Method.—The performance of 17 children with ADHD on Purdue Pegboard Test was compared with normative data of the US children.

Results.— Children with ADHD do not show significant difference on simple movement speed task. On patterned movement task, children with ADHD performed better than normative data.

Conclusion.—The result on simple movement is consistent with previous studies. The patterned movement result, however, shows reverse pattern from existing findings. One possibility is that participants could be mainly hyperactive type found to have less severe motor skill deficit in the previous research. Another possible reason is neurodevelopmental difference cross ethnicities, that is Korean children might show faster motor development than western children.

http://dx.doi.org/10.1016/j.neurenf.2012.04.671

We-P-3028

## Psychopathology of mother with ADHD child in Jakarta's primary school

A. Hapsari a,\*, I. Widyawati b, G. Hadisukanto b

- <sup>a</sup> Faculty of Medicine, University of Indonesia, Jakarta, Indonesia
- <sup>b</sup> Psychiatry Department, Faculty of Medicine, University of Indonesia, Jakarta, Indonesia
- \*Corresponding author.

Introduction.— Attention Deficit/Hyperactivity Disorder (ADHD) is one of the most common psychiatric disorders in children with manifestations of the core symptoms, namely impulsivity, hyperactivity and concentration problems. This disorder brings consequences to others who interact with patients, especially their parents. The nature of the characteristics of children with ADHD are pressing, demanding, and disrupt possible cause negative reactions from other family members and create an effect that disrupt family relationships and parental psychological functioning. Mother plays a very important role in long-term management of children with ADHD. Therefore it is essential we also try to understand the impact of the disorder on themselves so that the management of the corresponding mother can be given immediately to them. This study aims to obtain data psychopathology proportion of mothers who have children with ADHD and psychopathology features of mothers who have ADHD child.

Method.— Cross sectional study. Subjects were mother who has ADHD child in elementary school from grade 1 to grade 6 who live together and function as the primary caretakers of children. The subjects were randomly drawn proportionally from 30 elementary schools in DKI Jakarta from Desember 2010 until April 2011. The instruments used were MINI KID, Symptom Check List (SCL)-90, and subject demographic questionnaire.

Result.— The research in this study found there were 60,4% of mother with ADHD child who has psychopathological symptoms and the most common symptom was somatization (56,7%).

Conclusion.— The finding in this study suggest the importance for screening of mothers' psychopathological who has ADHD child on routinely. Further study is needed to find factors related to somatization symptoms in mother with ADHD child.

http://dx.doi.org/10.1016/j.neurenf.2012.04.672

We-P-3029

## Clinical studies of attention deficit hyperactivity disorder (ADHD) in the infancy

K. Nomura <sup>a,\*</sup>, K. Okada <sup>a</sup>, Y. Noujima <sup>b</sup>, S. Kojima <sup>b</sup>, Y. Tanaka <sup>a</sup>, Y. Shima <sup>c</sup>, T. Hirashima <sup>c</sup>, M. Amano <sup>d</sup>, R. Fukumoto <sup>a</sup>

- <sup>a</sup> Center for Developmental Clinical Psychology and Psychiatry, Nagoya University, Nagoya, Japan
- b Kanie Health Centor, Kanie Cho, Japan
- <sup>c</sup> Graduate School of Education and Human Development, Nagoya University, Nagoya, Japan
- d Anjyou City, Japan
- \*Corresponding author.

When children with ADHD start school, many issues related to adapting to a group and interpersonal relations arise. It's extremely important to identify the disorder during childhood and to offer support. We conducted health checks for

5-year-olds and carried out follow-ups with high-risk ADHD children. Among the 303 subjects who received health checks in 2007, 50 were at high risk for ADHD. The results of the follow-ups showed that 17 children suffered from ADHD, 1 from PDD, 3 from MR, 8 from maltreatment, 3 from others, and 18 children had no identifiable problems. The rate of ADHD was 5.6%. The results of the follow-ups with high-risk ADHD children identified a range of disorders in addition to ADHD, such as MR and maltreatment, and also showed that some children faced no problems. It's possible to identify ADHD during childhood, but ADHD symptoms are non-specific, and careful follow-ups are considered necessary.

http://dx.doi.org/10.1016/j.neurenf.2012.04.673

We-P-3031

## Role of gene-gene interaction between ADRA2A and SLC6A2 polymorphism to attention system in Korean ADHD children

J.W. Kang a,\*, E.J. Park b, G.M. Kim c, B.S. Kim d

- <sup>a</sup> Child and Adolescent Psychiatry, Inje University, Busan Paik Hospital, Busan. Korea
- <sup>b</sup> Child and Adolescent Psychiatry, Inje University, Ilsan Paik Hospital, Goyang-si, Gyeonggi-do, Korea
- <sup>c</sup> Child and Adolescent Psychiatry, Inje University, Haeundae Paik Hospital, Busan, Korea
- <sup>d</sup> Psychiatry, Inje University, Sanggye Paik Hospital, Seoul, Korea

