portrayal of unhealthy food types during this period. Future work in this area should fully explore the influence of screen time on food choice and nutritional intake of children.

P511 PARENTAL KNOWLEDGE OF PHYSICAL ACTIVITY GUIDELINES AND LEVELS OF PHYSICAL ACTIVITY IN CHILDREN

Katriona Fox, Niall Dalton*, Alex Boldy, Madalene Khalil, Paul Scully, Clodagh O'Gorman. University Hospital Limerick, Limerick, Ireland

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Introduction Childhood obesity is a risk factor for developing metabolic syndromes, with these patients five times as likely to develop type 2 diabetes compared to those without metabolic syndromes. Significant contributors to obesity include decreased physical activity, poor diet, and sedentary behaviours, especially television viewing. Current guidelines recommend no more than 2-hours non-educational screen-time per day.

Aims Examining parental knowledge regarding exercise guidelines, the portrayal of exercise on television and to ascertain self-reporting of physical activity and any relevant barriers.

Methods Cross-sectional survey on parents of children aged 4–16 years old, presenting to University Hospital Limerick, October–April, 2018. Surveys regarding television viewing and perceptions of television portrayal of exercise. Data analysed on SPSS.

Results Sixty parents completed the surveys and the majority of were aware that 60 minutes is the recommended guideline (50%), despite a wide answer range (20–240 min). Most parents believed dancing was the most common exercise depicted on television (40%). 60% of children met activity guidelines during weekdays, with this increasing to 75% at weekends. Two-thirds of parents surveyed were not concerned regarding their child's activity levels. Commonly reported barriers to exercise were time involved and cost.

Conclusions Results showed parents were aware of physical activity guidelines and of exercise portrayal on television. Self-reporting indicated two-thirds of children were meeting minimum recommended activity guidelines during the week. Results show that despite parental knowledge regarding guidelines, many children do not meet recommendations, which is associated with increased sedentary television viewing. Future work in this area should fully explore mechanisms underpinning reduced activity and relevant interventions.

P512 CHILDREN AND HEALTHY EATING HOW DO THEY UNDERSTAND IT

Khajik yaqob*. ¹Zakho Genral Hospital, Kurdistan Pediatric Society, DUHOK, Iraq

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Background Globally, 10% of all children and 43 million children under 5 years are either overweight or obese (Livingstone, 2014). According to Livingstone (2014), childhood obesity is one of the serious public health challenges in the 21st century because of its impacts on childhood mental and physical health. Also, the most serious complication of childhood obesity is type 2 diabetes which might result in obese middle age adults and early dementia. Once

childhood obesity is established, obesity is notoriously difficult to treat.

Livingstone (2014) stated that approximately 30% of obese children and 70% of obese adolescents will go on to become obese adults. Girls are more likely to be affected than boys. The longer a child remains obese beyond 3 years old the more likely that obesity will persist into adulthood. Possibly by 2020, worldwide, 9% of all preschool children (approximately 60 million children) will be obese; if no significant intervention is done.

Objective This research study was designed to explore children's (aged 9–10) beliefs about healthy eating and what they manage to eat healthily.

Design This research was exploratory to the way that two different groups of children conceptualized healthy eating to compare between them. One was at a primary school cohort and another at a local Church group. The same questionnaire comprised of 14 questions was administered to children in both cohorts with the twenty-six year 9 and 10 participants to explore how they perceived healthy eating. Total number of children (aged 9–10) was 26, 19 at primary school group and 7 at local Church cohort. Both cohorts were from the same ethnicity (whitish-British), age, gender and low-middle socioeconomic states and different level of education of parents.

Results Although children at primary school age group were more likely to make healthy food choices than those of the local Church group, (77.3% vs. 47.1%) 71% favour to eat unhealthy foods. Also, 26.3% of children at the primary school group as compared to 28.5% of those in the local Church group thought that pasta is made from cheese and 14.2% of children at local Church cohort believed that pasta is made from meat. 10.5% of children at primary school cohort perceived that egg is made from Cow and 5.2% believed that Crisps is made from plastics. 100% of children in the local Church group as compared to 36.8% of those at primary school cohort had knowledge of healthy eating from their parents.

