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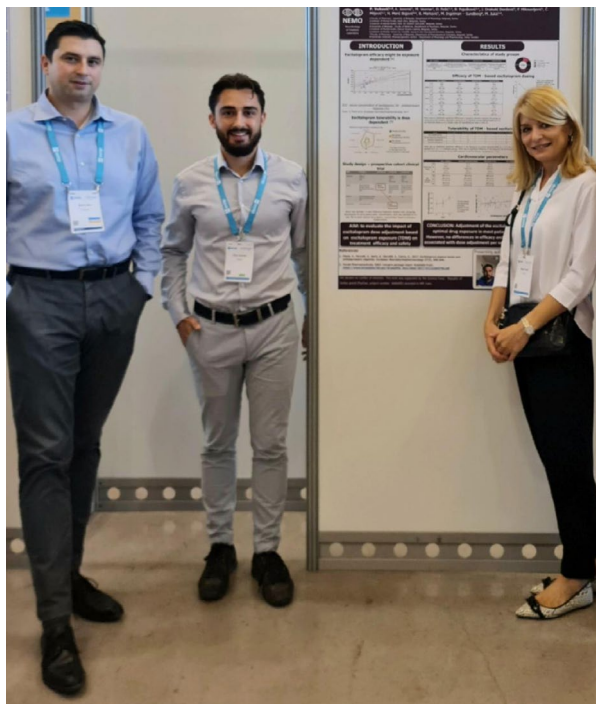
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PREFACE

Between the two issues of the Scientific Bulletin, two major European psychiatric congresses were held - the 31st Congress of the European Psychiatric Association (EPA) took place in Paris, and the 36th Congress of the European College of Neuropsychopharmacology (ECNP) was held in Barcelona. The EPA congress was held in person after a three-year hiatus due to the pandemic, and its theme was „Social Cohesion, a Common Goal for Psychiatry.“ Julianne Holt-Lunstad (USA) delivered the main plenary lecture on the importance of social connectedness in prevention. Other plenary lecture topics focused on mental health, war and refugees, as well as non-suicidal self-injury. Ana Giménez (Spain) and G. Ficco had one of the most notable presentations in Paris, which addressed suicide rates in Europe. According to data presented for the period 2011-2019, suicide rates have been decreasing, from 20/100,000 in 2011 to 16/100,000 in 2019. Lithuania, which was considered the country with the highest suicide rate in Europe, experienced the most significant decline in the suicide rate, with Hungary following closely behind. This is a good indicator that appropriate measures have not only been implemented but have also been effective. The only country (out of 38 included in the study) where an increase in the suicide rate was recorded was Turkey. Marija Spasić Stojaković from the Institute of Mental Health participated in this research.

The ECNP congress is the largest event in the field of applied and translational psychiatry in Europe. This year, the congress attracted nearly 6500 participants from over 96 countries. The congress program was carefully prepared, featuring an inspiring keynote address by Sheena Josselyn and six excellent plenary lectures in the field of applied neuroscience research given by Oscar Marín, Deanna Barch, Asya Rolls, Sergiu Pasca, Peter Goadsby, and Kafui Dzirasa. In total, there were 21 symposia, 23 other sessions, along with Top Paper sessions, educational sessions, career development sessions, and „Love Your Brain“ sessions.



At the 36th ECNP Congress, the results of research conducted in recent years at the Institute of Mental Health and the Faculty of Pharmacy at the University of Belgrade were presented. An excellence award was given to the poster presentation of MD Petar Vuković, Assoc. Prof. Marin Jukić, and their collaborators for the research entitled „Impact of personalized dosing based on quantification of drug plasma levels on the efficacy and safety of treatment with escitalopram.“

ECNP also awarded the Achievement in Neuropsychopharmacology award to Oscar Marín from the United Kingdom for his research in the field of cortical maturation and neurodevelopmental disorders. One of the areas he focuses on is the procedures for correcting the dysregulation of interneurons in schizophrenia.