Genetic studies have focused on catecholamine system genes to identify etiology in ADHD, growing evidences revealed that interaction of several genes may affect disease outcome. In the present study, interaction of alpha-2 adrenergic receptor and its transporter were investigated; 83 ADHD children (8.3  $\pm$  2.0yrs, 72 boys/11 girls) were assessed with K-SASD-PL. Neuropsychological assessment was performed with continuous performance test. We assessed ADRA2A rs553668 and SLC6A2 rs998424. With respect to neuropsychological performance, ADRA2A polymorphism had significant main effect on visual/auditory commission errors in CPT ( $P\!=\!0.012, P\!=\!0.027,$  respectively). Combination of CC for ADRA2A with GG for SLC6A2 genotype had shown more commission errors than other combinations of genotype ( $P\!<\!0.01$  and  $P\!<\!0.05,$  respectively). Our findings provide preliminary evidence for the effect of ADR2A and SLC6A2 gene-gene interaction on attention system in ADHD. Although these findings need future replications, our study may contribute to understanding of the genetic basis of ADHD.

http://dx.doi.org/10.1016/j.neurenf.2012.04.675

We-P-3032

### Assessment of the executive function in children and adolescents with attention deficit hyperactivity disorder and the spectrum of pediatric bipolar disorder

E.A. Araujo Jiménez<sup>a,\*</sup>, M.C. Jané Ballabriga<sup>a</sup>, A. Bonillo Martin<sup>b</sup>, R.S. Giacobo<sup>a</sup>, X. Arrufat<sup>c</sup>

- <sup>a</sup> Department of Clinical and Health Psychology, Universitat Autònoma de Barcelona, 193, Spain
- <sup>b</sup> Departament De Psicolobiologia I Metodologia De Les Ciències Del Comportament, Universitat Autònoma de Barcelona, 193, Spain
- c Consorci Hospitalari de Vic, 500, Spain
- \*Corresponding author.

Executive Function (EF) refers to a set of cognitive processes necessary to perform an effective and socially adequate behavior. Studies are interested in determining the EF deficits in children and adolescents with disorders such as attention deficit hyperactivity disorder (ADHD) and the spectrum of pediatric bipolar disorder (PBD), since there is confusion about the differences in executive dysfunction in these disorders. The aim of this study is to determine the differences in EF in children and adolescents with ADHD and PBD for differential diagnosis. We evaluated 76 children and their parents from the Osona region. We administered a diagnostic interview based on DSM-IV criteria and

<sup>\*</sup>Corresponding author.

an inventory for parents to estimate the capabilities of the EF. We found significant differences in EF deficits in children with ADHD and PBD. This study will allow to look for the necessary tools and appropriate intervention for children with these disorders display their EF in any context.

http://dx.doi.org/10.1016/j.neurenf.2012.04.676

### We-P-3033

# Comparison of discontinuation risk in patients initiated on lisdexamfetamine dimesylate (LDX) vs. other medications for the treatment of attention deficit/hyperactivity disorder (ADHD): A retrospective claims analysis

J. Setyawan<sup>a,\*</sup>, P. Hodgkins<sup>a</sup>, A. Guerin<sup>b</sup>, G. Gauthier<sup>b</sup>, M. Cloutier<sup>b</sup>, E. Wu<sup>b</sup>, M.H. Erder<sup>a</sup>

<sup>a</sup> Global Health Economics Outcomes Research, Shire Pharmaceuticals, Wayne, PA, USA

b Analysis Group, Boston, USA

Objective.— To compare discontinuation rates in ADHD patients initiated on LDX vs. other ADHD FDA-approved medications.

Methods.— ADHD patients initiated on a new ADHD medication were selected from a large US administrative claims database. Based on age and previous treatment status, patients were classified into treatment-naïve or previously treated children and adolescents, or adults, respectively. Furthermore, based on initiated treatment, patients were classified into 7 cohorts: LDX, atomoxetine (ATX), methylphenidate long acting HCL (OROS-MPH), generic methylphenidate/dexmethylphenidate HCL short acting (MPH SA) and long acting (MPH LA), and amphetamine short acting (AMPH SA) and long acting (AMPH LA). Discontinuation rates, defined as a treatment interruption of more or equal to 30 consecutive days, during a 12-month period were compared using multivariate Cox proportional-hazards models.

Results.—Among 101,616 children and adolescents, 1-year discontinuation rates ranged between 74–96%. LDX patients had significantly lower (P<.05) discontinuation rates compared to all cohorts, except ATX (P= NS) and OROS-MPH (higher; P<.05) in treatment-naïve patients. Among 53,674 adults, 1-year discontinuation rates ranged between 76–93%. LDX patients had significantly lower discontinuation rates compared to each of the other cohorts, except AMPH LA (P= NS).

