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Under The Patronage Of H.E. Sheikh

Nahayan Mabarak Al Nahayan - Minister Of Tolerance

2ND INTERNATIONAL GROWTH & DEVELOPMENT CONFERENCE

14-16 March 2018 Roda Al Bustan | Dubai, UAE

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Trends in overweight and obesity and other anthropomtric indices in adults aged 18-60 y in western SaudiArabia

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Abstract

Background: Overweight and obesity prevalence have been growing considerably in Saudi Arabia in the past two decades. Studies to determine the possible effect of age on weight gain and related anthropometric measurements in Saudi Arabia are limited.

Objective: To determine the trends of overweight or obesity and some anthropometric indices with age brackets. DESIGN: Observational cross-sectional study.

Methods:A sample of 2548 Saudis, 1423 males and 1125 females, aged 18 to 60 y were included by a convenience sampling technique. Body weight, body fat percentage, visceral fat percentage, and skeletal muscle percentage were measured with the Omron Body Composition Monitor device. Waist circumference, height, and body mass index (BMI) were also determined. The data were stratified based on age: 18-19 y, 20-29 y, 30-39 y, and 40-60 y.

Results: Significant trend (Ptrend25 kg/m2). Obesity and overweight were more prevalent in men than in women. However, overweight in males and females were observed early, at age brackets 18-19 and 30-39, respectively. In the age bracket of 40-60 y, muscle mass dropped significantly.

Dietary habits, practices and knowledge among young athletes in the United Arab Emirates

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Abstract

An appropriate diet is crucial for athletes. An insufficient nutrient intake can lead to health disorders. To describe the nutritional knowledge, Nutritional practices and dietary habits for an athletic individual in the United Arab Emirates cross-sectional study was conducted. 59 male soccer players13 to18 y were recruited from Al Jazira Academic sports clubs. Nutrition Knowledge, Practices and Habits was evaluated by questionnaire, different components of the nutritional status, and Socio-demographic data were collected. Both questionnaires were administered in groups under the supervision of a trained interviewer. The software SPSS version 23 was used. Food frequency consumption separated the frequency of consumption of different food per week. Food was divided into the six main food groups: Cereals (14.11Â±4.56), Dairy (10.00Â±3.32), Meat, Fish (5.93Â±2.28), Fruits and vegetables, (11.11Â±4.55),5) Snack (7.91Â±3.23) Beverages(8.25Â±2.55). The significant relationship was found between Mothers education level and Milk Group

Vitamin d treatment improve androgen level and hirsutism score of overweight women with polycystic ovary syndrome: randomized placebo controlled clinical trial

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Abstract

Introduction and aim(s): The associations between markers of hyperandrogenism and vitamin D status have been found in observational studies. Hirsute women with polycystic ovary syndrome (PCOS) had lower 25(OH)D levels which are positively associated with sex hormone binding globulin (SHBG) and negatively associated with the degree of hirsutism free androgen index (FAI) and dehydroepiandrosterone sulphate. Limited studies have examined the effect of vitamin D supplementation on hyperandrogenism and have shown no changes in levels of testosterone SHBG and FAI. Therefore, the objective of this study was to study the effect of vitamin D supplementation on androgen levels and hirsutism score of overweight women with PCOS.

Methods:A prospective randomized double-blinded placebo-controlled clinical trial was conducted on 60 overweight Jordanian women aged (18-49) years with PCOS and vitamin D deficiency who attending the obstetrics and gynecology clinics at King Abdullah University Hospital. Participants were divided into two groups. Vitamin D group (n = 30) and placebo group (n = 30). Vitamin D group was assigned to receive 50000 IU/week of vitamin D3 and placebo group was assigned to receive placebo tablets orally for 12 consecutive weeks. 25 (OH) vitamin D hirsutism score and androgen levels including total testosterone sex hormone binding globulin were assessed before and after intervention.

