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BIBLIOGRAFIA ADHD FEBBRAIO 2012

Act Nerv Super. 2011;53:129-40.

COMMUNITY-BASED ELECTROPHYSIOLOGICAL ABNORMALITIES IN CHILDREN WITH ADHD: TRANSLATING RESEARCH FINDINGS INTO A CLINICAL SETTING.

Martin CN, Konopka LM.

Attention Deficit Hyperactivity Disorder (ADHD) is a highly prevalent disorder of childhood that is behaviorally characterized by repeated episodes of inattention, impulsivity, and hyperactivity. Selecting appropriate treatment based on presenting behavior can be challenging and usually requires time-intensive medication trials. Clinical and research communities agree there is a need for an objective method to both evaluate symptoms of ADHD and determine appropriate treatment options (Barkley, 2009). We are proposing the use of qEEGs (quantitative electroencephalograms) in patients presenting with ADHD symptomatology to provide an objective assessment of underlying neuropathology that can aid in diagnostic clarification, thus offering targeted treatment approaches. Current studies have identified three abnormal electrophysiological clusters (Chabot & Serfontein, 1996; Clarke, et al., 2001; Monastra, et al., 2001). This study was designed to examine these clusters of ADHD in a naturalistic sample to determine congruity between current research literature and frontline community treatment centers. We evaluated 30 pediatric patients (6-17 yrs) in a naturalistic psychiatric setting. As described in Konopka (2005), participants completed an initial baseline study to examine brain electrophysiology through qEEG. Electrophysiological clusters were defined by (Chabot & Serfontein, 1996; Clarke, et al., 2001; Monastra, et al., 2001): cortical hypoarousal (excess theta), cortical hyperarousal (excess beta, decreased theta/delta), and maturation lagged (excess delta/theta). Neuroguide software and databases (Thatcher, 2009) were used for spectral analyses to convert raw EEG data to quantifiable form (qEEG). Fast Fourier Transformation was used to generate relative power maps for comparison of electrophysiological abnormalities. Comparisons were made for cortical activity levels of Delta, Theta, Alpha, and Beta. The database was used to statistically compare ADHD children to a control group (N=678), normed for gender, age, and handedness. Results show that children with ADHD exhibited abnormal electrophysiological activity in comparison to age and gender matched norms. While we found the previously documented electrophysiological groups, there was a disproportionately high degree of cortically hyperaroused children within the sample. Specifically, the overwhelming majority of our sample presented with excess relative beta in the central-parietal regions. Additionally we identified a novel electrophysiological group, which displayed concurrent excesses of fast (beta) and slow (theta) activity in relative frequencies. These findings illustrate discrepancies in ADHD populations studied in clinical centers and research laboratories. Given that there is agreement for the need of objective assessment tools and that imaging modalities provide promise (Chabot, Orgill, Crawford, Harris, & Serfontein, 1999), there is also a need for continuity between research and clinical communities. This study provides an important objective diagnostic and treatment paradigm that can be highly informative for the direction of future studies.

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Per la ricerca degli articoli pubblicati nella letteratura scientifica nel mese in esame sono state consultate le banche dati Medline, Embase, PsycINFO e PsycArticle utilizzando le seguenti parole chiave (o i loro sinonimi): 'Attention deficit disorder', 'Attention deficit hyperactivity disorder', 'Infant', 'Child', 'Adolescent', 'Human'. Sono qui riportate le referenze considerate rilevanti e pertinenti.

ANAE Approche Neuropsychol Apprentiss Enfant. 2011;23:335-43.

LANGUAGE DELAY AND ADHD: EMERGING LINK IN THE PRESCHOOL YEARS.

Dionne G, Ouellet E.

Between 18 months and 8 years of age, the link between language skills and hyperactivity and inattention symptoms emerges early in two large scale normative longitudinal studies and increases with age, possibly through shared neurodevelopmental origins and/or mutual influences. Retrodictive analyses show that the language development of ADHD children is slower than that of their peers and that early language delay is an additional risk for ADHD.

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ANAE Approche Neuropsychol Apprentiss Enfant. 2011;23:353-56.

MAINSTREAMING OF AN ADHD BOY WITHIN A BASIC CLASSROOM.

Op De Beeck P, Meuris V.

V. a nine year old schoolboy displaying an ADHD (dominant inattention sphere) is now being provided with schooling within a CP/CE1 classroom in a Belgian basic school. A four period integration process of speech therapy has been set up. What are the aims of this project? How these two spheres of activity (pedagogical/therapeutic) are linked together? Do we have to speak of adaptation or individualization in school leaving?

Appetite. 2012;58:672-78.

Laboratory snack food intake, negative mood, and impulsivity in youth with ADHD symptoms and episodes of loss of control eating. Where is the missing link?

Hartmann AS, Rief W, Hilbert A.

To compare laboratory food intake, negative mood and trait impulsivity and their association with attention deficit hyperactivity disorder (ADHD) and loss of control (LOC) eating in youth (middle childhood to early adolescence). Ninety 10-14. year old youths with symptoms of ADHD, symptoms of LOC eating, and control participants took part in a laboratory snack food meal after having rated trait impulsivity. Negative mood was self-reported pre and post snack food meal, while representativeness of eating behavior and liking of the food was assessed post laboratory snack food meal. The ADHD group consumed more snack food than the other groups. Food intake was not influenced by negative mood or trait impulsivity. All groups exhibited a decrease in negative mood from pre to post food intake that was not accounted for by level of hunger or liking of the food. The greater food intake of the ADHD group compared to the other groups may contribute to the development of overweight and therefore be in accordance with the high co-morbidity reported between ADHD and obesity in youth. The influence of impulsivity and negative mood on food intake could not be shown, which corroborates a recent review on the association of negative mood and bingeing in adults but needs further assessment, particularly in the younger age groups.

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Arch Gen Psychiatry. 2011 Dec;68:1267-75.

EARLY RISK FACTORS FOR HYPERACTIVITY-IMPULSIVITY AND INATTENTION TRAJECTORIES FROM AGE 17 MONTHS TO 8 YEARS.

Galéra C, Côté SM, Bouvard MP, et al.

Context: Attention-deficit/hyperactivity disorder is an etiologically heterogeneous neurodevelopmental condition with long-term negative outcomes. However, the early developmental course of hyperactivity-impulsivity and inattention symptoms and their association with previous environmental risk factors are still poorly understood.

Objectives: To describe the developmental trajectories of hyperactivity-impulsivity and inattention symptoms and to identify their prenatal, perinatal, and post-natal risk factors.

Design: Birth cohort from the general population. Setting: Quebec Longitudinal Study of Child Development.

Participants: The sample consisted of 2057 individuals, followed up from age 5 months to 8 years.

Main Outcome Measures: Prenatal, perinatal, and post-natal risk factors assessed at age 5 months were considered predictors of group membership in high hyperactivity- impulsivity and inattention trajectories from age 17 months to 8 years.

Results: The frequency of hyperactivity-impulsivity symptoms tended to slightly decrease with age, whereas the frequency of inattention symptoms substantially increased up to age 6 years. However, trajectories of hyperactivity- impulsivity and inattention symptoms were significantly associated with each other. Risk factors for high trajectories of both types of symptoms were premature birth (adjusted odds ratio [aOR], 1.93; 95% CI, 1.07-3.50), low birth weight (2.11; 1.12-3.98), prenatal tobacco exposure (1.41; 1.03-1.93), nonintact family (1.85; 1.26-2.70), young maternal age at birth of the target child (1.78; 1.17-2.69), paternal history of antisocial behavior (1.78; 1.28-2.47), and maternal depression (1.35; 1.18-1.54).

Conclusions: A large range of early risk factors, including prenatal, perinatal social, and parental psychopathology variables, act independently to heighten the likelihood of having persistently high levels of hyperactivity-impulsivity and inattention symptoms from infancy to middle childhood. Early interventions should be experimented with to provide effective tools for attention-deficit/hyperactivity disorder prevention.

Arq Neuro-Psiquiatr. 2012;70:91-96.

PERFORMANCE PATTERNS IN CONNERS' CPT AMONG CHILDREN WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER AND DYSLLEXIA.

Miranda MC, Barbosa T, Muszkat M, et al.

This study investigated the performance of children with attention deficit hyperactivity disorder (ADHD) and dyslexia using Conners' Continuous Performance Test (CCPT). The clinical groups were composed of 52 children with ADHD and 32 children with dyslexia. Performance in the CCPT was evaluated using ANCOVA to compare the clinical groups with the normative Brazilian sample. The ADHD group performed worse than the normative sample in almost all of the measurements, except for reaction time and response style. The dyslexia group scored higher on commissions, variability, perseverations and inconsistency in the reaction time over the six time blocks (Hit SE Block Change) than the children in the normative Brazilian sample. The ADHD and dyslexia groups differed in omission measurements, Hit RT SE, variability, perseverations, Hit RT Interstimulus Intervals (ISI) Change and Hit SE ISI Change. We thus found that the dyslexia group had specific deficit patterns, with greater response to non-target stimuli, greater perseveration and response variability, and difficulties in hit reaction time as the test progressed.

Behav Genet. 2011;41:893.

GENOTYPE AND ADHD SYMPTOMS INTERACT TO PREDICT ADOLESCENTS' EARLY SMOKING EXPERIENCES IN AN EPIDEMIOLOGICAL SAMPLE.

Bidwell LC, Garrett ME, McClernon FJ, et al.

Introduction: The valence (positive or negative) of the initial reaction to cigarette smoking predicts later regular smoking. Symptoms of attention-deficit hyperactivity disorder (ADHD) increase smoking risk and may moderate the relationship between genotype and smoking. We conducted an exploratory study to assess whether ADHD symptoms interact with genotype to predict the valence of self-reported initial reactions to smoking.

Methods: Participants were a subsample of 1,900 unrelated individuals with genotype data drawn from the National Longitudinal Study of Adolescent Health (Add Health), a nationally representative sample of adolescents followed from 1995 to 2002. Linear regression was used to examine relationships among self-reported ADHD symptoms, genotype, and self-reported initial reaction to cigarettes (9 items reflecting pleasant or unpleasant reactions).

Results: Polymorphisms in the DRD2 gene, SLC6A4 gene, and, among males, the MAOA gene interacted with retrospective reports of ADHD symptoms in predicting pleasant initial reaction to cigarettes. Polymorphisms in the CYP2A6 gene, and, among females, the MAOA gene interacted with retrospective reports of ADHD symptoms in predicting unpleasant initial reaction to cigarettes. No main effect for any of these polymorphisms was observed nor were any interactions with DRD4 and DAT genes.

Conclusions: These findings suggest that genotypes associated with monoamine neurotransmission interact with ADHD symptoms to influence initial reactions to cigarette smoking. Given that initial reactions to cigarettes also predict lifetime smoking, these results add to a growing body of literature that suggests ADHD symptoms increase risk for smoking and should be accounted for in genetic studies of smoking.

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Behav Genet. 2011;41:917.

CHILD ADHD: MATERNAL XENOBIOTIC METABOLISM GENES AND SMOKING DURING PREGNANCY.

Knopik V, McGeary J, Nugent N, et al.

Maternal smoking during pregnancy (MSDP) is a major public health concern with clearly established consequences to both mother and newborn (e.g., low birth weight, altered cardiorespiratory responses). MSDP has also been associated with higher rates of a variety of poor cognitive and behavioral outcomes in children, including attention deficit hyperactivity disorder (ADHD). However, the evidence suggesting causal effects of MSDP for these outcomes is muddled in the existing literature due to the frequent inability to separate prenatal exposure effects from other confounding environmental and genetic factors. Moreover, specifically considering the genetic influence on the ability of an individual to convert toxic metabolites of cigarette smoke to less harmful ones is important for minimizing other adverse health effects. Using preliminary data from 110 families with full siblings discordant for prenatal tobacco exposure (ages 8-15 years old), we explored the association between MSDP and ADHD-related behavior while also considering the role of two xenobiotic [i.e., corresponding to a chemical compound (such as a drug, pesticide, or carcinogen) that is foreign to a living organism] metabolism genes (CYP1A1 and GSTT1; typed in mothers) in the association between MSDP and child ADHD-related behavior. Results from between-family comparisons of unrelated individuals yield a significant association between maternal GSTT1, but not CYP1A1, and ADHD symptomatology. Moreover, when comparing unrelated exposed children to non-exposed children, results suggest an effect of MSDP on higher ADHD symptomatology. Finally, symptom scores were highest in those children whose mothers smoked during pregnancy and carried the risk GSTT1 genotype. However, when considering full siblings discordant for exposure, the within family MSDP effect was negligible, suggesting that the association between MSDP and ADHD-related behaviors is largely explained by characteristics that are shared between siblings. Moreover, analyses suggest that maternal GSTT1 effects may potentially account for between-family MSDP effects that are seen.

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Behav Genet. 2011;41:937.

OVERLAPPING GENETIC INFLUENCES ON TRAITS OF AUTISM AND ADHD: EVIDENCE FROM A 12-YEAR-OLD COMMUNITY-BASED TWIN SAMPLE.

Taylor M, Charman T, Ronald A.

High rates of comorbidity have been reported between autism spectrum disorder (ASD) and attention-deficit/hyperactivity disorder (ADHD). Prior research indicates that both disorders may be highly heritable, with estimates as high as 90% for ASD and 76% for ADHD. Recent research has reported moderate genetic correlations between traits of ASD and ADHD; for example, data derived from the Twins Early Development Study (TEDS) yielded genetic correlations of .50 for these traits in middle childhood [Ronald, A. et al. (2008) J Child Psychol Psych 49 (5): 535-542]. The shared genetic overlap between ASD and ADHD has yet to be investigated longitudinally, or in early adolescence. This study aimed to explore the association between traits of ASD and ADHD in the TEDS cohort at age 12. TEDS is a community sample of twin pairs born in England and Wales between 1994 and 1996. 7,204 twin pairs provided data; parents completed the Child Autism Symptom Test and the Conners ADHD subscale. Phenotypic correlations were compared between monozygotic and dizygotic twins, and bivariate twin model-fitting was carried out using Mx. A significant phenotypic correlation was present between CAST and Conners (0.48, $p < 0.001$). Cross-trait cross-twin correlations were stronger for MZ twins (0.35) than DZ twins (0.15). An ADE model provided the best fit to the data, which estimated an additive genetic correlation of 0.54. These results in early adolescence are consistent with research with different age groups (e.g. 8-year-olds [Ronald et al., 2008], and young adults [Reiersen, A. et al. (2008) Twin Res Hum Genet 11 (6): 579-585]). These findings

suggest that there are common genetic influences across traits of ASD and ADHD, which are consistent between 8- and 12-year olds in this sample. Such research has implications for molecular genetic studies and clinical evaluation of ASD and ADHD.

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Behav Genet. 2011;41:908.

LONGITUDINAL ANALYSES OF INHIBITORY CONTROL AND ADHD-RELATED BEHAVIOR PROBLEMS AND SYMPTOMS: TODDLERHOOD, FIRST GRADE AND EARLY ADOLESCENCE.

Gagne J, Lemery-Chalfant K, Goldsmith H.

Inhibitory control (IC) is a dimension of child temperament involving the ability to appropriately regulate behavior. In middle childhood, low levels of IC are associated with higher levels of non-clinical behavior problems and ADHD. Multiple twin studies indicate that IC is genetically influenced (J. R. Gagne & K. S. Saudino, 2010; J. R. Gagne & H. H. Goldsmith, 2011). In addition, researchers have examined genetic and environmental covariance between IC and behavior problems in toddlerhood (J. R. Gagne & K. S. Saudino, invited revision) and school age (K. Lemery-Chalfant, L. Doelger, H. H. Goldsmith, 2008). This longitudinal twin investigation focuses on IC, ADHD-related behavior problems, and ADHD symptoms across toddlerhood, first grade and early adolescence. Participants included 358 MZ and 694 DZ twin pairs from the Wisconsin Twin Project. Mother ratings of IC were collected in toddlerhood and first grade, and mother ratings of ADHD-related behavior problems and ADHD symptoms were collected in first grade and early adolescence. Phenotypic correlations between IC and ADHD measures ranged from -.27 to -.66, indicating that children with lower IC had higher maladjustment. MZ correlations exceeded DZ correlations, suggesting the presence of genetic influences. Univariate analyses indicated that genetic influences were significant for all variables (heritabilities ranged from .63-.73). Multivariate Cholesky decomposition models yielded parameter estimates consistent with the univariate models, and significant genetic correlations between IC and ADHD measures (-.44 to -.97). Results show that toddler IC is associated with ADHD-related measures in first grade, and first grade IC is related to ADHD measures concurrently and in early adolescence. These findings also indicate that earlier assessments of IC can be considered genetic risk factors for later ADHD-related behavior problems and symptoms. Future analyses will include behavioral assessments of IC in first grade and associations with candidate genes.

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Brain Res. 2012.

ALTERED CORTICAL MORPHOLOGY IN SENSORIMOTOR PROCESSING REGIONS IN ADOLESCENTS AND ADULTS WITH ATTENTION-DEFICIT/HYPERACTIVITY DISORDER.

Duerden EG, Tannock R, Dockstader C.