The next 32nd Congress of the European Psychiatric Association will be held in Budapest, and the location for the 37th Congress of the European College of Neuropsychopharmacology will be Milan. We hope that the research conducted at the Institute will be recognized at future congresses, and we congratulate the award recipients.

MD, PhD Nađa Marić Bojović

OUR RESEARCH

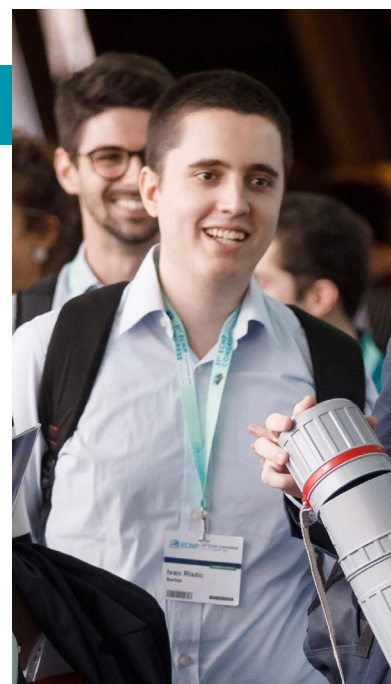
DO PEOPLE DIAGNOSED WITH PSYCHOSIS SPECTRUM DISORDERS SHARE THE SAME PERSONALITY SPACE AS THE GENERAL POPULATION?

In the January 2023 issue of the *Journal of Personality*, Ivan Ristic, MD from the Institute of Mental Health and colleagues published an original research paper titled: „Do people diagnosed with psychosis spectrum disorders share the same personality space as the general population? Big Five complemented by the proneness to psychotic-like experiences/ behaviors“.

The authors emphasize that the currently most influential model for assessing basic personality dimensions is the Big Five model (Neuroticism, Openness to Experience, Extraversion, Conscientiousness, Agreeableness). This model is typically assessed using the NEO PI-R questionnaire consisting of 240 questions with responses on a Likert scale of 1-5. This model has been examined in various populations, both the general population and in patients with psychotic spectrum disorders. However, there are certain indicators that this model does not fully capture the personality variance, and that a

comprehensive assessment of fundamental dimensions should also include an evaluation of the proneness to psychotic-like experiences/behaviors, which has been conceptualized in various ways throughout the history of studying this construct (schizotypy, psychoticism, oddity, etc.). One of the recent reconceptualizations of this construct is Disintegration, proposed by Prof. Knezevic from the Department of Psychology at the Faculty of Philosophy in Belgrade. The individual differences described by this personality dimension imply a tendency to perceive, think, or feel connections between factually (logically) unrelated phenomena (apophenia or false positive error in detection). Disintegration is hierarchically composed of nine subdimensions: General Executive Dysfunction, Perceptual Distortions, Enhanced Awareness, Apathy/Depression, Paranoia, Mania, Flattened Affect, Somatic Dysregulation, and Magical Thinking. The questionnaire used to assess this construct is DELTA, consisting of 120 questions with responses on a Likert scale from 1 to 5.

The aim of this study was to investigate whether individuals with psychotic disorders and individuals from the general population belong to the same personality space, meaning whether the number and structure of personality dimensions are invariant between these two samples. According to the authors, one



study on this topic has been conducted so far (Cicero et al., 2019), but indicators of Openness to Experience (O) were excluded from the study, which is a significant oversight given the previously intensively discussed relationship between O and Proneness to psychotic-Like experiences/ behaviors.

In this study, the clinical sample consisted of 161 patients with psychotic spectrum disorders (ICD-10 diagnoses F20-F29, F31, F32.3, F33.3) who were in stable remission at the time of testing. The general population sample (n=409) was randomly selected from a representative sample of the Serbian population previously collected for the purpose of determining national norms. The samples were matched for age, gender, and level of education. Exploratory Structural Equation Modeling (ESEM) was used to test factorial invariance between the groups.

