

## Poster Symposium Presentations

### 237 THE OBSERVATIONAL RATING SCALE OF PARENTAL INTERACTIONS (ORSPI): A USEFUL MEASURE OF THE QUALITY OF FATHERS' INTERACTIONS WITH THEIR INFANTS?

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**Background and aims** The quality of father-infant interaction impacts on infant developmental outcomes and is increasingly targeted for intervention. Review of the literature reveals few measures to assess the quality of parent-infant interaction during a structured task. Studies exploring the quality of fathers' interactions have to date, only used the costly and time-consuming Nursing Child Teaching Assessment Scale (NCATS) to rate father-infant interaction. This study aims to explore the reliability and validity of the ORSPI as a measure of the quality of father-infant interaction.

**Method** Videotapes of 152 five-month old and 74 eight-month old father-infant dyads interacting during a structured task were rated using the 8 item ORSPI scale (scores range from 1–15). Total ORSPI scores were correlated with previously rated NCATS scores. Internal consistency and intra-rater reliability of the ORSPI were also assessed.

**Results** ORSPI scores were significantly positively correlated with NCATS total caregiver scores for five-month dyads ( $r=0.513$ ,  $p<0.001$ ) and eight-month dyads ( $r=0.634$ ,  $p<0.001$ ) indicating good concurrent validity. The ORSPI had excellent intra-rater reliability (ICC=0.931) and satisfactory internal consistency (five-month old dyads: Cronbach's  $\alpha=0.522$ ; eight-month old dyads: Cronbach's  $\alpha=0.590$ ). Father-infant dyads rated at both five and eight months old ( $N=74$ ) showed that scores decreased significantly over time Wilcoxon signed rank test (ORSPI:  $Z=-2.277$ ,  $p=0.023$ ; NCATS  $Z=-3.059$ ,  $p=0.002$ ).

**Conclusions** The ORSPI has good concurrent validity, correlating with the highly regarded NCATS, and was both easy to use and reliable. These findings support its use as a simple measure of the quality of father-infant interaction.

### 238 IQ AND INTRAUTERINE GROWTH RESTRICTION IN YOUNG ADULTS BORN SMALL-FOR-GESTATIONAL-AGE AT TERM

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**Background and aims** How cognitive function is affected by being born small for gestational age (SGA) is not clear. This may be related to different definitions of SGA and the lack of discrimination between those born with intrauterine growth restriction (IUGR) and those who are constitutionally small. Our aim was to study the effect of being born SGA with IUGR on later cognitive functioning.

**Methods** Population-based follow-up study at age 19 of 59 term-born SGA (birth weight < 10th centile, mean: 2915g) and 81 controls (birth weight > 10th centile, mean: 3707g). WAIS III was used to

assess IQ. Foetal weight-deviation was calculated based on repeated ultrasound measurements of biparietal and mid-abdominal diameter at week 25, 33 and 37 of gestation for 29 SGA subjects and 75 controls. Weight-deviations were recorded as positive and negative percentages; zero denoted no deviation from individual expected growth. Mean and standard deviation (sd) for estimated foetal growth in the control group was used to dichotomize the SGA group into normal growth and IUGR (growth deviation of more than -2sd from control mean).

**Results** The total SGA group had significantly lower IQ scores than the control group ( $p=0.001$ ). In the subgroup with ultrasound measurements, six SGA subjects (21%) were defined as IUGR. In this subgroup, only these six had significantly lower IQ than controls (IQ 87 vs 101,  $p=0.003$ ) whereas those with normal growth pattern did not differ from controls.

**Conclusions** Young adults born SGA had reduced cognitive outcome. This decrease may be confined to SGA young adults with IUGR.

### 239 THE USE OF THE ASQ-3 AS A POTENTIAL DEVELOPMENTAL SCREENING TOOL IN AN IRISH POPULATION

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**Background** The Bayley Scales of Infant and Toddler Development is a standardised developmental assessment that assesses children up to 42 months. The goal of the assessment is to identify those children with developmental delay. The Ages and Stages Questionnaire (ASQ-3) is a standardised developmental questionnaire that parents complete. The purpose of the questionnaire is to identify those children who warrant a more detailed developmental assessment such as The Bayley Scales Assessment.

**Aim** To assess the ASQ-3 for identification of children with developmental delay in an Irish population.

**Methods** A cohort of 87 pairs of twins (174 children) was taken from an on-going larger twin study. All children were assessed with both the ASQ-3 and The Bayley Scales Assessment.

**Results** In our cohort, the ASQ-3 has a sensitivity of 95% and a specificity of 57%. Although the ASQ-3 will give some false positive results, it is a good screening tool for picking up children with potential developmental delay as very few children with true delay will be missed.

**Discussion** Although The Bayley Scales Assessment is the gold standard for assessment of developmental delay, it is time consuming and must be carried out by a qualified professional. Only those at highest risk for developmental delay are therefore assessed. Our results suggest that the ASQ-3 can be used as a screening tool in low risk populations to identify those children who may be at risk for developmental problems.

### 240 NEUROPSYCHOLOGICAL PROFILE IN YOUNG ADULTS BORN SMALL-FOR-GESTATIONAL-AGE (SGA) AT TERM

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**Background and aims** Some studies have shown that being born SGA is related to reduced intellectual capacity, learning difficulties and poor school performance. Earlier findings have been diverted,

and there are few longitudinal studies that have used a comprehensive neuropsychological test battery. Aim of study was to look at how young adults born SGA perform on a variety of neuropsychological tests, and to see whether they have problems of specific or general origin.

