH?

Dr Andrea Gmeiner – Austria

High impact psychiatric publishing – gender parity within reach

In the last 25 years, the number of female authors has increased. Parity has still not been reached with female last authors plateauing at approximately 30% since 2004.^[46]

Women are still underrepresented in the categories of total, first, and last authors in 473 papers from JAMA, BJP and AJP in 2019. However, in original research articles just over 50% has female first authors, but the rate of female last authors on original research has only reached approximately 30%.^[46]

In the topics of mood disorders, schizophrenia, and psychotic disorders, female authors account for <40%, in general mental health <35%, and only in research of alcohol and drug related disorders is parity close.^[47]

Professor Sophia Frangou – USA

How can we fix the leaky pipeline for women in psychiatry?^[48]

Gender equality benefits everyone, improving society. A major hinderance to this is the leaky pipeline, the loss of female representation from junior to senior positions.^[49] Overcoming gender disparity requires multiple approaches from women putting themselves forward for promotion (not “waiting to be asked”), building a support network, and finding a tribe of long term collaborators. Men must challenge implicit bias and end all male panels and shortlists.^[50]

Key issues impacting retention rates including limits in research funding, lack of job security, and low pay in academia despite the highly skilled workforce disproportionately impact women.^[51] Women are also less likely than men to receive bonuses.^[52]

Societal attitudes also play a large role, with 67% of Europeans believing women do not possess the necessary capability to

succeed in scientific positions. ^[53] In academia, women are less likely to be invited to apply for promotion, are often assigned more “service tasks” than male colleagues, and are allocated fewer resources. ^[54] Additionally, male first and last authors tend to cite fewer research papers with females in corresponding author positions. ^[55]

Professor Dr Anita Reicher-Rössler – Switzerland

Mentoring for improving gender equality in academic psychiatry

Mentoring can improve gender equality and is associated with career success; however, women are less likely to have access. ^[56] Given societal views of gender begin at an early age, access to mentoring early in life could enable women to recognise and overcome career obstacles, psychological barriers, and social stereotypes.

Research shows women and men have the same goals at the beginning of their medical degree, yet at the end women prefer specialisation in a “limited” field with shorter training and intensive patient contacts where a family and career balance can be achieved. Men prefer to specialise in research and technical posts with higher income. ^[57, 58] Encouraging women to take part in research has been shown to improve the retention of women. ^[59] Recognising the glass ceiling is based on three factors – networks are mainly male, same genders prefer to work together, and historically successful researchers (usually male) are more likely to attract young researchers to their team. Recognising and overcoming these factors is key to creating genuine and long-lasting gender equality. ^[60]

Dr Joan Marsh, Editor-in-Chief, The Lancet Psychiatry – United Kingdom

The role of journal editors in closing the gender gap

The Lancet Group is addressing gender disparity amongst editors, authors, and peer-reviewers with equal proportions of men and women on editorial boards since 2020. As part of the efforts for gender balance, research papers will also be required to clearly state the gender balance of study participants in abstracts and report adverse events by sex/gender. Additionally, Lancet Psychiatry are working to

develop editors and peer-reviewers from low- and middle-income countries.

For all series and commissions, a goal of 50% women and 50% global south contributors exists. Lancet Psychiatry is struggling to reach full gender parity in all publications but continues to aim for at least one female reviewer per paper and one local reviewer on any global health topic.

ECP-SP02: REMOTE WORK BY PSYCHIATRISTS IN A VARIETY OF SETTINGS: WHAT WE CAN LEARN FOR CLINICAL AND ACADEMIC PRACTICE.

Dr Geert Dom – Netherlands

Remote working in addiction services

Remote alcohol use dependency (AUD) therapy offers potential to close the treatment gap through self-help, screening, and feedback, and access difficult-to-reach populations. Most digital approaches focus on behavioural change techniques or provide psychoeducation-based feedback. Future research is required to determine the best remote approaches to be used including gamification, telephone, or even virtual reality. ^[61]

Effective treatment of 60% of people with AUD could prevent approximately 13% of male and 9% of female alcohol attributable deaths. ^[62] Self-help and telehealth can potentially bridge this treatment gap, reach more women, and speed up access to treatment for many more than traditional in-person approaches. ^[63]

Most online interventions are web-based providing behavioural feedback and tend to focus on alcohol with a need for other substances (opioids etc.) to be targeted. ^[64]

The World Health Organisation (WHO) has developed the first largescale and public human-like digital worker – Pahola. This is an online tool available 24/7 in four languages at no cost to the user. Although in the early stages of development, Pahola could improve alcohol literacy, and increase delivery of screening and interventions. ^[65]