Attention-deficit/hyperactivity disorder (ADHD) is a neurodevelopmental disorder that is common in children and frequently persists into adulthood. While ADHD is characterized by developmentally inappropriate, persistent and impairing levels of inattention, impulsiveness and hyperactivity, it is also associated with sensorimotor deficits and altered neural processing of somatosensory stimuli, as well as with executive function deficits. The latter are associated with thinning of frontal lobe structures in ADHD; however, few structural neuroimaging studies have focused on changes in brain morphology in sensorimotor regions in this population. Moreover, little is known about morphological changes that occur in these regions throughout the developmental trajectory into adulthood. In this preliminary cross-sectional study, we examined cortical thickness with a focus on brain regions involved in sensorimotor processing in adolescents and adults with ADHD compared to neurotypical cohorts. Compared to controls, adolescents with ADHD showed significant increased cortical thickness in the pre-supplementary motor area (SMA) and adults with ADHD showed increased thickness in the primary somatosensory cortex (SI). Based on these differences, we collated the data from the adolescents and adults and examined possible age null group interaction effects on cortical thickness. A significant interaction effect was found in SI where healthy participants showed decreased thickness in this region at older ages, whereas the ADHD cohort showed

little change. Results suggest that sensorimotor brain regions are altered in ADHD and these changes may not dissipate in adolescence, but rather persist into adulthood.

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Canadian Journal of School Psychology. 2011 Dec;26:301-18.

SOCIAL CORRELATES OF BULLYING IN ADOLESCENTS WITH ATTENTION-DEFICIT/HYPERACTIVITY DISORDER.

Timmermanis V, Wiener J.

The present study examines the levels and social correlates of bullying in adolescents with Attention-Deficit/Hyperactivity Disorder (ADHD). Sixty-four male and female participants (40 ADHD) and their parents and teachers complete standardized questionnaires. Compared to adolescents without ADHD, adolescents with ADHD are more likely to report experiencing victimization by peers and participating in bullying others. Among adolescents with ADHD, those who had experienced victimization by peers perceive lower levels of social support and have higher levels of parent-reported peer relations problems. Bullying others is not associated with perceptions of social support or parent-reported peer relations problems. Implications for future research and clinical assessment are discussed.

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Child Adolesc Ment Health. 2012.

REVIEW: PSYCHOPATHOLOGY IN CHILDHOOD EPILEPSY.

Reilly C, Kent E, Neville BG.

Background: Population-based studies of psychopathology are important in childhood epilepsy given that there is a spectrum of severity with regard to the impact of epilepsy and associated behavioural/psychiatric difficulties.

Method: Population-based studies in childhood epilepsy which have focused on global measures of psychopathology and rates of specific behavioural and psychiatric disorders were reviewed with respect to prevalence of disorders and possible correlates of difficulties. Clinic-based studies and meta-analyses were reviewed where they added to an understanding of the correlates or treatment of psychopathology in childhood epilepsy. The systematic review methodology was based on a search of PubMed from January 1980 to June 2011.

Results: Children with epilepsy are at significantly higher risk for a range of behavioural and psychiatric disorders including attention deficit/hyperactivity disorder (ADHD), autism spectrum disorder (ASD), depressive and anxiety disorders. Available evidence suggests that these difficulties are under-recognised and there have been few studies focussing on interventions to treat these behavioural and psychiatric issues in childhood epilepsy.

Conclusion: Population-based studies suggest high rates of psychopathology in childhood epilepsy. As a result children with epilepsy need close monitoring with regard to the presence of behavioural difficulties. There is a need for studies on how such difficulties can be best managed so that affected children and their families can maximise their quality of life.

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Child Adolesc Ment Health. 2012.

A RANDOMIZED CONTROLLED PILOT STUDY INTO THE EFFECTS OF A RESTRICTED ELIMINATION DIET ON FAMILY STRUCTURE IN FAMILIES WITH ADHD AND ODD.

Pelsser LM, Van Steijn DJ, Frankena K, et al.

Background: Behavioural improvements of children with attention-deficit hyperactivity disorder (ADHD) and oppositional defiant disorder (ODD) following a restricted elimination diet (RED), may be due to concurrent changes in family environment.

Methods: Twenty-four children with ADHD, were randomized to either a 5-week RED intervention, or a control intervention consisting of healthy food advices in a pilot study.

Results: No differences in family environment were found, neither at baseline nor when comparing the start and end measurements of both groups.

Conclusions: In this pilot study, the effects of an RED on ADHD and ODD are not mediated by improvement of family environment in families motivated to follow an RED. Replication of this preliminary study in larger groups of children is advised.

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Child Adolesc Psychiatr Clin North Am. 2012 Jan;21:145-59.

STRATEGIES FOR IMPLEMENTING EVIDENCE-BASED PSYCHOSOCIAL INTERVENTIONS FOR CHILDREN WITH ATTENTION-DEFICIT/HYPERACTIVITY DISORDER.

Eiraldi RB, Mautone JA, Power TJ.

An extensive amount of research has demonstrated the effectiveness of psychosocial interventions for children with attention-deficit/hyperactivity disorder (ADHD). Historically, the research has focused on interventions targeting problems in the home or school setting, but more recent research has highlighted the importance of family—school partnerships and conjoint approaches to intervention involving family and school. Effective approaches to psychosocial intervention consist of strategies to address performance deficits, promote adaptive behavior, and improve children's self-control and academic and social skills. This article examines strategies for implementing evidence-based psychosocial interventions for children with ADHD.

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Child Neuropsychol. 2012 Jan;18:50-61.

PREPOTENT RESPONSE INHIBITION PREDICTS TREATMENT OUTCOME IN ATTENTION DEFICIT/HYPERACTIVITY DISORDER.

Van der Oord S, Geurts HM, Prins PJM, et al.

Objective: Inhibition deficits, including deficits in prepotent response inhibition and interference control, are core deficits in ADHD. The predictive value of prepotent response inhibition and interference control was assessed for outcome in a 10-week treatment trial with methylphenidate.

Methods: Thirty-four children with ADHD (ages 8–12) received 10 weeks of methylphenidate treatment. At pretest prepotent response inhibition was assessed using the Stop-Signal Task; interference control was assessed using the Stroop Color-Word task. Methylphenidate was individually titrated to an optimal dose. Treatment outcome was assessed by parent- and teacher-rated ADHD behavior.

Results: Only stop-signal reaction time of the Stop-Signal Task was a significant predictor of parent-rated levels of inattention and hyperactivity/impulsivity at outcome. Children with lower levels of inhibition showed worse outcome after 10 weeks of treatment, independent of medication dose.

Conclusions: Low levels of prepotent response inhibition are associated with worse response to treatment with methylphenidate. Prepotent response inhibition may be an intermediate phenotypical predictor of treatment outcome.

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Clin Ther. 2012;34:363-73.

ATOMOXETINE TREATMENT OUTCOMES IN ADOLESCENTS AND YOUNG ADULTS WITH ATTENTION-DEFICIT/HYPERACTIVITY DISORDER: RESULTS FROM A POST HOC, POOLED ANALYSIS.

Adler LA, Wilens T, Zhang S, et al.

Background: Many children with attention-deficit/hyperactivity disorder (ADHD) continue to experience this disorder as adults, which may, in part, be due to the discontinuity of health care that often occurs during the transition period between late adolescence and young adulthood. Although atomoxetine is reported to be efficacious in both adolescents and young adults, no longitudinal studies have been designed to assess directly the effects of atomoxetine treatment during this transition period. As a first step, we present the

results of a post hoc, pooled analysis that compared the efficacy and safety profile of atomoxetine in these 2 patient populations.

Objective: The aim of the present study was to assess the efficacy and safety profile of atomoxetine treatment in adolescents and young adults with ADHD.

Methods: A post hoc, pooled analysis was conducted by combining data from 6 double-blind trials (6-9 weeks in duration) that studied adolescents (12-17 years of age; atomoxetine, n = 154; placebo, n = 88; mean final dose = 1.38 mg/kg) and 3 trials (10 weeks in duration) that studied young adults (18-30 years of age; atomoxetine, n = 117; placebo, n = 125; mean final dose = 1.21 mg/kg). Efficacy measures used in these analyses were ADHD Rating Scale (ADHDRS) for adolescents, Conners' Adult ADHD Rating Scale (CAARS) for young adults, and Clinical Global Impressions-ADHD-Severity (CGI-ADHD-S) for both age groups. Treatment response was defined as (greater-than or equal to)30% reduction from baseline in total ADHD symptom score. Results: In adolescents (mean age, 13.4 years), atomoxetine improved ADHD significantly compared with placebo (ADHDRS total score change, -12.9 vs -7.5; $P < 0.001$). In young adults (mean age, 24.7 years), atomoxetine improved ADHD significantly (CAARS total score change, -13.6 vs -7.7; $P < 0.001$; CGI-ADHD-S change, -1.1 vs -0.6; $P < 0.001$). No significant treatment-by-age subgroup interaction was observed. Tolerability was similar for both age subgroups, except for treatment-emergent nausea, which occurred significantly more frequently with atomoxetine than with placebo in young adults (13.7% vs 4.8%, respectively; $P = 0.024$); in adolescents no statistically significant differences were observed in frequency of nausea between atomoxetine and placebo treatment (4.5% vs 10.2%, respectively; $P = 0.108$).

Conclusions: Results from this post hoc, pooled analysis suggest that acute treatment with atomoxetine was efficacious in both adolescent and young adult patients with ADHD. The safety profile findings from this study were consistent with the previously reported atomoxetine safety and tolerability profiles, suggesting that it may be continued during the transition from adolescence to young adulthood.

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CNS Neurosci Ther. 2012;18:34-40.

BRAIN BIOCHEMICAL EFFECTS OF METHYLPHENIDATE TREATMENT USING PROTON MAGNETIC SPECTROSCOPY IN YOUTH WITH ATTENTION-DEFICIT HYPERACTIVITY DISORDER: A CONTROLLED PILOT STUDY.

Hammerness P, Biederman J, Petty C, et al .

Introduction: This study conducted spectroscopic analyses using proton (^1H) Magnetic Resonance Spectroscopy (at 4 Tesla) in a sample of adolescents with Attention Deficit Hyperactivity Disorder (ADHD), before and after treatment with extended release methylphenidate (OROS MPH), as compared to a sample of healthy comparators.

Aims: The main aim of this study is to use ^1H MRS to measure differences in brain biochemistry between adolescents with and without ADHD, and to assess changes in cerebral biochemistry, before and after stimulant treatment in ADHD youth.

Results: Subjects with ADHD were medically healthy adolescents treated in an open label fashion with OROS MPH (mean dose: 54 mg/day; 0.90 mg/kg/day). Subjects with ADHD were scanned before and after OROS MPH treatment. Healthy comparators were scanned once. Magnetic resonance (MR) spectroscopy studies were performed on a 4.0 T Varian Unity/Inova MR scanner; proton spectra were acquired from the Anterior Cingulate Cortex (ACC). Data were analyzed using MANOVA and repeated measurement ANOVA. Higher metabolite ratios (Glutamate/myo-inositol, Glutamine/myo-inositol, Glutamate + Glutamine/myo-inositol) were observed in the ACC in untreated ADHD subjects as compared to controls, and to treated ADHD youth; these group differences did not reach the a priori threshold for statistical significance.

Conclusions: These preliminary findings suggest the presence of glutamatergic abnormalities in adolescents with ADHD, which may normalize with MPH treatment. Larger sample, controlled studies are needed to confirm these preliminary findings.

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Cogn Behav Pract. 2012;19:31-40.

DISORDERED ATTENTION: IMPLICATIONS FOR UNDERSTANDING AND TREATING INTERNALIZING AND EXTERNALIZING DISORDERS IN CHILDHOOD.

Racer KH, Dishion TJ.

In this article, we present evidence that disorders of attention are present in wide range of psychological disorders, and that the appropriate assessment and treatment of these attention difficulties can be an important adjunct to traditional therapeutic approaches. We review approaches to attention training in some detail and discuss how attention-focused treatment might be implemented in clinical practice.

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Consultant. 2011;51:824-33.

ADHD TREATMENT: STRATEGIES FOR OPTIMIZING ADHERENCE.

Charach A.

The likelihood that patients with attention-deficit hyperactivity disorder (ADHD) will start stimulant medication can generally be identified at the initial diagnostic assessment. There are 4 empirically supported theoretical models of behavior that can be applied to medication adherence in children and adolescents who take stimulants for ADHD. These health behavior models help explain the impact of parents' and children's beliefs on medication use decision making. A trial of psychostimulants can assist families who continue to have doubts about their use. Use of standardized symptom and adverse effect checklists during the trial is helpful when comparing efficacy and safety of different preparations. Proper monitoring and communication can address problems and questions early on, thereby increasing adherence.

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Cortex. 2012;48:194-215.

A REVIEW OF FRONTO-STRIATAL AND FRONTO-CORTICAL BRAIN ABNORMALITIES IN CHILDREN AND ADULTS WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD) AND NEW EVIDENCE FOR DYSFUNCTION IN ADULTS WITH ADHD DURING MOTIVATION AND ATTENTION.

Cubillo A, Halari R, Smith A, et al.

Attention Deficit Hyperactivity Disorder (ADHD) has long been associated with abnormalities in frontal brain regions. In this paper we review the current structural and functional imaging evidence for abnormalities in children and adults with ADHD in fronto-striatal, fronto-parieto-temporal, fronto-cerebellar and fronto-limbic regions and networks. While the imaging studies in children with ADHD are more numerous and consistent, an increasing number of studies suggests that these structural and functional abnormalities in fronto-cortical and fronto-subcortical networks persist into adulthood, despite a relative symptomatic improvement in the adult form of the disorder. We furthermore present new data that support the notion of a persistence of neurofunctional deficits in adults with ADHD during attention and motivation functions. We show that a group of medication-naïve young adults with ADHD behaviours who were followed up 20 years from a childhood ADHD diagnosis show dysfunctions in lateral fronto-striato-parietal regions relative to controls during sustained attention, as well as in ventromedial orbitofrontal regions during reward, suggesting dysfunctions in cognitive-attentional as well as motivational neural networks. The lateral fronto-striatal deficit findings, furthermore, were strikingly similar to those we have previously observed in children with ADHD during the same task, reinforcing the notion of persistence of fronto-striatal dysfunctions in adult ADHD. The ventromedial orbitofrontal deficits, however, were associated with comorbid conduct disorder (CD), highlighting the potential confound of comorbid antisocial conditions on paralimbic brain deficits in ADHD. Our review supported by the new data therefore suggest that both adult and childhood ADHD are associated with brain abnormalities in fronto-cortical and fronto-subcortical systems that mediate the control of cognition and motivation. The brain deficits in ADHD therefore appear to be multi-systemic and to persist throughout the lifespan.

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Drugs. 2012;72:309-25.

PHARMACOTHERAPY OF ATTENTION-DEFICIT HYPERACTIVITY DISORDER IN ADOLESCENTS.

Childress AC, Berry SA.

Attention-deficit hyperactivity disorder (ADHD) is a common neurobehavioural disorder in children and adolescents, consisting of developmentally inappropriate levels of inattention and/or hyperactivity and impulsivity. The majority of children with ADHD will continue to experience significant ADHD symptoms as teens. ADHD in adolescents can result in significant functional impairment and poorer quality of life. Children and adolescents with ADHD are at higher risk of developing other psychiatric illnesses such as mood, conduct and substance abuse disorders. Stimulants (amphetamines and methylphenidates) and nonstimulants (atomoxetine, guanfacine extended-release (XR) and clonidine XR) have been found to be effective and are approved by the US FDA for the treatment of ADHD in adolescents in the US. Of the agents approved in the US, only guanfacine XR and clonidine XR are not approved in any other countries. There is growing evidence that treatment of ADHD with stimulants reduces the risk of development of other psychiatric co-morbidities, including substance abuse disorders. To date, all FDA-approved stimulants and nonstimulants that have been adequately studied have been demonstrated to be safe and effective in treating ADHD in both children and adolescents. Therefore, clinical decisions used in selecting pharmacotherapy to treat ADHD in children aged 6-12 years can be applied in the adolescent population.

Epidemiology and Psychiatric Sciences. 2011 Dec;20:367-72.

MATERNAL AND PATERNAL PSYCHOPATHOLOGY INCREASES RISK OF OFFSPRING ADHD EQUALLY.

Lindblad F, Weitoff GR, Hjern A.

Background: Parental psychopathology may increase the risk of attention-deficit hyperactivity disorder (ADHD) in the offspring. The aim of this study was to analyze if/how gender influences the association between parental psychiatric/addictive disorders and ADHD medication in the offspring.

Methods: Register study in national birth cohorts of 1.1 million 6–19-year-olds. In this population, 7960 individuals with ADHD medication were identified in the Swedish Prescribed Drug Register during 2006. Data on parental psychiatric/addictive disorders and suicide death were obtained through linkages to national registers. Logistic regression was used for analyses with multiple adjustments for socio-economic, regional and demographic confounders.

