

Aim Hormonal balance, genetic background, calcium/vitamin D metabolism, nutrition, lifestyle and physical activity are principle factors effecting bone health during puberty. The aim of the study is to evaluate the effect of regular sportive activity (SA) on bone mineral density.

Materials and methods Adolescents admitted to Department of Pediatrics with licensed regular SA (n: 55) and without regular SA (n: 56) were included in the study. Age, height, body weight, body mass index (BMI), Tanner stages, educational status of parents, mean daily calcium intake, smoking, sun exposure, total of time for watching television and playing computer and type of licensed SA were recorded. Bone mineral density (BMD) was measured with a quantitative ultrasonography device.

Results BMI was higher in group without a regular SA ($p=0.024$). Adolescents with regular SA had higher BMD when compared to group without a regular SA ($p=0.011$). Vitamin D levels were also higher in group with SA ($p<0.001$). Daily calcium intake did not show any significant difference between groups ($p>0.05$). Higher educational status of parents was significantly related with higher prevalence of SA. Vitamin intake was higher in adolescence with SA ($p=0.002$) and smoking was more common in adolescents without regular SA ($p=0.023$).

Conclusion Quantitative ultrasound can be used to evaluate the BMD in children. Physical activity during adolescence is important for bone growth and SA should be encouraged earlier. Especially, adolescents whose mothers had higher educational status took part in SA more frequently.

432 NUTRITIONAL KNOWLEDGE, ATTITUDE AND PRACTICE OF HIGH SCHOOL GIRLS LIVING IN KUWAIT: A PILOT STUDY

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Aim of the work This study was designed to study the nutritional knowledge, attitude and practice of adolescent school girls in Kuwait to assess the current situation and advise the need for directed nutritional programs.

Methods A dietary questionnaire on nutritional knowledge, food habits, eating behavior and food frequency sheet as well as anthropometric measurements were done to 72 school girls aged 15 to 17 years who were recruited from a governmental high school in Kuwait.

Results Among the studied girls nearly half stated that the family was their primary nutritional knowledge source compared to approximately one fifth who chose the internet, another one fifth were from books and journals. More than half of the studied girls had below average knowledge about different nutrients and their function. This deficient knowledge affected their food frequency sheet and limited their choices to below average in about half of cases. Their life style was less than satisfactory in over two thirds where the girls preferred sedentary activities compared to active exercise. Fortunately, only minority of the studied girls were overweight compared to three quarters having their body mass index within accepted range.

Conclusion Although there is insignificant effect of the deficient nutritional knowledge and dietary behavior of the studied high school girls on their BMI, this deficient nutritional knowledge is likely to have a negative impact on their nutritional status as future mothers as well as the nutritional status of their children to come since family is the commonest source of nutritional knowledge.

433 THE KNOWLEDGE OF SEXUAL TRANSMITTED DISEASES ADOLESCENCE IN LOW ECONOMIC LEVEL

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The purpose of this work is to do a research on the level of awareness about sexually transmitted diseases (STD) of adolescence and the factors effecting it.

Method A number of adolescent at the ages of 14–17 (n=527) were asked to complete a survey questioning their level of knowledge of STDs and their sociological and demographical issues.

Data were entered into the SPSS 15.0 program and evaluated. A value of $p<0.05$ was assumed for statistical significance.

Findings 78.9% of the adolescent responded positively to the question of whether or not they are aware of the fact that diseases could be transmitted via sexual intercourse. 48.6% of the adolescent responded negatively to whether or not they knew “how the diseases are transmitted”, 59.4% responded negatively to whether or not they know “how to protect themselves from those diseases”, and 67.2% responded negatively to whether or not they know “the symptoms of STDs”. The count of the right answers were in increase in correlation with the education and economic level of the parents ($p<0.05$). The results showed that 49.3% of them learned information about STDs at school and from medical institutions. 9.3% of them stated that they had intercourse in the last one-year period and 8.0% of them utilized a method of protection.

Result Awareness level of adults about STDs is inadequate. For that, schools and medical institutions, where they are inclined most to get education, should organize mass education events for them about these matters.

434 RELATIONSHIP BETWEEN OBESITY AND 8-HYDROXY 2- DEOXY GUANOSINE AS AN OXIDATIVE MARKER IN OBESE ADOLESCENTS OF GIZA

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Background and Aim This study was conducted to assess the relationship between obesity markers (Body mass index “BMI”, fat percentage) and DNA oxidative marker 8-hydroxyl guanosine (OHG), as a predictor for future clinical problems in obese adolescents of Giza.

Methods The study was conducted on 103 adolescents aged 13–18 years (22 boys, 81 girls). BMI was calculated as body weight (kg) divided by height (m²) squared and obesity was defined as BMI of 95 percentile. Fat percentage was determined by using Biological impedance technique. Oxidative stress markers as 8-hydroxyl guanosine, superoxide and glutathione were measured. The adolescents were divided according to BMI into two groups. Group I with BMI > 95 percentile and less than 97 percentile (obese) and Group II with BMI > 97 percentile (severely obese).

Results Significant differences were detected between the two groups of the study as regard obesity markers (BMI, fat %) and oxidative stress markers (lipid oxidation, superoxide dismutase enzyme activity, glutathione peroxidase enzyme activity, 8-hydroxyl guanosine) ($p<0.0005$). Significant positive correlations were detected between obesity markers and oxidative stress markers among severely obese adolescent (group II). Obesity is highly associated with states of oxidative stress in adolescents, with a positive relation with 8-hydroxy-guanosine and obesity markers and other oxidative markers.

Conclusion This marker might play an important role in the prediction of future development of some clinical diseases.

