

ing Pediatric OPD of a Govt. hospital and a private clinic were selected purposively. A questionnaire was developed to record the participants' information on breastfeeding practices. **Results:** Only 29.7% of the infants were breastfed within one hour of the birth inspite of 97.3% institutional deliveries. It was reported that 40.5% of the infants received feeds other than breastmilk, mainly infant formula (81.3%) at the place of birth. Pre-lacteals were given to 13% of the infants mainly as a traditional practice. Exclusive breastfeeding for six months was reported amongst only 62.2% of infants. Top-feeding/complementary feeding was documented amongst 71.9% of the infants, of which only 45.1% infants received complementary foods at an appropriate age of 6 months. **Conclusion:** The status of breastfeeding practices in India still remains poor even after decades of work done to promote and protect breastfeeding. Further institutional care and support for breastfeeding at the time of birth and counseling regarding appropriate feeding of the infant is required to strengthen breastfeeding in India.

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Indonesian Parents Risk and Benefit Perception of The Current School Food Environment on The Avoidance to Children School Food Consumption

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Keywords: School food environment · Perceived risk and benefit · Risk management · School age children nutrition

Background/Aims: School food environment held high influence on children nutritional supply and habit formation; however in Indonesia the environment has not shown optimal condition and the case is different among type of schools. The purpose of this study is to measure parents' risk and benefit perception influence on the avoidance to school food environment under the influence of food risk knowledge and trust to food sellers. **Methods:** Data were collected at September 2018 using online questionnaire with 355 Public School subjects and 219 Private School subjects. The measurement items were developed from literature review and were validated using exploratory and confirmatory factor analysis. The hypotheses analysis with structural equation modeling showed that risk perception was positively influenced by food risk knowledge and negatively influenced by trust to food seller in Public School parents, but only negatively influenced by trust to food seller in Private School parents. **Results:** Nutritional benefit perception was positively influenced by trust to food seller in both group of parents, accessibility benefit perception however was negatively influenced by trust to food seller in Public School parents. The avoidance to school food environment in both group of parents were positively influenced by risk perception and negatively influenced by nutritional benefit perception. **Conclusion:** The results proved that parents showed avoidance to children's consumption from school food environment and an immediate risk management intervention is needed. The risk management intervention should reduce the risk in the current school food environment and optimize the nutritional benefit from the food consumed by the children.

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BMI as a Dominant Factor of Uric Acid Level among Satuan Polisi Pamong Praja in Working Area of East Jakarta

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Keywords: Uric acid level · Body Mass Index · Civil Service Police Unit (Satpol PP) officer

Background/Aims: The changes of body metabolism can increase uric acid level. The increase of uric acid level for men in some countries have a fairly large prevalence ranging about 30–35%. The increase of uric acid level for a long time can induce damage in joint, kidney, and soft tissue. The aim of this study is to analyze the dominant factor which is determining uric acid level among male officer of Satuan Polisi Pamong Praja in Working Area of East Jakarta. **Methods:** This cross sectional study was conducted on 150 male officer of Satuan Polisi Pamong Praja in Working Area of East Jakarta. The uric acid data was collected in primary by checking the blood uric acid level with Uric Acid Test Family Dr., validity 90%, conducted by medical personnel. At the same time, the nutritional status was collected with anthropometric measurements, food consumption with food recall 3 x 24 hours questionnaire and Food Frequency Questionnaire (FFQ), also respondents characteristic with characteristic questionnaire. Data was analyzed using multivariate analysis Multiple Linear Regression. **Results:** The result of this study indicated that BMI is the dominant factor determining uric acid level, which is every increase of 1 kg/m² then the uric acid level will increase by 0.109 mg/dl after age and protein intake variable controlled. **Conclusion:** Daily exercise highly recommended to do for every Satuan Polisi Pamong Praja Officer as an effort to prevent the risk of obesity.