The results showed that both examined groups belong to the same personality space - config-

urational invariance (the number of factors does not differ between groups) and metric invariance (factor loadings are equal between groups) were achieved. Additionally, all nine subdimensions of Disintegration had primary loadings on the Disintegration dimension – if the Disintegration dimension did not represent a real and coherent personality dimension, the subdimensions would show loadings on the Big Five factors instead.

Another interesting finding is that in this study, no quantitative difference was found in the Disintegration dimension between the two examined groups (as well as in the Neuroticism dimension). For this finding, the authors provide two hypotheses - the specificity of the representative sample of the general population (which also includes individuals with psychotic characteristics) and the status of stable remission in the patient group, with a tendency to minimize personality characteristics that could be related to psychotic symptoms.

The authors also note certain limitations of this study: 1) there is significant heterogeneity in describing and studying the construct of Proneness to Psychotic-Like Experiences and Behaviors, making it questionable to compare these results with studies using other instruments; 2) most other personality studies include only patients with schizophrenia, while this study encompassed the entire psychotic spectrum; 3) the possibility of the influence of cultural factors due to the use of a exclusively from Serbia.

In conclusion, the authors state that this study lays the foundation for further analysis of Disintegration in the population of patients with psychosis spectrum disorders, and that future research has the potential to improve diagnosis, treatment, and provision of individualized approaches for these patients through the addition of this instrument.

● THE PROMISING PROJECT

Assist. prof. **Martina Sekulić Sović, PhD**
Faculty of Humanities and Social Sciences,
University of Zagreb, Department of
Linguistics

WHAT IS DISCOURSE?

The international scientific consortium „DISCOURSE in psychosis“ has brought together research centers from around the world to study thinking, language, and communication in psychosis spectrum disorders. Jelena Vasić, MD discussed the project with assist. prof. Martina Sekulić Sović, PhD from the research team of the University Psychiatric Hospital „Vrapče“ in Zagreb.

Can you tell us more about the role of psycholinguistics in the research and therapeutic approach to psychotic disorders?

In the field of psychotic disorders, psycholinguistics plays a role in identifying and classifying linguistic markers through experimental research on language production and comprehension. Although previous research indicates atypical structure and function of language processing in psychosis, the exact nature and mechanisms are not yet scientifically understood. Due to the evident

speech and language dysfunction, there is currently a surge in research attempting to identify specific changes and their potential place in diagnostic and predictive models.

How was the „DISCOURSE in psychosis“ initiative formed, and were there similar projects in our linguistic area and the world? What prompted you to get involved?

The leading experts in the field: Lena Palaniyappan, Wolfram Hinzen, Emre Bora, Eric Tan, Gina Kuperberg, Iris Sommer, and Natalia Mota established the global initiative „DISCOURSE in Psychosis“ in 2020. The initiative is focused on studying thinking, language, and communication alterations in psychosis through multimodal data collection. Professor Brian MacWhinney, as part of his „Talk Bank“ project, has established many multilingual clinical and non-clinical linguistic databases, and this project is the first to collect



samples of speech and language in schizophrenia. I believe that through international collaboration and a coordinated approach to shared data, we can gain a better understanding of the mechanisms and assessment of speech and language alterations.

What are the main goals of this project?

The main goal of the project is to establish the first multilingual database of speech and language in schizophrenia based on a standardized protocol. The „DISCOURSE in Psychosis“ initiative involves interdisciplinary teams from around twenty countries, with experts and scientists from the fields of psychiatry, neuroscience, linguistics, phonetics, psychology, information sciences, electrical engineering, and computer science. Based on the data collected using the Protocol in the Croatian language (Sekulić, Sović & Savić), linguistic patterns will be analyzed from phonetic, lexical-semantic, morphosyntactic to pragmatic levels and correlated with other clinical, cognitive, and socio-demographic data. I would like to thank my colleagues from the „Vrapče“ University Psychiatric Hospital, Director Prof. Brečić, Assist. Prof. Ostojić, and colleague Savić, with whom we have been collaborating for many years. Additionally, I must mention that I

am extremely pleased that starting this year we have managed to expand our collaboration with the Institute of Mental Health in Belgrade.

