SP0030

Cardiovascular and metabolic issues in the treatment of schizophrenia: focus on the management of negative symptoms

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Abstract: Mortality from cardiovascular disease is increased in people with mental health disorders in general and schizophrenia in particular. The causes are multifactorial, but it is known that antipsychotic medication can cause cardiac side-effects beyond the traditional coronary risk factors. Schizophrenia itself is a contributor to an increased risk of cardiovascular mortality via cardiac autonomic dysfunction and a higher prevalence of metabolic syndrome, both contributing to a reduced life expectancy.
Overall, management of cardiovascular risk within this population group must be multifaceted and nuanced to allow the most effective treatment of serious mental illness to be conducted within acceptable parameters of cardiovascular risk; some practical measures are presented for the clinical cardiologist.

Disclosure of Interest: None Declared

SP0028

Validation of the rating scales for negative symptoms: new strategies

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Abstract: Negative symptoms of schizophrenia are linked with poor functioning and quality of life. Therefore, appropriate measurement tools to assess negative symptoms are needed. The NIMH-MATRICS Consensus defined five domains for negative symptoms. We used the COSMIN guidelines for systematic reviews to evaluate the quality of psychometric data of negative symptom scales as Clinician-Rated Outcome Measure (ClinROM). COSMIN assesses risk of bias, so called updated criteria of measurement properties, a modified GRADE approach and a final judgement on the rating scale. In the lecture the process will be described using the Brief Negative Symptom Scale and the Clinical Assessment Interview for Negative Symptoms (CAINS) as examples.

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SP0029

Digital treatments for affective disorders: an integrated overview

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Abstract: Affective disorders represent a category of psychiatric syndromes with high prevalence and associated disability. While effective, both pharmacological and psychosocial, treatments are available for depression and bipolar disorder, the many therapeutic needs of affected patients are far from being properly addressed under routine conditions. Along the past decade, several digital treatments, tools and approaches have been developed and tested in clinical settings, showing an highly promising potential to fill the treatment gap of affective psychopathology. In more detail, reviewed here will be telepsychiatry solutions for affective disorders, also encompassing the available officially approved digital therapies for major depression and bipolar disorder. Furthermore, the impact of artificial intelligence, serious gaming, social media and virtual/augmented reality in the treatment of mood disorders will be also discussed, in the light of the most recent research evidence on these topics.

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SP0030

Tackling adversity through innovation: A pilot study exploring VR as a tool to identify and diagnose depression

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Abstract

Introduction: The final aim of the EXPERIENCE project is to enable individuals to record and share extended-personal realities in Virtual Reality (VR) - which entails the consideration of a person's neurophysiological, psychological, and cognitive states. One prospective application is using this technology to aid in assessing symptoms of affective disorders.
Objectives: The objective is to test the ability of a pre-designed VR environment to differentiate between individuals with depressive symptoms and healthy controls (HCs) via machine learning algorithms.
Methods: Conducted as a pilot study in Italy, we recruited 100 volunteers, comprising 50 HCs and 50 individuals with moderate depressive symptoms assessed via the PHQ-9. Through a 40–60-minute VR engagement, comprehensive data on cognitive (inc. cognitive flexibility, sustained attention, working memory, processing speed), behavioral (exploration, attentional bias), and physiological (heart-rate variability, skin conductance) variables was collected. Subsequently, an explainable artificial intelligence model (xAI) was trained on data from 80% of the sample and tested on the remaining 20% in terms of accuracy for between-group classification.
Results: Following an iterative process that considered both the importance assigned to each variable in the different models and

the theoretical relevance of these variables to depression the final model achieved an average accuracy of 71% (with individual trials ranging from 64.5% to 77.1%). Key predictors included exploratory behaviors and heart-rate variability during both exploration and cognitive tasks.
Conclusions: These results are comparable, however remain below the levels of accuracy achieved based on fMRI and DTI data alone (around 80%). Nonetheless, the EXPERIENCE system, slated for refinement beyond this pilot phase, shows potential in integrating multimodal data for evaluating affective disorder symptoms, aiming for a more objective screening and diagnostic approach at a lower cost.
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SP0031