Results: In the vitamin D group the serum level of 25(OH)D increased (12.50.61±ǀ to 50.22.04±ǀ ng/ml ($p<0.001$) and decreased (50.22.04±ǀ to 48.22.03±ǀ ng/ml $p<0.001$) after 14 d of vitamin D treatment cessation. There were no significant changes in placebo group. In vitamin D group there were significant ($p<0.001$) decreases in total testosterone free androgen index parathyroid hormone and hirsutism score and significant increases ($p<0.05$) in sex hormone binding globulin phosphorus and progesterone. Also significant ($p<0.001$) changes in menstrual cycle regularity and ovaries ultrasonography were found.

Conclusion: It can be concluded that vitamin D supplementation improving serum 25(OH)D levels and reducing hirsutism score and androgens level of overweight PCOS women.

Acknowledgment: The authors acknowledge Al-Hayat Pharmaceutical Company the sponsor of this study.

Sleep quality in patients with type 2 diabetes mellitus at the national center for diabetes, endocrinology and genetics

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Abstract

Objective: This study aims to evaluate sleep quality in patients with type 2 diabetes (T2DM) and to assess the relevance of other factors to sleep quality.

Methods:A cross-sectional study was carried out at the National Center for Diabetes Endocrinology and Genetics (NCDEG) in Amman Jordan during the period from 1 October 2015 to the end of December 2015. A total of 1211 (540 males and 671 females) patients with type 2 diabetes were recruited. Data were collected using the Pittsburgh Sleep Quality Index (PSQI) to assess sleep quality with a cutoff point of PSQI â‰¥8. Participants' demographic background data were also recorded. Statistical analysis was conducted using SPSS version 22.

Results: The mean age of our patients was 58.8 (9.74±) years. Mean BMI was 32.67 (6.1±) kg/m2 and mean duration of diabetes was 10.3 (7.38±) years. The PSQI mean score was 10.2 (3.10±). In the present study poor sleep quality was reported in 81% of participants.Multivariate logistic regression analysis revealed that poor sleep quality was significantly associated with high HbA1c female gender smoking un-employment and insulin use. The study showed that subjective sleep quality and quantity night sleep disturbance and daytime dysfunction were risk factors for poor glycemic control.

Conclusion: Most Jordanian Type 2 diabetic patients (81%) have poor sleep quality. Females smokers un-employed individuals insulin users and patients with uncontrolled diabetes seem to be significantly at higher risk of poor sleep quality.

Understanding human aging and challenge: the approach to healthy life

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Abstract

Objective: All organisms have a life cycle that represents their existence in their habitat for nutrition with birth growth reproduction deterioration and ultimately death. However, to explore this important biological process that occurs in living organisms is a complex phenomenon especially in the case of humans aging. As such gerontology as defined in the Merriam-Webster dictionary is the comprehensive study of aging and the problems of the aged.The science of gerontology is so important and broad that this field covers many aspects from molecular protein damage occurring inside the smallest cells to arterial atherosclerosis in a full-grown human adult. However, the aim of this study is to focus on the crucially important topic of humans aging and why we get old weak and how can we limit the adverse factors that effects on our aging.

Methods: The electronic search was contacted from various scholarly literature before March 15 2018 and synthesized. Therefore, explore the aging and biological physical psychological and social factors with the consideration plant-based nutrition. Result: The humanity facing challenges due to external environmental factors and internal deterioration of tissues and organs. The negative process of aging impact appears gradually in old through the system disorders the decline of organ function degeneration and changes in the molecular structure of proteins and enzymes.The main feature is the dysfunctions of organs and tissues and the ability to adapt to environmental stimulus reduced even lost totally.

Conclusion: The healthy aging depends upon a person especially in developed countries because the foods and nutrition are not a big problem issue many tons of foods is wasted in developed countries. However, foods and nutrition are big problem issue in developing countries which is directly impacted the health and aging of people in developing countries. It is important for parents avoiding all those factors that cause worse effects on health and aging and also to teach their children about the healthy lifestyle for optimum health approach.

Disclosure: President of BioNatural Healing College based in California USA as well as an instructor for continuing education California Department of Pesticide Regulation.

Interpreting neonatal growth parameters using international standard charts: are we doing It right?

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Abstract

Objective: To determine reference anthropometric measures of term apparently healthy Omani neonates in order to compare them to the international growth standard charts of the World Health Organization (WHO, 2006) and assess the appropriateness of these charts to assess growth of Omani neonates.

