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1

BORDERLINE BLOOD PRESSURE AND HYPERTENSION IN YOUNG ADULTS: A COHORT STUDY

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Backgrounds: According to the hypothesis of the fetal origin of adult diseases, several studies have reported that fetal growth disorders are associated with non-transmissible chronic diseases in adulthood, among them hypertension (H). **Objectives:** To describe the prevalence of borderline blood pressure (BBP) and H among young adults born in the 1978/79 Ribeirão Preto cohort, and to assess the association between size at birth and BBP/H among young adults, adjusted for birth and adult life characteristics. **Methods:** Of 6827 singletons born in hospitals, 2060 were assessed at 23/25 years. Blood was collected, anthropometric assessment was performed, and information was obtained regarding occupation, schooling, life habits and chronic diseases. High blood pressure (BP) was classified as BBP (systolic BP ≥130 mmHg and/or diastolic BP ≥85 mm Hg) or H (systolic BP >140 and/or diastolic BP >90 mmHg). Sociodemographic and clinical birth characteristics (preterm birth, birth weight for gestational age) were evaluated in a polytomic logistic regression model. **Results:** BBP prevalence was 13.5% (men 82.8%), and H prevalence 9.5% (men 89.8%). BBP was associated with male gender (RR: 9.3; 95%CI: 6.42–13.52), BMI>30 kg/m2 (RR: 3.1; 95%CI: 1.92–4.98), and altered waist circumference (RR: 1.7; 95%CI: 1.21–2.47), while H was associated with the same variables plus elevated glycemia (RR: 2.7; 95%CI: 1.35–5.50). **Conclusions:** The prevalence of BP and H among young adults of this cohort is elevated, showing no relation with size at birth.

2

WAIST CIRCUMFERENCE/STATURE INDEX AND IT ASSOCIATION WITH METABOLIC DISORDERS, IN OBESE SCHOOL CHILDREN

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Background: Studies in adults have found that the waist-to-height ratio (W/HtR) is better associated with cardiovascular disease metabolic risk factors than the body mass index (BMI) and the waist circumference (WC). **Objectives:** To study the associations of W/HtR, WC and BMI with lipids, fasting insulin, HOMA and QUICKI, in prepubertal obese children. **Methods:** In a cross-sectional study, 147 prepubertal (boys: aged 6–12y and girls: 6–10y) obese children (BMI ≥ 95th percentile), were consecutively analyzed. Weight, height, waist circumference, BMI, W/HtR, lipids, glucose and insulin, HOMA and QUICKI, as insulin resistance measurements, were studied. **Results:** W/HtR showed low correlation with lipids concentrations in boys (triglicerydes: r=0.34, p<0.01, BMI and WC with insulin resistance measurements in girls (HOMA: r=0.54 p <0.01; r=0.57 p=<0.01, respectively). The cut offs by ROC curves analysis showed sensibility and specificity for increased triglicerydes (≥ 101 and 110 mg/dl, boys and girls) of 69.6% and 60.4% with W/HtR ≥ 0.56; of 66.6% and 67.0% with WC ≥ 76.5 cm; of 64.3% and 61.5% with BMI ≥ 24.0 kg/m2, in the whole group. WC was the best risk indicator for increased triglycerides (OR: 3.96; CI 95%:1.96–8.01) and BMI for insulin resistance measurements (QUICKI: OR:2.68;CI 95%:1.37–5.24). In boys, a W/HtR ≥ 0.58 was a risk indicator for increased LDL-C (OR: 2.83; CI 95%:1.03–8.42). **Conclusion:** WC, W/HtR and BMI had limited specificity to detect metabolic risk factors associated to child obesity. W/HtR showed to be a risk indicator, in addition to BMI and WC, only for increased LDL-cholesterol level in prepubertal obese boys.