What do you consider to be the biggest challenges in implementing the research protocol?

The ultimate goal is to improve the clinical assessment of patients and enhance long-term outcomes, which includes establishing common guidelines for assessment and analysis and supporting proactive data sharing. The biggest challenge of this project is involving a large number of interdisciplinary research groups and expanding research into the specific interests of individual research teams.

Do you believe that the research results will have clinical applications?

The collected data will primarily be used for scientific and educational purposes. The greatest contribution of this project lies in the development of potential speech and language markers that could address key research questions in the field and, of course, potentially enable more detailed clinical assessment of patients.

● GUEST OF THE INSTITUTE

Luka Juraš

NEUROSHARE NETWORK - AFFECTIVE COGNITIVE TRAINING: NEURAL, COGNITIVE, AND BEHAVIORAL EFFECTS

As part of the Institute of Mental Health's initiative to join the Neuroshare network, which operates within the CEEPUS program (Central European Exchange Program for University Studies), the Institute hosted Assistant Luka Juraš. Mr. Juraš comes from the Section of Experimental Psychology, Department of Psychology, Faculty of Humanities and Social Sciences, University of Zagreb. He presented an ongoing project titled „Affective Cognitive Training: Neural, Cognitive, and Behavioral Effects“, funded by the Croatian Science Foundation. The project is led by Assoc. Prof. Andrea Vranić, who is also the coordinator

of the Neuroshare network. After the lecture and a live discussion, we conducted a brief interview.

How did you decide to do research in the field of cognitive training?

While traditional beliefs emphasized the immutability of the nervous system in adulthood, today we know that our brains create and change neuronal connections, adapting their activity to respond to new situations and environmental changes throughout life. In this context, cognitive training research is of great importance to better understand the brain's capacity for plas-

tivity. Additionally, cognitive training research represents the most methodologically sound psychological approach to understanding how the cognitive and nervous systems respond to changes in environmental demands.

What are the main goals of your project?

In our project, we aim to answer five questions related to plasticity: 1) What levels of plasticity can be induced by training (neural, cognitive, behavioral)? 2) What processes/mechanisms underlie plasticity? 3) Is training-induced plasticity stable over a six-month period? 4) Can the training effect be generalized to untrained abilities (the question of transfer)? 5) How do individual characteristics affect training-induced plasticity?

What are the main results you have obtained (so far)?

Data collection is still ongoing, so we cannot draw final conclusions yet. Current results show that individuals who participated in the training achieve better results on tasks related to the abilities they trained but do not demonstrate a transfer of training effects to untrained abilities. However, these results are based on a relatively small sample, and it is possible that some trends that are currently not significant may become significant with a larger sample. On the other hand, even if there is no transfer to untrained abilities in the entire sample, these results would be significant in the context of the current popularity of mobile applications based on similar tasks. In that case, a clear implication would be that people aged 50-65 may not benefit from such activi-

ties, and alternative forms of cognitive empowerment may be needed.

How has collaboration within the Neuroshare network contributed to the improvement of your team?

These exchanges have allowed us to acquire additional knowledge and skills necessary for various activities within our project. First and foremost, team members received additional training in collecting and analyzing EEG data. Additionally, within the network, several research collaborations related to cognitive training and the use of non-invasive transcranial stimulation were established. Given the rich and diverse experience of partners within the network, we have also received additional education on advanced statistical analyses, which will be necessary for data processing in our project.



● MASTER'S THESIS

Snežana Mrvić, psychologist
Institute of Mental Health in Belgrade



What belongs to the complementary and alternative treatment methods (CAM) and what prompted you to deal with the psychological foundations of CAM?

CAM stands for a group of different medical and health systems, practises and products that are not currently considered part of mainstream medicine. CAM treatments that are legalised in Serbia include: Ayurveda, acupuncture, homoeopathy, traditional Chinese medicine, phytotherapy, quantum medicine, chiropractic, aromatherapy, yoga, etc.