Methods:A cross-sectional study was conducted in Sultan Qaboos University Hospital to identify mean and standard deviation (SD) values for birth weight, length and head circumference of term Omani neonates (1401 boys, 1365 girls), born between November 2014 and November 2015, and compare them to those of the WHO (2006) growth charts using t-test.

Results: Neonatal mean birth weight for Omani boys (3.16 (SD 0.39) kg) and girls (3.06 (SD 0.38) kg) were significantly lower ($p<0.0001$) than the WHO (2006) for both boys (3.30 (SD 0.40) kg) and girls 3.20 (SD 0.40) kg). Similarly, mean head circumferences for Omani boys (33.8 (SD 1.27) cm) and girls (33.3 (SD 1.26) cm) were significantly lower ($p<0.0001$) than the WHO (2006) standards for boys (34.5 (SD 1.20) cm) and girls (33.9 (SD 1.10) cm). In contrast, mean lengths for Omani boys (52.0 (SD 2.62) cm) and girls (51.4 (SD 2.64) cm) were significantly higher ($p<0.0001$) than the WHO (2006) standards for boys (49.9 (SD 1.89) cm) and girls (49.1 (SD 1.89) cm).

Conclusion: The WHO (2006) growth charts might not be appropriate for use with Omani neonates. In addition, it is suggestive that observed differences might be consistent in the whole spectrum of childhood. Simultaneously, Gulf Cooperation Council (GCC) countries are advised to work in collaboration in assembling all efforts done in the area of child growth to unveil potential similarities and difference between populations in the area and study the possibility of producing unified GCC growth charts. The GCC countries were reported to have close similarities in ethnicity, social norms, cultures, and economy. Hence, it is likely that GCC populations would share common growth trends.

Evaluation of suprailiac ultrasound and anthropometric measurement for diagnosis of childhood obesity

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Abstract

Objective: To assess suprailiac ultrasonography mid upper arm circumference and Arm-to-height Ratioin diagnosis of child obesity.

Methods: The study included 50 obese children and 50 healthy control with age and sex matched. All patients and control were subjected to history tacking dietary evaluation general examination. Anthropometric measurement was done in the form of weightheight waist hip mid arm circumference and Suprailiac skin fold thickness. Calculation ofbody mass index (BMI) waist/hip ratio waist height ratio mid armheight ratio were done. Abdominal ultrasound was performedfor measurement of subcutaneous suprailiac adipose tissue.

Results: BMI waist/height ratio arm/height ratio ultrasoundand skin fold thickness measurements of supra iliac fat thickness were significantly higher in obese patients. Supra iliac fat thickness by ultrasound had a significant positive correlation with BMI waist/height ratio arm/height ratio suprailiac skin fold thickness.ROC curve of suprailiac skin fold thickness was found 99.2% at the cutoff point of>4.2 (cm) with sensitivity of 96% and specificity of 98% while the AUC of ultrasound suprailiac fat thickness was found 96.6% at the cutoff point of>3.4 with sensitivity 94% and specificity 100% with no statistically significant difference between the two methods of measures at the p-value of 0.150.

Conclusion: Mid-upper-arm circumference and arm-to-height ratio suprailiac fat thickness are accurate measurements of obese children. No statisticallydifferences of ultrasonographic measurements of supra-iliac fat sickness and supra iliac skin fold thickness in measuring supra iliac fat thickness.

Assessment of endothelial dysfunction and flow mediated dilatation in relation to apelin in adolescent type 1 diabetic patients

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Abstract

Objective: We are aiming to evaluateapelin and nitric oxide (NO)in type 1 diabetic patients and itsrelation to vascular affection.

Methods: The study included 62 type 1 diabetic patients and 30 healthy volunteers of the same age and sex. Blood samples were taken for assessment of apelinNOglycosylated hemoglobin and lipid profile. Urine samples were taken for assessment of albumin/creatinine ratio.flow mediated dilatation (FMD) via ultrasound was done.

