

## EPP0049

### Tolerability of Ziprasidone Use in Children and Adolescents: A Prisma Model: Systematic Review and Meta-Analysis.

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**Introduction:** Studies have demonstrated that Ziprasidone use may be beneficial in children. Determining its potential risks and benefits when used in children is therefore important.

**Objectives:** To examine the tolerability of Ziprasidone, an atypical antipsychotic, in children and adolescents.

**Methods:** We conducted a literature search of open label or randomized control trials that report on Ziprasidone use in children on three databases: Embase, PsychInfo and PubMed using the PRISMA guidelines of Systematic review and Meta-analysis. Out of 1690 articles, 11 studies met inclusion criteria. Outcome measures included adverse effects such as weight gain, increase in BMI, QTc prolongation, changes in metabolic parameters, sedation, and dizziness. We conducted a random effects meta-analysis and meta-regression of potential moderators. Publication bias was assessed with funnel plots.

**Results:** Data from Eleven studies was meta-analyzed (Total n= 474, mean age=12.87 years, male= 68.37%) that reported the use of Ziprasidone in children and adolescents with Psychosis, Bipolar, Autism spectrum disorders and Tourettes syndrome. Mean Ziprasidone dose = 84.40 mg and mean study duration = 2.85 months). We found that Ziprasidone was not found to cause any significant weight gain (1.72, p>0.05) or change in BMI (0.58 , p>0.05). QTc prolongation was found to be significant (11.9 , p<0.05). Most common side effects were sedation (42.44%), Nausea(19.32%), Headache (22.92%), fatigue (16.67%) and Dizziness (16.96 %).

**Conclusions:** Results demonstrate that Ziprasidone does not cause significant weight gain, however QTc prolongation and sedation were found to be significant side effects of Ziprasidone use. Therefore, baseline EKG and thorough history must be obtained before prescribing Ziprasidone in children and adolescents.

**Disclosure:** No significant relationships.

**Keywords:** metaanalysis; Ziprasidone; psychopharmacology

## EPP0048

### Prediction of ADHD symptoms from prenatal data in two large population-based cohorts.

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**Introduction:** The association between low birth weight and attention problems in childhood has been replicated many times (e.g. Momany, Kamradt, & Nikolas, 2018). However birth weight

is unlikely the aetiological start-point of this association, as birth weight is itself the product of many prenatal factors e.g. gestational complications, maternal toxin exposure during pregnancy and basic demographics.

**Objectives:** We explore (1) which prenatal factors best predict attention problems in two independent population-based cohorts of children (2) which associations, if any, are moderated by sex and (3) we report accuracy statistics of our prenatal prediction algorithm for attention problems.

**Methods:** Participants were children aged 9 from ABCD study from the United States (N > 9,000) and the Growing Up in Ireland (GUI) study from Ireland (N > 6,000). Selected variables included familial psychiatric history, maternal smoking during gestation, prescription and non-prescription drug-use during gestation and a variety of gestational complications. All interactions with sex were also included. We used 5-fold cross-validation and elastic net regression (glmnet) to identify the optimal predictors of attention problems (measured by CBCL and SDQ).

**Results:** Strongest predictors of attention problems in the U.S. cohort included male sex, number of drugs used during pregnancy, number of family members with a history of mental illness, and number of gestational complications. Sex interacted with several of these risks. Protective factors included being a twin/triplet, being Asian, having higher household income and higher parental education level.

**Conclusions:** Several risk factors for childhood attention problems were identified across both cohorts, supporting their generalizability. Other findings were cohort-specific.

**Disclosure:** No significant relationships.

**Keywords:** adhd; Foetal Growth; Prenatal Risks; machine learning

## EPP0049

### Longitudinal associations between problematic Internet use, self-esteem, and depressive symptoms among Chinese adolescents

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**Introduction:** Adolescents spend more time on the Internet than adults, making them susceptible to problematic Internet use (PIU). Evidence shows that PIU has a negative impact on self-esteem among adolescents, disturbing the development of emotional regulation, which makes them more likely to develop depressive symptoms subsequently. However, there is lack of literature focusing on the process that self-esteem may mediate the association between PIU and depressive symptoms.

**Objectives:** This study aimed to examine the prospective links between PIU, self-esteem, and depressive symptoms in adolescence.