3

EFFECT OF HUMAN MILK PASTEURIZATION ON TOTAL FAT CONTENT AND FATTY ACID COMPOSITION

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Background: Human milk is pasteurized to reduce contamination, particularly in banked milk used to feed preterm infants. **Objective:** This comparative study was designed to determine the effect of pasteurization on human milk fat content, and on fatty acid composition. **Methods:** Fifty-six milk samples from 28 mothers donors at the "Milk Bank" were collected and analyzed before pasteurization, and after pasteurization (Holder method, 62.5°C, 30 min). Total lipids were extracted by Folch method, using chloroform: methanol (2:1v/v), and gravimetrically quantified. Fatty acids were determined by gas-liquid chromatography (GLC). **Results:** There were not significant differences between before and after pasteurization regarding fatty acid content (linoleic acid 15.7±0.6 vs.15.8±0.5), calculated indexes (total polyunsaturated 19.1±0.5 vs. 19.0±0.6) and total lipid content (3.1±0.6 g/dl vs. 3.0±0.5 g/dl). **Conclusion:** Human milk total lipid content and fatty acid composition was not affected by pasteurization.

4

DIFFERENCES IN CLINICAL MANIFESTATIONS AND SEVERITY, IN PATIENTS WITH TUBERCULOSIS IN CHILDREN UNDER ONE YEAR AND OLDER

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Background: Because of immature cell-mediated immunity in young children, age could be the most important factor determining progression of tuberculosis from infection to disease. **Objective:** To evaluated if children with tuberculosis aged less than 1 year had an increase risk of extrapulmonary or severe tuberculosis than older children. **Methods:** Case-control study, including children with tuberculosis aged under 1 year (n=30) and older (n=60). We analyzed clinical manifestations (pulmonary/extrapulmonary) and severity (moderate/severe). **Results:** There were no significant differences in prevalence neither on extrapulmonary manifestations (23.3% vs. 8.3% p=0.09; OR=3.35 IC95=0.81–14.65), nor in severe cases (23.3% *vs.* 8.3% p=0.09; OR=3.35 IC95=0.81–14.65), between children younger and older of 1 year. After controlling for co-morbidities (n=11), the analysis of extrapulmonary manifestations between the two ages groups were: 25.9% vs. 7.7% p=0.03; OR=4.2 IC95%=0.93–21.6. The same analysis regarding severe cases was: 25.9% *vs.* 7.7% p=0.03; OR=4.2 IC95%=0.93–21.6. **Conclusion:** There were no significant differences in prevalence of extrapulmonary manifestations or severe cases between children younger and older of 1 year. These findings could be influenced by a limited sample size, especially regarding patients without comorbidities.

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5

VITAMIN D NUTRITION IN CHILEAN PRE-SCHOOL CHILDREN LIVING IN EXTREME LATITUDES

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Background: The sunlight exposure is the main factor for adequate vitamin D nutrition in human health; in extreme latitudes there is an increased risk for its deficiency; vitamin D nutrition in Chilean children population living in that areas, is unknown. **Objective:** To study serum 25-OH vitamin D concentrations (25OHD) in pre-school children living in southern extreme latitude of Chile. **Methods:** 80 pre-school healthy children (2–5 years, 38 males) were assessed, between those attending to public day-care nurseries in Coyhaique (45° S latitude), during march 2010. A blood sample (3 mL) was drawn in fasting condition, for analyzing: 25OHD, paratohormone (PTH), serum calcum, phosphatemia and alkaline phosphatases (PA). Information about weather was also registered. **Results:** 6 children with unreliable 25OHD and PTH were excluded. The nutritional status showed to 50% as normal, 20.3 % overweight and 5.4% as obese. The mean 25OHD was 21.7±15.0 ng/mL (5.9–72.9); 64.5% were deficient (± 6.4 pg/ml (normal limits: 10–55 pg/mL). Serum calcium (9.3–10.4 mg/dL), phosphatemia (4.2–6.3 mg/dL), and PA (142–355 U/mL), were normal. The rate of sunny days in the last 3 previous months was 16% (3.2–32.1%). No association of 25OHD with the other parameters was found. **Conclusion:** The pre-school Chilean children living in extreme latitudes have a high rate of deficiency in the serum 25OHD concentrations, even in the season with the best sunlight exposure, with no association with PTH, calcium, phosphatemia or PA. More research is required to study the risk of vitamin D deficiency in association with other latitudes and magnitude of sunlight exposure, with other ages, or the impact on new vitamin D functions.