The World Health Organisation believes that CAM should play an important role in the provision of health services, but at the same time recognises the need for more detailed regulation of this field and its better integration into the health system. My mentor, Prof. Marija Branković, conducted a study on CAM trends at the Faculty of Media and Communication. In her study, the respondents were students and professors of psychology, which encouraged me to extend this topic to clinical patients and healthcare workers who are directly involved in the traditional medical care system.

The sample I studied included two groups of respondents: a subsample of inpatients from three clinical departments at the Institute of Mental Health (N-116) and a subsample of health workers and associates working at the Institute of Mental Health (N-102). We selected several relevant variables that have been shown in previous research as good predictors of the tendency to use CAM, namely: self-confidence, personality traits and cognitive styles (rational and intuitive).

What were the basic hypotheses of the master's thesis?

The hypotheses we set up were as follows:

H1: Patients treated on a psychotic ward are more susceptible to belief in CAM, compared to patient groups on neurosis and addiction wards, as there is evidence that belief in CAM has a common basis with paranormal beliefs.

H2: Patients who have higher levels of intuitive thinking will be more prone to irrational health beliefs, as previous research in Serbia has shown a positive association between in-

tuitive cognitive style and CAM beliefs.

H3: Health workers and associates will have more sceptical attitudes towards CAM compared to the clinical population. This assumption is based on previous studies indicating that health professionals themselves show a certain degree of scepticism when recommending and using CAM due to the potential risk involved.

In your opinion, what are the most important results of this survey for the whole sample and were there any differences between the two groups of respondents?

In line with the original hypothesis, cognitive style proved to be a good predictor of CAM tendencies, i.e. people who resort to alternative treatments are more likely to be guided by their intuition, which was found for the whole sample. Looking at the sub-sample of healthcare workers and associates employed at the Institute of Mental Health, the results show a negative correlation between age and the tendency to CAM. More specifically, the older the health workers are, the less likely they are to rely on the use of CAM in the mental

health domain. The explanation for the results we obtained can only be reduced to the level of assumption that older health workers themselves are less inclined to resort to and subsequently recommend the use of CAM. This could be explained by the experience of older health workers in treating mental health problems with conventional methods, the need for better scientific scrutiny of alternative treatments, and a more conservative attitude towards the treatment of mental disorders. This result could be confounded by years of service. Thus, the final results of our study show that age, intuitive cognitive style and openness to experience as personality trait are good predictors of the propensity to use CAM. The differences in the propensity to use CAM between clinical departments and healthcare workers are not statistically significant. Throughout the sample, respondents showed a moderate preference for CAM, which can be interpreted as a reluctant attitude but at the same time an openness to try it if there is enough convincing evidence.

Are there similar studies looking at health workers and associates and what did they find?

In 2012, a survey was conducted in Serbia, the aim of which was to investigate the attitudes of health workers (medical, dental and pharmaceutical) regarding CAM treatments. However, there was no survey aimed at investigating health professionals' preferences towards CAM in the field of mental health. A survey conducted in Sweden in 2020 explored the attitudes of healthcare professionals in mental health facilities towards

CAM treatments and showed that 62% of respondents reported using or recommending some form of CAM in their mental health unit. The main reason why some health professionals gave up recommending CAM to patients is the lack of trained professionals. It is also important to mention the study conducted in New Zealand in 2009, which also investigated the attitudes and knowledge of health professionals in the field of mental health with regard to CAM. The results found that the doctors who recommended CAM in a higher percentage differed by age, gender and the place where the doctor works. Younger female doctors working in the local community (rather than in large clinical centres) were more likely to recommend CAM.

What would you focus on in future work on this topic?