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Food Security and BMI Status among Adolescents in Kuantan, Pahang

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Keywords: Food security · Obesity · Adolescents

Background/Aims: Food security can be defined as the availability of and accessibility to food, acquired in an acceptable means at any given time and place in a way that could maintain health and wellbeing. This study aimed to identify the food security status and the nutritional status of adolescents and to determine the associated factors. **Methods:** Five hundred and thirty secondary school students from district of Kuantan, Malaysia were measured for their weights and heights. A set of questionnaire containing two sections was used to obtain the sociodemographic data and food

security information. The Radimer/Cornell Instrument (Malay version) was used to capture the severity of food insecurity. **Results:** The findings demonstrated that 23.4% of the respondents were food secure and 76.6% were food insecure, which were categorized into household food insecurity (31.5%), individual food insecurity (7.6%) and child hunger (37.5%). Furthermore, 60% have normal BMI-for-age, 9.2% were underweight, while 16.6% and 14.2% were overweight and obese. The prevalence of stunting was 11.7% while others were categorized as normal in terms of height-for-age z-score. Respondents with working mothers were found to be less likely to experience food insecurity compared to those with mothers who were not working (AOR 0.59; 95% CI: 0.34–0.97; $p = 0.037$). **Conclusion:** The high prevalence of food insecurity and increasing overweight and obesity incidents are a concern within this area. While food security element should be included in any intervention program addressing overweight and obesity, further research is needed to study the complex relationship between socio-demographic factors, food security and nutritional status.

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Ceria, Respek, Gigih, Aktif, Sihat (C.E.R.G.A.S.): Factors Influencing Sustainability of a School-Based Obesity Intervention for Young Adolescents

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Keywords: In-depth interview · Intervention · Obesity · Sustainability

Background/Aims: School-based obesity intervention is important and when implemented, sustainability should be seriously considered to promote healthy lifestyles and behavior changes in order to overcome childhood obesity. This study aimed to explore factors that promote and inhibit the sustainability of C.E.R.G.A.S. program, which was a 12-week obesity intervention focusing on healthy eating, physical activity and physical fitness. **Methods:** Face-to-face in-depth interviews were conducted at 30 months post-intervention with 21 children who participated in C.E.R.G.A.S. at a secondary school located in Kuala Lumpur. The interviews were audio-recorded, data were transcribed verbatim and analyzed using Nvivo version 12. **Results:** Themes identified as promoting factors were (1) support from family members, researchers, peers and school teachers; (2) self-awareness on mobility, health status, and body image; (3) knowledge on food pyramid and physical activity (4) physical environment; and (5) practices after intervention on physical activity and healthy eating. Barriers were (1) self-attitude, such as laziness, embarrassment, bored, busy, and lack of self-discipline; (2) knowledge consistency; (3) peers influence; (4) social pressure from family members and friends; (5) school and home environment. We found that the main promoting factor of sustainability of C.E.R.G.A.S intervention is support from family members, while the main barrier is self-attitude. Future school-based obesity intervention programs should consider

these factors prior to implementation. **Conclusion:** We opine that C.E.R.G.A.S. obesity intervention program can potentially be adopted and implemented at secondary schools throughout Malaysia to combat obesity.

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Serum Vitamin D and Bone Health Status in Prepubertal Malaysian Children

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Keywords: 25(OH) D, bone mineral density, prepubertal, children

Background/Aims: The association between serum vitamin D and bone health is largely underreported in Asian children. We determined the baseline serum 25(OH)D and bone status of 243 prepubertal Malaysian children aged 9 to 11 years old (Tanner stage 1 and 2) participating in the effects of prebiotic fiber on bone health (PREBONE-Kids) study. **Methods:** Total body bone mineral density (TBBMD) and lumbar spine bone mineral density (LS-BMD), bone mineral content (BMC) and body composition were measured by dual-energy X-ray absorptiometry (DXA). Serum 25(OH)D was measured using LC-MS/MS method and compared with the US Institute of Medicine (IOM) cut-offs. Calcium and vitamin D intakes were measured using semi-quantitative food frequency questionnaire. **Results:** The TBBMD and LSBMD Z-scores were normal based on Asian reference data for boys and girls. In contrast, 35% of the children had serum 25(OH)D concentrations indicative of vitamin D deficiency (<30 nmol/l) and only 30.9% had sufficient concentrations (>50 nmol/l). In the vitamin D deficient group, serum 25(OH)D was significantly correlated with TBBMD Z-scores ($r = 0.246$, $p < 0.05$) whereas in the vitamin D sufficient group, serum 25(OH)D was positively correlated with vitamin D intake ($r = 0.299$, $p < 0.001$). Multiple linear regression analysis, after correcting for multicollinearity, showed that body fat percentage ($r^2 = 0.020$, $p = 0.016$) was the most significant predictor of serum 25(OH)D followed by TBBMD (incremental $r^2 = 0.026$, $p = 0.011$) and lumbar spine BMC (incremental $r^2 = 0.036$, $p = 0.003$). **Conclusion:** Our results suggest that serum 25(OH)D may influence BMD accrual and peak bone mass attainment in prepubertal Malaysian children.