6

IMPACT OF A BRIEF INTERVENTION TO CONTROL BURNOUT SYNDROME IN PEDIATRIC RESIDENTS

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Background: Little information exists concerning interventions aimed to control burnout syndrome among medical residents. **Objective:** To estimate burnout syndrome prevalence among pediatric residents and to evaluate the impact of a brief intervention aimed to control burnout syndrome. **Methods:** Randomized controlled trial including 74 pediatric residents. Maslach Burnout Inventory was administered to all, and demographic information retrieved (age, gender, children, householders, and residency year). Experimental group (n=37) participated in self-care workshops during two months. After the intervention the Maslach Burnout Inventory was administered to all participants, again. Burnout was defined as affection of at least 2 of the 3 dimensions explored by the Maslach Burnout Inventory. All potential predictors of burnout were included in a logistic regression model. The efficacy of the intervention was evaluated by chi square test. Significance level: $p < 0.05$. **Results:** Burnout prevalence among pediatric residents was 66%. After controlling for age, gender, children and householders, burnout syndrome prevalence was significantly higher among 3rd year residents (OR: 11.8; IC95%: 2.3-59.3; p=0.003). There were no significant differences regarding burnout prevalence in the experimental group between baseline and after intervention (p=0.6), neither between both groups after intervention (p=0.3). Only an improvement on "depersonalization" in the experimental group was noticed (p= 0.031). **Conclusion:** burnout syndrome prevalence among pediatric residents was 66%, being higher among 3rd year residents. A brief intervention was not effective to reduce burnout prevalence, despite it achieved some improvement in "depersonalization".

7

WAIST-TO-HEIGHT RATIO: PERCENTILES AND CUTOFF POINTS FOR OBESITY IN ADOLESCENTS

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Objective: To describe the distribution of waist-to-height ratio (WHtR) percentiles and cutoff points for obesity in adolescents. **Methods:** Cross-sectional study including adolescents aged ≥10 and <16 years conducted in the city of São Paulo, Brazil. Anthropometric measurements (weight, height and hip circumference) were taken and data of WHtR was obtained and then divided into percentiles. The receiver operating characteristic (ROC) curve was used to determine the cutoff points for obesity (Centers for Disease Control and Prevention [CDC]: body mass index [BMI] ≥ P95; the World Health Organization, 2007 [WHO]: BMI ≥ P97) and the Mann-Whitney and Kruskal-Wallis tests were applied for comparison of variables. **Results:** The study included 8,019 adolescents from 43 schools, of which 54.5% were female and 74.8% attended public schools. Boys had higher mean WHtR than girls (0.45 ± 0.06 vs. 0.44 ± 0.05; p = 0.002) and showed higher WHtR at the 95th percentile (0.58 vs. 0.56; p<0.05). The WHtRs increased according to the distribution of BMI in percentiles and a similar distribution was seen between CDC and WHO criteria**.** The WHtR cutoffs according to CDC criteria ranged from 0.467 to 0.506 among girls and from 0.468 to 0.496 among boys, with high sensitivity (82.6–94.7%) and specificity (83.9–94.8%). Similar results were seen with the WHO criteria, except that the specificity was lower than that of CDC among boys aged 12–15 years. **Conclusions:** The WHtR was significantly associated with body adiposity, and its age-specific percentiles and cutoff points may be used as surrogate markers of central obesity and its co-morbidities.

