5.75 PREVALENCE OF CONNECTIVE TISSUE–RELATED SYMPTOMS IN CHILDREN WITH NEURODEVELOPMENTAL DISORDERS: INSIGHTS SUPPORTING THE CONNECTIVOME THEORY

Leonardo Zoccante, MD, Azienda ULSS 9 Scaligera, leonardo.zoccante@aulss9.veneto.it; Marco Zaffanello, MD, Gianfranco Di Gennaro, PhD, Magna Græcia University, gianfranco.digennaro@unicz.it

Objectives: ASD, ADHD, and Tourette's disorder (TD) exhibit overlapping neuropathological mechanisms, such as impaired brain connectivity. A more complete view of the alteration of connectivity that characterizes neurodevelopmental disorders both at the central and peripheral levels has recently been formulated through the "Connectivome Theory," which is based on the role of connective tissue in the different organs. The objective of this study is to investigate the prevalence of symptoms arising from connective tissue alterations in individuals diagnosed with ASD, ADHD, or TD and to compare it with a sample of healthy controls.

Methods: A questionnaire investigating connective tissue–related symptoms was administered from December 2019 to January 2022 to the families of 120 children diagnosed with ASD (n = 48), ADHD (n = 36), and TD (n = 36) attending the Child Neuropsychiatry Outpatient Clinics of the University Hospital of Verona. The questionnaire was also administered to the families of a control group, composed of 44 typically developing children. The symptoms assessed by the questionnaire were: 1) striae rubre/skin irregularities/flushed skin; 2) excessive sweating of hands/feet; 3) back pain/transient limb muscle aches/chronic fatigue; 4) hip dysplasia/scoliosis/hunched back; 5) flat feet; 6) constipation/diarrhea/alternating bowel; 7) heartburn/gastroesophageal reflux/hiatus hernia; 8) use of orthodontic appliances; 9) tactile/visual/auditory/olfactory/gustatory hypersensitivity; and 10) myopia/drooping eyelids/eyelid ptosis.

Results: Mean ages of cases and controls were 10.1 (SD: 3.6) and 9.5 (SD: 2.5) years, respectively. Most of the cases (110 subjects, 91.7%) were males; controls were distributed in 22 (50.0%) males and 22 (50.0%) females. Of the 10 symptoms assessed, 7 were more prevalent in cases than controls. Despite the small sample, the difference in prevalence reaches statistical significance with regards to flat feet (cases 47.97% vs controls 13.64%; $p = .001$), hypersensitivity (cases 54.47% vs controls 18.18%; $p = .001$) and myopia (cases 16.26% vs controls 2.27%; $p = .016$).

Conclusions: This exploratory study indicates a likely association of connective tissue–related disorders in children with neurodevelopmental disorders. Further studies will aim to confirm this hypothesis and evaluate ASD, ADHD, and TD separately.

ASD, ADHD, TD

https://doi.org/10.1016/j.jaac.2024.08.396

5.76 YOUNG MINDS AND EARLY PSYCHOSIS: ASSESSING ACCESS TO EARLY PSYCHOSIS PROGRAMS FOR PEDIATRIC POPULATIONS

Miles P. Reyes, MD, Charles R. Drew University, mreye150@ucr.edu; Apurva Bhatt, MD, Stanford University, apurva.p.bhatt@gmail.com; Kate Hardy, Clin.Psych.D, Judith Lynn Dauberman, DPhil, Steven N. Adelsheim, MD

Objectives: First-episode psychosis (FEP) often emerges during adolescence or young adulthood. The average duration of untreated psychosis in the United States is 18.5 months. Early intervention can improve individual recovery from psychosis. Many early psychosis (EP) programs in the United States include transition-age youth populations, and it is currently unknown how many serve individuals younger than 16 years old. The objective of this study was to evaluate the number and location of EP programs in the United States that serve pediatric populations.

Methods: Data were evaluated from the Psychosis-Risk and Early Psychosis Program Network (PEPPNET) Directory created by Stanford University, which collects information about EP programs including information on eligible age ranges served, eligible diagnoses, service model, type of insurance accepted, and more. The data were filtered to evaluate ages accepted and program location.