Results: Parental diagnosis related to illicit drugs was associated with the highest odds ratios (ORs) of ADHD medication (OR: ~3.5–4), followed by suicide attempt/death (OR: ~ 3–3.5), alcohol (OR: ~2.5–3), affective disorder (OR: ~ 2.5) and psychosis (OR: ~ 2–2.5). The ORs were of similar magnitudes for maternal and paternal psychopathology and did not vary by the gender of the offspring. Adjusting for social characteristics decreased the ORs substantially and in the same way regarding fathers' and mothers' possible influence on the risk of ADHD in children.

Conclusions: Neither parental nor offspring gender seems to influence the link between parental addictive/psychiatric disorder and offspring ADHD.

Epilepsia. 2012;53:325-33.

ATTENTION-DEFICIT/HYPERACTIVITY DISORDER IN CHILDHOOD EPILEPSY: A NEUROPSYCHOLOGICAL AND FUNCTIONAL IMAGING STUDY.

Bechtel N, Kobel M, Penner IK, et al.

Purpose: Children with epilepsy have a significant risk for attention-deficit/hyperactivity disorder (ADHD), which is often accompanied by deficits in working memory performance. However, it is not yet clear whether there are specific differences in the underlying mechanisms of working memory capability between children with epilepsy-related ADHD and those with developmental ADHD. There is evidence that methylphenidate can improve the behavioral difficulties in children with developmental ADHD. Whether this medication has the same effect on ADHD symptoms in patients with epilepsy is not yet well understood. The aim of the present study is, therefore, to evaluate whether boys with epilepsy-related ADHD and

developmental ADHD share a common behavioral, pharmacoresponsive, and neurofunctional pathophysiology.

Methods: Seventeen boys with diagnosed combined epilepsy/ADHD, 15 boys with developmental ADHD, and 15 healthy controls (aged 8-14 years) performed on working memory tasks (N-back) while brain activation was recorded using functional magnetic resonance imaging.

Each patient was tested twice: once after the intake of methylphenidate and once without in a counterbalanced order.

Key Findings: On a behavioral level, we show that boys with epilepsy-related ADHD as well as those with developmental ADHD performed similarly poorly on tasks with high cognitive load when compared to healthy controls, and that intake of methylphenidate improved performance almost to normal levels in both ADHD groups. On the functional level, both patient groups showed similar reductions of activation in all relevant parts of the functional network of working memory when compared to controls. Of interest, intake of methylphenidate did not significantly alter this activity pattern.

Significance: Our data show strong similarities between epilepsy-related and developmental ADHD on the behavioral, pharmacoresponsive, and neural level, favoring the view that ADHD with and without epilepsy shares a common underlying neurobehavioral pathophysiology.

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Eur Child Adolesc Psychiatry. 2012;1-12.

WITHIN-SUBJECT VARIABILITY DURING SPATIAL WORKING MEMORY IN CHILDREN WITH ADHD: AN EVENT-RELATED POTENTIALS STUDY.

Myatchin I, Lemiere J, Danckaerts M, et al.

Working memory (WM) dysfunction and increased within-subject variability are known issues in attention deficit/hyperactivity disorder (ADHD) patients. Little is known about the electrophysiological characteristics of this variability. We evaluated behavioral and electrophysiological within-subject variability taking developmental aspects into account in a group of ADHD patients. Multichannel (n = 31) event-related potentials (ERP) were measured during a visuo-spatial backmatching task; 44 children (8-16 years old) were tested: 22 children with ADHD, combined (n = 17) and inattentive (n = 5) type, and 22 age- and intelligence-matched control children. One-backmatching (BM1) and two-backmatching (BM2) tasks were performed. Classical behavioral parameters and target and nontarget ERP were compared between groups. In addition, motor response variability and ERP amplitude variability were studied. Age-related changes in both motor response and ERP amplitude variability were analyzed in each group. Attention deficit/hyperactivity disorder children made more commission errors, which was more pronounced in the difficult (BM2) task. No difference between groups was found in ERP amplitude and in motor response variability. However, ADHD patients had higher ERP amplitude variability, which was again more pronounced in the difficult WM task. A delayed maturation of amplitude variability was seen in ADHD patients with a slower than in controls decrease in variability with age. This amplitude variability was correlated with the number of commissions, but in an opposite way for ADHD and control children. Our findings indicate an impaired visuo-spatial WM processing in ADHD children with greater ERP amplitude variability compared to controls. Our results also support the view of a delayed cortical development of visuo-spatial WM circuits in this disorder.

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Eur J Pediatr. 2012;1-8.

POSTURAL CONTROL AMONG CHILDREN WITH AND WITHOUT ATTENTION DEFICIT HYPERACTIVITY DISORDER IN SINGLE AND DUAL CONDITIONS.

Shorer Z, Becker B, Jacobi-Polishook T, et al.

Given the known deficits in attention in attention deficit hyperactivity disorder (ADHD) and the evidence suggesting that postural control requires attention, this study aimed to investigate the mechanisms of postural control of children with and without ADHD in single-(ST) and dual-task (DT) conditions. Postural sway and stabilogram diffusion analysis (SDA) were performed on the Center of Pressure trajectories on 24 ADHD children and 17 age-gender-matched healthy controls. The subjects were instructed to stand as

stable as possible on a force platform in two task conditions: (1) single task (ST) and (2) dual task (DT)-an auditory-memory attention-demanding cognitive task. During ST and DT conditions, the ADHD children showed significantly greater ML-sway, short- and long-term effective diffusion coefficients, and critical displacement of SDA compared with controls. The effects of DT were somewhat unexpected; the control group indicated a significant decrease in ML-sway, AP-sway, sway area, and critical displacement of SDA; the ADHD group showed a significant decrease in ML-sway range and critical displacement. It is concluded that a greater sway displacement before closed-loop mechanisms is called into play in ADHD children. The DT enhanced balance control by reinforcing balance automaticity and minimizing sway in both healthy and ADHD children.

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Eur J Pediatr. 2012;171:271-80.

RELATIONSHIP BETWEEN SYMPTOMS OF ATTENTION-DEFICIT/HYPERACTIVITY DISORDER AND FAMILY FUNCTIONING: A COMMUNITY-BASED STUDY.

Cussen A, Sciberras E, Ukoumunne OC, et al.

This study examined the relationship between family functioning and attention-deficit/hyperactivity disorder (ADHD) symptoms in an Australian community-based sample. Children were screened for ADHD in their second year of formal schooling. Two hundred and two (202) primary caregivers completed validated measures of family quality of life (QoL), parent mental health, parenting styles and parental relationship quality. Compared with controls, parents of children screening positive for ADHD reported poorer family QoL in the domains of emotional impact (mean difference [MD] -20.1; 95% CI -38.2 to -1.9, $p = 0.03$) and impact on family activities (MD -17.2; 95% CI -27.9 to -6.5, $p = 0.002$), less parental warmth (MD -3.4; 95% CI -6.0 to -0.9, $p = 0.01$) and higher parental depression (MD 6.8; 95% CI 1.8 to 11.7, $p = 0.009$) and anxiety (MD 6.2; 95% CI 1.7 to 10.6, $p = 0.008$) after adjusting for socio-demographic characteristics and child conduct symptoms. Parents of children screening positive for ADHD reported higher stress (MD 4.5; 95% CI 1.2 to 7.1, $p = 0.007$) and more inconsistent (MD 3.0; 95% CI 1.2 to 4.8, $p = 0.002$) and hostile (MD = 2.2; 95% CI 1.0 to 3.4, $p = 0.001$) parenting after adjusting for socio-demographic factors only. No difference in parental relationship quality and parental inductive reasoning was identified. Conclusion: These findings suggest a strong association between poor family functioning and ADHD symptoms and carry implications for comprehensive ADHD management and the importance of seeing the child within the family context.

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Fam Med Prim Care Rev. 2011;13:798-803.

A QUALITATIVE SYSTEMATIC REVIEW OF COMPLEMENTARY AND ALTERNATIVE THERAPIES FOR CHILDHOOD ATTENTION DEFICIT HYPERACTIVITY DISORDER: BOTANICALS, DIET, MINERALS, AND HOMEOPATHY.

Searight HR, Robertson K, Smith T, et al.

Parents of children with Attention Deficit Hyperactivity Disorder (AD/HD) are often seeking information about complementary and/or alternative medical treatments (CAM) for their child's condition. The interest in CAM for AD/HD likely stems from parental concern about children taking a Schedule II controlled substance for multiple years. In addition, stimulant pharmacotherapy, the evidence based treatment of choice, is ineffective and/or associated with significant side effects in a sizable minority of treated children. A systematic review of published studies examining the efficacy of homeopathic remedies, herbal treatments, mineral supplementation and dietary changes was conducted. While several types of therapy in each of these categories have been studied, methodological issues make it difficult to draw firm conclusions. Presently, there does appear to be some evidence supporting omega-3 oils and zinc supplementation in reducing parent-rated AD/HD symptoms. Some food additives may worsen symptoms in subgroups of children. At present, evidence is not adequate for recommending the following as CAM therapies for childhood AD/HD: 1. Herbal supplements, 2. Most micronutrients, 3. Sugar restriction, 4. Restricting exposure to artificial food colourings. It is possible that omega-3 oils and zinc may have value as adjunctive treatments.

Front Human Neurosci. 2012;1-9.

CAN TASK-SWITCHING TRAINING ENHANCE EXECUTIVE CONTROL FUNCTIONING IN CHILDREN WITH ATTENTION DEFICIT/HYPERACTIVITY DISORDER?

Kray J, Karbach J, Haenig S, et al.

The key cognitive impairments of children with attention deficit/hyperactivity disorder (ADHD) include executive control functions such as inhibitory control, task-switching, and working memory (WM). In this training study we examined whether task-switching training leads to improvements in these functions. Twenty children with combined type ADHD and stable methylphenidate medication performed a single-task and a task-switching training in a crossover training design. The children were randomly assigned to one of two groups. One group started with the single-task training and then performed the task-switching training and the other group vice versa. The effectiveness of the task-switching training was measured as performance improvements (relative to the single-task training) on a structurally similar but new switching task and on other executive control tasks measuring inhibitory control and verbal WM as well as on fluid intelligence (reasoning). The children in both groups showed improvements in task-switching, that is, a reduction of switching costs, but not in performing the single-tasks across four training sessions. Moreover, the task-switching training lead to selective enhancements in task-switching performance, that is, the reduction of task-switching costs was found to be larger after task-switching than after single-task training. Similar selective improvements were observed for inhibitory control and verbal WM, but not for reasoning. Results of this study suggest that task-switching training is an effective cognitive intervention that helps to enhance executive control functioning in children with ADHD.

Gent Test and Mol Biomarkers. 2012;16:67-69.

METHYLENETETRAHYDROFOLATE REDUCTASE GENE POLYMORPHISMS IN TURKISH CHILDREN WITH ATTENTION-DEFICIT/HYPERACTIVITY DISORDER.

Ergul E, Sazci A, Kara I.

Attention-deficit/hyperactivity disorder (ADHD) is a common, multifactorial genetic disorder. The aim of the present study was to evaluate a possible association between 5,10-methylenetetrahydrofolate reductase (MTHFR) gene polymorphisms and ADHD. There is evidence to suggest that MTHFR C677T and A1298C polymorphisms alter the function of the enzyme, causing reduced folate and increased homocysteine levels in plasma. Two polymorphisms of the MTHFR gene, C677T (rs1801133) and A1298C (rs1801131), were analyzed in a sample of 100 Diagnostic and Statistical Manual of Mental Disorders-IV-diagnosed ADHD and 300 healthy controls using a polymerase chain reaction-restriction fragment length polymorphism method. We did not find any association between MTHFR 677T allele, MTHFR 1298C allele, and ADHD. In addition, there was no genotype association between the MTHFR gene and ADHD ((chi)²=1.711; df=2; p=0.425; (chi)²=2.946; df=2; p=0.229). Our data suggest that neither the MTHFR C677T polymorphism nor the MTHFR A1298C polymorphism was associated with ADHD in Turkish children. Thus, the MTHFR gene does not seem to play a role in the etiopathogenesis of ADHD in the cohort studied.

Int J Endocrinol Metab. 2011;9:278-79.

CAN BODY WEIGHT REDUCTION IN OBESE CHILDREN IMPROVE ATTENTION DEFICIT HYPERACTIVITY DISORDER SYMPTOMS IN THE SHORT TERM? CLINICAL AND RESEARCH IMPLICATIONS.

Ghanizadeh A.

Int J Neuropsychopharmacol. 2012 Feb;15:27-39.

THE EVIDENCE-BASED PHARMACOLOGICAL TREATMENT OF PAEDIATRIC ADHD.

Vaughan BS, March JS, Kratochvil CJ.

Attention deficit hyperactivity disorder (ADHD) is common in children, adolescents, and adults, with extensive research establishing it as a valid neurobiological disorder. Without intervention, ADHD can result in significant impairment throughout the lifespan for the individuals it afflicts. Fortunately, multiple evidence-based options are available for the treatment of ADHD, including several efficacious pharmacotherapies. The role of medication, including stimulants as well as non-stimulants, is well-documented by an extensive body of literature. Although there may be less enthusiasm for behavioural and other psychosocial interventions as stand-alone treatments for moderate to severe ADHD, they are recommended as first-line treatment for ADHD management in preschool-aged children, for those patients with mild symptoms, and as an adjunct to medication in patients with comorbid disorders or suboptimal responses to pharmacotherapy. When planning treatment for individuals with ADHD, the potential risks associated with the available interventions must be carefully balanced against the risks of not treating, or not treating adequately. The treatment plan must also include ongoing re-assessment of the effectiveness of and the need for continued therapy. Recent practice parameters provide further specific guidance for the evidence-based assessment and treatment of children and adolescents with ADHD.

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Int J Neuropsychopharmacol. 2012;15:15-26.

COMPARATIVE STUDY OF OROS-MPH AND ATOMOXETINE ON EXECUTIVE FUNCTION IMPROVEMENT IN ADHD: A RANDOMIZED CONTROLLED TRIAL.

Yang L, Cao Q, Shuai L, et al.

This study aimed to compare the effects of osmotic release oral system-methylphenidate (OROS-MPH) and atomoxetine (ATX) on executive function in children and adolescents with attention deficit hyperactivity disorder (ADHD) by a randomized controlled trial. Subjects who met DSM-IV ADHD criteria were randomized to receive either OROS-MPH or ATX treatment. The doses were titrated to achieve optimal response and then maintained for 4-6 wk. A battery of executive function tests and the Behavior Rating Inventory of Executive Function (BRIEF) were administered to subjects who completed the dose titration (OROS-MPH, n=85; ATX, n=57) at the pre-and post-treatment periods. Forty-six children without ADHD were recruited as controls. Both OROS-MPH and ATX significantly improved scores in the Rey Complex Figure Test (RCFT), digit span, and Stroop color-word task. The scores in RCFT and the reverse digit span were not significantly different from the control group at post-treatment assessment (OROS-MPH=ATX=control, $p>0.05$), whereas the word interference time of the Stroop test was still more than that of the control group (OROS-MPH= ATX>control, $p>0.05$). OROS-MPH also significantly improved the total correct response in the verbal fluency test to normal level, and the shifting time in the trail-making test to subnormal level. The current findings suggest both OROS-MPH and ATX improved executive function generally in children and adolescents with ADHD, and could return working memory back to normative performance level.

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Int J Pediatr Otorhinolaryngol. 2012.

TRAINING CHILDREN WITH ADHD TO MINIMIZE IMPULSIVITY IN AUDITORY CONTRALATERAL MASKING.

Gray L, Miller BS, Evans SW.

Objective: Impulsivity and distractibility are among the important symptoms of attention deficit hyperactivity disorder (ADHD). In this study, impulsivity is operationally measured using false-alarm rates in an auditory, contralateral-masking task. Intensive auditory training was attempted to decrease false alarm rates.

Methods: In contralateral masking there is a distracting noise in one ear on every trial and a threshold-level tone in the other ear on half of those trials. Participants indicated whether the tone was present or not and received immediate feedback. The intensity of the masked tone was adaptively varied to track threshold. False alarms are the error of commission, saying that a stimulus is present when it is not. Seven school-

aged children with ADHD (ages 10-16) and four adults without ADHD were trained on this task for 900 trials per day over four consecutive days.

Results: False alarms from the children with ADHD decreased over the four days of training, beginning at the high level and ending at the low level expected from previous studies. There was no generalization to a different masking task. Results from the four adults were unexpected: soon after the training began they behaved no differently than the children with ADHD.

Conclusion: Children with ADHD can be trained to become less impulsive in an auditory detection task.

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Journal of Abnormal Child Psychology: An official publication of the International Society for Research in Child and Adolescent Psychopathology. 2012 Jan;40:145-57.

REWARD AND PUNISHMENT SENSITIVITY IN CHILDREN WITH ADHD: VALIDATING THE SENSITIVITY TO PUNISHMENT AND SENSITIVITY TO REWARD QUESTIONNAIRE FOR CHILDREN (SPSRQ-C).

Luman M, Van Meel CS, Oosterlaan J, et al.