8

PATIENT VOLUME, MEDICAL & NURSING STAFFING AND ITS RELATIONSHIP WITH RISK-ADJUSTED OUTCOMES OF VLBW INFANTS

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Objective: To assess if morbidity and mortality in very-low birth weight (VLBW) infants (<1500 g) is associated with patient volume, number and training of physicians and nurses, and if exist differences between public and private centers. **Methods:** neonatal outcomes of all VLBW inborn infants consecutively admitted to 15 South-American neonatal intensive care units (NICUs) in 2005-2007 were retrospectively studied. Data of patients and staff resources were obtained from questionnaires. The outcome measures were death before discharge and incidence of severe disease (intraventricular hemorrage –IVH-, bronchopulmonary dysplasia –BPD-, retinopathy of prematurity –ROP-, and late onset sepsis), adjusted for initial risk (Neocosur score). NICUs were categorized regarding number of VLBW newborns/year (<50: low, 50–100: medium, and >100: high), and in public and private centers. **Results:** 2019 VLBW were included. Mean (SD) gestational age, birth weight and initial risk were 28.9 (0.7) weeks, 1088 (53) g and 0.24 (0.04), respectively. Mortality ranged 6% to 38 % (mean 23.2%), according to each NICUs. The other outcomes were (median, inter quartile range): severe IVH 7.3% (6–14); BPD 20.8% (15–43); ROP ≥ III 5.6 % (2.7–8.5); late onset sepsis 23% (15–29). Staff characteristics were: daily medical hours (median, ICR) 2.6 (1.4–4.0), full-time physicians (>40 hrs/week) (mean, SD) 15(8), daily nurse hours 6.1 (4.3–7.9), full-time nurses (>40 hrs/week) 32 (22–56), and nurses-to-infant ratio 0.78 (0.52–0.92). Median daily NICU census was 9.8 (8.9–12). Low medical hours provision was significantly associated with increased mortality (OR 1.30 [95% CI: 1.04 1.76], p= 0.020), and low nurse provision was significantly associated with increased risk of mortality, adjusted by mother age and initial risk (trained NIC 1.52 [1.16 −1.99], nurses-to-infant ratio 1.81 [1.40–2.33]). Public centers showed higher risk of morbidity and mortality compared with private centers, but statistically not significant differences.

9

INEQUITY IN MATERNAL AND NEONATAL HEALTH: ANALYSIS OF CHANGES IN PERINATAL COVERAGE IN PERU FROM 1996 TO 2008

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Introduction: In last decades the Peruvian Ministry of Health aimed to increase access to health services with equity and quality, focusing on perinatal care. However, it is not clear why Perú still shows one of the highest maternal and perinatal mortality rates in Latin America, with deep inequity patterns. **Objective:** To determine whether observed variations in perinatal coverage in 1996 and 2008 are useful to demonstrate the existence of inequitable patterns in Perú. **Methods:** An Exploratory Spatial Data Analysis was performed to allow visual comparison of geographic distribution of perinatal coverage, using maps for 1996 and 2008. Six relevant variables of perinatal coverage included in the Demographic and Health Survey (DHS), were selected. Maps were created with SIGEpi 1.04. **Results:** We developed parallel Peruvian maps showing 1996 and 2008 departmental distribution for the selected perinatal variables, and for a perinatal inequality index calculated with the same variables. Unevenly over the territory, prenatal care, institutional birth and rural cesarean section increased its coverage, but low birth weight increased its prevalence. When comparing 1996 and 2008, we found differences in reported coverage for each variable within each department (p<0.01). **Conclusion:** Variations in Peruvian perinatal coverage between 1996 and 2008, suggest increase of inequitable distribution of maternal and neonatal healthcare in the last decade, affecting mainly the jungle region.