P513 PREVALENCE OF HOSPITAL-ACQUIRED MALNUTRITION IN CHILDREN AT A TUNISIAN TERTIARY REFERRAL HOSPITAL

^{1,2}Rania Ben Rabeih*, ^{1,2}Amani Ahmed, ^{1,2}Sonia Mazigh Mrad, ^{1,2}Salem Yahyaoui, ^{1,2}Samir Boukthir. ¹BECHIR HAMZA Children's hospital, Tunis, Tunisia; ²University Tunis El Manar, Faculty of medicine, Tunis, Tunisia

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Introduction Hospital-acquired malnutrition (HAM) occurs as a result of reduction in food intake and an increased calorie requirement resulting from high catabolic state induced by the disease. The prevalence of HAM is underestimated, mainly in the pediatric population.

Objectives This study aimed to investigate the prevalence and risk factors of hospital-acquired malnutrition in Tunisian children.

Methods Prospective, descriptive and analytical study, including all children over 28 days of age hospitalized for at least 48 hours in the pediatric department 'C' of BECHIR HAMZA Children's Hospital from April 2018 to September 2018, was conducted. Children with dehydration or edematous syndrome were excluded from the study. The prevalence of HAM was estimated by a 25% decrease in z-score BMI (body mass

index) or z-score WFH (weight for height) from the time of admission to discharge. Logistic regression analysis was performed to determine risk factors of HAM.

Results We included 294 children in the study, with a mean age of 43.6 months. Conditions affecting upper and lower respiratory tract (32%) were the most common at admission followed by infectious diseases (21%) and gastrointestinal system conditions (10.5%). The prevalence of acute undernutrition (AUN) at admission was 25.5%. It was mild, moderate and severe respectively in 17%, 5% and 3.5% of cases. The prevalence of AUN at discharge was 34%. It was mild, moderate and severe respectively in 19%, 8% and 7% of cases. Duration of hospital stay ranged from 2 to 41 days with a median of 5 days. The prevalence of HAM was 28.6% (84/294) with a predominance in children aged <59 months (68/205) (33.2%). Weight loss was observed in 63.2% (186/294) of cases. The mean weight at admission was 15.7 ± 12.9 kgs [2.2–80]. At discharge, the mean weight dropped to 15.3 ± 12.8 kgs [1.6–77]. All age groups showed a reduction in weight during hospitalization; however, it was more common in children aged 12–24 months (61.8%). Weight loss was $\geq 5\%$ in 82/186 (44%) of cases. Risk factors of HAM were : separation from mother during hospitalization (Odds Ratio (OR) 3.44, 95%CI 1.13–10.48; $p=0.029$), fever during hospitalization (OR 8.94, CI 1.1–72.42; $p=0.04$), stop or decrease oral or enteral feeding during hospitalization (OR 1.47, CI 1.27–1.82; $p=0.008$). However, breastfeeding, absence of chronic disease and age over 15 months were protective factors against HAM.

Conclusion The prevalence of HAM in Tunisian children was high. Risk factors are multiple and their screening is essential for early and adequate management.

P514

LATCHON: A MULTI-CENTRE, RANDOMISED CONTROLLED TRIAL OF PERINATAL SUPPORT TO IMPROVE BREASTFEEDING OUTCOMES IN WOMEN WITH OVERWEIGHT AND OBESITY

