

depression screening” and “Hamilton score scale” were used to evaluate the severity of depression.

**Results:** A total of 260 patients were recruited in our study. The mean age was of  $57.36 \pm 15.4$  years with extremities ranging from 20 to 91 years. The sex ratio M/F was situated at 0.59. The mean diabetes duration was of 10.92 years. The majority of patients had type 2 diabetes (92.3%). The micro vascular long-term complications of diabetes were the most frequent (67.7%): neuropathy (39%), retinopathy (37%) and nephropathy (24%). According to the “DSM-V diagnosis criteria”, 15% of the study population suffered from a Major Depressive disorder (MDD). Hamilton score scale showed that thirty-eight patients had severe depression symptoms (14.6%). Insulintherapy was associated with MDD and depression severity (19.1% vs 10.1% ;  $p=0,041$  and 20% vs 8.4% ;  $p < 10^{-3}$ ).

**Conclusions:** Diabetic patients treated with insulin seem to be exposed to severe depressive syndromes. Once insulin initiated, doctors should be careful at the psychological aspects and the burden of this decision and use in consequence appropriate tools to screen depressive symptoms and anxiety. The role of family doctor is crucial providing early psychological support and preventing complications associated with depression especially poor glycemic control.

**Disclosure of Interest:** None Declared

## EPP0178

### Intergenerational concordance of brain structure between depressed mothers and their never-depressed daughters

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**Introduction:** Parents have significant genetic and environmental influences, which are known as intergenerational effects, on the cognition, behavior, and brain of their offspring. These intergenerational effects are observed in patients with mood disorders, with a particularly strong association of depression between mothers and daughters.

**Objectives:** The main purpose of our study was to investigate female-specific intergenerational transmission patterns in the human brain among patients with depression and their never-depressed offspring.

**Methods:** We recruited 78 participants from 34 families, which included remitted parents with a history of depression and their never-depressed biological offspring. We used source-based and surface-based morphometry analyses of magnetic resonance imaging data to examine the degree of associations in brain structure between four types of parent-offspring dyads (i.e. mother-daughter, mother-son, father-daughter, and father-son).

**Results:** Using independent component analysis, we found a significant positive correlation of gray matter structure between exclusively the mother-daughter dyads within brain regions located in

the default mode and central executive networks, such as the bilateral anterior cingulate cortex, posterior cingulate cortex, pre-cuneus, middle frontal gyrus, middle temporal gyrus, superior parietal lobule, and left angular gyrus. These similar observations were not identified in other three parent-offspring dyads.

**Conclusions:** The current study provides biological evidence for greater vulnerability of daughters, but not sons, in developing depression whose mothers have a history of depression. Our findings extend our knowledge on the pathophysiology of major psychiatric conditions that show sex biases and may contribute to the development of novel interventions targeting high-risk individuals.

**Disclosure of Interest:** None Declared

## EPP0179

### Major Depressive Disorder in Youth: A Meta-Analysis of Functional Magnetic Resonance Imaging Studies

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**Introduction:** Major depressive disorder (MDD) is a highly prevalent mental illness that frequently originates in early development and is pervasive during adolescence. Despite its high prevalence and early age of onset, our understanding of the potentially unique neural basis of MDD in this age group is still not well understood, and the existing primary literature on the topic includes many new and divergent results. This limited understanding of MDD in youth presents a critical need to further investigate its neural basis in youth and presents an opportunity to also improve clinical treatments that target its neural abnormalities.

**Objectives:** The present study aims to advance our understanding of the neural basis of MDD in youth by identifying abnormal functional activation in various brain regions compared with healthy controls.

**Methods:** We conducted a meta-analysis of functional magnetic resonance imaging (fMRI) studies of MDD by using a well-established method, multilevel kernel density analysis (MKDA) with ensemble thresholding, to quantitatively combine all existing whole-brain fMRI studies of MDD in youth compared with healthy controls. This method involves a voxel-wise, whole-brain approach, that compares neural activation of patients with MDD to age-matched healthy controls across variations of task-based conditions, which we subcategorize into affective processing, executive functioning, positive valence, negative valence, and symptom provocation tasks.