Digital therapy presents much promise through greater accessibility but may not be better than conventional therapy for AUD. ^[66] Additional research is required to compare telephone vs video or other technology and examine different behavioural change techniques and the cost-benefit compared to conventional therapy. ^[67]

Dr Mariana Pinto da Costa – United Kingdom

Remote working in London – a comparison between mental health and cardiology pathways

Following the declaration of a global pandemic in March 2020, in person healthcare was significantly reduced and replaced with remote care, where possible. These treatment approaches were relatively new to many and attitudes by staff and patients had not been assessed. To overcome this knowledge gap, a comparison was made between mental health and cardiology pathways in London. ^[68]

Remote treatment is widely accepted by both clinicians and patients, although patients would like more choice to match their specific needs, and clinicians would like more training to optimise remote treatment.

Results show women 18-39 years of age, those over 80 years, and those living in deprived areas were less likely to use remote healthcare. Remote appointments improved access to healthcare, with same day appointments most likely to be remote compared to in person appointments. Remote appointments were less likely to be cancelled.

Qualitative analysis found that patients view telephone calls as acceptable for routine or follow-up appointments but would prefer initial consultations to be in person where possible. Consultation via video was preferred to the telephone, particularly in cardiology patients and staff. Lack of access to equipment or private space limited the use of video consultations and resources may be needed to support some patients in gaining access.

Clinicians raised concerns over lack of formal training, stating it could help improve outcomes, particularly around risk management, and it is key to have a safety net in place to bring patients into clinics where concerns, particularly around suicide risk, exist.

Combining remote work and training: the experience of participating in the first virtual European Psychiatric Association (EPA) Gaining Experience Programme

Dr Hatice Kaya – Türkiye

Mentorship plays a key role in career development. The EPA has a free scheme to support early career psychiatrists (ECPs) gain knowledge and experience through mentoring programmes abroad – The Gaining Experience Programme. The pandemic interrupted this, leading to a virtual approach being developed to allow ECPs partake in a cost-effective manner without need for travel. ^[69]

Dr Kaya detailed her experience with the virtual programme stating she benefited from the scheme, with the virtual element allowing for flexibility, accessibility, and cost-effectiveness. Challenges included difficulty in focusing and complying with the time commitment due to her full-time work in Türkiye during a global health emergency. One major challenge was the inability to fully see body language and not observing how a clinic operates in another country. Overall, she would recommend the programme and applications are now open for 2023/24.

MONDAY 27TH MARCH JS01: ECNP SYMPOSIUM HOSTED BY THE EPA - NUTRITIONAL PSYCHIATRY: TOWARDS IMPROVING MENTAL HEALTH BY WHAT YOU EAT

Dr Aniko Korosi – Netherlands

Combating the effects of stress through diet

The field of nutritional psychiatry has been growing in recent years, particularly the role of diet on mental health. ^[70, 71, 72, 73] Early life stress (ELS) plays a long-term role in mental and physical health outcomes. ^[74] ELS can take many forms, from abuse to malnutrition, suggesting a link between early-life stress and early-life nutrition. Nutritional interventions offer a potential approach to protect against the harms of ELS, reducing the risk of psychopathologies and combating the effects of stress during lifetimes. The mechanism of action remains unknown and requires further research to optimise

potential strategies^[75] with theorised mechanisms including inflammation, mitochondrial dysfunction, gut microbiota, and epigenetic changes.^[76]

Animal research has shown one week of ELS impacts brain plasticity, cognitive and metabolic deficits, increased anxiety, and fatty acid deficiencies in the brain. A diet enriched in Omega-3 fatty acids in early life restored fatty acid levels, improved the cognitive deficit associated with ELS^[77] and offered immunoprotective effects.^[78]

Folic acid is vital in the formation of methionine and the methylation of DNA. Research showed supplementation in early life protected against cognitive decline and against high levels of basal corticosterone normally associated with ELS. Supplementation is also associated with lower anxiety, changes in DNA methylation in the hypothalamus, and changes in methylation pattern, protecting the brain's response to acute stress long after supplementation.^[79]

Future research is required to understand if early life diet can protect against long-term issues like Alzheimer's and understand how mother's milk can be supplemented through diet to protect against long-term impacts of early life stress.^[80]

Professor Suzanne Dickson – Sweden

Ghrelin at the interface between reward and food-linked behaviours

Ghrelin is a hormone impacting on a variety of food-linked behaviours including increased food consumption and food-based decision making.^[81] The mechanism of action likely involves the dopamine pathway via the ventral tegmental area acting on the nucleus accumbens (NAc) dopamine system, with ghrelin directly activating key reward pathways.^[82]

Using TRAP2 mice, ghrelin-activated neurones in the brain have been identified with most activation found in the arcuate nucleus. Chemogenetic stimulation of this ensemble of neurones with clozapine-N-oxide increased food motivation and intake, and was also associated with the unpleasant feeling of hunger.^[83]

Weight gain is experienced by many patients on anti-psychotic medications. Activation of the neurons responsible for food seeking behaviour may be responsible for this and a potential target for managing side effects.