Results: A total of 420 EP programs were listed in the PEPPNET Directory. Among the 420 programs, 260 (62%) EP programs reported accepting individuals 16 years old and younger. Of these, 5 (1.2%) programs accept individuals 10 years old and older, 20 (4.8%) accept individuals 12 years old and older, 135 (32%) accept individuals 15 years old and older, 80 (19%) accept individuals 16 years old and older, and 4 (0.9%) accept individuals of all ages. The states with the highest number of EP programs serving pediatric populations were New York (29), California (28), Pennsylvania (18), Ohio (15), Massachusetts (13), and Arkansas (13).

Conclusions: This study found that 62% of EP programs in the United States serve individuals under 16 years old, but only 6% serve individuals 12 years old and under. Limitations of this study include that not all EP programs in the United States may be listed in PEPPNET's Directory. In addition, only 285 clinics reported the ages accepted, and some reported being "flexible" in the ages served, making it unknown what ages they serve. This study raises awareness about the number of EP programs available to pediatric populations in the United States.

PSY, SZ, DAM

https://doi.org/10.1016/j.jaac.2024.08.397

5.77 REAL-WORLD DOSE TITRATION PATTERNS IN CHILDREN, ADOLESCENTS, AND YOUNG ADULTS TREATED WITH DELAYED-RELEASE/EXTENDED-RELEASE METHYLPHENIDATE

Vamshi Ruthwik Anupindi, MS, Swapna Munnangi, PhD, Yifan Gu, MSc, Mitchell DeKoven, MHSA, Michelle D. Po, PhD, Ironshore Pharmaceuticals, michelle.po@ironshorepharma.com; Cassandra L. Uchida, PhD, Lewis E. Warrington, MD

Objectives: DR/ER-MPH (JORNAY PM®; formerly HLD200) is the first evening-dosed delayed-release and extended-release methylphenidate approved for individuals ≥6 years with ADHD. DR/ER-MPH is absorbed in the colon and is predicted to provide a dose-dependent duration of effect; as such, it cannot be substituted for other methylphenidate products on a mg-per-mg basis. In a phase 3 clinical trial of 6- to 12-year-olds, DR/ER-MPH was titrated weekly to a mean optimized dose of 66.2 mg over 6 weeks. The purpose of this study was to examine DR/ER-MPH dose titration patterns in clinical practice using a large US claims database.

Methods: A retrospective analysis was conducted using IQVIA's US professional fee and prescription claims databases. Patients initially prescribed DR/ER-MPH between July 2019 and August 2022 with ≥12-months follow-up and ≥4 prescriptions were included. Data were de-identified and were HIPAA compliant; therefore, IRB review was not required. The first 4 prescription strengths and the stable strength (defined as the most recent strength with ≥2 consecutive prescriptions) were collected. Results were stratified by age: children (6-12), adolescents (13-17), and young adults (18-29).

Results: A total of 2372 patients were included. The mean starting strength was 31.9 mg, and 62.9% initiated at 20 mg; the mean strength increased to 47.5 mg by the fourth prescription. A total of 98.7% of patients achieved a stable strength (mean: 52.9 mg). The mean stable strength increased with age, from 50.5 mg in children to 59.5 mg in young adults. The mean time to achieve stable strength decreased with age, from 103.4 days in children to 95.3 days in young adults.

Conclusions: These real-world data demonstrated that in clinical practice, with patients aged 6 to 29, DR/ER-MPH dose titration patterns differed from those in a phase 3 clinical trial of participants aged 6 to 12. In the trial, participants achieved significant and clinically relevant improvements in ADHD symptoms and reductions in functional impairment from waking to bedtime, with a safety profile consistent with other methylphenidates. These findings suggest an opportunity to improve outcomes by titrating similarly to the clinical trial, in which all-day duration was achieved within 6 weeks.

ADHD, STIM, TREAT

Supported by Ironshore

https://doi.org/10.1016/j.jaac.2024.08.490