¹Eileen O'Brien*, ¹Sharleen O'Reilly, ²Lucille Sheehy, ²Lorraine O'Hagan, ¹Denise McGuinness, ¹Barbara Coughlan, ¹Denise O'Brien, ²Rosie Murtagh, ³Marie Corbett, ³Michelle Walsh, ⁴Paula Power, ⁴Marie Woodcock, ⁴Amy Carroll, ⁵Stephanie Murray, ⁵Charmaine Scallan, ⁵Elizabeth Dunne, ¹Fionnuala McAuliffe. ¹University College Dublin, Dublin, Ireland; ²National Maternity Hospital, Dublin, Ireland; ³Regional Hospital Mullingar, Westmeath, Ireland; ⁴St.Luke's General Hospital, Kilkenny, Ireland; ⁵Wexford General Hospital, Wexford, Ireland

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Background Breastfeeding rates in Ireland are among the lowest worldwide. At hospital discharge, 58% of infants are breastfed, with only 48% exclusively breastfed. At 3 months of age, 35% are fed any breastmilk. Women with a high BMI have lower initiation rates and duration of breastfeeding, which is a particular concern in Ireland given that 50% of women have a BMI of >25 kg/m² at their first antenatal appointment.

Objective The aim of the intervention is to improve breastfeeding rates using a previously-tested, multi-component intervention. The intervention will target attitudes toward breastfeeding, breastfeeding self-efficacy, and subjective norms around infant feeding with the aim of normalising the behaviour.

Methods This protocol is for a multi-centre, randomised controlled trial of perinatal breastfeeding support among

women with a BMI >25 kg/m². Hospital discharge data, validated questionnaires and qualitative interviews will be used to measure outcomes and intervention effectiveness. Ethical approval has been sought and recruitment will commence in early 2019. Patients: Primiparous women attending the study site hospitals with a singleton pregnancy and BMI >25 kg/m².

Intervention The intervention will target mothers and their support partners and will span the perinatal period from late pregnancy to six weeks postpartum. Intervention components include: group antenatal education for prospective mothers and their support partners; individual education in the immediate postnatal period; professional support to six weeks postpartum; and weekly phone calls in the postpartum period from an International Board-Certified Lactation Consultant. The primary outcome is prevalence of breastfeeding at 3 months.

Results We anticipate that the intervention will be well-accepted and feasible to carry out within an Irish cohort based on results from the pilot trial among 100 women. Furthermore, essential formative qualitative work has been conducted to inform the intervention design and to ensure that it is contextually appropriate.

Conclusions The proposed intervention will be invaluable to policy-makers as it will provide insights into the specific interventions (e.g. antenatal group education, antenatal individual education, postpartum support) that are effective in improving breastfeeding rates for women with a raised BMI and will highlight the measures that would be most cost-effective to implement nationally.

P516

THE POSITIVE CLINICAL CONSEQUENCE OF EARLY INTERVENTION OF COMBINED THERAPY (OMEGA 3 FATTY ACIDS AND B12 VITAMIN) ON CHILDREN UNDER 5 WITH VARIABLE FORMS OF CEREBRAL PALSY

Khajik Yaqob*. Zakho General Hospital/Kurdistan Pediatrics Society, DUHOK, Iraq

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Background Cerebral palsy is a common pediatric problem encountered in about 1:3 per 1000 born children and causing variable mental, motor and behavioral dilemmas. Newly introduced trials of neurogenesis with different agents are now extensively evaluated.

Objective Our study was conducted to evaluate the neurotrophic response to B12 vitamin and omega-3 fatty acids in children diagnosed early with variable forms of cerebral palsy. The response was monitored both clinically and with C.T Scan as being a highly predictive tool for assessing cerebral palsy.

Design The study was carried out on 40 cerebral palsy patients; 26 (65%) out of them were girls, and 14 of them were boys, aged from 0 to 5 years old; from outpatient clinic at Zakho/Duhok General Hospital in Kurdistan Region-Iraq. Patients were treated and followed up for 6 month to one year. They were represented and adjusted by full history taking and clinical examination. Brain C.T scans was done for every patient to assess the degree of brain atrophy before starting this combined therapy, and every month for six months to one year.

Results The study revealed that early intervention of both omega 3 and B12 vitamin in children under 5 with cerebral palsy (cp) shows great response based on clinical examination