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entire population (PTSD, grief). Inviting and lobbying for dissemination of personal reports of Ukrainian health care workers and patients at international conventions, forums, events

- 3. Empowerment of personnel strengthening competences required in provision of assistance in war-related disorders, training, projects of activities both across Poland and Ukraine
- 4. Supporting and responding to the needs reported by local psychiatric assistance centers facilitating and strengthening the competence of personnel in helping refugees

Disclosure of Interest: None Declared

W0026

Digital approaches for predicting posttraumatic stress and resilience: promises, challenges, and future directions

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doi: 10.1192/j.eurpsy.2023.181

Abstract: Digital technologies and advances in computational methods have become key drivers of innovation in many medical fields. In precision psychiatry, accurate and reliable measures of mental health are critical for informing patient care and clinical research. There has been growing concern over the limitations of traditional mental health assessments that are typically grounded in nosology defined by the DSM and are based on interviewer-led assessments or patient self-report questionnaires. Whereas such gold-standard clinical assessments can be cost-prohibitive, insensitive to change, and prone to subjective biases, the use of digital technologies provides an opportunity to improve the practical feasibility as well as the inter-rater and test-retest reliability of repeated mental health assessments. The key promise of this approach is to unlock the clinical potential of digital technologies in ways that foster research of high clinical relevance and impact on clinical care. I will discuss these promises and challenges for the future use of machine learning approaches for predicting and monitoring post-traumatic stress and resilience.

Disclosure of Interest: None Declared

W0027

Generative models as computational assays for psychiatry

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Abstract: Psychiatry faces fundamental challenges with regard to mechanistically guided differential diagnosis, as well as prediction of clinical trajectories and treatment response. This has motivated novel approaches that aim to develop "computational assays" for inferring patient-specific disease processes from neuroimaging data, which can then be incorporated into decision making in

everyday clinical practice. Such computational assays are often based on generative models, which describe how measured data may be caused by a particular mechanism. Combining generative models with machine learning allows translating the inferences from computational assays into patient-specific predictions, an approach referred to as generative embedding.

Here, I illustrate the clinical potential of generative embedding for the exemplary case of a generative model of whole-brain effective (directed) connectivity: regression DCM (rDCM). First, I introduce rDCM to the audience and highlight its relevance for understanding the pathophysiology of psychiatric disorders. I then provide an initial demonstration of the clinical utility of rDCM. Specifically, we assessed the ability of rDCM for predicting future episodes of depression in never-depressed adults, using a large dataset (N=906) of resting-state fMRI data from the UK Biobank. Over a 3-year period, half of the participants showed indications of at least one depressive episode, while the other half did not. Using nested cross-validation for training and a held-out test set (80/20 split), we found that a generative embedding procedure based on rDCM in combination with a support vector machine enables statistically significant predictions of future depressive episodes, both on the training (accuracy: 0.63, area under the curve (AUC): 0.66, p<0.001) and test set (accuracy: 0.62, AUC: 0.64, p<0.001). Interpreting model predictions based on SHAP (Shapley Additive exPlanations) values suggested that the most predictive connections were widely distributed and not confined to specific networks.

In summary, generative models of brain connectivity in general, and rDCM in particular, show initial promise to serve as computational assays for psychiatry. Our analyses suggest that (i) fMRI-based generative embedding approaches have some capacity for early detection of individuals at-risk for depression and (ii) achieving accuracies of clinical utility may require combination of fMRI with other data modalities.

Disclosure of Interest: None Declared

W0028

Quantifying computational mechanisms in psychotherapy

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Abstract: Despite extensive research, the cognitive processes mediating the impact of psychotherapeutic interventions remain poorly understood, and as a result difficult to quantify. Identifying such mechanisms is likely to be extremely helpful: it could help target interventions better, could support dosing therapy through monitoring, and could heighten the speed at which new interventions can be developed. Mechanisms research in psychotherapy has described a number of key difficulties to achieving this. In this and the next talk, we ask whether advances in cognitive computational neuroscience might provide some support. Specifically, the question is whether precise cognitive probes might identify specific mechanisms of interventions. In support of this, I will first describe a pilot study in participants undergoing an adapted behavioural activation therapy. I will then move to present results from two strands of experiments examining whether interventions derived from components of cognitive-behavioural therapy (CBT) are able European Psychiatry S51

to shift computationally-derived measures of their proposed psychological substrates. Findings from both strands will be discussed with respect to challenges in developing brief, reliable, engaging, and user-acceptable measures of cognition. Overall, this outlines some early new results in using computational methods to understand therapeutic processes in the psychotherapy for depression.

Disclosure of Interest: Q. Huys Grant / Research support from: Koa Health, Consultant of: Aya Technologies and Alto Neuroscience

W0029

Mental Health in the digital area: what every doctor should know

R. M. Molina-Ruiz* and EPA2023WP-1169: Social media & psychiatry: effects of social media on users, research, advocacy, networking and intervention opportunities.

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Abstract: The use of social networks is an integral part of our daily life as a means of communication. Patients manage information mostly from the internet, that strongly influence their beliefs and behaviors toward illness. Scientific dissemination through these kinds of platforms has expanded enormously in recent years, varying between them in style, contents and type of interaction with the users, that make necessary an individualized analysis. The use of Instagram goes beyond sharing photos and free comments, and it has been used extensively in different fields of medicine, such as mental health. This tool has enormous potential as a means of more effective communication and prevention and it is very valuable as a tool for psychoeducation and prevention in mental health. However, in the era where "information is easy to get but knowledge is difficult to find", professionals of mental health should get involved and adapt to new scenarios of communication.

Disclosure of Interest: None Declared

W0030

Clinical interview - how to establish a therapeutic relationship and effectively listen to the patient.

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Abstract: In this first session of our motivational interviewing workshop, we address the basic principles of how every therapeutic relationship should be established and the main differences for the right environment in which we can develop motivational interviewing tactics that can be used to precipitate enduring change.

Disclosure of Interest: None Declared

W0031

Social media & psychiatry: Research opportunities.

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Abstract: In the field of health, social networks are increasingly used for research since they have demonstrated multiple uses. Proof of this is that more and more projects financed by public entities use this methodology, as well as scientific publications.

In the symposium, how to do this type of research will be explained in a practical and useful way for the listener. It will be explained with practical examples, and based on successful publications, how this type of work is designed, what type of people should integrate this research team, how to carry out the project, interpret the results and publish them.

We will also address the difficulties encountered and how to overcome them. Attendees will be able to ask all the questions they deem appropriate.

Disclosure of Interest: None Declared

W0032

Introduction to motivational interviewing and its principles.

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Abstract: In this second session of our motivational interviewing workshop, we introduce motivational interviewing with its principles. Furthermore, we discuss the pyramid of change and Prochaska's change model, address the differences between precontemplative versus change-resistant patients, and approach different techniques we can use throughout the clinical interview.

Disclosure of Interest: None Declared

W0033

Using Twitter for research in psychiatry

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Abstract: Social media offers a unique opportunity to examine behaviors based on real-time objective data. For example, all public tweets that include the selected keywords can be collated. These offer vast opportunities to research attitudes towards mental health and mental illness in the general population, based on the tweets content. The tweet text, the date, the geolocation and international