10

ASSOCIATION OF PUBERTAL GROWTH SPURT TO BODY FAT PERCENTAGE AND NUTRITIONAL STATUS AMONG ADOLESCENTS

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Background: Anthropometric assessment in adolescents is a complex process due to variability of growth and changes in body composition during the pubertal growth spurt. **Objective:** To assess the association between pubertal growth spurt and body fat percentage and nutritional status. **Methods:** A total of 2,684 female students aged between 10 and 15 years in the city of Sao Paulo, southeastern Brazil, were studied. Weight and height measures were taken using a portable digital scale and a wall stadiometer (Seca®). The body mass index (BMI) was used in the assessment of nutritional status (WHO, 2007). Body fat percentage was calculated using Slaughter's equations (1988) and then interpreted based on Lohman (1987) criteria. The following stages of sexual maturation were considered: M1 (pre-growth spurt); M2 to M4 (growth spurt); and M5 (post-growth spurt). The chi-square test was used to evaluate the correlation between variables (p<0.05). **Results:** Our population showed mean age 12.46±1.26 years, height 155.30±8.09 cm, weight 48.89±11.19 kg, BMI 20.13±3.69 kg/m^2, % Body Fat 22.10±7.27 %. A direct association was found between body fat percentage and pubertal growth spurt (p<0.001). Body fat percentage was high in 17.9% of the adolescents prior to the growth spurt, 28.9% during the growth spurt and 50% after the growth spurt. BMI values showed the same trend (p<0.001), but they were less significant, with excess weight occurring in 12.8%, 23.5%, and 46%, respectively. **Conclusion:** This study showed an association between sexual maturation and excess body weight and consequent increase in obesity during adolescence, emphasizing the need to assess this population segment.

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11

COMPARISON OF ALIMENTARY BEHAVIOUR BETWEEN EUTROPHIC AND OBESE CHILEAN SCHOOL CHILDREN

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Introduction: There are contradictions in relation to eating behavior patterns in eutrophic and obese children. **Objective:** Determine if any and what are the differences in eating behavior patterns between obese and eutrophic school children in Chile. **Material and Method:** Cross-sectional study, sample of volunteer subjects. Obese school children (BMI ±2 SD NCHS) that attended clinical control at INTA and eutrophic school children from the same area were evaluated by alimentary behavior test .After signing an informed consent and approval of INTA ethics committee, parents answered 2 test: Three Factor Eating Questionnaire-R18 for children (TFEQ-R 18) that assesses 3 dimensions of eating behavior: Cognitive Restraint, Eating without control and Emotional Eating; and the Child Eating Behavior Questionnaire (CEBQ) that evaluates: Enjoy and response to food , Satiety Response, Fuzziness (F), Emotional Overeating, Emotional Undereating (EU), Drink Desire. Results were expressed by median and percentiles (25–75) Test scores were compared using Mann-Whitnney test with $p < 0.05$. **Results:** 133 children were assessed, 51% men, 50.4% obese, age 10 ± 1.1 years. Significant differences were observed in all patterns evaluated with TFEQ -R18. In CEBQ was also observed in all parameters except for F 6.4 (11–22) versus 18 (16–19), EU 9 (7–11) versus 8 (7–9) obese versus eutrophic. **Conclusion:** There are significant differences in the sample in most of the eating patterns among eutrophic and obese children. This could have practical implications for therapeutic indications in our patients.