For future research, it would be important to distinguish between the general attitudes of medical staff towards CAM treatments and their willingness to recommend them. Personality traits (honesty, emotionality, extraversion, cooperativeness, conscientiousness and openness) were measured using the HEXACO personality model operationalised by the IPIP mini-inventory. Disintegration should also be included in future research, as one of the hypotheses was that patients treated in the Department of Psychotic Disorders are more likely to use CAM (we found the starting point for this hypothesis in the research of Stanković and associates in which Disintegration, i.e. the tendency towards psychotic experiences, was shown to be the only trait reflecting irrational thinking, and therefore related to CAM).

● FROM THE BOSTON POSTDOC PERSPECTIVE

Assist. prof. Milutin Kostic



First of all, why I am here. I received a Fulbright scholarship to do research in the US for 9 months. The process to get this starts with a project proposal that has to go through three reviews before final acceptance. My proposal was about the over-prescription of tranquillisers and antidepressants and the factors that influence this. I received a letter of invitation from Prof. Lisa Cosgrove to do this work with her at the University of Massachusetts Boston. Prof. Cosgrove is a psychologist who has specialised in research for over 10 years. Her main interest is in the over-prescription of medication and the over-diagnosis of depression. She has also published a book on financial interests influencing these trends and is generally very active in the field of patients' rights, having been an advisor to the UN Special Rapporteur on the Right to Health. A mix of psychiatry, pharmacology, ethics and philosophy all in one. Interestingly, she is a member of a department at her university called Counselling and school psychology. So in the huge field of work she is involved in, her department has little to do with her work in name. But not only that: her department also includes an athletic leadership programme funded by New Balance, whose headquarters are in Boston. So it is a very eclectic mix, quite different from the concept of the departments in Serbia. This is precisely why Prof. Cosgrove runs her own Bioethics and Human Rights Laboratory (BEHR) and focuses on her research work from there, while in the department the emphasis is on education.

At the very first meeting of the BEHR team, Prof. Cosgrove postulated that research is based on things that piss us off. I was fortunate that Prof. Cosgrove involved me in several of her projects, and I also brought in some of my own.

The work I will be leading is: firstly, statistical analysis and writing papers based on the infor-

mation collected in a large study of 1700 patients who answered a semi-structured questionnaire about their relationship with medications and diagnoses. Six hospitals from Serbia participated in this study, as well as one from Montenegro, one from B&H and four from Croatia. The preliminary results of one third of the sample were presented at the Serbian National Congress of Psychiatry a year and a half ago, and it is planned to complete the entire data base during this time.

The second issue is the question of medicalisation and decriminalisation of previously illegal substances. Over the last 10 years, intensive research has been conducted on (mostly still) illegal substances such as ketamine, psilocibine, MDMA and marijuana in the treatment of depression and anxiety. Our plan is to investigate parallel experiences, as these drugs have been decriminalised in some countries. Our hypothesis is that there is a greater risk of abuse when a substance is medicalised, i.e. when it is classified as a medicine, because this reduces the stigma and fear of adverse effects that would still be present with pure decriminalisation. This could lead to abuse among certain groups of people, where long-term use does more harm than good. They might start using the substance chronically instead of never using it or only using it recreationally. We have the example of the opioid epidemic in America, where large numbers of people became addicted to these drugs and heroin because they thought they were taking medication, „a good substance“, rather than a street drug like heroin, a „bad drug“. Although medicines and heroin target the same receptors and act in the same way and therefore carry the same risks, a linguistic distinction was made that lowered people's awareness. In Serbia, I think we have the same story with the massive use of benzodiazepines,

tranquillisers that have all the characteristics of a street narcotic, are sold illegally on the streets in many countries and, unfortunately, because they are called medicines, are considered by many of our compatriots without sufficient fear of addiction and other adverse effects. Partly to blame for this are, of course, the doctors who do not take enough time to explain these risks.