**Methods** Population-based follow-up study at age 19 of 59 term-born SGA (birth weight < 10th centile, mean: 2915g) and 81 controls (birth weight > 10th centile, mean: 3707g). One participant in the SGA group had cerebral palsy and was excluded from analysis.

A standardized neuropsychological test battery was used to assess several functions: memory, language, attention, executive functions and visual-motor integration.

**Results** The SGA-group performed significantly poorer than controls ( $p < 0.01$ ) on several tests. These were tests assessing memory; (Wechsler memory scale-III: auditive immediate memory and mental control), attention (Trail making test), executive functions (Design fluency) and visual-motor-integration (Motor coordination test). The groups did not differ in visual memory tasks, long term memory, language functions and several other attention/executive tasks.

**Conclusions** Our results suggest that young adults born SGA have specific neuropsychological difficulties, especially problems with auditive learning, eye-hand-coordination, and they are slower at performing and initiating tasks compared to controls. This might further indicate that children born SGA can be in need of special education in school.

#### 241 USING THE AGES AND STAGES QUESTIONNAIRE TO CAPTURE PATTERNS OF RISK FOR DEVELOPMENTAL DELAY IN CANADIAN CHILDREN BORN LATE PRETERM

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**Background and aims** Nearly three quarters of preterm infants are 34 to 36 weeks gestational age (GA), or late preterm (LPT). LPT children are at significantly greater risk for neurological, language and communication delays, social and emotional problems, and attention-deficit/hyperactivity disorder than children born full term. Developmental screening and early intervention may mitigate these risks. Little is known about early patterns of risk across developmental domains in the LPT group as this grouping has been consistently defined only recently. The purpose of this study was to describe patterns of development in Canadian children born LPT.

**Methods** Mothers of 61 LPT infants (57% male) completed the Ages and Stages Questionnaire 3<sup>rd</sup> edition (ASQ-3) when their child was 4, 8 and 18 months corrected age. The 30-item ASQ-3 addresses communication, gross motor, fine motor, problem solving, and personal social functioning. Referral cut-off is < 2 SD below the mean, and monitoring is required between 1 and 2 SD below.

**Results** There was a clear inverse relationship between GA and proportion of children requiring referral or monitoring over time. For 34 weeks GA, 67% to 83% of children demonstrated risk in one or more domains; for 35 weeks, the proportion was 50% to 65%; and still lower for 36 weeks (40% to 54%). Communication and gross motor were the most problematic domains.

**Conclusion** The ASQ-3 may be useful to capture delays in LPT children, particularly in communication and gross motor domains. These results have implications for early childhood developmental assessment and intervention services.

#### 242 SCREENING ASSESSMENT OF PSYCHOMOTOR DEVELOPMENT OF PRESCHOOL CHILDREN IN VLORA-ALBANIA. A CROSS-SECTIONAL STUDY DURING JULY 2011–FEBRUARY 2012

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**Background** The assessment of psychometric parameters is an important part of growth&development evaluation of preschool children. The contributing factors of psychomotor functions are parents' Socio-Economic Status (SES), mother(teacher)/child interaction and environmental quality play. It's important to evaluate the weak points of this particularly neglected aspect of child development in Vlora-Albania.

**Aim** Assessment of the most problematic areas of psychomotor development of children in Vlora-Albania and distribution of psychometric parameters according to the quality of care&learning environment and to SES of children's parents.

**Methods** This cross-sectional study included all the 75 preschoolers enrolled in two kindergartens and the institutionalized children in Foster-Care, Vlora-Albania. The evaluation of psychomotor development was done based on the standard international test of Age&Stage Questionnaires-3, referring to children chronological age. Evaluation of child **care & learning** environment was done according to ECERS-R (Early-Care-Environment-Rate-Scale). Socio-economic status distribution was based on father's occupation and classified on European Socio-Economic Classification (E-SEC).

#### Abstract 242 Table 1 The psycho-motor development according to ECERS-R

Daycares Centres of Vlora-Albania, included in the research	Private kindergarten AULONA	Public kindergarten Nr.10	Foster Care of Vlora
Scoring Rate of ECERS-R	5.3 (above good)	4.1 (above minimal)	2.9 (under minimal)
Percentage of children with at least one problematic sector	40%	63%	100%

**Results** In this study we found that 57% of 63 kindergarten preschoolers had at least one problematic psychometric parameter and all the ones in Foster-Care had at least one also. The most problematic item at the kindergarten preschoolers was Personal-Social sector, and at the Foster-Care children was Communication. The highest percentage (75%) of delays of psychometric parameters was found at children whose fathers' SES belong to class VII (semi-routine occupations).

**Conclusions** A significant number of preschoolers and all institutionalized children at Vlora-Albania have abnormal psychometric parameters. A better quality of care&play environment leads to less delays at psychomotor development.

#### 243 SENSORY PROCESSING OF CHILDREN WITH AUTISM: UNITING EVIDENCE AND PRACTICE

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**Background** Sensory processing function is the child's ability to register, modulate and discriminate between different sensory information arising from the body (e.g. tactile and vestibular sense) and those received from the environment (vision, auditory and gustatory senses). Individuals with autism commonly experience sensory processing difficulties, which can impact upon functional performance in activities of daily living.

**Aim** To investigate the sensory processing patterns of children with autism.

**Methods** 15 children aged between 4 to 10 years old (Average 6.9 years) who were diagnosed with autism were included in the study.