

Depressive Disorders 01

EPP0042

Gender differences in response and remission rates among patients receiving esketamine

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Introduction: Depressive disorders are among the leading causes of disability. The lifetime risk for developing clinically significant depression is estimated around 15%. Multiple studies have found female-male ratio of 2:1 across nations and cultures. The reason for this marked difference is still not clear, although several theories addressing social, biological, and environmental contributors have been suggested. Respond to anti-depressant treatment is considerably similar in both genders. However, several studies have shown worse outcomes among women during menopause.

In 2019, the US Food and Drug Administration (FDA) approved a nasal spray formulation of esketamine for the treatment of resistant depression (TRD) in adults, and the treatment has been approved to use by the ministry of health in Israel since 2020. Recent studies found more than 50% response and 35% remission rates, when nasal esketamine was given as an add-on therapy.

Objectives: to assess gender differences in response and remission rates among patients receiving esketamine as an add-on therapy for TRD in a real-world setting

Methods: 23 female and 22 males received at least 12 weeks of esketamine treatment in a day-care setting. Data collected included depression, dissociation and quality of life scales.

Results: Females tend to experience more severe dissociation during treatment. Average response and remission rates were similar in both groups (48% and 32% respectively), however females were less favorable to show rapid response (during the first 4 weeks). among responders no major differences in time to response has been found.

Conclusions: no major gender differences in response or remission rates have been found among patients receiving esketamine treatment for TRD aside from lower rates of rapid response. Additionally, Females report more severe dissociation during treatment.

Disclosure of Interest: None Declared

EPP0043

Depression and loneliness among parents of premature infants admitted to Neonatal Intensive Care Unit (NICU)

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Introduction: When newborns are born prematurely, it is often necessary to be hospitalized in a Neonatal Intensive Care Unit

(NICU). As a result, they are immediately separated from both parents, who experience an intense emotional burden throughout their baby's hospitalization. Newborns' entrance in Intensive Care Unit can trigger negative emotions in both parents.

Objectives: To assess the feeling of loneliness, depressive symptoms and post-traumatic stress of parents with premature infants who are hospitalized in Neonatal Intensive Care Units (NICUs).

Methods: Our sample consisted of 251 parents, whose newborn was hospitalized in the Neonatal Intensive Care Unit (NICU) of three hospitals in Athens, the capital of Greece. The data were collected through a questionnaire which included (a) questions related to socio-demographic and clinical data, (b) the Center for Epidemiological Studies-depression scale, (c) the UCLA Loneliness Scale (d) the Impact of Event Scale- Revised- Greek version (IES-R-Gr) for the detection of post-traumatic stress.

Results: The majority of our sample were women (69.7%) with a mean age of 32.2 years (SD = 15.4 years). Mothers experienced significantly higher scores on each scale, suggesting more symptoms of depression and post-traumatic stress as well as a higher sense of loneliness compared to fathers. Parents whose infants were underweight and parents with previous experience of hospitalization in NICU exhibited a statistically significant higher sense of loneliness. 62.6% of parents developed depressive symptoms. There was a statistically significant positive correlation between feeling lonely and the onset of depressive symptoms and a statistically significant negative correlation between psychological support from hospital staff and the appearance of depressive symptomatology. The 60.1% of our participants showed symptoms of post-traumatic stress. The more depressive symptoms the participants exhibited, the more symptoms of avoidance, resuscitation, and overstimulation were noted. The greater the feeling of loneliness, the more symptoms of avoidance the participants exhibited.

Conclusions: Early detection of depressive symptoms, loneliness and post-traumatic stress in parents whose newborn is hospitalized in NICU is of major importance. Consequently, a systematic and well-organized training of the staff working in NICU should be provided. Specific protocols, as well as individualized interventions should be implemented to manage the needs and feelings of this vulnerable population.

Disclosure of Interest: None Declared

EPP0044

Predicting Depression Severity from Spontaneous Speech as Prompted by a Virtual Agent

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Introduction: One of the major challenges in clinical psychiatry remains the absence of well established objective measures of symptoms' severity. Clinical insights are mainly provided through keen behavioral observation and subjective questionnaires and scales.

