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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

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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

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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.