This study validates the Sensitivity to Punishment and Sensitivity to Reward Questionnaire for children (SPSRQ-C), using a Dutch sample of 1234 children between 6–13 years old. Factor analysis determined that a 4-factor and a 5-factor solution were best fitting, explaining 41% and 50% of the variance respectively. The 4-factor model was highly similar to the original SPSRQ factors found in adults (Punishment Sensitivity, Reward Responsivity, Impulsivity/Fun-Seeking, and Drive). The 5-factor model was similar to the 4-factor model, with the exception of a subdivision of the Punishment Sensitivity factor into a factor with 'social-fear' items and a factor with 'anxiety' items. To determine external validity, scores of three groups of children with attention deficit hyperactivity disorder (ADHD) were compared on the EFA models: ADHD-only (n = 34), ADHD and autism spectrum disorder (ADHD+ASD; n = 22), ADHD and oppositional defiant disorder (ADHD+ODD; n = 22). All ADHD groups scored higher than typical controls on Reward Responsivity and on the 'anxiety' factor (n = 75). The ADHD-only and ADHD+ODD group scored higher than other groups on Impulsivity/Fun-Seeking and Drive, while the ADHD+ASD group scored higher on Punishment Sensitivity. The findings emphasize the value of the SPSRQ-C to quickly and reliably assess a child's sensitivity to reinforcement, with the aim to provide individually-tailored behavioral interventions that utilize reward and reprimands.

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Journal of Attention Disorders. 2012 Feb;16:138-46.

RELATIONSHIPS BETWEEN LEARNING DISABILITY, EXECUTIVE FUNCTION, AND PSYCHOPATHOLOGY IN CHILDREN WITH ADHD.

Mattison RE, Mayes SD.

Objective: Learning disabilities (LD), executive function (EF), and psychopathology were investigated to clarify their relationships in 595 children with ADHD.

Method: Standard instruments for IQ, achievement, EF, and parent and teacher ratings of psychopathology were obtained at the time of outpatient evaluation.

Results: Comparisons between the 437 children with LD (as defined by predicted achievement) and the 158 children without LD showed significantly worse EF in the LD group but no significant differences in verbal or performance IQ. Parent and teacher ratings of both ADHD and non-ADHD psychopathology also showed no significant differences between LD and No LD groups. Correlational analyses found that IQ, EF, and achievement measures were significantly related to each other; the same was also true for subscales of psychopathology as rated by parent and teachers. However, significant correlations between the cognitive/achievement measures and the psychopathology ratings were few.

Conclusion: The addition of LD to ADHD appears to be associated with worse executive dysfunction, but it does not affect ADHD or non-ADHD psychopathology according to both parents and teachers.

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Journal of Attention Disorders. 2012 Feb;16:147-56.

PARENTAL FUNCTIONING IN FAMILIES OF CHILDREN WITH ADHD: EVIDENCE FOR BEHAVIORAL PARENT TRAINING AND IMPORTANCE OF CLINICALLY MEANINGFUL CHANGE .

Gerdes AC, Haack LM, Schneider BW.

Objective/Method: Statistically significant and clinically meaningful effects of behavioral parent training on parental functioning were examined for 20 children with ADHD and their parents who had successfully completed a psychosocial treatment for ADHD.

Results/Conclusion: Findings suggest that behavioral parent training resulted in statistically significant improvements in some domains of parenting behavior for both mothers and fathers and in reductions in most domains of parenting stress for mothers. Importantly, clinically meaningful change also was noted for these parental functioning areas, as well as for other domains of parental functioning that did not result in statistically significant findings. Clinical implications are discussed.

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Journal of Attention Disorders. 2012 Feb;16:157-63.

A CLINICAL STUDY OF ADHD SYMPTOMS WITH RELATION TO SYMPTOMS OF LEARNING DISORDERS IN SCHOOLCHILDREN IN BOGOTA, COLOMBIA.

Talero-Gutierrez C, Van Meerbeke AV, Reyes RG.

Objective: To investigate possible relationships between symptoms of ADHD and of learning disorder (LD) in a population geographically, culturally, and linguistically distinct from previous studies.

Method: The authors evaluated a cross section of 834 Colombian schoolchildren for childhood neurological pathologies on the basis of a medical examination and performance with reference to the Diagnostic and Statistical Manual (4th ed.) attention checklist, the General and Differential Aptitudes Battery, and the Visual–Motor Integration (VMI) test.

Results: Of the total sample, 382 were classified as “ADHD only,” 54 as “LD only,” and 75 as “ADHD + LD.” A total of 459 had low VMI scores. ADHD, LD, and low VMI were significantly interrelated. Among the children with ADHD, the attention deficit subtype tended to have more learning problems than the hyperactive subtype, who showed no major deficiencies in their learning ability.

Conclusions: This study provides additional evidence demonstrating a relationship between LD and ADHD, particularly with respect to verbal reasoning, visual–auditory memory, and VMI.

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Journal of Attention Disorders. 2012 Feb;16:128-37.

UNDERSTANDING THE EFFECT SIZE OF LISDEXAMFETAMINE DIMESYLATE FOR TREATING ADHD IN CHILDREN AND ADULTS.

Faraone SV .

Objective: An earlier meta-analysis of pediatric clinical trials indicated that lisdexamfetamine dimesylate (LDX) had a greater effect size than other stimulant medications. This work tested the hypothesis that the apparent increased efficacy was artifactual.

Method: The authors assessed two potential artifacts: an unusually high precision of measurement and an unusually low placebo effect. The authors evaluated generalizability from children of adults.

Results: The LDX effect sizes for children were significantly larger than the pooled stimulant effect sizes from studies using the same outcome measures. However, although no other individual stimulant study had an effect size greater than LDX, there was overlap between the 95% confidence intervals for some of these studies and the LDX study. The high LDX effect sizes were not due measurement or placebo effect artifacts. LDX effect sizes for adults were not larger than the stimulant effect sizes from other studies.

Conclusion: The high LDX effect size for children could not attributed to measurement artifacts. The superiority of LDX in the pediatric clinical trial reflected the greater efficacy of amphetamine products, compared with methylphenidate products but required replication in children because (a) the results were based on only one trial of LDX in children, and (b) the finding did not generalize to adults.

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J Child Adolesc Ment Health. 2011;23:107-18.

WORKING MEMORY FUNCTIONING IN CHILDREN WITH ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD): A COMPARISON BETWEEN SUBTYPES AND NORMAL CONTROLS.

Cockcroft K.

Objective: Children with attention-deficit/hyperactivity disorder (ADHD) often experience working memory difficulties. However, research findings are inconsistent, making it difficult to compare results across studies. There are several reasons for this inconsistency. Firstly, most studies make no distinction between ADHD subtypes, despite evidence that predominantly inattentive ADHD (ADHD/I) represents a different neurocognitive profile to the hyperactive-impulsive subtype (ADHD/HI). Secondly, documented studies use different tests of working memory which may be measuring different skills. Some assess only the verbal components of working memory and others the visuo-spatial; few of the tests assess both. Further, some tests employ a recognition methodology and others use recall, which require different brain regions and cognitive processes. To clarify these inconsistencies, the verbal and visuo-spatial working memory of children with ADHD/I, ADHD/HI and a control group with no ADHD symptoms were compared.

Method: The Automated Working Memory Assessment and Ravens Coloured Progressive Matrices were administered to 72 children (ADHD/I n = 27; ADHD/HI n = 25; control n = 20).

Results: The ADHD groups performed similarly, but were significantly poorer than the control group in all aspects of working memory. Storage abilities were stronger than processing abilities, while verbal and visuo-spatial abilities were equally developed for all groups.

Conclusion: ADHD-related deficits were apparent across working memory components, even when IQ was controlled for, suggesting a generalised impairment.

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J Child Adolesc Psychopharmacol. 2011 Dec;21:597-603.

PHARMACOTHERAPY AND PHARMACOLOGICAL TREATMENTS AND ACADEMIC ACHIEVEMENT AMONG CHILDREN WITH ATTENTION-DEFICIT/HYPERACTIVITY DISORDER.

Barnard-Brak L, Brak V.

This study examined the association of pharmacological treatments and academic achievement among children with attention-deficit/hyperactivity disorder (ADHD). Results examining the association of pharmacological treatments and academic achievement among children with ADHD are mixed. Our objective was to examine this association using structural equation modeling (SEM) techniques, which may be considered more sophisticated and advanced over traditional regression techniques. To achieve the purpose, we employed a sample of children with ADHD derived from the Early Childhood Longitudinal Study-Kindergarten (ECLS-K) data. The ECLS-K provides a large, community-based, nationally representative sample of children to examine across time with respect to academic achievement outcomes. The present study reveals a statistically nonsignificant association between pharmacological treatment and academic achievement among children with ADHD. These results derived from a large, community-based, nationally representative sample, using SEM techniques, may be considered highly generalizable.

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J Child Adolesc Psychopharmacol. 2012;22:65-71.

DOES COMORBID DEPRESSION PREDICT SUBSEQUENT ADVERSE LIFE EVENTS IN YOUTH WITH ATTENTION-DEFICIT/HYPERACTIVITY DISORDERS?

Daviss WB, Diler R.

Objectives: Studies have primarily focused on adverse life events (ALEs) as potential causes rather than as outcomes of pediatric depression. The current study prospectively examines ALEs in a sample of youth with attention-deficit/ hyperactivity disorders (ADHD) to determine whether having a major depressive disorder (MDD) at baseline (T1) predicts counts of child-dependent or child-independent ALEs at a second assessment (T2) ~8 months later.

Methods: Subjects with ADHD 11-18 years old were drawn mostly from a tertiary mental health clinic and evaluated with semi-structured diagnostic interviews, and parent and teacher questionnaires of ADHD severity. Eighteen with and 61 without initial MDD at T1 were compared at T2 regarding counts of subsequent overall, child-dependent, and child-independent ALEs reported on life events questionnaires by the child or parent.

Results: The group initially with MDD had higher overall ALEs ($p=0.01$) and child-dependent ALEs ($p(\text{less-than or equal to})0.001$) but not child-independent ALEs ($p=0.12$) at T2 relative to the nondepressed group, although only 3 of 18 continued to meet full criteria for MDD. The group initially with MDD also had a higher baseline ADHD severity ($p=0.04$) and proportion of oppositional or conduct disorders ($p=0.004$). In multivariate analyses, the group initially having MDD had a higher adjusted mean at T2 of child-dependent ALEs ($p=0.02$), but not of overall ALEs ($p=0.06$), after controlling for other T1 variables, including ALEs of the same type, ADHD severity, externalizing disorders, and the interaction of externalizing disorders with MDD.

Conclusions: These findings suggest that child-dependent ALEs are potentially an important outcome after youth with ADHD have an episode of MDD. Youth with ADHD who develop comorbid MDD should be closely monitored and offered interventions to address the potential burden of child-dependent ALEs lingering after a depressive episode.

Journal of Child and Family Studies. 2012 Feb;21:139-47.

THE EFFECTIVENESS OF MINDFULNESS TRAINING FOR CHILDREN WITH ADHD AND MINDFUL PARENTING FOR THEIR PARENTS.

van der Oord S, Bögels SM, Peijnenburg D.

This study evaluated the effectiveness of an 8-week mindfulness training for children aged 8–12 with ADHD and parallel mindful parenting training for their parents. Parents ($N = 22$) completed questionnaires on their child's ADHD and ODD symptoms, their own ADHD symptoms, parenting stress, parental overreactivity, permissiveness and mindful awareness before, immediately after the 8-week training and at 8-week follow-up. Teachers reported on ADHD and ODD behavior of the child. A within-group waitlist was used to control for the effects of time and repeated measurement. Training was delivered in group format. There were no significant changes between wait-list and pre-test, except on the increase of teacher-rated ODD behavior. There was a significant reduction of parent-rated ADHD behavior of themselves and their child from pre-to posttest and from pre- to follow-up test. Further, there was a significant increase of mindful awareness from pre-to posttest and a significant reduction of parental stress and overreactivity from pre-to follow-up test. Teacher-ratings showed non-significant effects. Our study shows preliminary evidence for the effectiveness of mindfulness for children with ADHD and their parents, as rated by parents. However, in the absence of substantial effects on teacher-ratings, we cannot ascertain effects are due to specific treatment procedures.

Journal of Child Health Care. 2011 Dec;15:299-311.

Polyunsaturated fatty acids, cognition and literacy in children with ADHD with and without learning difficulties.

Milte CM, Sinn N, Buckley JD, et al.

Suboptimal omega-3 polyunsaturated fatty acid (n-3 PUFA) levels may contribute to attention deficit hyperactivity disorder (ADHD) and related developmental problems. Associations between n-3 and omega-6 (n-6) PUFA levels in red blood cells (erythrocytes) and learning and behaviour were investigated in 75 children aged 7–12 with ADHD. Children provided blood samples and underwent cognitive assessments. Parents completed questionnaires and Conners' Rating Scales. Controlling for covariates, higher n-3 PUFA predicted lower anxiety/shyness ($\beta = -.27$), higher docosahexaenoic acid (DHA) better word reading ($\beta = .22$), and higher n-6 PUFA poorer reading ($\beta = -.34$), vocabulary ($\beta = -.26$), spelling ($\beta = -.30$) and attention ($\beta = -.30$). Thirty-six per cent of the sample with learning difficulties had lower DHA than those without ($M = 3.26 \pm 0.54$ vs $M = 3.68 \pm 0.76$, $p = .02$). This study is the first to compare erythrocyte PUFAs (a measure

of PUFA status) in children who have ADHD with and without learning difficulties, and supports emerging indications that the former may be more likely responders to n-3 PUFAs.

Journal of Child Psychology and Psychiatry. 2012 Feb;53:111-19.

EXECUTIVE FUNCTION DEFICITS IN PRESCHOOL CHILDREN WITH ADHD AND DBD.

Schoemaker K, Bunte T, Wiebe SA, et al.

Background: Impairments in executive functions (EF) are consistently associated with attention deficit hyperactivity disorder (ADHD) and to a lesser extent, with disruptive behavior disorder (DBD), that is, oppositional defiant disorder or conduct disorder, in school-aged children. Recently, larger numbers of children with these disorders are diagnosed earlier in development, yet knowledge about impairments in clinically diagnosed preschool children and the role of comorbidity is limited. Therefore, the aim of the current study was to examine EF in clinically referred preschool children with a clinical diagnosis of ADHD, DBD and ADHD + DBD.

Method: Participants were 202 children aged 3.5–5.5 years, 61 with ADHD only, 33 with DBD only, 52 with comorbid ADHD + DBD and 56 typically developing children. Five EF tasks were administered.

Results: Confirmatory factor analysis showed that the two-factor model (inhibition and working memory) fit the data better than a one-factor model in this clinical sample. Preschoolers with ADHD displayed inhibition deficits, also after controlling for IQ. Likewise, preschoolers with DBD displayed impaired inhibition, but when IQ was controlled differences were carried mostly by the effect on the task where motivational demands were high (i.e. when tangible rewards were used). This pattern was also found in the interaction between ADHD and DBD; impaired inhibition in the comorbid group, however, was more severe than in the DBD group. Regarding working memory, few group differences were found.

Conclusions: Clinically diagnosed preschool children with ADHD showed robust inhibition deficits, whereas preschool children with DBD showed impaired inhibition especially where motivational incentives were prominent. Severity of inhibition impairment in the comorbid group was similar to the ADHD group.

Journal of Child Psychology and Psychiatry. 2012 Feb;53:128-37.

A COMPREHENSIVE INVESTIGATION OF MEMORY IMPAIRMENT IN ATTENTION DEFICIT HYPERACTIVITY DISORDER AND OPPOSITIONAL DEFIANT DISORDER.

Rhodes SM, Park J, Seth S, et al.

Background: We conducted a comprehensive and systematic assessment of memory functioning in drug-naïve boys with attention deficit hyperactivity disorder (ADHD) and oppositional defiant disorder (ODD).

Methods: Boys performed verbal and spatial working memory (WM) component (storage and central executive) and verbal and spatial storage load tasks, and the spatial span, spatial executive WM, spatial recognition memory and verbal recognition memory tasks from the Cambridge Neuropsychological Test Automated Battery.

Groups comprised: (a) ADHD only (N = 21); (b) ADHD+ODD (N = 27); (c) ODD only (N = 21); and (d) typically developing (TYP) boys (N = 26). Groups were matched for age (M = 9.7 years) and sex (all boys).

Results: Confirmatory factor analyses confirmed the presence of five factors: verbal functioning, spatial functioning, WM storage, WM central executive and long-term memory (LTM). All three clinical groups demonstrated impaired memory performance. Boys with ODD and ODD+ADHD but not ADHD alone performed poorly on verbal memory tasks, whilst all three clinical groups showed impaired performance on spatial memory tasks. All three clinical groups performed poorly on the storage and central executive WM factors and the LTM factor.

Conclusions: ADHD and ODD are characterised by impaired performance storage and central executive WM tasks and LTM tasks. This is, we believe, the first report of impaired WM and LTM performance in ODD. This study suggests that verbal memory difficulties are more closely associated with ODD than

ADHD symptoms and that combined ADHD+ODD represents a true comorbidity. The data also support a small but growing number of suggestions in the literature of impaired LTM in ADHD.

J Consult Clin Psychol. 2012 Feb;80:139-50.

DIAGNOSING ADHD IN ADOLESCENCE.

Sibley MH, Pelham WE Jr, Molina BSG, et al.