Objectives: The aim of this paper is to predict depression severity through speech using the features extracted from the speech as

provided by participants during a semi-structured dialogue with a virtual avatar.

Methods: We use data from a subset of the DAICWOZ dataset consisting in 142 dialogues between participants and a virtual avatar during which the avatar uses several prompts to maintain a conversation with the participant. The avatar uses prompts involving the topics of travel, dream jobs, and memorable experiences. From the speech generated from the dialogue, we extract participant utterances separated by prompt and extract features from the three sets of transcripts. We extract content features from the transcript and acoustic features from the excerpt corresponding to the speech from the participant for the prompt in question. We perform regression experiments on the PHQ8 items using the features extracted from each set of transcripts. Furthermore, we combine the features extracted from each set of transcripts and compute partial Spearman correlations between them and the PHQ8 items using gender as a covariate.

Results: With our best regression model we obtain an R^2 of 0.1, explaining 10% of the variance in the PHQ total score. Additionally, we obtain a mean absolute error of 1.25, suggesting that the regressor can detect with more or less precision clinically meaningful differences in depression severity between participants. Partial correlations between the total score and the features show significant correlations between features dependent on the amount of speech generated by each participant, along with the complexity of syntactic structures used.

Conclusions: Automatic analysis of spontaneous speech could help with the detection and monitoring of signs of depression. By combining the use of this technology with timely intervention strategies for instance provided by a virtual agent it could contribute to timely prevention.

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EPP0045

The Neural Basis of Major Depressive Disorder in Adults: A Meta-Analysis of Functional Magnetic Resonance Imaging Activation Studies

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Introduction: Major depressive disorder (MDD) is a highly prevalent mental illness that often first occurs or persists into adulthood and is considered the leading cause of disability and disease burden worldwide. Unfortunately, individuals diagnosed with MDD who

seek treatment often experience limited symptom relief and may not achieve long-term remission, which is due in part to our limited understanding of its underlying pathophysiology. Many studies that use task-based functional magnetic resonance imaging (fMRI) have found abnormal activation in brain regions in adults diagnosed with MDD, but those findings are often inconsistent; in addition, previous meta-analyses that quantitatively integrate this large body literature have found conflicting results.

Objectives: This meta-analysis aims to advance our understanding of the neural basis of MDD in adults, as measured by fMRI activation studies, and address inconsistencies and discrepancies in the empirical literature.

Methods: We employed multilevel kernel density analysis (MKDA) with ensemble thresholding, a well-established method for voxel-wise, whole-brain meta-analyses, to conduct a quantitative comparison of all relevant primary fMRI activation studies of adult patients with MDD compared to age-matched healthy controls.

Results: We found that adults with MDD exhibited a reliable pattern of statistically significant ($p < 0.05$; FWE-corrected) hyperactivation and hypoactivation in several brain regions compared to age-matched healthy controls across a variety of experimental tasks.

Conclusions: This study supports previous findings that there is reliable neural basis of MDD that can be detected across heterogeneous fMRI studies. These results can be used to inform development of promising treatments for MDD, including protocols for personalized interventions. They also provide the opportunity for additional studies to examine the specificity of these effects among various populations-of-interest, including youth vs. adults with depression as well as other related mood and anxiety disorders.

Disclosure of Interest: None Declared

EPP0046

Early Outcomes of Repetitive Transcranial Magnetic Stimulation in Complex Clinical Population

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Introduction: Repetitive Transcranial Magnetic Stimulation (rTMS) is a new emerging neuromodulation treatment that has been tried for multiple psychiatric conditions [1, 2]. Its major approved application is treatment-resistant depression (TRD) [1]. At the same time there is a perceived potential for its use for other clinical conditions, primarily other mood and anxiety disorders [2]. At Homewood Health Centre we have been using rTMS as an adjunct treatment for patients with TRD and multiple comorbidities.

Objectives: To evaluate the effectiveness and feasibility of rTMS in complex clinical populations.

Methods: Observational study. Quick Inventory of Depressive Symptomatology (QIDS). Generalized Anxiety Disorder Questionnaire (GAD-7). Descriptive statistics.