Results: Themean ageof diabetic patients were16.3 1.5±ˆ y(14.0 - 19.0 y)andmeanduration of diabetes were9.4 2.9±ˆ y(5.0 - 16.5 y). FMD and FMD/nitrate mediated dilatation (NMD) ratio were significantly lower in diabetics.Nitric oxide was significantly lowerwhile apelin and albumin/creatinine ratio were significantly higher than controls. No significant correlation was found between apelin NO FMD albumin/creatinie ratio or BMI.

Conclusion: Diabetic patients had endothelial dysfunction and elevation of apelin but they do not relate to each other. BMI had no relation to apelin which indicate that obesity had no role to apelin. Further large study is recommended to detect the relationship of apelin with vascular affection by assesseing large number of diabetics with and without complication.

Three year follow up of carotid intimal medial thickness and its relation to glycemic control in adolescents type 1 diabetic patients

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Abstract

Objective: To assess carotid intimal medial thickness(cIMT) in type 1 diabetic patients who were followed up for 3 y to shed further light on relationshipofglycemic control and cIMT.

Methods: It is a prospective cohort observational study included 40 type 1 diabetic patients and 30 age and sex matched healthy volunteer. Blood sample was taken for analysis of glycosylated hemoglobin (HbA1) lipid profile and urine sample was taken for analysis of albumin/creatinine ratio. cIMT via ultrasound was also done. Three years later patients were subjected to the original laboratory investigation and cIMT. t-test and MacNemar test was used for analysis of data.

Results: cIMT were significantly higher in diabetics in theoriginal study. Three years later patients had significant increase in waist/hip ratio HbA1 albumin/creatinine ratio and cIMT. cIMT regressed in 3 patients remained stationary in 18 patients (2 patients remain normal and 16 had increased cIMT) and the remaining 19 patients had progressed cIMT. Patients with progressed cIMT had significantly higher waist/hip ratio HbA1and albumin/creatinine ratio than patients with stationary cIMT.

Conclusion: Adolescent type 1 diabetic patients had increased cIMT. Progression in cIMT is associated with obesity poor glycemic control and nephropathy. We recommend good glycemic control and frequent follow up of diabetic patients for early detection of diabetic complication.

Relationship of nitric oxide genotype to diabetic nephropathy and atherosclerosis of type 1 diabetic patients

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Abstract

Objective: Assessment of nitric oxide genotype in diabetic patients and to evaluate its relationship to diabetic nephropathy and atherosclerosis of type 1 diabetic patients.

Methods: The study included 65 type 1 diabetic patients and 30 age and sex matched healthy volunteers. The mean age of patients was 17.99 2.59±ĺ mean duration of diabetes was 10.91 3.54±ĺ mean onset of disease was 7.00 3.28±ĺ. Blood samples were taken for assessment ofglycosylated hemoglobin (HbA1) lipid profile oxidized low-density lipoprotein (OxLDL) and serum level of nitric oxide by enzyme linked immunosorbent assay (ELISA) technique. Also nitric oxide genotype was done.Urine samples were taken for assessment of albumin/creatinine ratio. Carotid intima-media thickness (cIMT)and renal dopplar via ultrasound were also done.

Results: Nitric oxide was significantly lower while lipid profile OxLDL and albumin/creatinine ratio cIMT and resistivity index were significantly higherin diabetic patients. No significant difference ofnitric oxide genotype was found in diabetics and control.Nitric oxide was significantly lower while OxLDL albumin/creatinine ratio and lipid profile were significantly higher in nitric oxide homozygous genotype.

Conclusion: Diabetic patients had a low level of nitric oxide and early atherosclerosis. Nitric oxide homozygous genotype is associated with diabetic nephropathy and atherosclerosis.

The prevalence of self-diagnosis and self-medication among Sharjah residents

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Abstract

Introduction: The growing trend of improper self-medication as well as diagnosing oneself has brought upon serious consequences through the years. Thus the aim of this research was to identify the prevalence of self-medication and self-diagnosis among Sharjah residents.

Methods: A cross-sectional study was conducted among Sharjah residents in the period between February 2016 and April 2016. A total of 400 were haphazardly selected. Self-administrated questionnaire included closed-ended questions inquiring various aspects that identified the participant's practice knowledge and attitude regarding self-medication and self-diagnosis.