Objective: This study examines adolescent-specific practical problems associated with current practice parameters for diagnosing attention-deficit/hyperactivity disorder (ADHD) to inform recommendations for the diagnosis of ADHD in adolescents. Specifically, issues surrounding the use of self- versus informant ratings, diagnostic threshold, and retrospective reporting of childhood symptoms were addressed.

Method: Using data from the Pittsburgh ADHD Longitudinal Study (PALS), parent, teacher, and self-reports of symptoms and impairment were examined for 164 adolescents with a childhood diagnosis of ADHD (age M = 14.74 years) and 119 demographically similar non-ADHD controls (total N = 283).

Results: Results indicated that 70% of the well-diagnosed childhood ADHD group continued to meet Diagnostic and Statistical Manual of Mental Disorders (4th ed., text rev.; American Psychiatric Association, 2000) diagnostic criteria for ADHD in adolescence; however, an additional 17% possessed clinically significant impairment in adolescence but did not qualify for a current ADHD diagnosis. The optimal source of information was combined reports from the parent and a core academic teacher. Adolescents with ADHD met criteria for very few symptoms of hyperactivity/impulsivity, suggesting a need to revisit the diagnostic threshold for these items. Additionally, emphasis on impairment, rather than symptom threshold, improved identification of adolescents with a gold-standard childhood diagnosis of ADHD and persistent ADHD symptoms. Parent retrospective reports of baseline functioning, but not adolescent self-reports, were significantly correlated with reports collected at baseline in childhood.

Conclusions: Recommendations are offered for diagnosing ADHD in adolescence based on these findings.

Journal of Experimental Education. 2012 Jan;80:69-95.

SOCIAL INTERACTION RULES IN COOPERATIVE LEARNING GROUPS FOR STUDENTS AT RISK FOR ADHD.

Kuester DA, Zentall SS.

This study assessed the effects of providing social participation rules on the performance and social behavior of a school-based sample of 10–14-year-old students at risk for attention deficit hyperactivity disorder (n = 34) who worked cooperatively in same-gender triads with typical peers (n = 92). The design was primarily a 2 (population group) × 2 (gender) × 2 (type of triads: with or without a group member at risk) × 2 (task condition: with or without the social rules of turn-taking, response-justification). The authors found that social interactive rules reduced negative verbal and off-task behavior, which was attributable to students at risk for attention deficit hyperactivity disorder and improved the percentage of problems solved for all children, which was attributable to boys and to middle school students. The intervention was discussed in terms of its practicality and educational importance.

J Intellect Disabil Res. 2012.

ASSOCIATION BETWEEN PARENT REPORTS OF ATTENTION DEFICIT HYPERACTIVITY DISORDER BEHAVIOURS AND CHILD IMPULSIVITY IN CHILDREN WITH SEVERE INTELLECTUAL DISABILITY.

Bigham K, Daley DM, Hastings RP, et al.

Background Although children with intellectual disability (ID) seemed to be at increased risk for Attention deficit hyperactivity disorder (ADHD)/hyperactivity problems when assessed with parent report questionnaires and clinical interviews, there has been little attention to the associations between parent reports and observed child behaviours. The purpose of the present study was to compare clinical

symptoms and observed impulsivity in children with ID whose parents reported them as being relatively high and low in ADHD symptoms, and to examine whether any differences were associated with developmental level. **Methods** Parents of 28 children with ID completed a behaviour rating scale of hyperactivity symptoms. Parents were also interviewed using a robust clinical interview tool focused on hyperactivity symptoms. The children were all tested by an experimenter to measure their impulsive behaviour. **Results** Those children with clinical range scores on parent questionnaire ratings were also reported by parents to have more ADHD symptoms using a parent report clinical interview. Although these children were also more impulsive on an experimental task, when children's developmental ages were statistically controlled impulsivity differences disappeared. **Conclusions** Parent reports of ADHD symptoms in children with ID may be positively associated with data derived using clinical interview methods, but they may be less sensitive to developmental expectations when compared with observed child behaviour. Practical implications include the need for multiple sources of information and normative data for children with ID on simple experimental tasks that can be used to aid diagnosis of ADHD in clinical settings.

J Psychiatr Res. 2012;46:415-16.

LETTER TO THE EDITOR: THE CHANGE OF THE CORTISOL LEVELS IN CHILDREN WITH ADHD TREATED BY METHYLPHENIDATE OR ATOMOXETINE.

Chen YH, Lin XX, Chen H, et al.

Journal of the American Academy of Child & Adolescent Psychiatry. 2012 Jan;51:1-2.

ABSTRACT THINKING: MOTHERS, BABIES, AND AMYGDALAE.

Sassi RB.

This first issue of the 2012 Journal brings forth articles that highlight important current themes in child psychiatry. This issue of the Journal also presents a multicenter, double-blinded, placebo-controlled clinical trial of extended-release guanfacine as an add-on treatment in children with attention-deficit/hyperactivity disorder who had only a partial response to stimulants.

J Can Acad Child Adolesc Psychiatry. 2012;21:9-15.

MATERNAL STRESS DURING PREGNANCY, ADHD SYMPTOMATOLOGY IN CHILDREN AND GENOTYPE: GENE-ENVIRONMENT INTERACTION.

Grizenko N, Fortier ME, Zadorozny C, et al.

Objective: Case control studies suggest a relationship between maternal stress during pregnancy and childhood ADHD. However, maternal smoking, parenting style and parental psychiatric disorder are possible confounding factors. Our objective was to control for these factors by using an intra-familial design, and investigate gene-environment interactions.

Methods: One hundred forty two children, ages 6 to 12, (71 with ADHD, and their 71 non-ADHD siblings) participated in the intra-familial study design. A larger sample of ADHD children (N=305) was genotyped for DAT1 and DRD4 to examine gene-environment interactions. Symptom severity was evaluated using the Child Behavior Checklist (CBCL) and the Conners' Global Index for Parents (CGI-P). The Kinney Medical and Gynecological Questionnaire was used to report stressful events during pregnancies.

Results: Logistic regression indicated that mothers were more likely to have experienced high stress during pregnancy of their ADHD child compared to that of the unaffected sibling (OR: 6.3, p=.01). In the larger sample, DRD4 7/7 genotype was associated with increased symptom severity in the high stress pregnancy (p=.01).

Conclusions: Maternal stress during pregnancy was associated with the development of ADHD symptomatology after controlling for family history of ADHD and other environmental factors. This association could partly be mediated through the DRD4 genotype.

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J Can Acad Child Adolesc Psychiatry. 2012;21:53-58.

ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD) IN CHILDREN, SEASONAL PHOTOPERIODS, NOCTURNAL MOVEMENTS AND DIURNAL AGITATION.

Langevin R, Ramde J.

Objective: The main purpose of this study was to verify that the shortening photoperiods of winter contribute to increasing the nocturnal and diurnal agitation of children with ADHD and that lengthening photoperiods diminish it.

Method: To verify this hypothesis we chose a location where daylight times drop drastically in the fall: Edmonton (Canada). The study's sample was fifteen children, varying in age from 7 to 9 years (M=8.13 years old). The participants were divided into two clinical groups and one control group. The first clinical group was made up of five (n=5) children diagnosed with ADHD and treated with psychostimulants. The second clinical group was made up of five (n=5) children with ADHD not treated with psychostimulants. The control group was composed of five (n=5) children showing no signs of ADHD or psychopathologies. The intensity of diurnal agitation linked to ADHD was evaluated by teachers using the French version questionnaire (SWAN-F) at T1 (first day of experiment). The children's nocturnal movements were evaluated using actimetry. Their sleep quality was measured with a sleep agenda. These last two measurements were carried out for five consecutive days when the length of the photoperiod was at its shortest (end of December). The same procedures were repeated at the end of June (T2), when the photoperiod was at its maximum.

Results: The principal results support the study's hypothesis and show a significant baseline difference ($p=0.008$) between the nocturnal motor movements of the ADHD children and those of the control children.

Conclusions: According to these results, this type of research should be reproduced in other Nordic countries and should include a larger sample group of children diagnosed with ADHD.

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Mayo Clin Proc. 2012;87:120-29.

ATTENTION-DEFICIT/HYPERACTIVITY DISORDER AFTER EARLY EXPOSURE TO PROCEDURES REQUIRING GENERAL ANESTHESIA.

Sprung J, Flick RP, Katusic SK, et al.

Objective: To study the association between exposure to procedures performed under general anesthesia before age 2 years and development of attention-deficit/hyperactivity disorder (ADHD). Patients and

Methods: Study patients included all children born between January 1, 1976, and December 31, 1982, in Rochester, MN, who remained in Rochester after age 5. Cases of ADHD diagnosed before age 19 years were identified by applying stringent research criteria. Cox proportional hazards regression assessed exposure to procedures requiring general anesthesia (none, 1, 2 or more) as a predictor of ADHD using a stratified analysis with strata based on a propensity score including comorbid health conditions.

Results: Among the 5357 children analyzed, 341 ADHD cases were identified (estimated cumulative incidence, 7.6%; 95% confidence interval [CI], 6.8%-8.4%). For children with no postnatal exposure to procedures requiring anesthesia before the age of 2 years, the cumulative incidence of ADHD at age 19 years was 7.3% (95% CI, 6.5%-8.1%). For single and 2 or more exposures, the estimates were 10.7% (95% CI, 6.8%-14.4%) and 17.9% (95% CI, 7.2%-27.4%), respectively. After adjusting for gestational age, sex, birth weight, and comorbid health conditions, exposure to multiple (hazard ratio, 1.95; 95% CI, 1.03-3.71), but not single (hazard ratio, 1.18; 95% CI, 0.79-1.77), procedures requiring general anesthesia was associated with an increased risk for ADHD.

Conclusion: Children repeatedly exposed to procedures requiring general anesthesia before age 2 years are at increased risk for the later development of ADHD even after adjusting for comorbidities.

Mol Psychiatry. 2012.

DISORDER-SPECIFIC FUNCTIONAL ABNORMALITIES DURING SUSTAINED ATTENTION IN YOUTH WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD) AND WITH AUTISM.

Christakou A, Murphy CM, Chantiluke K, et al.

Attention Deficit Hyperactivity Disorder (ADHD) and Autism Spectrum Disorder (ASD) are often comorbid and share behavioural-cognitive abnormalities in sustained attention. A key question is whether this shared cognitive phenotype is based on common or different underlying pathophysiologies. To elucidate this question, we compared 20 boys with ADHD to 20 age and IQ matched ASD and 20 healthy boys using functional magnetic resonance imaging (fMRI) during a parametrically modulated vigilance task with a progressively increasing load of sustained attention. ADHD and ASD boys had significantly reduced activation relative to controls in bilateral striato-thalamic regions, left dorsolateral prefrontal cortex (DLPFC) and superior parietal cortex. Both groups also displayed significantly increased precuneus activation relative to controls. Precuneus was negatively correlated with the DLPFC activation, and progressively more deactivated with increasing attention load in controls, but not patients, suggesting problems with deactivation of a task-related default mode network in both disorders. However, left DLPFC underactivation was significantly more pronounced in ADHD relative to ASD boys, which furthermore was associated with sustained performance measures that were only impaired in ADHD patients. ASD boys, on the other hand, had disorder-specific enhanced cerebellar activation relative to both ADHD and control boys, presumably reflecting compensation. The findings show that ADHD and ASD boys have both shared and disorder-specific abnormalities in brain function during sustained attention. Shared deficits were in fronto-striato-parietal activation and default mode suppression. Differences were a more severe DLPFC dysfunction in ADHD and a disorder-specific fronto-striato-cerebellar dysregulation in ASD.

Mol Psychiatry. 2012;17:185-92.

IDENTIFICATION AND FUNCTIONAL CHARACTERIZATION OF THREE NOVEL ALLELES FOR THE SEROTONIN TRANSPORTER-LINKED POLYMORPHIC REGION.

Ehli EA, Hu Y, Lengyel-Nelson T, et al.

A promoter polymorphism in the serotonin transporter gene (5-HTTLPR) has been reported to confer relative risk for phenotypes (depression/anxiety) and endophenotypes (amygdala reactivity). In this report, we identify and characterize three rare 5-HTTLPR alleles not previously described in the human literature. The three novel alleles were identified while genotyping 5-HTTLPR in a family-based attention deficit hyperactivity disorder clinical population. Two of the novel alleles are longer than the common 16-repeat long (L) allele (17 and 18 repeats) and the third is significantly smaller than the 14-repeat short (S) allele (11 repeats). The sequence and genetic architecture of each novel allele is described in detail. We report a significant decrease in the expression between the XL17 (17r) allele and the LA (16r) allele. The XS11 (11r) allele showed similar expression with the S (14r) allele. A 1.8-fold increase in expression was observed with the L A (16r) allele compared with the LG (16r) allele, which replicates results from earlier 5-HTTLPR expression experiments. In addition, transcription factor binding site (TFBS) analysis was performed using MatInspector (Genomatix) that showed the presence or absence of different putative TFBSs between the novel alleles and the common L (16r) and S (14r) alleles. The identification of rare variants and elucidation of their functional impact could potentially lead to understanding the contribution that the rare variant may have on the inheritance/susceptibility of multifactorial common diseases.

Neurochem Res. 2012;37:349-57.

ROLE OF SNAP25 EXPLORED IN EASTERN INDIAN ATTENTION DEFICIT HYPERACTIVITY DISORDER PROBANDS.

Sarkar K, Bhaduri N, Ghosh P, et al.

Synaptosomal-associated protein 25 (SNAP25) is an essential component for synaptic vesicle mediated release of neurotransmitters. Deficiencies or abnormal structure or function of SNAP25 protein, possibly arising through genetic variations in the relevant DNA code, has been suggested to play role in the pathology of several neurobehavioural disorders including Attention deficit Hyperactivity Disorder (ADHD) and a number of polymorphisms in the SNAP25 gene has been studied for association with the disorder. In the present investigation, for the first time association between ADHD and six SNAP25 polymorphisms, rs1889189, rs362569, rs362988, rs3746544, rs1051312, and rs8636 was explored in eastern Indian population. Subjects were recruited following the Diagnostic and Statistical Manual for Mental Disorders-IV. Genomic DNA isolated from peripheral blood leukocytes of ADHD probands (n = 150), their parents (n = 272) and ethnically matched controls (n = 100) was used for amplifying target sites. Data obtained were subjected to population- as well as family-based analyses. While case-control analysis revealed lack of any significant difference for alleles, family-based studies revealed a mild over transmission rs3746544 'T' and rs8636 'C' alleles (P = 0.05 and 0.03 respectively). Haplotypes formed between rs362569 "T", 362988 "G", rs3746544 "T", rs1051312 "T" and rs8636 "C" in different combinations showed statistically significant transmission to ADHD probands. Excepting rs3746544 and rs8636, all the tested sites showed very low linkage disequilibrium between them. Data obtained in this preliminary study indicates that rs3746544 'T' allele may have some role in the disease etiology in the studied Indian population.

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Neuropsychiatr Dis Treat. 2011;7:729-44.

THE OCCURRENCE OF ADVERSE DRUG REACTIONS REPORTED FOR ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD) MEDICATIONS IN THE PEDIATRIC POPULATION: A QUALITATIVE REVIEW OF EMPIRICAL STUDIES.

Aagaard L, Hansen EH.

Background: To review empirical studies of adverse drug reactions (ADRs) reported to be associated with the use of medications generally licensed for treatment of attention deficit hyperactivity disorder (ADHD) symptoms in the pediatric population.

Methods: PubMed, Embase, and PsycINFO(registered trademark) databases were searched from origin until June 2011. Studies reporting ADRs from amphetamine derivatives, atomoxetine, methylphenidate, and modafinil in children from birth to age 17 were included. Information about ADR reporting rates, age and gender of the child, type, and seriousness of ADRs, setting, study design, ADR assessors, authors, and funding sources were extracted.

Results: The review identified 43 studies reporting ADRs associated with medicines for treatment of ADHD in clinical studies covering approximately 7000 children, the majority of 6- to 12-year-old boys, and particularly in the United States of America (USA). The most frequently reported ADRs were decrease in appetite, gastrointestinal pain, and headache. There were wide variations in reported ADR occurrence between studies of similar design, setting, included population, and type of medication. Reported ADRs were primarily assessed by the children/their parents, and very few ADRs were rated as being serious. A large number of children dropped out of studies due to serious ADRs, and therefore, the actual number of serious ADRs from use of psychostimulants is probably higher. A large number of studies were conducted by the same groups of authors and sponsored by the pharmaceutical companies manufacturing the respective medications.

Conclusion: Reported ADRs from use of psychostimulants in children were found in clinical trials of short duration. Since ADHD medications are prescribed for long-term treatment, there is a need for long-term safety studies. The pharmaceutical companies should make all information about ADRs reported for these medications accessible to the public, and further studies are needed on the impact of the link between researchers and the manufacturers of the respective products.

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Nicotine Tob Res. 2012;14:191-99.

EXECUTIVE FUNCTION PROFILE IN THE OFFSPRING OF WOMEN THAT SMOKED DURING PREGNANCY.

Piper BJ, Corbett SM.

Introduction: Smoking tobacco during pregnancy results in exposure to the fetal neuroteratogen nicotine. The current study evaluated if the offspring of smokers show abnormalities in maternal ratings of executive function, prevalence of Attention Deficit Hyperactivity Disorder (ADHD), and academic performance. A secondary objective was to determine the utility of online data collection.