12

BIRTH WEIGHT AND PHYSICAL ACTIVITY OF YOUNG ADULTS: A 1978/79 COHORT STUDY IN RIBEIRÃO PRETO

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Introduction: Studies have indicated that low birth weight (LBW, birth weight <2500 g) is associated with non-communicable chronic disease of adults and that the level of physical activity (LPA) could be a protective factor against these diseases. **Objective:** To determine if LBW is associated with LPA among young adults. **Methods:** The International Physical Activity Questionnaire, long version, containing questions about frequency, duration and intensity of leisure, work and transportation activities, was applied in order to assess LPA to 1146 non-twin individuals from a cohort born in Ribeirão Preto, SP, Brazil in 1978/79, reevaluated at 8–11 and 23–25 years of age. LPA was calculated as metabolic expenditure/minute/week (met/min/wk) and used to classify subjects as: sedentary (000l—600), sufficiently active (600l—1500), and active (≥3000 met/min/wk). Multinomial logistic regression was used to assess the association by odds ratio (OR) of LBW and of birth, school age and adult age factors with LPA. **Results:** In the adjusted analysis, LBW (OR=2.68), female sex (OR=2.06), time spent watching television (OR=1.91) and using medication that increases strength (OR=3.18) were risk factors for sedentarism compared to being active; while the birth order (OR=0.64), high calorie consumption (OR=0.62) and being obese (OR=0.59) represented protective factors. Having children (OR=1.96), being a female (OR=1.74), number of siblings (OR=3.89), and medication use (OR=3.47) favored being sufficiently active compared to being active. **Conclusion:** Physical activity can be programmed by early life events since LBW was associated with adult LPA independently of other factors.

Financial support: FAPESP, CNPq e FAEPA.

13

BEHAVIORAL PROBLEMS AMONG CHILDREN AND ADOLESCENTS WITH SCHOLASTIC DELAY

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Introduction: The term scholastic delay refers to falling behind at school. In Brazil, 60% of elementary school students are in this situation. A weak scholastic performance is often associated to behavioral problems. **Objective:** The aim of the present study was to determine whether there is an association between scholastic delay and behavioral problems. **Methods:** Six hundred seventy-three parents/guardians of children and adolescents between seven and 18 years of age in the city of São Paulo filled out the Child Behavior Checklist, which is a screening questionnaire for social skills (lower scores indicate problems) and behavioral problems (higher scores indicate difficulties). The items are grouped into 15 subscales: Total Skills, Activity Skills, Social Skills, Scholastic Skills, Total Problems, Internalization, Externalization, Anxiety/Depression, Withdrawal, Somatic Complaints, Social Problems, Thought Problems, Attention Problems, Delinquent and Rule-Breaking Behavior and Aggressive Behavior. Mean scores were analyzed taking the child's age and school grade into consideration. Children and adolescents who were two or more years behind at school in relation to the age foreseen for the grade were categorized as having scholastic delay. **Results:** The children with scholastic delay had significantly higher scores on all behavioral problem subscales and significantly lower scores on the social skills subscales in comparison to the children without scholastic delay. **Conclusion:** An association was found between scholastic delay and behavioral problems. Therefore, working with children and adolescents with academic difficulties should not be exclusively limited to scholastic content and should encompass behavioral, emotional and social issues.

14

FOLLOW-UP OF TWO BRAZILIAN BIRTH COHORTS AT SCHOOL AGE: METHODOLOGY AND RESULTS

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Introduction: Few cohort studies have been conducted in countries of medium and low income to investigate the epidemiology of non-transmissible diseases. **Objectives:** To describe the methodology of follow-up at school age of birth cohorts started in 1994 in Ribeirão Preto (RP)/SP, and in 1997/98 in São Luís (SL)/MA, and to estimate and compare the prevalence of some non-transmissible diseases and medical conditions. **Methods:** Liveborn singleton children were reevaluated at school age (9–11 years) in RP and 7–9 years in SL, with follow-up rates of 69.1% and 72.7%, respectively. The groups of low (<2500 g) and high (≥4250 g) birth weight were over-represented in the samples and the estimates were corrected by weighting. Questionnaires were applied about the general and oral health of the children, who were also evaluated for cognitive function, mental health and childhood depression, anthropometry, arterial pressure, asthma, bronchial hyper-responsiveness, and skin allergies. The chi-square test was used to compare the two cohorts. **Results:** In RP there was a higher percentage of non-nutritive sucking habits (69.1%), use of feeding bottles (89.6%), headache in the last 15 days (27.9%), positivity to skin allergens (44.3%), overweight (18.2%), obesity (9.5%) and arterial hypertension (10.9%). In SL there was a higher percentage of below average cognitive function (28.9%), mental health problems (47.4%), depression (21.6%), and malnutrition (5.8%). There was no difference in the prevalence of bruxism, recurrent abdominal pain, asthma or bronchial hyper-responsiveness. **Conclusions:** Some non-transmissible diseases and medical conditions were highly prevalent, especially in the more developed city (RP), which is in a more advanced stage of epidemiological transition.