Results:A total of 385 subjects participated (female 210). 60.1% and 60.4% of the population practiced Self-diagnosis and self-medication respectively. Most drugs were obtained from pharmacists (77.4%). Main reasons for self-medication were time-saving (41%) money-saving (22%%) and urgency (19%). Self-medication was mainly practiced for cough (57.4%) sore throat (55.7%) and runny nose (50.2%). People who check the expiry date take the correct dose and have an attitude that's against self-medication were found to be significantly more aware of the adverse effects of self-medication. Knowledge score was influenced significantly by the stoppage of medication after completion of the dose taking the correct dose and checking the expiry date. Unexpectedly people with an attitude against self-medication have a higher tendency of practicing self-medication (OR= 3.13 CI 95% 2.23-4.90).

Conclusion: Self-medication and self-diagnosis are widely practiced among Sharjah residents. It is recommended to promote awareness regarding reasonable self-medication through regulatory authorities (such as strict rules and monitoring regarding drug distribution) and further education.

Three years follow up (cohort) study via Population based intervention on adolescent and childhood obesity and overweight at schools setting

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Abstract

Background: Obesity and overweight are recognized as major global public health phenomena. Its long term consequences are manyof wide variety of chronic conditions including high blood pressure type 2 diabetes stroke cardiovascular disease

Objective: To assess population based childhood obesity interventionover three years at school population in Dubaito examine the childhood obesity interventionoutcome.

Methods: About2600000 studentsage range (5-18) yearsgrade(1-12)over about 180 private schools in Dubai overthree consequenceacademic years 2014-2015, 2015-2016 and 2016-2017BMI measurement as per CDC criteria and chartWHO (mean+-SD)centile. Body weightat the beginning of each academic year (September) wide variety of interventions been designed and appliede. g.health promotion,school nutritional educationactivities,food labelling,happy schools initiatives10/10 initiativephysical activityplatformparents awareness students health file initiativeCity Makers (blue team initiative) community participation (private public partnershipGovernmental stockholders intersect oral collaborationsschool cantin policy and guidelineBMI and otherageand gender basedBMI andcentilemeasurementdone at the end of academic year (June) for (3) successive academic years.

Results: Thecurrent study revealed that about 8.7% of the totalstudents population in private schools in Dubai were obeseand about 1.4% of the total students weremorbid obesein total of 10.1%of the total students were obese of differentseverityThe study showed thattheprevalence of obesity among student populationat private schools in Dubai during the academic year 2015-2017 was 9.05%the study showed 0.9%reduction of obesitycomparing academic year 2014-2015toacademic year 205-2016) the study reflected thatprevalence of obesity among student population at private schools in Dubaiduring theacademic year 2016-2017 was 8.2%which wasabout 1.3% lesscomparingtothe prevalence of obesityduring academic year 205-2016). The study revealed thatthe trend of obesityprevalenceamong students population at private schools in Dubai is decliningover that last three academic years(2014-20152015-2016.2016-2017) showing that about 2.2% total reductionthe tree years period of applying effective intervention program.

Psychological aspects of pediatric obesity

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Abstract

Objective: Pediatric obesity is a major health problem and has reached epidemiological proportions today and it has related to increase risk of physical and mental function. The present paper reviews major psychological issues in pediatric obesity.

Methods: Literature review of studies published between 2002 and 2017 was conducted using the PubMed and Google scholar database.

Results: The study design of most literatures in this field was cross sectional which limits to make a strong conclusion. The studies had shown mixed results about the association between overweight/obesity and academic performance and cognitive function. Obese/Overweight children have been at a higher risk of low self-esteem and poor emotional wellbeing poorer social skills and social difficulties depression anxiety and disordered eating behaviors. Some psychological issues in children may be the cause of overweight/obesity such as depression anxiety and low self-esteem. Psychosocial and emotional problems of obesity generally act as causal or maintaining factors of obesity and thus significantly affect the treatment outcome. Therefore, psychological assessment should be implemented in the medical nutrition intervention of obesity. Cognitive-behavioral therapy combined with family-based intervention had proven to be most effective in treatment of overweight and obesity in children.