**Methods:** A total of 1,736 adolescents completed this longitudinal study. The baseline survey was conducted in 2019, and the follow-up surveys were performed at 1-year and 2-year later. Problematic Internet use, self-esteem, and depressive symptoms were measured. A cascade model was used to examine the longitudinal associations between PIU, self-esteem, and depressive symptoms.

**Results:** The mean (SD) age of participants was 13.6 (1.5) years at baseline. The final results observed significant within-time associations between PIU, self-esteem, and depressive symptoms at each time point. PIU and low level of self-esteem could predict subsequent depressive symptoms among adolescents, and depressive symptoms were also associated with subsequent PIU and self-esteem.

**Conclusions:** Both problematic Internet use and self-esteem show bidirectional predictions with depressive symptoms among Chinese adolescents. Health-related professionals, schools and families should be aware of the findings of bidirectional associations. Adolescents with problematic Internet use and lower self-esteem should be paid more attention to attenuate the risk of developing depressive symptoms.

**Disclosure:** No significant relationships.

**Keywords:** problematic Internet use; self-esteem; adolescence; depressive symptoms

### EPP0051

#### Clinical importance of systematic assessment and psychoeducation in specialised treatment of adolescents with severe functional somatic disorders

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**Introduction:** Functional somatic disorders (FSD) characterized by persistent and disabling physical symptoms are common in youth. Diagnostic uncertainty and insufficient illness explanations are proposed as perpetuating factors for FSD and may furthermore serve as barriers for treatment engagement.

**Objectives:** The present study is part of a larger randomized trial and aimed at evaluating the impact of systematic assessment and psychoeducation on various clinical outcomes for adolescents suffering from severe FSD.

**Methods:** Ninety-one adolescents (15-19 years) with severe FSD of at least 1 year's duration were included in the randomized trial AHEAD (Acceptance and Commitment Therapy for Health in Adolescents). All participants received a thorough assessment (approximately 4 hrs.) and a subsequent psychiatric consultation (1.5 hrs) focusing on further psychoeducation and health promoting strategies. Clinical outcomes included self-reported physical health (SF-36), symptom severity, illness perception, illness related behaviour and psychological flexibility. Questionnaires were distributed at baseline (before assessment) and 2 months after randomisation. Data were analysed using simple t-tests.

**Results:** Assessment and psychiatric consultation were not associated with a clinically relevant improvement of physical health, mean difference 0.23 95% CI [-0.95;1.41]  $p=0.701$ . However, a considerable decline was seen on symptom severity ( $p=0.017$ ), illness worry ( $p<0.001$ ) and negative illness perceptions

( $p<0.001$ ). Furthermore, a decline was seen in limiting illness behaviour ( $p=0.002$ ) and psychological inflexibility ( $p=0.001$ ).

**Conclusions:** The results underpin the importance and the potential positive implications of thorough assessment and psychoeducation. Hence, these elements may be in their own right in the systematic and specialised treatment of adolescents with severe FSD.

**Disclosure:** No significant relationships.

**Keywords:** functional somatic disorders; psychoeducation

### EPP0052

#### Effects of acute physical activity on executive functions requiring inhibition among children with attention-deficit hyperactivity disorder

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**Introduction:** In recent years, physical activity as a potential intervention for attention-deficit hyperactivity disorder (ADHD) became into the focus of researchers, however the results are conflicting.

**Objectives:** Our aim was to investigate the effect of acute moderate physical activity on executive functions requiring inhibition.

**Methods:** The study included 50 treatment-naïve ADHD children, 50 medicated children with ADHD and 50 typically developing children, aged 6–12 years. To diagnose ADHD, we applied the Mini International Neuropsychiatric Interview for Children and Adolescents. To measure executive functions, the pediatric version of the Test of Attentional Performance (KiTAP) was used. Half of the children in each study group participated in a 20-minute, moderately intense exercise while watching a cartoon video. In the control intervention, the other half of the children from all three study groups watched the same cartoon video in a sitting position for 20 min.

**Results:** Regarding distractibility, flexibility and inhibition, physical activity had a significant positive effect on two of 10 parameters (number of total errors and errors when distractor was presented, both in the distractibility task) in the treatment-naïve ADHD group.

**Conclusions:** Our results suggest that moderate acute physical activity has some significant positive effects on certain executive function parameters among children with ADHD. Future studies should consider determining the optimal form, intensity, and duration of physical activity to become a potential adjunctive intervention for children diagnosed with ADHD.

**Disclosure:** No significant relationships.

**Keywords:** ADHD; executive function; inhibition; children