Methods: Mothers (N = 357) completed the parent form of the Behavioral Rating Inventory of Executive Function (BRIEF) and provided information about smoking during pregnancy.

Results: The internal consistency of the BRIEF when administered electronically was quite satisfactory (Cronbach's (alpha) = .98). As anticipated, ADHD was more frequently diagnosed in the offspring of women that smoked at least 10 cigarettes/day (odds ratio [OR] = 2.64, 95% CI = 1.22-5.71). Higher (i.e., more problematic) ratings relative to unexposed children ($p < .01$) were only identified on the total BRIEF score, the Metacognition Index, and on the Initiate, Plan/Organize, and Monitor scales among children exposed to (greater-than or equal to) 10 cigarettes/day. Nicotine-exposed children were also more likely to perform less well than their classmates in math (OR = 2.78, 95% CI = 1.59-4.87) and reading (OR = 2.00, 95% CI = 1.10-3.63), and these academic effects were independent of maternal education levels.

Conclusions: This report provides preliminary evidence that the BRIEF has adequate psychometric properties when administered electronically and that mothers who smoke have offspring with lower executive function proficiency. These findings contribute to a larger literature that indicates that smoking during pregnancy results in adverse reproductive outcomes and, possibly, subtle but enduring deficits in prefrontal function.

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Pediatrics. 2012;129:222-30.

CARDIAC SCREENING PRIOR TO STIMULANT TREATMENT OF ADHD: A SURVEY OF US-BASED PEDIATRICIANS.

Leslie LK, Rodday AM, Saunders US, et al.

OBJECTIVES: To determine pediatricians' attitudes, barriers, and practices regarding cardiac screening before initiating treatment with stimulants for attention-deficit/hyperactivity disorder.

METHODS: A survey of 1600 randomly selected, practicing US pediatricians with American Academy of Pediatrics membership was conducted. Multivariate models were created for 3 screening practices: (1) performing an in-depth cardiac history and physical (H & P) examination, (2) discussing potential stimulant-related cardiac risks, and (3) ordering an electrocardiogram (ECG).

RESULTS: Of 817 respondents (51%), 525 (64%) met eligibility criteria. Regarding attitudes, pediatricians agreed that both the risk for sudden cardiac death (SCD) (24%) and legal liability (30%) were sufficiently high to warrant cardiac assessment; 75% agreed that physicians were responsible for informing families about SCD risk. When identifying cardiac disorders, few (18%) recognized performing an in-depth cardiac H & P as a barrier; in contrast, 71% recognized interpreting a pediatric ECG as a barrier. When asked about cardiac screening practices before initiating stimulant treatment for a recent patient, 93% completed a routine H & P, 48% completed an in-depth cardiac H & P, and 15% ordered an ECG. Almost half (46%) reported discussing stimulant-related cardiac risks. Multivariate modeling indicated that (greater-than or equal to) 1 of these screening practices were associated with physicians' attitudes about SCD risk, legal liability, their responsibility to inform about risk, their ability to perform an in-depth cardiac H & P, and family concerns about risk.

CONCLUSIONS: Variable pediatrician attitudes and cardiac screening practices reflect the limited evidence base and conflicting guidelines regarding cardiac screening. Barriers to identifying cardiac disorders influence practice.

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Pharmacoepidemiol Drug Saf. 2011;20:S133.

ADHD YOUTHS' CAREER IN PSYCHOTROPIC TREATMENT.

Winterstein AG, Kubilis P, Gerhard O.

Background: Anecdotal reports of psychotropic polypharmacy in youth with attention deficit hyperactivity disorder (ADHD) are common, but systematic follow-up studies throughout childhood are scarce.

Objectives: To describe psychotropic treatment patterns and their determinants in newly diagnosed ADHD patients. **Methods:** The study cohort consisted of all youths aged 3- 19, newly diagnosed with ADHD (index date), without any mental health diagnoses or treatments in the previous six months and eligible for Medicaid fee-for-service benefits for at least 5 years from index date between 1999 and 2006 (n=15,610). For each year of follow-up we estimated prevalence of prescription fills for seven psychotropic classes as well as the total number of psychotropics. Logistic regression models examined socio-demographic determinants of psychotropic use.

Results: While stimulant use decreased from 67.6% [95% CI 66.8-68.3] to 48.0% [47.3-48.8] over the 5-year follow-up, antipsychotic use increased from 5.3 [5.0-5.7] to 13.0% [12.5-13.5]. The proportion of patients on ≥ 3 psychotropic classes increased from 5.0% to 10.6%. Adjusted for gender, race, geographic region, foster care, disability, and poverty, the youngest age group (3-5 years at index date) had the highest propensity for antipsychotic use during 5-year follow-up (OR 2.51 [2.14-2.94]), followed by those aged 5-7 (OR 1.82 [1.60-2.09]), 7-9 (OR 1.25 [1.09-1.44]), and 9-11 (OR 1.03 [0.88-1.20]; referent=age>11 years). Likewise, compared to age >11 at index date, younger age was associated with a higher probability for use of ≥ 3 psychotropic drug classes with OR=4.34 [3.50-5.41], 2.86 [2.35-3.49], 1.77 [1.44-2.19], 1.08 [0.85-1.38] for 3-5, 5-7, 7-9, 9-11, respectively.

Conclusions: While stimulant use decreases during the 5- years following initial ADHD diagnosis, treatment with other psychotropics, most notably antipsychotics, significantly increases over the same time period. These data suggest that younger age at diagnosis strongly predisposes youths with ADHD to subsequent antipsychotic treatment and psychotropic polypharmacy. Further research is needed to examine the underlying causes of this observation.

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Pharmacoepidemiol Drug Saf. 2011;20:S132.

PHARMACOLOGICAL TREATMENT AND DEMOGRAPHIC CHARACTERISTICS OF PEDIATRIC PATIENTS WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER, SWEDEN.

Bahmanyar S, Sundstrom A, Kaijser M, et al.

Background: An increasing number of children and adolescents are diagnosed with Attention Deficit Hyperactivity Disorder (ADHD). Several drugs are available for treatment of ADHD and knowledge concerning those who treated for ADHD is limited.

Objectives: To describe the pediatric population with ADHD, their pharmacological treatment and psychiatric co-morbidity.

Methods: In the Swedish Patient Register we identified a diagnosis cohort that included those who were diagnosed with ADHD 1987-2009. Using Prescribed Drug Register we identified a treatment cohort that included individuals treated with a drug approved for ADHD 2005-2009. For each cohort we used the unique patient identifiers to link the two registers to describe in-hospital care and visits to specialists, drug treatments, co-morbidities and demographic characteristics of the patients. Kaplan-Meier method was used to measure the fraction of patients with ADHD who received treatment and estimate incidence of other psychiatric disorders.

Results: Totally 37,029 patients were included in any of the cohorts and of these, 74.7% were males, mean age at first diagnosis was 11.6 years. Of the 28,031 individuals in the diagnosis cohort, 17,817 had their first record after July 2005 and 76.9% of these received at least one of the substances used for treatment of ADHD. The treatment cohort included 27,290 patients (74.7% males, mean age at first dispensing 12.5 years) and more than 18% of the patients that could be followed up for 2 years or more had at least one treatment gap of 6 months. Some 90% of treatment cohort received methylphenidate as the first substance. Combination therapy was rare and the most common combination was methylphenidate and atomoxetine. Among those treated for ADHD other psychiatric disorders occurred in 174 per 1,000 individuals per year.

Conclusions: More than 20% of the patients diagnosed with ADHD in the Swedish Patient Register did not receive medical treatment for their disease. Discontinuation of treatment or gaps in treatment for ADHD were common. The majority of patients with ADHD were diagnosed and medically treated for another psychiatric disorder.

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Pharmacoepidemiol Drug Saf. 2011;20:S134.

CARDIOVASCULAR SAFETY OF ADHD MEDICATIONS IN CHILDREN AND ADOLESCENTS.

Schelleman H, Bilker WB, Strom BL, et al.

Background: ADHD medications can increase systolic and diastolic blood pressure and heart rate. Further, cases of serious cardiovascular events have been reported in children and adolescents receiving these agents. This has led to widespread concern that they might increase the risk of serious cardiovascular events.

Objectives: The objective of this study was to compare the rate of serious cardiovascular events and all-cause death in children and adolescents receiving ADHD medications versus non-users.

Methods: We performed an inception cohort study using data from six US Medicaid programs and the HealthCore Integrated Research Database. All 3-17 year olds with a dispensed prescription for an ADHD medication (amphetamine, atomoxetine, and methylphenidate) were included and matched to up to four non-users based on data source, gender, state, and age. Cardiovascular events were identified using hospital and emergency department (ED) claims diagnoses, and validated using medical records. Proportional hazards regression was used to calculate hazard ratios (HRs) with 95% confidence intervals.

Results: We identified 241,417 ADHD incident users. The adjusted HR for all-cause death was 0.77 (95% CI: 0.56- 1.07) for all ADHD medications combined. The positive predictive value (PPV) of claims diagnoses was only 41% for sudden death/ventricular arrhythmia, 41% for stroke, and 50% for acute myocardial infarction (MI). The HR for validated sudden death/ventricular arrhythmia was 1.60 (0.19-13.60). No validated hospitalizations for stroke or myocardial infarction occurred in incident users during exposure to ADHD medications, and rates of claims-based events were low.

Conclusions: Use of ADHD medications was not associated with an elevated rate of all-cause death. The rate of hospitalization or ED visit for serious cardiovascular events in children and adolescents receiving ADHD medications appeared to be low. Studies of sudden death/ventricular arrhythmia, stroke, and myocardial infarction in children and adolescents need to examine the validity of claims diagnoses in individual cases.

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Pharmacoepidemiol Drug Saf. 2011;20:S133-S134.

ACCIDENT PRONENESS AMONG YOUTH TREATED WITH ADHD MEDICATION.

Van Den Ban EF, Souverein PC, Meijer WM, et al.

Background: Attention Deficit Hyperactivity Disorder (ADHD) is neurobiological disorder characterised by hyperactivity, impulsivity, impaired attention and distractibility, but also motor coordination problems. Patients with ADHD are more prone to accidents, but epidemiological data on specific incidence rates are scarce.

Objectives: To study differences in hospital admissions for injuries between youngsters treated for ADHD and age and sex matched controls.

Methods: Data were obtained from the Dutch PHARMO record linkage system. From a random sample of 150,000 subjects aged 0 to 18 years, we identified all patients initiating treatment with ADHD drugs. For each patient with ADHD, six patients without ADHD drug use were sampled on year of birth, sex and calendar time. Outcomes assessed included hospital admission related to injuries/poisoning (ICD-9 codes 800-999). Incidence rates were calculated by dividing number of events by person-years (PY). Poisson regression analysis was used to adjust crude incidence rate ratios for covariates.

Results: The study cohort comprised 1397 patients initiating ADHD treatment and 8382 controls. About 80% of patients were boys and almost two-third initiated ADHD drugs between 6-11 years of age. The rate of hospital admissions was two times higher in the ADHD cohort (11.2 vs. 5.6/1000 person-years), yielding

a crude incidence rate ratio (IRR) of 2.00 (95% CI: 1.53-2.62). Adjustment for comedication at baseline had a modest effect: adj. IRR 1.83 (95% CI 1.38-2.43). Over half of the events were fractures (adj IRR 1.40, 95% CI: 0.93-2.10), followed by intracranial injuries (adj IRR 2.30, 95% CI 1.15-4.62). Stratification by sex showed that risk estimates were higher in girls than in boys (adj. IRR 2.60, 95% CI 1.20-5.61 vs. 1.69, 95% CI: 1.24-2.30) and were the highest among 12-18 year olds (adj. IRR 1.99, 95% CI: 1.38-2.88).

Conclusions: The incidence of hospital admissions for injuries and poisoning was two times higher among youth with treated ADHD compared to controls. Due to the serious nature of the outcomes, this represents only the tip of the iceberg. The higher relative risk among girls could be explained by their lower background risk of injury.

Pharmacoepidemiol Drug Saf. 2011;20:S132-S133.

DRUG TREATMENT OF ADHD IN CHILDREN AND YOUTHS IN GERMANY.

Garbe E, Mikolajczyk RT, Kraut AA, et al.

Background: Total prescriptions of methylphenidate have multiplied by a factor of 184 from 1990 to 2009 in Germany, but little is known about drug treatment of ADHD on individual patient level.

Objectives: To describe drug treatment of ADHD in children and youths in Germany.

Methods: Using data from one large German health insurance (>7.2 million insurees), a cohort of children aged 3- 17 years with a first diagnosis of ADHD in 2005 was followed until discontinuation of insurance, death, or December 31st, 2008 whichever was earliest. Kaplan-Meier estimates for onset of drug treatment with methylphenidate (MPH) or atomoxetine (ATX) were calculated for different follow-up time stratified by sex. First drug treatment, galenic formulation of first MPH treatment, and switches between ATX and MPH were ascertained. Psychiatric comorbidities, age, sex and ADHD-subtype were investigated as predictors of early (<6 months after cohort entry) vs. late or no drug treatment using logistic regression.

Results: 6,210 newly diagnosed ADHD patients (1,443 girls) with a total follow-up time of 20,817 person-years (girls: 4,827 person-years) were identified. The proportion of boys (girls) with a first prescription of MPH or ATX within 90, 183, 365 days or 3 years was 29.6 (27.9), 36.6 (34.5), 43.0 (39.0) and 52.8 (46.9) percent, respectively. Among those who received treatment, 91.6% were started on MPH and 8.4% on ATX. While 17.7% of MPH treated patients were started on a retard formulation, this proportion increased to 59.6% within the first year. During the first year of follow-up after initiation of treatment, 31.9% of patients started on ATX received at least one MPH prescription, whereas in 5.8% of patients started on MPH, a switch of drug treatment to ATX was observed. Significant predictors of early drug treatment were behavioural and emotional disorders (F91-F99, OR=1.29, 95%CI 1.11-1.50) and a diagnosis of ADHD with conduct disorder (OR=1.26, 95%CI 1.11-1.44).

Conclusions: About one third of ADHD children and youth with new diagnoses of ADHD received drug treatment in the first three months and about half within three years. A considerable number of patients received MPH retard formulations already at treatment initiation.

Pharmacoepidemiol Drug Saf. 2011;20:S197.

U.S. TRENDS IN THE DIAGNOSIS AND TREATMENT OF ATTENTION DEFICIT HYPERACTIVITY DISORDER, 2000-2010.

Garfield CF, Dorsey ER, Zhu S, et al.

Background: Recent estimates suggest that nearly 10% of children and adolescents in the United States have Attention Deficit Hyperactivity Disorder (ADHD).

Objectives: (1) To quantify rates of ADHD diagnoses among children and adolescents, (2) to characterize the use of stimulants, atomoxetine, and substitute therapies (clonidine and guanfacine) during these ambulatory visits, and (3) to examine how diagnosis and treatment patterns varied based on patient (e.g., clinical severity) and physician (e.g., specialty) characteristics.

Methods: Design and setting: We used descriptive statistics to examine the IMS Health National Disease and Therapeutic Index(trademark), a nationally representative audit of office-based physicians in the United States. We focused on individuals 18 years of age and younger from 2000 through 2010. Exposures or interventions: None. Main Outcome of Interest: (1) ADHD diagnoses, and (2) stimulant, atomoxetine, and

substitute therapy use. Results: The number of visits where ADHD was diagnosed (diagnosis visits) increased by 61% from 6.2 million visits in 2000 to 10 million visits in 2010. The fraction of visits where a stimulant or atomoxetine was prescribed declined from 90% of all diagnosis visits (5.6 million of 6.2 million visits) in 2000 to 59% of all diagnosis visits (6.1 million of 10.3 million) in 2010. Among those receiving drug treatment, the use of substitute medications increased from 7% (2000) to 10% (2010). There was no change in the fraction of visits by boys (75%-77%) or the severity of visits where treatment was dispensed. However there was a shift towards greater care by psychiatrists (from 24% to 37% of all visits over the time period examined).

Conclusions: From 2000 to 2010, the number of physician visits where ADHD was diagnosed increased substantially, while the proportion of visits resulting in treatment with a stimulant or atomoxetine decreased by approximately one third. The role that scientific reports, clinical guidelines, and FDA advisories played in shaping these changes has not been well described, and the clinical impact of these changes on children, adolescents and their families is unclear.

Psychiatry Clin Neurosci. 2012;66:53-63.

NATURALISTIC EXPLORATION OF THE EFFECT OF OSMOTIC RELEASE ORAL SYSTEM-METHYLPHENIDATE ON REMISSION RATE AND FUNCTIONAL IMPROVEMENT IN TAIWANESE CHILDREN WITH ATTENTION-DEFICIT-HYPERACTIVITY DISORDER.

Tzang RF, Wang YC, Yeh CB, et al.

Aim: To determine the differences in the remission rate, recovery rate, functional improvement, and treatment adherence related to treatment with short-acting immediate-release methylphenidate (IR-MPH) and long-acting osmotic-release oral system-methylphenidate (OROS-MPH) in a naturalistic setting among Taiwanese children with attention-deficit-hyperactivity disorder (ADHD).