Conclusion: More longitudinal studies should be conducted to evaluate the association between obesity and psychological parameters. Psychological factors related to obesity should be considered in the treatment and prevention of overweight/obesity in children. Therefore, the treatment team must be multidisciplinary and must involve a pediatrician psychiatrist counseling psychologist family therapist and dietitian.

Obesity-elements and prevention-for patients suffering from PTSD

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Abstract

PTSD often brings about an unbalanced lifestyle as well as unhealthy eating habits both of which represent risk factors associated with obesity. Furthermore, the risk to develop morbid obesity associated with PTSD is higher in the case of elderly people who show signs of psychological disorders. Even higher morbid obesity levels have been reported with PTSD patients also diagnosed with insomnia; under such circumstances patients use a night bite to induce themselves sleep. Obesity rates are higher for war veterans than for the general/civilian population although only few studies have established a connection between the above two conditions and nighttime nibbles and have examined the associated comorbidity. Overeating is the often one answer to negative psychological stress and it leads to premature aging with PTSD patients. Amongst the reported symptoms associated with PTSD-triggered obesity besides the psychological stress there have been reported the following symptoms of physiological stress also: high blood pressure high levels of lipids high cholesterol and triglycerides levels in the blood as well as low levels of high density lipoproteins. This metabolic stress forces the organism to accumulate fats around the vital internal organs which later triggers the metabolic syndrome associated with obesity and with its associated comorbidity. The obesity associated with stress and PTSD as well as the metabolic dysfunction represent an alarmingly increasing problem that asks for further research and new approaches for treatment. One suggested approach is represented by the regulation of the hypothalamus-hypophysis-adrenocortical axis by increasing serotonin levels and decreasing the secretion of minerals and glucocorticoids. The disruption of the hypothalamus-hypophysis-adrenocortical axis may be the causal connection between posttraumatic stress and the physiological factors contributing to obesity. The basis of prevention in PTSD is represented by the regulation of the hypothalamus-hypophysis-adrenocortical axis by increasing serotonin levels and decreasing the secretion of minerals and glucocorticoids. Prevention is accomplished on the one hand through diminishing the effects of adrenalin and cortisol hypersecretion such as reducing organ inflammation by means of nutraceuticals and on the other hand through increasing the levels of serotonin by means of a psychologically motivating lifestyle.

Prevalence and predictors of metabolic syndrome among university students in Lebanon

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Abstract

Introduction: The Metabolic syndrome (MetS) is a serious disorder that is highly prevalent in adults in the Middle East; however, its prevalence and predisposing risk factors have not been adequately researched in Lebanese university students.

Methods: Using cluster based randomization 266 students were recruited to participate in a cross-sectional study at a Lebanese University. Anthropometric measurements biochemical data and blood pressure was collected. Additionally, the students filled out the following questionnaires: Demographic and lifestyle habits Beverage Consumption International Physical Activity Questionnaire the Pittsburgh Sleep Quality Index and The Perceived Stress Questionnaire. MetsS was diagnosed based on the International Diabetes Federation criteria.

Results: The prevalence of MetS was found to be 6.4% of the sample population. Furthermore 65% of the sample had low HDL-C levels (53.1013.06±ˆ mg/dl) and approximately 52% had a high waist circumference (85.67 11.45±ˆ cm). Neither lifestyle habits beverage consumption physical activity level sleep quality nor increased stress were associated with increased risk of developing MetS and age was the only variable significantly associated with higher odds of developing the metabolic syndrome (aOR=1.15 95%CI: 1.03-1.29).

Conclusion: Metabolic syndrome is a cause of concern among Lebanese University students as the prevalence rate is comparable to other high-risk countries. This highlights the need for primary prevention and intervention programs in the university setting to decrease future health risks.