Dr Harriët Schellekens – Ireland

Microbiome-gut-brain axis in nutritional psychiatry

The evidence for the role of the microbiome-gut-brain-axis in nutritional psychiatry is small but growing.^[84] Studies show the microbiome can shape brain activity and behaviour, suggesting a link between the microbiome and mental health.^[85, 86, 87] Research suggests the mechanism is via mediation of the hypothalamic-pituitary-adrenal (HPA) axis with several factors, including exercise, food, medication, and stress impacting the microbiome, which in turn impact mood and behaviour.^[88, 89] Efforts to identify psychobiotics, i.e., microorganisms producing metabolites that have a psychotropic effect, remain challenging.^[90, 91, 92] An alternative approach, psychobiotic diets, enhancing the existing microbiome through prebiotics has also been explored.^[93] Understanding the mechanisms involved and the role of the microbiome and metabolites could provide an approach to personalised nutritional psychiatry.

We live in a microbial world, with more than 100 trillion on or in our bodies, weighing approximately the same as the human brain (2kg) with the genome of the microbiome outnumbering our own genes 150:1 – making the microbial genome more medically accessible than the human genome.^[94]

Using a pharmaceutical approach, a strain of bacteria, *Bifidobacterium longum* APC1472, can attenuate ghrelin receptor internalisation.^[95] These receptors are G protein-coupled receptors (GPCRs)^[90, 96, 97] GPCRs, involved in a variety of functions from stress to nutrient sensing.

Animal obesity studies found supplementation of diet with *B. Longum* ACP1472 improved markers of metabolic health and levels of the stress hormone corticosterone. In human studies, improvements in blood glucose levels were observed. Obese participants showed improvement in cortisol awakening response, demonstrating real potential for the use of microbiome targeted approaches to managing

psychiatric health through supplementation.^[98]

Professor Jan Buitelaar – Netherlands

The association between dietary composition and behavioural disorders

Attention deficit hyperactivity disorder (ADHD) is a childhood disorder characterised by early onset of inattention, particularly hyperactivity. Some dietary interventions have shown some promise. Research has suggested diet may be a complementary management approach alongside medication. Challenges to identify an accessible diet and understand the mechanism of action remain.

Research shows children with ADHD have lower levels of Omega-3 fatty acids, with meta-analyses suggesting supplementation may provide some benefit.^[99] However, Omega-3 supplementation is not always tolerated due to side effects.

Micronutrient supplementation has shown potential with research demonstrating improvement in attentiveness, aggression, and emotional regulation. The risk of vitamin overdose limits widespread recommendation and further research is required.^[100]

Studies have shown elimination diets, removing some food colourants and preservatives from the child's diet, have shown a small benefit to children with ADHD.^[99] Very strict, severe elimination diets removing allergens like milk, eggs and nuts have shown strong short-term effects.^[101] Challenges in diet adherence limit the recommendation of these approaches.

Evidence suggests that diet should not be viewed as a stand-alone treatment. Provisional results comparing a strict elimination diet, standard healthy eating, and care-as-usual found that while the standard healthy diet showed some benefits, care-as-usual was still superior.^[102]

Dietary Approaches to Hypertension (DASH), a diet high in fruits and vegetables, low-fat dairy, and low amounts of simple sugars, was associated with lower ADHD symptoms.^[103] Given this dietary approach is accessible to many, not overly restrictive, and suitable for all the family, it could be a

potential complementary approach to ADHD management alongside medication.

The mechanism of action remains unknown with further research required but is likely multifactorial including impact on the immune system, microbiome, and brain structure.

DT02: MICRODOSING PSYCHEDELICS - DOES IT WORK?

This was a debate with speakers for and against the topic followed by audience discussion.