Effectiveness and usability of an e-health system on depression among patients with somatic disorders

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Abstract

Introduction: An increase in the prevalence of depressive symptoms can be seen in patients with severe somatic conditions, with a reduction in quality of life, an increase in sleep disturbances and an increased risk of suicide as some of the most serious consequences. However, few evidence-based interventions have been developed with the aim of reducing this comorbidity. The NEVERMIND system aims to address this issue by collecting psychometric and biomedical data via a smart shirt and a mobile app, which are used to predict patients' depressive symptoms. Patients are then directed to personalised lifestyle behavioural advice, mindfulness-based therapy, and cognitive behavioural therapy.
Objectives: The primary objective was to evaluate the effectiveness of the NEVERMIND system in reducing depressive symptoms in patients with somatic conditions compared to treatment as usual. Secondary objectives included the system's effectiveness in preventing depressive symptoms, sustaining the effects at 24 weeks post-baseline, and reducing suicide ideation. Besides these, the usability, acceptability, and satisfaction of the system were examined in patients with breast or prostate cancer.
Methods: For this pragmatic randomised controlled trial, 425 patients diagnosed with myocardial infarction, breast or prostate cancer, kidney failure, or lower limb amputation were recruited from hospitals in Turin, Pisa and Lisbon. Data collection occurred at baseline, 12 weeks, and 24 weeks, with the primary outcome being depressive symptoms at week 12, measured by the Beck Depression Inventory II. Regarding the usability, acceptability and patient satisfaction, data from 288 patients was used.
Results: The intervention group included 213 and the control group 212 patients, with the sample's mean age being 59.41 (SD=10.70). Patients who used the system reported having statistically significant lower depressive symptoms at 12 weeks (mean difference=-3.05, p=0.004; 95%CI -5.12 to -0.99) compared to controls, with a clinically relevant effect size (Cohen's d=0.41). Furthermore, significant reductions were found for suicide ideation (mean difference=-0.61, p=0.020; 95%CI -1.13 to -0.10) and incidence of depressive symptoms at week 12 (OR=0.43, p=0.019; 95%CI 0.22 to 0.87). The decrease in depressive symptoms was sustained at week 24 (mean difference=-1.34, p=0.015; 95%CI -2.41 to -0.26). The system was found to have good usability, with women rating the system more favourably than men and valuing its emotional support, while men used the system more frequently than women and valued the self-awareness that the system encouraged.
Conclusions: The NEVERMIND system was shown to be superior to standard care in reducing and preventing depressive symptoms among the studied sample. A new project will be launched in the near future to continue the examination of the system's effectiveness.

Disclosure of Interest: None Declared

SP0032

Inflammatory based psychotic symptoms: when psychosis means encephalitis

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Abstract: Schizophrenia, as one of the most common disorders from the psychotic spectrum is most commonly detected in the phase of first psychosis and may pose a diagnostic challenge, as commonly comprise a heterogeneous group of schizophrenias, with distinct clinical presentations. If it detected in its prodromal phase without clearly developed psychotic symptoms, the diagnosis is even more unreliable, as the transition to full blown psychosis in the next two years happens in 15-40% of more, depending probably on a variety of cumulative environmental risk factors (including childhood trauma, the use of high-potency cannabis, urbanicity, season of birth). Moreover, the first episode psychosis may underlie for example the first manic episode, brief intermittent psychotic symptoms in persons with borderline personality disorders, acute reaction to trauma, the use of cannabis and psychostimulants and different organics causes, such as endocrinologic disorders and autoimmune encephalitis. Therefore, in everyday clinical practice, the diagnosis of first episode psychosis always requires an assessment of possible causes of psychosis, and also factors that may influence prognosis and treatment. Usual assessment include detailed anamnestic and heteroanamnestic data, physical examination, standard blood laboratory findings, drugs in urine/ blood, EEG and CT/MR scan. The absence of typical risk factors for schizophrenia, as well as the absence of premorbid symptoms and developmental course typical for schizophrenia, abrupt course of psychotic symptoms, symptoms such as disorientation,