Nutrigenomics for healthy ageing: towards diabetes mellitus prevention

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Abstract

Nutrients can influence gene expression; they play an important role in human health as well as the development of chronic diseases such as cancer osteoporosis diabetes and cardiovascular disease. Since we are all made up of different genes dietary intake of a nutrient does not necessarily result in the same concentrations in the blood or tissue because substantial individual variability in the absorption distribution metabolism and elimination can exist. The ultimate goal in the science of nutrigenomics is to develop food to be compatible and appropriate for the nature of the human genetic structure of individuals (genotype) in order to benefit and improve the health of these individuals specially for ageing. Nutrigenomics can help older people suffering from conditions such as diabetes mellitus or type two diabetes by providing them with a gene specific dietary regime. The issue type two diabetes sufferers have is that they are unable to break down food particles such as lipids and carbohydrates as efficiently as someone who is not a diabetes type II sufferer.Based upon phenotype analysis a nutrigenomics test can reveal your specific glucose tolerance and levels of insulin and look at special biomarkers which will provide a clear picture of your disease susceptibility. Some medical drugs prescribed for diabetes could actually be avoided by the individual by taking eating certain foods; these foods will have the same positive effects as the drug but will not have the unpleasant side effects. The objectives of this presentation are acquainting nutritional professionals with the interaction of food components gene products and to recognize that an individual's response to dietary intervention. will depend on his or her genetic background and that this information may be used to promote disease prevention healthy ageing and wellbeing for our society.

Current practices of contraceptive use among Palestine refugee mothers of young children attending UNRWA clinics, a follow up study 2015

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Abstract

Current practices of contraceptive use among Palestine Refugee mothers of young children attending UNRWA clinics a follow up study 2015Background UNRWA introduced family planning services in 1994 as an integral part of its expanded maternal and child health care program. The main objective of UNRWA family planning program is to promote the health of mothers and subsequently their families. The ultimate objective of this follow-up study was to assess the current situation regarding contraceptive practices among the target population and to identify future program needs.

Methods:A cross-sectional survey was conducted by trained nurses from June-December 2015. Participants were Palestine refugee mothers who attended UNRWA well-baby clinics with their youngest child (aged 2 mo through 5 y).A sample size of 10478 participants was calculated based on contraceptive use prevalence in 2010 using Epi Info sample size calculation. Mothers were interviewed and retrospective data from health records was used as supplement. A multiple logistic regression was performed to test if maternal age and parity predicted contraceptive use. Chi-square was used to analyze the relationship between previous contraceptive use and birth interval birth weight and gestational age.

Findings: Data was obtained from 9860 mothers. Of them 59.3% were using modern contraceptives at the time of the survey 17.7% were using traditional methods and 23.0% were not using any contraceptive method. The most common modern contraceptive was intrauterine device (37.4%) and UNRWA was the main provider for 82.6% of women currently using modern contraceptives. The most common reasons for not using contraceptives were child wish (21.7%) pregnancy (18.6%) and husband opposition (19.7%). Women with at least 1 male child are significantly more likely to use contraceptives ($p<0.001$; a OR=1.39 CI (1.24 - 1.56)). Chi-square used to test the association of modern contraceptive use prior to pregnancy with birth weight the result showed statistically significant [i23.88 = 2£ټ ($p<0.001$)].

Interpretation: It is encouraging that mothers seeking modern contraceptives rely on UNRWA to provide family planning services. We found that mothers with higher parity are more likely to use modern contraceptives which comply with UNRWA recommendations.

Comparison of two approaches to nutrition education in the management of diabetic patients in kenitra, morocco

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Abstract

Introduction: Nutrition education is one of the fundamental axis in the management of diabetes. Objective: study the impact of two types of nutrition education (personalized v. s collective) on the glycemic control of diabetics in the province of Kenitra in Morocco.

Methods: The population was composed of 184 patients (86 men 98 women) with an average age of (51.7 14.0±[]) and an age range of [20 to 88.5]. Data collection was carried out using a questionnaire containing socio-demographic and anthropometric information. Glycemic control was based on fasting glucose (GAJ) postprandial glucose (GPP) and glycated hemoglobin (HbA1c). These analyzes were taken in three separate phases with a duration of 3 mo; T0 represents the initial state (before our intervention) t1 and t2 which represent the values of the three analyzes after our intervention. Participants were randomized into two groups: a group that received collective nutrition education (n = 105) and another group (n = 79) had a personalized (individual) education. BMI was the only anthropometric measure used.