Microdosing (MD) is defined as taking tiny, repeated doses of a substance ranging from 10-20 mcg for lysergic acid diethylamide (LSD) or <1-5 mg of psilocybin without producing hallucinogenic effects. Psychedelics have been used for millennia and since Dr James Fadiman's book in 2011, many people have begun self-experimenting with MD. Although there are many anecdotal reports of increased energy, well-being, concentration, creativity, and language capabilities, there is a lack of definitive evidence to support MD. Challenges with blinding and naturalistic study design have led to a lack of strong evidence on the efficacy of MD. Developing trials to adequately blind and reflect the "real-world" use of MD with variables including dose, other medications, and lifestyle factors is challenging but required to determine if MD is an effective approach to managing mental health conditions.

Pro: Dr David Erritzoe (United Kingdom)

Evidence suggests that even at low dosages, psilocybin can act on the 5-HT_{2A} (serotonin) receptor, providing a potential mechanism of action for MD.^[104] Caution exists given that serotonin-2B receptor agonism is linked to cardiac issues, and the potential harm of MD should be explored.^[105]

In attempts to study the naturalistic conditions of MD, data were collected prospectively from participants over four weeks, with reported improvements in well-being and decreases in depression and anxiety. The expectation of positive outcomes increased reported well-being meaning the placebo effect cannot be discounted in this non-blinded study.^[106]

To overcome expectation bias, a self-blinding citizen science project was carried out.^[107] Over four weeks, improvements in mindfulness and other scores were achieved but were non-significant when compared with placebo.

Expectation plays a key role in perceived response across MD and placebo arms, with a need for larger studies with controlled blinding to accurately determine efficacy. This expectation bias may exist in other medications and should be considered not only for MD but across all clinical trials.

Con: Dr Kim Kuypers – Netherlands

MD products are widely available in the Netherlands with users citing a wide range of reasons for use including mood, concentration, and creativity^[108] and concerns including dependence, increased anxiety, substance quality, and unpleasant off days when not microdosing.^[109] Microdosers have self-reported improvements in quality of life in conditions like ADHD and anxiety, but not in autism, OCD or bipolar disorder.^[110]

Naturalistic studies of psilocybin using other varieties of mushrooms as placebos, showed wellbeing benefits were linked to expectation.^[111, 112, 113, 114, 115] EEG analysis showed decreased power in theta waves (4–8 Hz) when eyes were closed only, and could potentially explain positive effects in learning and understanding.^[116]

Given the impacts of expectation on self-reported outcomes of MD, efforts to explore objective outcomes are ongoing, but have mainly focused on acute effects. However, these studies may provide insight into a potential mechanism of action. Studies using fMRI have shown changes in brain resting state connectivity after a single micro dose of LSD with changes in connectivity between amygdala and prefrontal cortex correlating positively with the change in mood, similar to results seen with higher doses of LSD.^[117] Increased plasticity for at least six hours after LSD intake was also observed.^[108] Positron emission tomography (PET) scans after a single small dosage of psilocybin (3–30 mg) confirmed binding at 5-HT_{2A} receptor sites, within 1 hour of ingestion.^[104]

Given the lack of research exploring objective measures in repeated dosing, many unanswered questions remain,

including the risk of developing intolerance or adverse events, differences in responses between the sexes^[118], and differences in aging^[113].

To answer many of these questions, studies reflecting the real-world usage of MD (i.e., not in the lab, doing regular activities and use of caffeine, alcohol, smoking and other pharmaceuticals) should be designed. These studies will need to tackle the challenge of blinding, to manage expectation bias and consider more ecologically valid measures like story writing and natural language used as outcome measures in addition to hormones, neuroplasticity and immune systems biomarkers.^[119]

PL02: MENTAL HEALTH AND WAR - IMPACT ON DISPLACED PEOPLE

Professor Unnur Anna Valdimarsdottir – Iceland

Some of the major issues of war and terrorism are disruption of education and career pathways, loss of family members, poverty, loss of possessions, uncertainty of future and social isolation.^[120] Research has shown war migrants are at long-term increased risk of physical and psychiatric health conditions. With over 100 million forcibly displaced people globally, including around 40% under the age of 18, there is an urgent need to address their immediate mental and physical healthcare needs.^[121] Long term health surveillance, treatment and studies exploring the health sequelae of war migrants is required to improve refugee lifelong health outcomes.

Psychiatric illness is common in war refugee populations with recent meta-analyses finding over 30% prevalence of PTSD and around a quarter showing clinical signs of depression.^[122, 123] A key risk factor is response within a host country, with those who have experienced verbal or physical attacks twice as likely to have poorer emotional wellbeing.^[122] Children were also found to show signs of PTSD (23%) with those more recently displaced and those in refugee camps at higher risk than individuals with settled status.^[124]

Recent research compared the long-term impact on the mental and physical health of Balkan war refugees to other European migrants who emigrated from 1991–2001.^[125] In

total, 250,000 migrants to Sweden were followed to control for many of the standard challenges of immigration, like the language barrier and access to healthcare. The risk of PTSD was particularly higher in war migrants (HR, 8.15), with those travelling later in the war were at an even higher risk (HR, 21.87).