15

BEHAVIORAL PROBLEMS AND ATYPICAL BEHAVIOR IN CHILDREN AND ADOLESCENTS

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Background: Behavioral problems and atypical behavior due to environment, genetic inheritance, innate personality and individual development, are common health problems in childhood. **Objective:** To determine whether is there association between behavioral problems and atypical behavior. **Methods:** Child Behavior Checklist (CBCL) and Autism Behavior Checklist (ABC) were administered to 52 guardians of children and adolescents aged 4 to 18 years, from the Sao Paulo City (Brazil). The CBCL is a screening questionnaire for behavioral problems (high score indicate problems), and the Autism Behavior Checklist (ABC) is a screening questionnaire for atypical behavior and children with suspected autism. The items on the CBCL are grouped as Total Problems, Internalization and Externalization. The items on the ABC are grouped as, Sensory Stimuli, Relating, Body and Use of Objects, Language, and Social Self-Help. The results were analyzed by Spearman's correlation. **Results:** There was correlation between Total Problems (CBCL) and Total Atypical Behaviors (ABC). There was also correlation between Internalization (CBCL) and Sensory Stimuli, Relating, Social Self-Help and Total Atypical Behaviors (ABC). Finally Externalization (CBCL) score correlates with Sensory Stimuli, Body and Use of Objects, Social Self-Help and Total Atypical Behaviors (ABC). **Conclusion:** Correlation was found between behavioral problems and atypical behavior, suggesting that children and adolescents with behavioral problems may require special attention, as their behavior may indicate more severe pathologies.

16

CLINICAL OUTCOME OF CHILDREN HOSPITALIZED WITH LOWER RESPIRATORY TRACT INFECTION (LRTI) DUE TO INFLUENZA (FLU) AND RESPIRATORY SINCITIAL (RSV) VIRUSES

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Background: RSV and Flu are the most common cause of hospitalization for LRTI in children during winter season. There is still controversy about which virus could show worse clinical outcome. Moreover, in 2009 a new Flu virus (H1N1) emerged, and there is little information about it. **Objective:** To determine if there are differences in the clinical outcome in children with LRTI caused by Flu and RSV. **Methods:** Children aged from 1 month to 18 years, hospitalized between May and October 2009 for LRTI due to Flu and RSV. In all cases age, sex, use of oseltamivir, risk factors for severe disease (prematurity, immunodeficiency, and/or chronic cardiac, neurological, metabolic, renal or respiratory diseases), and clinical outcome ("bad": presence of complications, length of stay >30 days, oxygen requirement >7 days, intensive care requirement, death) were recorded. Association between virus type (RSV or Flu) and clinical outcome ("good" or "bad") was evaluated using logistic regression. **Results:** 193 patients were included (RSV: 61.9%, Flu: 38.1%). RSV patients were younger than Flu patients (11.9 ± 16 vs. 28.5 ± 46 months; p=0.04). Risk factors were more frequent in Flu patients (51% vs. 21%; p< 0,001). After controlling by age, gender, risk factors and use of oseltamivir, RSV infection was associated with bad outcome (OR: 2.6; 95%CI: 1,2–5.5; p=0,012). In 39/74 patients with Flu, H1N1 was identified. There were no differences in bad clinical outcome prevalence between H1N1 and H3N2 patients (58.8% vs. 41.2%; OR: 2.0; 95%CI: 0.7–5.7; p=0.2). **Conclusion:** Bad clinical outcome was more frequent in patients with RSV LRTI than in those with Flu LRTI. There were no differences regarding clinical outcome between H1N1 and H3N2 Flu LRTI patients.

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Author Index to Abstracts

(Numbers cited refer to page numbers)

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