The third paper I will work on is a critique of the discussion of the merits of the serotonin hypothesis in depression. Namely, that the discussion itself is problematic because the methodological basis of all the studies that address this hypothesis do not answer the question they claim to answer. Even if these studies were to show that serotonin is lowered in depressed patients (so far the evidence is thin to non-existent), that still

doesn't tell us that serotonin is lowered in depression, but in people who have the symptoms that can occur in depression and which can be entirely physiological, such as sadness and loss of will. In order to claim that something is pathological and not a physiological marker for that condition, we would have to compare depressed people with sad people and not with healthy controls. This is, of course, methodologically and ethically extremely complicated, almost impossible, and so psychiatry is stuck in this debate, which is based on false assumptions from the start.

Along with the research, I plan to make contacts that will hopefully help the Institute, the University and Serbia, but more on that in the next Bulletin.

INTERNATIONAL NEWS

Cumulative risk for psychiatric disorders: analysis of population studies from 29 countries

Numerous mental disorders typically first emerge in childhood and adolescence, unlike most other non-communicable diseases that usually begin in later adulthood. Examining the patterns of their occurrence is significant for several reasons, such as providing an adequate combination of services for specific groups and a better understanding of risk factors specific to these crucial parts of the life course. Information on the frequency and timing of mental disorders onsets across the lifespan is of fundamental importance for public health planning and improvement.

The most comprehensive data on age of onset, lifetime prevalence and morbid risk of common mental disorders to date were reported in 2007 by the The World Mental Health (WMH) survey collaborators on the basis of data obtained from coordinated community epidemiological studies in 17 countries <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2174588/>

In the following years, the aforementioned research group collected data from an addition-

al 13 countries (74989 more participants) and integrated them with previous data to update and improve the estimates of the age of onset of mental disorders, their distribution, lifetime prevalence, and morbid risk.

McGrath and colleagues, along with collaborators from the WMH Initiative, published a paper entitled „Age of onset and cumulative risk of mental disorders: a cross-national analysis of population surveys from 29 countries“ in the September issue of the „Lancet Psychiatry“ (IF 64.3) 2. They analyzed data from adult participants who took part in a series of community-based epidemiological studies coordinated by the WHO between 2002 and 2022. The Composite International Diagnostic Interview (CIDI) from the WHO was used to assess the age of onset, lifetime prevalence, and morbid risk of 13 DSM-IV disorders (including panic disorder or agoraphobia, generalized anxiety disorder, post-traumatic stress disorder, social phobia, specific phobia, major depressive disorder, bipolar disorder, alcohol use disorder, alcohol dependence, substance use disorder, ADHD, intermittent explosive disorder) until age of 75 years by sex. The surveys were geographically clustered and weighted to adjust for selection probability, and standard errors of incidence rates and cumulative incidence curves were cal-