In general, those who migrated earlier in the war were at less risk from a variety of conditions. There is some suggestion that less exposures to war along with early arrivals being more welcomed and supported in the destination country may explain this disparity.

The risk of PTSD in war migrants was ongoing with refugees found to be at higher risk (HR, 5.43) at 10 years after migration from the Balkans.

Physical health was also severely impacted in war migrants, with an increased risk of cardiovascular disease (age-adjusted HR, 1.44) and cancer (age-adjusted HR, 1.26) observed, with an additional risk factor being migration without a support network, with long-term risks remaining over time.

CS04: MEDICAL PROSPECTS OF CANNABIS PRODUCTS, CANNABINOIDS, IN PSYCHIATRY AND ADDICTION MEDICINE

Disclaimer: It should be noted that the current level of evidence in mental health indications remains insufficient to recommend routine use of cannabinoids as a therapeutic treatment. Therefore, their use should be evaluated on an individual basis when standard therapies have not shown success.

Professor Jorgen Bramness – Norway

Cannabis and cannabinoids for mental health indications: evidence of effect and adverse events

Claims about cannabis have been around for millennia, with sensational media statements leading patients to self-experiment. A definition of “medicinal cannabis” is lacking; research has explored a variety of different products, making a determination of active compounds

in any observed result complex. Additionally, many studies are linked to the cannabis industry, impacting on their independence. ^[126] Cannabis contains a variety of cannabinoids including tetrahydrocannabinol (THC) and cannabidiol (CBD), with many more synthetic cannabinoids entering the market. It is essential to understand the activity of each and determine if the ratio of cannabinoids present is vital to any medical function. With growing evidence of the role of cannabis in some physical health conditions, more research is required to determine the potential of medicinal cannabis in the treatment of psychiatric diseases.

Medicinal cannabis products are now widely available for use in much of Europe and the US. However, strong evidence of efficacy is limited to conditions including spasticity and other symptoms in patients with multiple sclerosis, nausea after chemotherapy, difficult childhood epilepsy and glaucoma. ^[127]

Some weak evidence exists for the potential for medicinal cannabis to be used in psychiatric disorders, including PTSD (CBD) and ADHD (THC). ^[128, 129]

Despite PTSD being a risk factor for developing cannabis use disorder which can worsen PTSD symptoms, ^[130, 131] research has shown the benefit to sleep and reduction in nightmares ^[132], with a meta-analysis reporting some evidence for reduction of fear and depression in PTSD. ^[133]

THC is linked to psychosis, and high dosage CBD may prevent some THC-induced psychosis at levels of 400:1 (CBD:THC), much higher than would be found in “normal” medical cannabis (1:200). ^[134] This link does not mean CBD should be viewed as an antipsychotic, and there is no evidence to support prescribing medical cannabis in schizophrenia ^[135] with cannabis use a known risk factor for developing schizophrenia. ^[136]

Many ADHD patients self-medicate with cannabis and claim to have improved sleep; however, research suggests cannabis may worsen sleep in women. ^[137]

Adverse events including worsening depression, increase in anxiety and mixed results on cognition depending on THC:CBD ratio are commonly reported demonstrating the importance of future research exploring adverse events, the

role of individual cannabinoids, and identifying THC:CBD levels that may impact on efficacy and safety. ^[138]

Dr Albert Batalla – Netherlands

Prescription of cannabinoids in psychiatry: How do we cross that door?

Clinicians are reporting that more and more patients are asking for access to medical cannabis, but very few know how to prescribe it. Currently, there is no official indication for medical cannabis in psychiatry; however, many patients are self-medicating, and their treatment and management remain an unmet need.

In the Netherlands, where medical cannabis has been legal for 20 years and where 130,000 claim medical use of cannabis, only 5% have a medical prescription. ^[139]

Cannabis, including synthetic cannabinoids and medicinal and recreational products, is available in many different forms with widely varying amounts of THC and CBD (<1–22% THC, <1–9% CBD), CBD capsules (300–1000 mg) and sprays (2.7 mg THC : 2.5 mg CBD) and all likely to have slightly different effects and mechanisms of action. ^[140]

When presented with patients already using cannabis, it is vital to consider harm reduction strategies. For patients with psychosis, cessation should be advised. If this is not an option, the next best approach is to suggest using cannabis with lower levels of THC.