Methods: A total of 757 children with ADHD, aged 6-18 years, was evaluated using the following in order determine functional improvement and treatment adherence: the Chinese version of the Swanson, Nolan, and Pelham, version IV scale (SNAP-IV-C), Clinical Global Impression-ADHD-Severity (CGI-S) to measure remission and recovery rates, the Chinese version of the Social Adjustment Inventory for Children and Adolescents (CSAICA), and caregiver's satisfaction rate, treatment adherence, and frequency of adverse effects.

Results: According to the SNAP-IV-C scores, the remission rate was 30.72%, and the recovery rate was 16.38%. Compared to short-acting IR-MPH, OROS-MPH was associated with greater functional improvement and treatment adherence among children with ADHD.

Conclusion: OROS-MPH treatment at the adequate dosage can achieve higher remission and recovery rates, produce greater functional improvement, and result in better treatment adherence than IR-MPH treatment.

Res Dev Disabil. 2012;33:419-25.

WHAT CAN ADHD WITHOUT COMORBIDITY TEACH US ABOUT COMORBIDITY?

Takeda T, Ambrosini PJ, Deberardinis R, et al.

Neuropsychiatric comorbidity in ADHD is frequent, impairing and poorly understood. In this report, characteristics of comorbid and comorbid-free ADHD subjects are investigated in an attempt to identify differences that could potentially advance our understanding of risk factors. In a clinically-referred ADHD cohort of 449 youths (ages 6-18), age, gender, IQ, SES and ADHD symptoms were compared among ADHD comorbid free subjects and ADHD with internalizing and externalizing disorders. Logistic regression analyses were also carried out to investigate the relationship between comorbidity and parental psychiatric status. Age range was younger in the ADHD without comorbidity and older in ADHD. +. internalizing disorders. No significant difference in IQ or SES was found among ADHD comorbid and comorbid-free groups. ADHD with internalizing disorder has a significantly greater association with paternal psychiatric conditions. After matching by age, gender, IQ and SES, ADHD with externalizing disorders had significantly higher total ADHD, hyperactivity/impulsivity score and single item score of difficulty awaiting turn than

ADHD without comorbidity and ADHD with internalizing disorders. Older age ranges, ADHD symptom severity and parental psychopathology may be risk factors for comorbidity.

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Res Dev Disabil. 2012;33:951-63.

YOUTHS WITH ADHD WITH AND WITHOUT TIC DISORDERS: COMORBID PSYCHOPATHOLOGY, EXECUTIVE FUNCTION AND SOCIAL ADJUSTMENT.

Lin YJ, Lai MC, Gau SSF.

Attention deficit/hyperactivity disorder (ADHD) and tic disorders (TD) commonly co-occur. Clarifying the psychiatric comorbidities, executive functions and social adjustment difficulties in children and adolescents of ADHD with and without TD is informative to understand the developmental psychopathology and to identify their specific clinical needs. This matched case-control study compared three groups (n=40 each) of youths aged between 8 and 16 years: ADHD with co-occurring TD (ADHD. +. TD), ADHD without TD (ADHD - TD) and typically developing community controls. Both ADHD groups had more co-occurring oppositional defiant disorder than the control group, and the presence of TD was associated with more anxiety disorders. TD did not impose additional executive function impairments or social adjustment difficulties on ADHD. Interestingly, for youths with ADHD, the presence of TD was associated with less interpersonal difficulties at school, compared to those without TD. The potential various directions of effects from co-occurring TD should be carefully evaluated and investigated for youths with ADHD.

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Soc Sci Med. 2012;74:92-100.

WILLINGNESS TO USE ADHD TREATMENTS: A MIXED METHODS STUDY OF PERCEPTIONS BY ADOLESCENTS, PARENTS, HEALTH PROFESSIONALS AND TEACHERS.

Bussing R, Koro-Ljungberg M, Noguchi K, et al.

Little is known about factors that influence willingness to engage in treatment for attention deficit/hyperactivity disorder (ADHD). From 2007 to 2008, in the context of a longitudinal study assessing ADHD detection and service use in the United States, we simultaneously elicited ADHD treatment perceptions from four stakeholder groups: adolescents, parents, health care professionals and teachers. We assessed their willingness to use ADHD interventions and views of potential undesirable effects of two pharmacological (short- and long-acting ADHD medications) and three psychosocial (ADHD education, behavior therapy, and counseling) treatments. In multiple regression analysis, willingness was found to be significantly related to respondent type (lower for adolescents than adults), feeling knowledgeable, and considering treatments acceptable and helpful, but not significantly associated with stigma/embarrassment, respondent race, gender and socioeconomic status. Because conceptual models of undesirable effects are underdeveloped, we used grounded theory method to analyze open-ended survey responses to the question: "What other undesirable effects are you concerned about?" We identified general negative treatment perceptions (dislike, burden, perceived ineffectiveness) and specific undesirable effect expectations (physiological and psychological side effects, stigma and future dependence on drugs or therapies) for pharmacological and psychosocial treatments. In summary, findings indicate significant discrepancies between teens' and adults' willingness to use common ADHD interventions, with low teen willingness for any treatments. Results highlight the need to develop better treatment engagement practices for adolescents with ADHD.

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Thyroid. 2012;22:178-86.

MATERNAL THYROID AUTOIMMUNITY DURING PREGNANCY AND THE RISK OF ATTENTION DEFICIT/HYPERACTIVITY PROBLEMS IN CHILDREN: THE GENERATION R STUDY.

Ghassabian A, Bongers-Schokking JJ, De Rijke YB, et al.

Background: Maternal thyroid status and autoimmunity during pregnancy have been associated with impaired development of the offspring in animal and human studies. Our objective was to examine whether elevated titers of maternal thyroid peroxidase antibodies (TPOAbs) in early pregnancy increased the risk of cognitive impairment and problem behavior in preschool children. Second, we aimed at exploring to what extent any effect on child behavior was mediated by maternal thyroid parameters during pregnancy.

Methods: In the Generation R Study, a population-based cohort of 3139 children and their mothers, we measured maternal thyroid parameters (thyrotropin [TSH], free Thyroxine, and TPOAbs) at 13.5(plus or minus)1.8 weeks of gestation. Children's verbal and nonverbal cognitive functioning was measured at 2.5 years using the Language Development Survey and the Parent Report of Children Abilities. At 3 years, children's behavior was assessed using the Child Behavior Checklist.

Results: Elevated titers of TPOAbs during pregnancy did not predict the verbal and nonverbal cognitive functioning of the children. However, elevated titers of TPOAbs in mothers were associated with externalizing problems in children (odds ratio [OR]=1.64, 95% confidence interval [CI]: 1.17-2.29, p=0.004). In particular, children of TPOAb-positive mothers were at a higher risk of attention deficit/hyperactivity problems (OR=1.77, 95% CI: 1.15-2.72, p=0.01). To explore whether the effect of maternal TPOAbs on child problem behavior was mediated by maternal thyroid parameters, we added maternal TSH to the model. After correcting for TSH, the effect of TPOAbs on externalizing problems was attenuated slightly but remained significant (OR=1.56, 95% CI: 1.14, 2.14, p=0.005).

Conclusions: Our findings imply that the elevated titers of TPOAbs during pregnancy impact children's risk of problem behavior, in particular, attention deficit/hyperactivity. The observed effect is only partially explained by maternal TSH levels. These findings may point to a specific mechanism of Attention Deficit/Hyperactivity Disorder in children. Nevertheless, we can only speculate about public health implication of the study, as there is no specific treatment for TPOAb-positive pregnant women with normal thyroid function. Further investigation is needed to explore whether TPOAb-positive pregnant women and their children can benefit from close monitoring and early detection of developmental delay in populations at risk.

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Yeni Symp. 2011;49:209-16.

SELF-ESTEEM AND QUALITY OF LIFE IN CHILDREN AND ADOLESCENTS WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER.

Goker Z, Aktepe E, Kandil S.

Objective: The study aims at discussing self-esteem and quality of life in children and adolescents with the ages of 7-15 who are diagnosed with Attention Deficit Hyperactivity Disorder (ADHD).

Method: 50 children and adolescents with ADHD diagnosis and their parents are examined and matched 30 children and adolescents who as control group and their parents. Rosenberg Self-Esteem Scale and Children's Quality of Life Scale are used.

Findings: The results obtained are such that the self-esteem value in the group with ADHD is not significant in relation to the control group. According to the quality of life scale forms filled by their parents, it is found out that the children with ADHD diagnosis experience lowness in quality of life with respect to all domains of their lives. In children and adolescents with ADHD diagnosis, it is observed that the highness of the level of education of the father predicts highness in the self-esteem.

Discussion and Conclusion: The results of this study suggest that self-esteem in the children and adolescents with ADHD is not significantly high and that their quality of life is significantly low. This is noticeable for it draws attention to the psycho-social dimension in the clinical evaluation of the children with ADHD.

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Yeni Symp. 2011;49:201-08.

SOCIODEMOGRAPHIC FEATURES AND COMORBIDITY OF CHILDREN ADOLESCENTS DIAGNOSED AS ATTENTION DEFICIT HYPERACTIVITY DISORDER.

Aktepe E.

Objective: The aim of this study is to determine the sociodemographic features of the children and adolescents diagnosed as Attention Deficit Hyperactivity Disorder (ADHD) and comorbid diagnoses.

Method: A total of 153 cases who applied to Child and Adolescent Psychiatry Outpatient Clinic of an Antalya State Hospital between May 2006 and January 2007 and diagnosed as ADHD according to DSM-IV diagnostic criteria by a child and adolescent psychiatrist after interviewing with children, adolescents and families were involved in the study.

Findings: Male/female ratio was 3.1/1 and mean age was 9.00(plus or minus)1.98 years. At least one comorbid disorder was determined in 89.5% of the cases. For comorbidity, there was no significantly difference between combined type and inattentive type of ADHD. Distribution of comorbidities were; oppositional defiant disorder 60.7%, enuresis nocturna 23.5%, anxiety disorders 22.8%, stuttering 22.8%, tic disorders 9.8%, conduct disorder 7.1%, encopresis 3.2%. Anxiety disorder was more common among girls (37.8%), oppositional defiant disorder was more common among boys (66.1%). Anxiety disorders and oppositional defiant disorder were significantly higher in adolescent group. The most common subtype was inattentive ADHD among girls while the most common subtype was combined type ADHD among boys. While inattentive ADHD subtype was common between ages 12-15, combined type was common between ages 6-11. For inattentive type of ADHD, anxiety disorders were significantly higher.

Discussion and Conclusion: In our study, comorbidity rates had high level and comorbidity distribution had differences between each sex. Comorbidity must be assessed carefully because it helps to determine the etiological factors, affects prognosis negatively and directs choosing the treatment. Comparing comorbidities seen with subtypes of ADHD can enlight us whether subtypes of ADHD and comorbid disorders are different diagnoses or the disorders which share the same etiology. ADHD was determined to differentiate according to age, sex and subtypes. It is suggested that differences between gender related ADHD subtypes are important to show gender specific risks, Differences according to age and sex, different features of subtypes must be considered in order to be able to diagnose appropriately.

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Elenco relatori

Irene Bruno - *Pediatra, Clinica Pediatrica IRCCS "Burlo Garofolo" - Trieste*

Carlo Calzone - *Direttore U.O. Neuropsichiatria Infantile e Centro di Riabilitazione dell'Età Evolutiva - Matera*

Gabriele Masi - *Direttore U.O. Complessa di Psichiatria e Psicofarmacologia dell'età evolutiva - Fondazione Stella Maris - Pisa*

Laura Reali - *Pediatra di famiglia - Past President ACP Lazio*

Chiara Rogora - *Psicologa e Psicoterapeuta ASL RM B - Roma*

Domenico Romeo - *Neuropsichiatra Infantile Policlinico A. Gemelli - Roma*

Angelo Spataro - *Pediatra di famiglia - Palermo*

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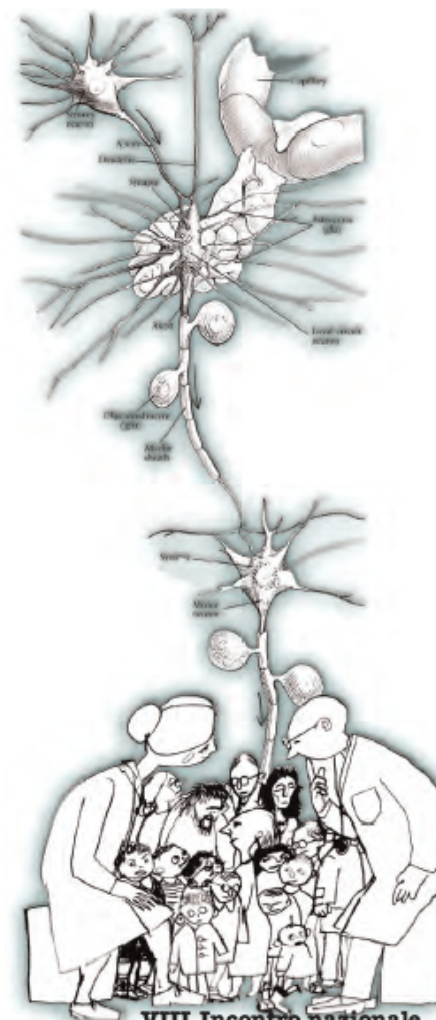
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**NEUROPSICHIATRIA
QUOTIDIANA PER IL PEDIATRA**

**VIII Incontro nazionale
Roma, 23-24 marzo 2012
Istituto Superiore Antincendi
Via del Commercio 13**

Ancora tre in uno Rimettiamoci in gioco

Carissime colleghe e carissimi colleghi, ecco il nostro ottavo Convegno di Neuropsichiatria quotidiana per il pediatra.

Avremo tre sessioni frontali con ampia discussione su temi attuali e importanti per tentare di dare risposte ad alcune delle nostre mille domande: il bambino prematuro, con le sue criticità relative allo sviluppo neuro-comportamentale, e la sua famiglia, impegnata a sostenere le sue fragilità e i suoi bisogni relazionali; i luoghi di internet, intriganti e oscuri, seduttivi e temibili ai nostri occhi di "immigrati digitali", dove disinvolti e sicuri crescono e si relazionano i bambini e gli adolescenti di oggi, ignari di evidenti problemi emergenti; la depressione dei bambini e dei giovani, con le implicazioni diagnostiche e terapeutiche nell' "epoca delle passioni tristi" (e chissà cosa ci aspetta).

Parteciperemo tutti, a rotazione, a tre gruppi di lavoro, più snelli e veloci del Convegno 2010. Nei gruppi, incentrati su casi clinici, si discuterà di argomenti che non di rado ci mettono in difficoltà: i sintomi neurologici come possibile spia di esordio di malattie metaboliche; i comportamenti ossessivo compulsivi dei bambini causa di forte preoccupazione dei genitori; il bambino con un lieve problema cognitivo, per il quale si profilano problemi in un sistema scolastico che offre poco spazio alla formazione manuale e pratica.

In conclusione, parteciperemo ad una vivace discussione "a due" che metterà alla prova la Evidence Based Medicine sulle prove disponibili relative a quello che si dovrebbe fare, che si potrebbe fare e che viene (o non viene) fatto per promuovere la salute mentale dei bambini, futuro del nostro paese.

Gli argomenti sono interessanti, i relatori di altissimo livello, il luogo affascinante, la primavera appena iniziata.

Siate tutti benvenuti a Roma..

Venerdì 23 marzo - pomeriggio

Dalle ore 13.00
Registrazione dei partecipanti

Ore 14.30
Presentazione del convegno
Laura Reali

Ore 15.00
Prima sessione frontale
conduce Angelo Spataro

**Lo sviluppo del cervello del prematuro
e le problematiche future**
Domenico Romeo

Ore 15.20
Il vissuto speciale tra prematuro e famiglia
Chiara Rogora

Ore 15.40
Discussione

Ore 16.00
**Il gioco creativo e quello patologico
nei bambini**
Federico Tonioni

Ore 16.20
Discussione

Ore 16.40
Coffee for your neurons

ore 17.00
1° Tour dei gruppi di lavoro
improntati alla discussione di casi clinici
didattici e aperti alla partecipazione attiva
dei congressisti

**Gruppo A: "Questo bambino ha strani
segni neurologici: potrebbe avere una
malattia metabolica?"**
Conduttori: Irene Bruno
e pediatri di famiglia

**Gruppo B: "Gli hanno fatto il QI ed è
meno di 80: che vuol dire?
Cosa succederà?"**
La disabilità intellettiva.
Conduttori: Carlo Calzone, Bruno Spinetoli
e pediatri di famiglia

**Gruppo C: "Mia figlia si lava le mani trecento
volte al giorno! Non ne posso più!"**
Il disturbo ossessivo compulsivo.
Conduttori: Giovanni Valeri
e pediatri di famiglia

ore 18.30
Take your tired neurons home

Sabato: 24 marzo - mattina

Ore 09.00
2° Tour dei gruppi di lavoro
improntati alla discussione di casi clinici
didattici e aperti alla partecipazione attiva
dei congressisti

Ore 10.30
Coffee for your neurons

Ore 11.00
3° Tour dei gruppi di lavoro
improntati alla discussione di casi clinici
didattici e aperti alla partecipazione attiva
dei congressisti

Ore 12.45
Seconda sessione frontale
conduce Giovanna Todini

**Depressione e variazione dell'umore:
i compiti del pediatra**
Gabriele Masti

Ore 13.15
Discussione

Ore 13.45
Lunch for your neurons

Sabato: 24 marzo - pomeriggio

Ore 15.00
Terza sessione frontale
conduce Stefano Vicari

**Bianco o nero? Trattamenti precoci di
promozione e prevenzione in salute mentale**

Criticità, fallimenti e luoghi comuni
Carlo Calzone

Buone pratiche basate sull'evidenza
Giovanni Valeri

Ore 16.00
Discussione

Ore 17.15
**Conclusioni, proposte per il
prossimo incontro
e consegna del Quiz di verifica ECM**

ore 18.00
Take your happy neurons home!