Conclusion.— In majority of comparisons LDX-treatment was associated with similar or lower risk of discontinuation compared to other ADHD medications.

http://dx.doi.org/10.1016/j.neurenf.2012.04.677

### We-P-3034

## Empathy and facial expression recognition in children with ADHD and non-ADHD: Effects of stimulant medication in the ADHD group

F. Gumustas<sup>a</sup>, S.G. Imren<sup>b</sup>, Y. Yulaf<sup>b</sup>, O. Sabuncuoglu<sup>a,\*</sup>

<sup>a</sup> Department of Child and Adolescent Psychiatry, Marmara University Faculty of Medicine, Istanbul, Turkey

The aims of the study were to explore trait and state empathy and facial expression recognition in 8- to 14-year-old children with Attention-Deficit/Hyperactivity Disorder (ADHD) and non-ADHD; and to assess the effects of methylphenidate (MPH) treatment on these measures in the ADHD group. In regard to trait empathy, although children with ADHD rated themselves as less empathic than the non-ADHD children, parent ratings did not indicate any significant difference between two groups. ADHD and healthy control group did not differ in their emotion labelling and empathic responding (state empathy) scores. A subgroup which consisted of ADHD children with comorbid oppositional defiant disorder showed significant deficits on measures of both trait and state empathy. MPH improved performance on measures of emphatic respon-

ding and facial expression labelling but did not affect measures of trait empathy. Positive changes in empathic skills should be a focus of treatment in children with ADHD.

http://dx.doi.org/10.1016/j.neurenf.2012.04.678

#### We-P-3035

### The effectiveness of clinic based social skills training for children with ADHD or ASD in Japan

H. Iwasaka <sup>a,\*</sup>, H. Takahashi <sup>b</sup>, H. Negoro <sup>a</sup>, S. Uemura <sup>a</sup>, R. Miyazaki <sup>a</sup>, Y. Miyazaki <sup>b</sup>, A. Honjyo <sup>b</sup>, T. Onishi <sup>a</sup>, J. Iida <sup>c</sup>

<sup>a</sup> Center for Special Needs Education, Nara University of Education, Nara-shi, Javan

<sup>b</sup> Psychiatry, Nara Rehabilitation Center, Nara, Japan

<sup>c</sup> Faculty of Nursing, Nara Medical University, Kashihara, Nara, Japan

Objective.— We develop the SST which encountered Japanese culture and practice it to children with developmental disorder in a clinic and review the efficacy. Methods.— We took SST program arranged from UCLA's program comprising a learning session, a play session and a session for parents and practiced it. SST of all ten times consists of skills to seem to be need to "Let's play with friends happily". For 85 children who participated in this SST from 2002 to 2010 in total, we reviewed a change of their social skills, behavior and self-efficacy on before/after SST and a half-year later.

Results.— The hyperkinesis and the impulsiveness in ADHD-RS (parent evaluation) were improved, but the significant improvement was absent in target skills and self-efficacy (self-evaluation). It is considered we have to strength the cooperation with a school to develop self-efficacy. On the presentation day, we consider a more detailed result and report it.

http://dx.doi.org/10.1016/j.neurenf.2012.04.679

### We-P-3036

## The children's attention project: A community-based study of ADHD symptoms in 6- to 7-year-old Australian children

E. Sciberras<sup>a,\*</sup>, D. Efron<sup>b</sup>, E. Schilpzand<sup>a</sup>, V. Anderson<sup>a</sup>, B. Jongeling<sup>c</sup>, P. Hazell<sup>d</sup>, O. Ukoumunne<sup>e</sup>, J. Nicholson<sup>f</sup>

<sup>a</sup> Murdoch Childrens Research Institute, Parkville, Australia

b Royal Children's Hospital, Parkville, Australia

c Joondalup Child Development Centre, Perth, WA, Australia

<sup>d</sup> University of Sydney, Sydney, Australia

e University of Exeter, Exeter, UK

f Parenting Research Centre, East Melbourne, Australia

\*Corresponding author.

This study aimed to investigate the relationship between ADHD symptoms and family background and comorbid mental health problems, in a community-based sample of 6 to 7-year-old Australian children. In 2011 and 2012, approximately 5300 children attending 41 schools are being screened for ADHD, using the Conners' 3 ADHD index (parent and teacher report). Children screening positive for ADHD, and a matched sample screening negative, are invited to participate in the longitudinal study. The first wave of screening has been completed (n = 2731). Based on pilot data (n = 345), we anticipate that compared to controls, children screened positive for ADHD will be more likely to have younger parents, less well educated parents and to be from single parent families. We anticipate that children with ADHD will have higher rates of comorbid mental health problems than controls. These data will provide the foundation for the first Australian longitudinal study of ADHD.

http://dx.doi.org/10.1016/j.neurenf.2012.04.680

### We-P-3037

Long-term effects of methylphenidate on the cardiovascular system in children with attention deficit hyperactivity disorder

<sup>\*</sup>Corresponding author.

<sup>&</sup>lt;sup>b</sup> Istanbul, Turkey

<sup>\*</sup>Corresponding author.

<sup>\*</sup>Corresponding author.