Prescribing decisions need to be on an individualised basis and should consider harm reduction, including not dismissing a patient's query, as this may increase the risk of self-medication. Many patients who presented in clinics looking for medicinal cannabis had assumed they were treatment resistant and either started self-medicating with cannabis or were considering doing so. Through listening to their concerns and an in-depth assessment, it may be possible to identify other treatments, including psychotherapy, that should be tried first. Where cannabis is prescribed, shared decision-making and definite goals (sleep, anxiety, depression scores etc.) should be set.

As cannabis use increases, there is a need to standardise how

this is recorded. The iCannToolkit ^[141] has been developed to accurately determine THC and CBD dosage in a similar manner to recording alcohol unit intake.

TUESDAY 28TH MARCH CS05 - THE ASSESSMENT OF THERAPEUTIC INTERVENTIONS USING PROMS AND PREMS

Dr Katherine de Bienassis – France

Improving the effectiveness of mental health care using PROMs and PREMs

Collecting adequate data to demonstrate the efficacy of treatment processes is key and valid measures of person-centred outcomes are vital. The Organisation for Economic Co-operation and Development (OECD) provides many resources in this area ^[142] and collects a wide variety of information, including causes of mortality, hospital beds, and pharmaceutical use. Traditionally, patient-reported outcomes (PROMs) and experiences (PREMs) are rarely measured in a systematic and rigorous way. To overcome this, the OECD introduced the Patient-Reported Indicator Surveys (PaRIS) across three key areas, including mental health, to understand if health systems truly deliver what people need. ^[143] This approach will provide insight into variations in outcomes and experiences across regions and countries, identifying key target areas for policymakers, improving quality of care and putting patients at the centre of healthcare. A pilot study has shown it is possible to collect PREMs data on an international scale, with further work required to develop approaches to collect comparative PROMs internationally. ^[144]

To standardise data collection, PREMs should focus on respect and dignity, communication and relationship with the health team and shared decision-making. Additionally, PROMs should measure relief from symptom burden, restoration of well-being and social function, and recovery support.

A pilot study found 85% of hospitalised and 88% of patients receiving care in the community felt they were treated with dignity and respect. Additionally, 85% of in-patients

and 87% of out-patients felt they had enough time with their health care providers. In terms of feeling involved in decision-making relating to their care, 81% of hospitalised and 88% of community patients felt satisfied, with 78% of hospitalised and 88% of out-patients feeling their care providers explained things in a way that was easy to understand. ^[145]

Collection and comparison of PROMS were more complex, with four countries able to implement new data collection, holding promise for future harmonisation of data collection across the OECD, with all countries reporting significant improvements in subjective well-being items. ^[144]

Professor Elizabetta Scanferla – France

Implementing patient reported measures in a French public psychiatric hospital

Key take-home messages

The GHU Paris Psychiatrie & Neurosciences (GHU) is one of the largest psychiatric hospitals in Europe, with over 61,000 psychiatric patients, 6000 neuroscience patients, and a budget of nearly half a billion euro. The GHU was a key part of the OECD PaRIS working group, where it was their first experience collecting PREMS and PROMS. PREMs and PROMs provided novel and valuable insight that will improve patients' quality-of-care and allow for best practices to be identified and shared. ^[146] A second study expanding into community and child and adolescent services has the potential to improve patient care and outcomes across the whole spectrum of psychiatric patients.

The OCED PROMs and PREMs were collected from a cohort of 248 patients ranging from 18–85 years who spent 14–222 days in the hospital. Some disease-specific PROMs (WHO-5, PROMs for Mental Health Care Related to Well-Being) were also collected. The analysis found the average improvement in wellbeing was 10–15% across all PROM measures (OECD and WHO-5), with patients reporting high satisfaction (80–90%) in PREM analysis. Notably, patients were least satisfied with the time spent with the clinician and involvement in care, suggesting improvements are needed in this area.

A strong correlation between subjective well-being PROMs, and PREMs ($r = 0.331$, $p < .0001$) and a negative correlation ($r = -0.534$, $p < .0001$) between symptom severity were found. Changes in symptoms (Disease-Specific PROMs) were negatively and weakly correlated with PREMS ($r = -0.262$, $p < 0.003$), suggesting PREMs results do not predict PROMs results.

There was much learning from this first experience, including the challenges of involving the most severe and difficult patients, clinicians not fully understanding the value of data collection, and the cost and burden of data collection.