435 CHANGES IN QUALITY OF LIFE INTO ADULthood AFTER VERY PRETERM BIRTH AND/OR VERY LOW BIRTH WEIGHT IN THE NETHERLANDS

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Background and Aims When evaluating the impact of Very Preterm Birth (VPB) and/or Very Low Birth Weight (VLBW), it is important to explore Health-Related Quality of Life (HRQoL). Our aim is to study HRQoL transition into adulthood.

Methods The Dutch Project on Preterm and Small for gestational age infants (POPS) cohort of 1338 VPB (gestational age < 32 weeks) or VLBW (< 1500 grams) infants in 1983, was contacted to complete online questionnaires at 28 years. In total, 314 of 928 eligible participants (33.8%) completed the Health Utilities Index (HUI) and the London Handicap Scale (LHS), which were also collected at 19yrs. We applied multiple imputation (MI) to correct for missing data and non-response for overall scores. We performed regression analyses and considered P-values < 0.05 (two-sided) as statistically significant.

Results Both the mean HRQoL score measured with the HUI (MAU-score at 19yrs=0.89 (MI:0.83) versus 0.88 (MI:0.85) at 28yrs) and LHS (overall score 19yrs=96.5 (MI:93.9) versus 95.9 (MI:94.6) at 28yrs) did not change significantly. Individual HUI scores, when divided into four levels of disability (MAU-score(x) $x=1$, $1 > x > 0.9$, $0.9 > x > 0.7$ or $x < 0.7$) improved in 28%, was stable in 48% and worsened within 24% of respondents.

Conclusions Overall, HRQoL of these Dutch adults born very preterm or VLBW was similar to HRQoL at 19yrs, using two HRQoL measures. This suggests that HRQoL remains stable from 19yrs onwards. Although no changes were found on group level, fluctuations in HRQoL between ages did occur within a large proportion of individuals.

436 SUICIDE AND SUICIDE ATTEMPTS IN MALI

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Background and Aims Suicide is a major hidden public health problem, causing almost half of all violent deaths and resulting in almost one million fatalities every year, as well as economic costs in the billions of dollars, says the World Health Organization (WHO). The aim of this study is to describe the main characteristics of suicidal poisoning in Mali.

Methods A descriptive retrospective analysis of voluntary poisoning cases, recorded between 2000 and 2010 in Malian hospitals, was performed.

Results During the period of study, a total of 547 suicidal poisoning cases including 65 cases of successful suicide have been identified, constituting 62.6% of voluntary poisoning notified during this period. Most victims are teenagers and young adults aged 15–24 years (62.2%). For this age bracket, the number of suicide attempts is 7.7 times higher than that for successful suicide. According to data recorded, women make 2.4 times more suicide attempts than men. The medication intake is the primary means employed by victims (71.3%), followed by industrial products (15.3%). The poisoning symptoms are varied, depending on involved toxins, the ingested quantity and the delay before treatment.

Conclusions During their hospitalization, suicide attempters should receive careful medical and psychiatric supervision to avoid the risk of recurrence.

437 ADOLESCENTS WITH LIFE-LIMITING ILLNESSES - ARE WE TAKING A SEXUAL HISTORY?

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Introduction Talking to adolescents about sex can be difficult for health professionals - they may not know how to begin the conversation, may feel embarrassed or ill-prepared, may feel they do not have enough time or it is not relevant to their consultation. Many adolescents are having sex and adolescents with life-limiting illnesses are no exception. Giving them the opportunity to talk about sex during consultations is therefore important.

Aim A literature review revealed no previous studies on this topic. Our aim was to review medical consultations of adolescents with life-limiting illnesses and establish whether sex was discussed.

Method A retrospective review of clinical notes of adolescent patients with life-limiting illnesses was carried out with a view to establishing whether a sexual history was taken on any occasion.

Results None of the healthcare professionals took a sexual history from any of the adolescents on any occasion despite multiple clinic attendances.

Discussion Doctors tend to focus on the 'clinical' aspects of sexual health such as prescribing contraception and testing for sexually transmitted diseases, omitting sexual concerns and sexuality. Clinicians may struggle to accept that adolescents with life-limiting illnesses may want to talk about sex and this study has highlighted that it is a topic which is generally ignored. It is the responsibility of clinical departments to train their staff in sexual history taking, an important aspect of healthcare.

Conclusion Health professionals should include sexual health in routine palliative assessments so that every adolescent is given an opportunity to be heard.

438 RELATION BETWEEN SCREEN TIME AND METABOLIC SYNDROME AMONG EMIRATI ADOLESCENTS

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Background United Arab Emirates (UAE) has one of the highest rates of type 2 diabetes mellitus in the world. This aimed to determine relationship between screen time and metabolic syndrome (MetS) in adolescents.

Methods The study sample included 1012 adolescents (12–180 years) from a random sample of 8 schools out of 114 schools in Al Ain district of Abu Dhabi Emirates in UAE. Average daily screen time (combined computer, television, and video game use) self-reported. Anthropometric (weight, height, waist circumference), blood pressure measurement, blood draw after overnight fasting (for fasting blood sugar and plasma lipids) were completed by trained nurses. International Diabetes Federation criteria were used to define MetS. Overweight and obesity status were defined using the International Obesity Task Force definition.

Results A high proportion (53%) of study participants spent ≥ 2 hours on screen. The prevalence of MetS was 22% in boys and 4% in girls. Boys with MetS were more likely to spend ≥ 2 hours on screen (adjusted odds ratio 1.65, 95%CI, 1.01–2.69) compared to their counterparts who spent < 2 hours, after adjustment for relevant covariates. We did not find a significant ($p < 0.05$) relationship between screen time and MetS in girls.

Conclusion Screen time was associated with MetS in adolescents boys. Prevention initiatives for youth should include programs aimed at reducing screen time.