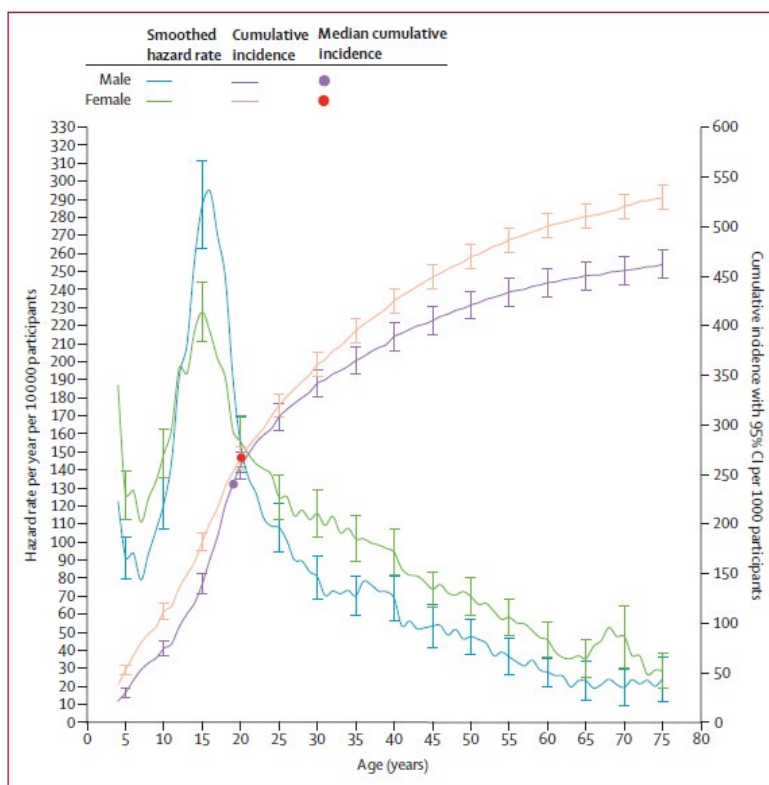


Figure 1: Smoothed hazard rate per year of age and cumulative incidence of first onset by age and sex for any mental disorder

culated using the jackknife repeated replications simulation method. The incidence rate at a certain age was defined as the number of people with the onset of the disorder divided by the number of people who had not had that disorder up to that age, allowing for the calculation of cumulative lifetime risk by gender. Estimates of the lifetime risk of illness were derived from cumulative risk curves.

The sample consisted of 156,331 participants from 32 studies conducted in 29 countries (12 low and middle-income countries and 17 high-income countries). Female participants made up 54.5% of the sample (n = 85308), and 45.4% were male participants (n = 71023). The overall weighted response rate was 63.6%.

The lifetime prevalence for any mental disorder was 28.6% (95% CI 27.9-29.2) for males and 29.8% (95% CI 29.2-30.3) for females. The lifetime prevalence of any anxiety disorder was 11.3% (95% CI 10.9-11.7) for males and 18.8% (95% CI 18.3-19.2) for females, and for any mood disorder, it was 9.5% (95% CI 9.2-9.7) for males and 15.4% (95% CI 15.1-15.7) for females. The three mental disorders with the highest lifetime prevalence for males were alcohol abuse (13.7%, 13.3-14.1), major depressive disorder (7.5%, 7.2-7.7), and specific phobia (5.0%, 4.8-5.3), while for females, they were major de-

pressive disorder (13.6%, 13.3-13.9), specific phobia (10.0%, 9.7-10.2), and post-traumatic stress disorder (5.4%, 5.2-5.7).

Conditional probabilities of first onset of any mental disorder peaked at approximately age 15 years, with a median age of onset of 19 years for males (interquartile range 14-32) and 20 years for females (interquartile range 12-36). At age 15, male participants had a higher incidence of mental disorders than females, whereby at all later ages the incidence was only slightly higher in females.

The morbid risk of any mental disorder by age 75 was 46.4% (44.9-47.8) for males and 53.1% (51.9-54.3) for females, whereby males having the highest lifetime risk for alcohol abuse (21.6%, 20.6-22.7), major depressive disorder (20.1, 19.2-20.9), and substance abuse (7.9%, 7.2-8.7), and females had the highest risk for major depressive disorder (34.0%, 33.2-34.9), post-traumatic stress disorder (12.6%, 11.7-13.5), and generalized anxiety disorder (12.5%, 11.8-13.2). For all the examined mental disorders, the estimated lifetime morbid risk was higher than the observed lifetime prevalence, which the authors explain by the fact that many individuals with mental disorders never receive treatment or start treatment later.

The limitations of this study include its duration over more than two decades, the fact that all data were based on retrospective reports (which can lead to under-identification of more temporally distant events), the definition of disorder onset was based on individual questions rather than a detailed diagnostic assessment, and not all mental disorders were included, nor were comorbidities considered.

The authors conclude that by age 75, approximately half of the population can expect to develop one or more of the 13 mental disorders examined in this study, with these disorders usually first appearing in childhood, adolescence, or early adulthood. The frequency of anxiety and

mood disorders was higher in women, while externalizing disorders were more common in men. The key finding is the significant proportion of mental disorders with early onset (in about half of the individuals who develop a mental disorder, it occurs by the age of 19-20 years), emphasizing the need to invest in mental health services with a particular focus on youth. It is necessary to strengthen healthcare capacity for the timely detection and treatment of common mental disorders as well as optimizing care for individuals in key life periods.

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