**Results:** Youth with MDD exhibited statistically significant ( $p < 0.05$ ; FWE-corrected) hyperactivation and hypoactivation in multiple brain regions compared with age-matched healthy controls. These results include significant effects that are stable across

various tasks as well as some that appear to depend on task conditions.

**Conclusions:** This study strengthens our understanding of the neural basis of MDD in youth and may also be used to help identify possible similarities and differences between youth and adults with depression. It may also help inform the development of new treatment interventions and tools for predicting unique treatment responses in youth with depression.

**Disclosure of Interest:** None Declared

## EPP0181

### Intranasal Oxytocin as an adjunct treatment in patients with major depression with and without comorbid borderline personality disorder

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**Introduction:** The mechanisms leading to Oxytocin's differential effects among patients with borderline personality disorder have thus far been elusive.

**Objectives:** This study was aimed to explore the differential effect of OT administration among depressive patients with or without comorbid borderline personality disorder, and to explore the mediating role of attachment in these differential patterns.

**Methods:** Patients treated with psychotherapy in an inpatient settings (N=58) were randomized and double-blindly allocated to receive oxytocin or placebo for a period of four weeks. The effect of OT on therapy process and outcome was examined among patients with (n=35) and without (n=23) borderline personality disorder. Moderated mediational models were estimated to explore whether attachment differentially affected the association between oxytocin and treatment outcomes.

**Results:** patients without BPD showed significantly larger improvements following OT administration ( $B=-8.32$ ,  $p=.001$ ) as compared to placebo in OQ-45. On the other hand, patients with BPD showed no significant improvement following OT ( $B=0.61$ ,  $p=.76$ ). The same pattern was observed in the HSCL, where patients without BPD demonstrated significantly larger improvements following OT administration ( $B=-0.29$ ,  $p=.0009$ ) as compared to placebo, while patients with BPD demonstrated no significant improvement ( $B=-0.04$ ,  $p=.55$ ). Moderated mediational models indicated no significant moderated indirect effect, however, a significant trend of indirect effect only in the BPD group was observed, whereby the no-BPD group showed a stronger direct effect ( $\beta=-0.19$ ,  $t=-1.30$ ,  $p=.20$ ), whereas the BPD group showed a stronger indirect effect ( $\beta=-0.72$ ,  $SE=0.45$ ,  $CI=-1.71, -0.00$ ).

**Conclusions:** Patients with depression and comorbid BPD benefit less from OT administration as compared depressive patients without such comorbidity. It is possible that the involvement of the attachment system may be associated with the attenuation of OT's effect.

**Disclosure of Interest:** None Declared

## EPP0182

### The effect of music to improve sleep quality in depression related insomnia

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**Introduction:** Insomnia in depression is common and difficult to resolve. Music is commonly used as a sleep aid, and clinical trials pointing to positive effects of music as a sleep aid are increasing adding to the evidence base. There is little knowledge on the effectiveness of music for depression related insomnia.

**Objectives:** A recent RCT study conducted in psychiatry at Aalborg University Hospital examined effects of a music intervention for insomnia in depression. The intervention group listened to music at bedtime for four weeks, controls were offered music intervention post-test. Primary outcome measure was Pittsburgh Sleep Quality Index (PSQI). Secondary outcomes included Actigraphy, The Hamilton depression Rating Scale (HAMD-17) and World Health Organisation well-being questionnaires (WHO-5, WHOQOL-BREF).

**Methods:** A two-armed randomized controlled trial (n=112) and a qualitative interview study (n=4)

**Results:** The RCT study showed significant improvements for the music intervention group in sleep quality and quality of life at four weeks according to global PSQI scores (effect size= -2.1, 95%CI -3.3; -0.9) and WHO-5 scores (effect size 8.4, 95%CI 2.7; 14.0). Actigraphy measures showed no changes and changes in depression symptoms (HAMD-17) were not detected.

The interview study unfolded examples of the influences of music on sleep and relaxation. Music distracted, affected mood and arousal positively and supported formation of sleep habits.

Results from the trial are discussed and merged with findings from the interview study. The results from the trial suggested moderate effects of music listening for the population while findings from the interview study showed examples of individual and highly varying outcomes.

**Conclusions:** Music is suggested as a low-cost, side-effect free and safe intervention in supplement to existing treatments improving sleep in depression.

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