Future work will involve integrating PROMs/PREMs collection into daily clinical practice and will require information technology (IT) and cultural change improvements within the clinic.

Dr Bernd Puschner – Germany

Social inclusion: A fundamental PROM for evaluating recovery-oriented global mental health programmes

Social inclusion is part of many mental health policies, with the United Nations (UN) stating social inclusion is key to meeting its sustainability goals by 2030. Within mental health, four key areas might cause social exclusion: condition-related characteristics, cumulative disadvantage (poverty, life course effects etc.), discrimination and community characteristics. ^[147] To determine which approaches, including shared decision-making, will be effective in improving social inclusion, the collection of meaningful measures of social inclusion in people with mental health is required. The development of culturally appropriate measures of social inclusion remains a challenge with a new social inclusion scale available in multiple languages.

Current approaches to determine social inclusion include Social Inclusion Questionnaire User Experience

(SInQUE) ^[148], Social and Community Opportunities Profile (SCOPE) ^[149], Social Integration Survey (SIS) ^[150], Social Inclusion Scale (SIS), ^[151] and Filia Social Inclusion Measure (F-SIM) ^[152] measuring between 16 and 75 different items.

To improve and standardise measurements of social inclusion, a new scale, the using peer support in developing empowering mental health services (UPSIDES) Social Inclusion Scale, has been developed. ^[153] UPSIDES contains 16 key items with three subscales, social isolation, social relationships, and social acceptance. Most importantly, it has been validated and translated in a culturally appropriate manner into English, German, Luganda, Kishwahli, Hebrew and Gujarati allowing for global comparisons, providing superiority on existing measures where translation was often overlooked. Work is ongoing to collect and analyse the data.

Professor Mike Slade - United Kingdom

Personal recovery, clinical recovery and patient-rated measures

Recovery from a mental illness comes in two main forms, clinical recovery (symptom remission, etc.) and personal recovery (life having meaning, etc.). Clinical and personal recovery in schizophrenia is not identical and may have no correlation, with patient-rated measures and outcomes preferable to clinician-related measures. ^[154, 155, 156] Identification of the best way to measure personal recovery requires further research and may allow for more individualised treatment and outcomes.

The CHIME framework (Connectedness, Hope and Optimism, Identity, Meaning, Empowerment) of personal recovery does not include symptoms, because for many patients symptom recovery is not central to their recovery but places value on items like identity beyond being a patient, and having meaning and purpose to life. ^[157] This may pose challenges for clinicians given the approach to patients assessment and management can often reinforce their identify as a patient – by identifying what is “wrong” with the person and not what is “right”.

Good clinical practice should recognise the difference between clinical and personal recovery, especially as personal recovery is associated with better long-term outcomes and should be a key focus for clinicians. ^[158]

Personal recovery can be monitored using INSPIRE, designed to record how important the support of a mental

health worker is to the recovery of a service user. For those for whom support of health workers is viewed as important this can provide clinical teams with key insights into patient expectations and outcomes. INSPIRE is available in English and 24 other languages – www.researchintorecovery.com/inspire). ^[159]

PL03: THE POWER OF SOCIAL CONNECTION IN PREVENTION

Professor Julianne Holt-Lunstad – United States

Some important definitions:

Social isolation: objectively being alone, having few relationships or infrequent social contact.

Loneliness: a subjectable feeling of being alone, with a discrepancy between the network desired and the network that exists.

Social connection: an umbrella term that encompasses the structural, functional, and quality aspects of social relationships.

According to the WHO, health is a state of complete physical, mental, and social well-being, not merely the absence of disease or infirmity. Lack of social connections is linked to a variety of poor health outcomes and increasing risk of mortality ^[160, 161, 162], with social connection shown to have a protective effect. ^[163] Identifying opportunities to improve social connections and, in turn, improve population health outcomes remains a complex area of public health research.

The pandemic highlighted how humans are social beings and raised many concerns about isolation and loneliness. These issues are not unique to the pandemic. The drive for human contact has produced some theories suggesting loneliness is a biological drive (similar to hunger and thirst) to reconnect socially.

Research has linked a lack of social connection to cardiovascular disease, type 2 diabetes, dementia, cognitive decline, as well as depression and poor mental health. This relationship is believed to be through both

direct and indirect pathways; therefore, prevention is key and population-based interventions are required. ^[162] It was proposed that national health guidelines for social connection should be developed, not dissimilar to current advice on healthy eating, sleeping or exercise, to highlight the importance of social connection in health living. ^[164]

The listening EAR framework has been developed to attempt to improve social connection. ^[165] Educate (patients and clinicians on the seriousness of the issue), Assess (document social connections in electronic health records) and Respond (integrate social support into a treatment plan or refer to resources).