**Per questo congresso
sono stati chiesti
i Crediti ECM**

Con il patrocinio di



Ospedale Luigi Sacco
AZIENDA OSPEDALIERA - POLO UNIVERSITARIO

Adolescenza difficile: Interventi terapeutici e psicosociali integrati

Dipartimento Salute Mentale A.O. Luigi Sacco - Milano

Direttore dott. Teodoro Maranesi

RESPONSABILE SCIENTIFICO DEL CORSO: dott.ssa Paola Orolino neuropsichiatra infantile, resp. U.O.N.P.I.A membro ordinario SPI, Sanzio A.O. Sacco
orofino.paola@hsacco.it

SEGRETERIA ORGANIZZATIVA: dott.ssa Maria Grazia Corona Psicologa Psicoterapeuta U.O.N.P.I.A, A. O. Luigi Sacco - Milano
corona.mariagrazia@hsacco.it

PROGRAMMA

Valutazione e trattamento dell'antisocialità, 20 Aprile 2012

| | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Ore 08.00 - 08.30: | Registrazione partecipanti |
| Ore 09.00: dott. Callisto Bravi <i>Direttore Generale A. O. Luigi Sacco</i> dott. Pierfrancesco Majorino <i>Assessore alle Politiche Sociali e Cultura della Salute</i> dott. Teodoro Maranesi <i>Direttore D.S.M. - A. O. Luigi Sacco</i> dott.ssa Paola Orofino <i>Resp. U.O.N.P.I.A Sanzio</i> | Apertura dei lavori e Saluto delle Autorità |
| Ore 9.30 - 10.15: dott.ssa Antonella Costantino <i>N.P.I. Direttore U.O.N.P.I.A Fondazione "Ca' Granda" I.R.C.C.S. Ospedale Maggiore Policlinico</i> | "La rete dei servizi e la presa in carico degli adolescenti con disturbi psichici" |
| Ore 10.30 - 11.15: dott.ssa Flavia Croce <i>Direttore del Centro per la Giustizia Minorile della Lombardia</i> | "Prospettive di intervento sanitario e istituzionale con i minori sottoposti a procedimenti penali" |
| Ore 11.30: | Coffee break offerto da Biopharma |
| Ore 11.45 - 12.15: dott. Mauro Grimoldi <i>Presidente dell'Ordine degli Psicologi della Lombardia</i> | "L'intervento psicologico con gli adolescenti antisociali" |
| Ore 12.30 - 13.00: dott. Alfio Maggiolini <i>Università degli Studi - Milano - Bicocca</i> | "Valutazione e trattamento degli adolescenti antisociali in una prospettiva evolutiva" (prima parte) |
| Ore 13.00: | Pausa pranzo |
| Ore 13.30 - 14.45: dott. Alfio Maggiolini <i>Università degli Studi - Milano - Bicocca</i> | "Valutazione e trattamento degli adolescenti antisociali in una prospettiva evolutiva" (seconda parte) |
| Ore 14.45 - 15.30: dott.ssa Elisabetta Colombo dott.ssa Francesca Macchi <i>Minotauro</i> dott.ssa Cristina Verga <i>Assistente Sociale dell'U.S.S.M.</i> | Presentazione di un caso clinico |
| Ore 16.00: | Conclusioni |

Il trattamento in comunità, 11 Maggio 2012**Discussant**

dott.ssa Paola Orofino

Resp. U.O.N.P.I.A Sanzio

dott. Francesco Bossi

Direttore U.O.N.P.I.A

A. O. San Carlo Borromeo - Milano

Ore 9.30 - 10.15:

dott. Marco Castelli

Centro per la Giustizia Minorile - Milano

Ore 10.30 - 11.15:

dott.ssa Cristina Colli

Mino'rauro

Ore 11.15:

Discussant

dott.ssa Giovanna Ramaglia

N.P.I. Ricercatore Scienze

dell'Educazione Università di Torino

Ore 11.30 - 12.15:

dott.ssa Maria Grazia Corona

Psicologa Psicoterapeuta U.O.N.P.I.A Sanzio

dott.ssa Paola Gibello Saule

Psicologa U.O.N.P.I.A Sanzio

dott.ssa Alessandra Barni

Psicologa U.O.N.P.I.A Sanzio

dott.ssa Barbara Fratantonio

Educatrice

Ore 12.15 - 13.00:

dott. Lamberto Bartolè

Comunità ARIMO

Ore 13.00 - 13.45:

Ore 14.30 - 15.15:

dott. Mauro di Lorenzo

dott. Luca Natili coordinatore

equipe educativa comunità ARIMO

Discussant

dott.ssa Giovanna Ramaglia

N.P.I. Ricercatore Scienze

dell'Educazione Università di Torino

Ore 15.30 - 16.00:

dott.ssa Maria Caterina Roncoroni

N.P.I. - U.O.N.P.I.A

A. O. Luigi Sacco Milano

Ore 16.00:

"Pronto intervento e accoglienza dei minori sottoposti
a procedimento penale in comunità""Il trattamento dell'adolescente con disturbi del
comportamento in comunità"

Coffee break offerto da Bicipharma

"L'intervento educativo domiciliare come fattore di prevenzione"

"Un modo di lavorare con gli adolescenti"

Pausa pranzo

Presentazione di un caso clinico

"Riflessioni sulla criticità dell'inserimento degli adolescenti in comunità"

Conclusioni

Con il patrocinio di

**Integrazione istituzionale e territorio: Tribunale, Servizi sociali e Servizi sanitari, 15 Giugno 2012****Discussant:**

dott.ssa Paola Orofino

Resp. U.O.N.P.I.A Sanzio

dott.ssa Carla Pugnoli

Assistente Sociale A. O. Luigi Sacco - Milano

Ore 9.15 - 10.00:

dott.ssa Renata Ghisalberti

Presidente Ordine degli Assistenti

Sociali della Lombardia

dott.ssa Mariena Garavaglia

Assistente Sociale Specialista

Ore 10.30 - 12.30:

dott.ssa Anna Zappia

Giudice del Tribunale per i Minorenni

Coordinatore G.I.P./G.U.P.

dott. Ciro Cascone

Procuratore presso il Tribunale per i Minorenni - Milano

dott. Giuseppe Barra

Direttore del Servizio Sociale per i Minorenni

Ministero della Giustizia - Milano

Ore 11.30:

Ore 12.30 - 13.15:

dott.ssa Cristina Sottini

Giudice Onorario Membro Ordinario S.P.I. - I.P.A.

Ore 13.30:

Ore 14.30:

dott.ssa Silvia Sacerdote

Ufficio di Servizio Sociale di Milano

Ministero della Giustizia

Ore 16.00:

Apertura dei lavori

"Integrazione e rete: il ruolo e le competenze dell'assistente
sociale nel "caso" del Comune di Milano"Tavola rotonda: "Alla ricerca del modello ideale di operare,
integrazione fra servizi territoriali"

Coffee break offerto da Bicipharma

"Verità penale e verità affettiva: come ascoltiamo gli adolescenti"

Pausa pranzo

Presentazione di un caso clinico

Conclusioni



Approfondimenti clinici e teorici della patologia psichica adolescenziale, 28 settembre 2012**Discussant**

dott. Teodoro Maranesi

*Direttore D.S.M.**A. O. Luigi Sacco*

dott.ssa Paola Orofino

Resp. U.O.N.P.I.A. Sanzio

Ore 9.30 - 10.30:

dott.ssa Lavinia Barone

*Psicologa Psicoterapeuta, docente**di psicologia dello sviluppo presso**Università degli Studi di Pavia*

Ore 10.30 - 11.30:

dott. Giuseppe Pellizzari

*Psicoanalista con funzioni di training**S.P.I. - I.P.A.*

Ore 11.30:

Ore 11.45 - 12.00:

dott. Massimo Conte

*Ricercatore e operatore sociale**di Codici Agenzia di ricerca sociale*

Ore 14.30 - 16.00:

dott.ssa Giovanna Ramaglia

*N.P.I. Ricercatore Scienze**dell'Educazione Università di Torino*

dott.ssa Paola Orofino

Resp. U.O.N.P.I.A. Sanzio

dott.ssa Barbara Fratanonio

Educatrice

"Disregolazione emotiva e l'intervento con i giovani pazienti borderline"

"Il lavoro clinico ed istituzionale con gli adolescenti"

Coffee break offerto da Biopharma

"Ragazze e ragazzi in strada. Aggressioni allo specchio e costruzioni delle identità"
discussionePresentazione Casi Clinici e Video sul disagio adolescenziale
Discussione aperta delle tematiche del Convegno

Con il patrocinio di

Ospedale Luigi Sacco
AZIENDA OSPEDALIERA - POLO UNIVERSITARIO**Disturbo del comportamento e presa in carico NPI ospedaliera e territoriale, 19 ottobre 2012****Discussant**

dott.ssa Giovanna Ramaglia

*N.P.I. Ricercatore Scienze**dell'Educazione Università di Torino*

dott.ssa Paola Orofino

Resp. U.O.N.P.I.A. Sanzio

Ore 9.30 - 10.30:

dott. Edgardo Caverzasi

*Docente Ordinario Università degli**Studi di Pavia S.P.I. - I.P.A.*

dott.ssa Giulia Zeldà De Vidovich

Psichiatra

dott. Giulia Spada

Neuropsichiatra

dott. Davide Broglio

*Psichiatra**Centro di Ricerca Disturbi di Personalità**Università degli studi di Pavia*

Ore 11.00:

Ore 11.15 - 12.00:

dott. Giorgio De Isabella

*Direttore U.O.C. di Psicologia Clinica**A. O. San Carlo Borromeo*

Ore 12.15 - 13.00:

dott.ssa Alessandra Tiberti

Direttore U.O.N.P.I.A. Spedali Civili di Brescia

Ore 14.30 - 16.00:

dott.ssa Silvia Spada

Spedali Civili di Brescia U.O.N.P.I.A."Adolescenza e mentalizzazione. Proposta di un modello di trattamento
un modello basato sulla mentalizzazione (MBT)"

Coffee break offerto da Biopharma

"Un modello di intervento clinico-organizzativo per i giovani"

"La gestione dell'adolescente in ospedale: cura e trattamenti d'urgenza"

Presentazione caso clinico
"Acuzie psichiatrica ed il ricovero ospedaliero"**Interventi operativi territoriali: modello francese a confronto, 23 novembre 2012**

Ore 9.30 - 10.30:

dott.ssa Eléana Mylona

Psicoanalista (SPP) Parigi

Ore 10.30 - 11.15:

dott. Eric Courilleau

Psicoanalista (IPP) Parigi

Ore 11.30:

Ore 11.45 - 12.45:

dott. Francesco Mancuso

*N.P.I. Psicoanalista Membro Ordinario**S.P.I. - I.P.A. Presidente dell'Istituto di Psicoterapia**del Bambino e dell'Adolescente - Milano*

Ore 13.00:

Ore 13.30:

Ore 14.30 - 16.00:

"In illo tempore: Adolescenza atemporale ou limite?"

"Adolescence, lois et cadre institutionnel"

Coffee break offerto da Biopharma

"Psicoanalista e Adolescente nell'Istituzione"

Discussione con i partecipanti

Pausa pranzo

Discussione di un caso clinico

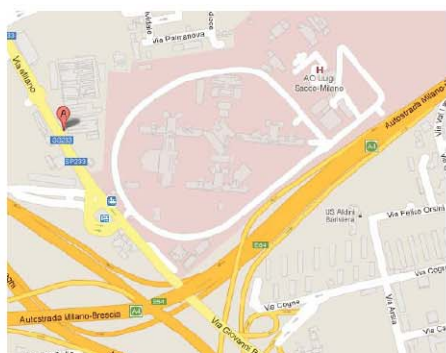


Con il patrocinio di

**Informazioni generali***(il programma potrebbe essere soggetto a piccoli cambiamenti)*

I sei seminari si articoleranno nel corso dell'anno in giornate formative indipendenti che si svolgeranno dalle 9.30 alle 16.30 presso l'Aula Magna dell'Ospedale Luigi Sacco.

Il convegno, vuole essere un momento di confronto fra vari esperti clinici, giuridici ed operatori sociali ed affronterà le problematiche inerenti la gestione e la cura degli adolescenti sul territorio. Si parlerà della necessità di interventi clinici specifici per il disagio giovanile e delle problematiche degli adolescenti a rischio di devianza e di minori con procedimenti penali in corso.



Emerge sempre di più la necessità di attuare interventi integrati fra

le varie Istituzioni coinvolte ed il bisogno di un "approccio multidisciplinare di cura" per i giovani pazienti sul territorio.

Per informazioni telefonare al numero / fax 02 36661454,

per le iscrizioni inviare la scheda compilata e gli estremi del bonifico effettuato.

Per gli esterni è prevista una quota d'iscrizione di 120 euro a seminario, e per gli specializzandi di 90 euro. E' prevista una riduzione del 10% a tutti coloro che parteciperanno a 2 seminari; riduzione del 20% ai partecipanti a n° 3/4 seminari; riduzione del 30% ai

partecipanti a n° 5/6 seminari. Alla quota d'iscrizione va aggiunta una **maggiorazione del 21% d'IVA**, gli enti ne sono esonerati.

E' necessario far pervenire l'email alla segreteria organizzativa preferibilmente entro il **15 Marzo 2012**, indicando i seminari a cui si desidera partecipare, e inviando una e-mail a: orofino.paola@hsacco.it - corona.mariagrazia@hsacco.it.

SEDE DEL CONGRESSO

Azienda ospedaliera - Polo Universitario
Aula Magna - A. O. Luigi Sacco
Via G. B. Grassi, 74
20157, Milano

ECM

E' stato richiesto l'accreditamento
E.C.M. per ogni seminario

RESPONSABILE SCIENTIFICO

dott.ssa Paola Orofino Neuropsichiatra
Infantile, resp. U.O.N.P.I.A. Sanzio,
A. O. Luigi Sacco, Membro Ordinario S.P.I. - I.P.A.

Scheda d'iscrizione**"Adolescenza difficile: interventi terapeutici e psicosociali integrati"**

Cognome

Nome

Struttura di appartenenza

Qualifica

Specializzazione (1) Specializzazione (2)

Fattura intestata a

VERSAMENTO:
bonifico bancario
BANCA POPOLARE COMMERCIO
INDUSTRIA
AG. 2274 Milano Grassi

ABI 05048 CAB 01651
IBAN:
IT2910504801851000030020211

BENEFICIARIO:
A.O. Luigi Sacco
Via G.B. Grassi, 74
20157 Milano

Causale iscrizione (specificare tipo di convegno/i)

Incarico

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Recapito telefonico

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| Quota d'iscrizione per Laureandi Studenti | |
|-------------------------------------------|-------|
| 1 GIORNATA | 120 € |
| 2 GIORNATE | 216 € |
| 3 GIORNATE | 324 € |
| 4 GIORNATE | 432 € |
| 5 GIORNATE | 540 € |
| 6 GIORNATE | 648 € |

La quota deve essere versata al 15/03/2012 per l'invio, in caso di ritardo da intestare a Enti pubblici la quota è cliente IVA.

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I quali verranno utilizzati esclusivamente per finalità pertinenti all'evento stesso.

SEGRETERIA ORGANIZZATIVA dott.ssa Mariagrazia Corona
corona.mariagrazia@hsacco.it

Collaboratori psicologi: dott.ssa Alessandra Barni
dott.ssa Elena Mengoni
dott.ssa Sara Bruzzone
dott.ssa Paola Ghella



SEGRETERIA SCIENTIFICA dott.ssa Paola Orofino orofino.paola@hsacco.it
Responsabile sede U.O.N.P.I.A.
via Raffaele Sanzio 9, Milano
tel/fax 0236661454

Per ricevere la newsletter iscriversi al seguente indirizzo:
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Iniziativa nell'ambito del Progetto di Neuropsichiatria dell'Infanzia e dell'Adolescenza
Il Progetto è realizzato con il contributo, parziale, della Regione Lombardia
(in attuazione della D.G. sanità n. 3250 del 11/04/2011)
Capofila Progetto: UONPIA Azienda Ospedaliera "Spedali Civili di Brescia"
"Condivisione dei percorsi diagnostico-terapeutici per l'ADHD in Lombardia".

ISTITUTO DI RICERCHE FARMACOLOGICHE MARIO NEGRI
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