Many issues with social connections are societal. The SOCIAL (Systemic Frameworks of Cross-Sector Integration and Action across the Lifespan) Connection Framework has been developed to overcome these challenges. It recognises all the elements involved in social connections and that every sector of society plays a role. The framework is based on eight key sectors of health, transport, housing, work, nutrition, environment, education, and leisure, as well as five levels of influence: individual, interpersonal, institutional, community, and societal. The intersection between each level of influence and sector allows solutions and approaches to be developed to tackle social connectivity. There is a large knowledge gap, with most existing research only exploring the intersection of the health sector and the individual. ^[166]

SAL05: DIGITAL PSYCHIATRY: DREAM OR REALITY?

Professor Dr Heleen Riper – Netherlands

Digital mental health interventions can help bridge the unmet needs in mental health treatment by improving access and allowing self-management and patient empowerment. Digital psychiatry is widely accepted by both clinicians and patients. One approach blended cognitive behavioural therapy, (bCBT) which combines digital psychiatry and face-to-face CBT, can potentially be more clinically effective and cost effective than traditional approaches.

There are four main forms of digital mental health interventions:

- Asynchronous, unguided (interacting with an interface without personal support)
- Asynchronous, guided (with a specialist offering support, 6–8 sessions)
- Blended (asynchronous and synchronic) – face-to-face and internet models
- Videoconferencing (synchronic home or clinic)

Research has shown that guided and unguided internet-based CBT (iCBT) were more effective than treatment as usual (TAU – not including face-to-face CBT), even after 6 months. For patients with moderate-to-severe depression, guided iCBT was most effective, whereas for patients with mild-to-moderate depression, both unguided and guided iCBT were equally effective. ^[167]

A meta-analysis comparing face-to-face CBT to iCBT across various conditions revealed no significant difference in efficacy ^[168], suggesting iCBT may have a public health benefit through increasing access to difficult-to-reach populations. Further analysis is required to examine health economics and if iCBT can ever be more effective than face-to-face therapy.

A large multinational study has been carried out to compare cost effectiveness of bCBT in a healthcare setting to face-to-face CBT. ^[169] MoodBuster 2.0 was developed specifically for clinical research allowing delivery of treatment, collection of data and provision of feedback. ^[170] Protocols for bCBT were developed based on evidence-based approaches, including how to develop a good working alliance between therapist and patient. ^[171] Results showed no significant difference in the patient-clinician working alliance in bCBT vs CBT, with patients and therapists rating this highly.

The clinical efficacy of bCBT was found to outperform CBT at 6 months, with small but insignificant differences seen at 12 months, suggesting the feasibility of bCBT in the treatment of patients with depression in a cost-effective manner. ^[172]

SAL06: COST-EFFECTIVENESS OF PSYCHOTHERAPIES AND PHARMACOTHERAPIES FOR MENTAL DISORDERS

Professor Paul Mccrone – United Kingdom

Health economics determine if spending on a treatment or therapy is cost-effective and policymakers use economic analyses to decide if a treatment provides value for money regarding cost and outcomes. ^[173] Costs of treatment, or lack thereof, not only apply to healthcare costs but also to the individual, their family, community, and the national economy. Future work should focus on incorporating these costs into models as well as considering better outcomes for disorders such as schizophrenia, where standard measures of outcome may not be the best approach. ^[174]

The most common approach in health economics is cost-effectiveness analysis – whereby two or more forms of care provision are compared, based on cost, to outcomes based on clinician-specific conditions (e.g., PHQ-9 scores) to inform decision-making. However, comparisons between conditions can be difficult if measurable outcomes vary. To overcome this, a cost per Quality Adjusted Life Years (cost/QALY) is used, and while not perfect, QALYs work well for some conditions (e.g., depression) but not others (e.g., schizophrenia).

Ideally, any new technology should improve patient outcomes; however, something of lower cost and with lower outcomes may be considered useful if it means more people have access. Using this approach, the benefits become larger on a population level. In these cases, managing expectations with clinicians and patients is vital.

Economic impacts of mental health problems are not only the financial costs of treatment and clinical care, but also the costs to the individual (and their family) of lost income, career or education, and societal costs through loss of spending in leisure and recreation. These are not always considered when making economic evaluations of health care and this exclusion of societal costs may mean treatments are overlooked due to perceived high individual costs. Future health economics policies should consider better approaches to modelling the impact on society and the individual.

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