Results: The whole population is overweight (BMI>25) for either women or men also the results of glycemic control are superior to the norms in the three stages (t0 t1 or t2). Nutrition education Personalized shows statistically significant differences in the variables studied as a function of time more than those studied in collective nutrition education (p = 0.00<0.05). Also the difference is significant between collective nutrition education and personalized nutritional education (P = 0.00<0.05) for the means of HBA1C (%) at t1 and at t2; Fasting glucose (g/l) at t1 and t2 and post-prandial glucose (g/l) at t1 and t2. Conclusion: The results of this study show that collective nutrition education yields significant results in terms of impact on glycemic control of theses diabetics. The number of studies on this aspect (nutrition education) remains modest another study is desirable on a larger sample to better confirm our results.

The impact of parents and peers smoking on the behavior of university students towards smoking

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Abstract

Introduction: Smoking prevalence has increased in both sexes especially among young adults various factors have led to this catastrophe examples include TV social media and its availability in the market. An interesting factor that I thought was worth studying is the impact of smoking parents and peers I noticed that a lot of students start smoking because of parents or peers impact and I believed that if the results were true it would direct future research to study and analyze this factor to prevent it.

The aim of this project is to study whether parents and peers smoking habits have any impact on the students of University of Sharjah's behavior toward smoking.

Methods: A cross-sectional observational study with non-probability convenient type of sampling the sample included in the study are university students aged 18 to 23. The information was collected using a Self-administered questionnaire the questionnaire contained 23 questions and it was developed by the investigators.

Results:A total of 400 University of Sharjah students (50% males and 50% females) within an age range from 18 to 23 y old were included in the study 15.8% of the smoking students had smoking parents and 17.1% of them had smoking peers. 22.2% of the smoking male students had smoking parents meanwhile 10% of the smoking female students had smoking parents. 21.7% of the smoking male students had smoking parents while 7.8% of the smoking female students had smoking peers.

Conclusion: Peers had a stronger impact than parents and peers had more impact on males rather than females interestingly almost 80% of the smoking students didn't have smoking parents or peers which leaves the question of why did they start unanswered action should be taken on a societal level to prohibit smoking for the aim of creating a non-smoking generation.

The knowledge, attitude and pattern of meat consumption among adults in sharjah, UAE

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Abstract

Background: Overconsumption of meat is an escalating phenomenon in the UAE resulting in a surge in cardio-metabolic diseases and cancers prevalence.

Aim: Our study focused on investigating the level of knowledge of Sharjah residents comparing their consumption of meat to the current recommended daily intake and outlining the factors encouraging their unhealthy consumption.

Methods: This cross-sectional study included 400 participants (50% were males) at the age of 18-50 and data was collected by convenience using interview-based questionnaires and visual aids.

Results: Our results have demonstrated that Arabs were more likely to consume grilled processed meat (OR= 1.58) and 68.2% of them thought grilling is the healthiest way of preparation. Also 3/4th of our obese and overweight participants who were knowledgeable had an unhealthy meat intake. Unexpectedly unmarried participants were more likely to consume deep fried chicken despite their awareness of its harms (OR= 2.11) while married participants over-consumed grilled fish (OR= 1.58). Alarmingly the working age group had a poor knowledge 57.3% of them were below high school level and had their friends as their primary source of knowledge.

Conclusion: The main factors hindering healthy meat consumption were lack of knowledge and an inability to apply the acquired knowledge. Our participants had an overall strong desire to over-consume fish and were unaware of their beef over-consumption. Noticeably Arabic participants were under the misconception that grilling is the healthiest way of preparation although it carries a carcinogenic risk yet they over-consumed deep fried processed meat which predisposes to cardiovascular complications and colorectal cancer. Finally, this study calls for nutritional interventions development in the UAE to improve its residents eating habits.

Understanding pathophysiology: the approach to health

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Abstract

Understanding and coordination of cells tissues and organs in proper function are important in the prevention and sustaining of humanâ€™s health. The pathophysiology is derived from the combination of the Greek words pathology (meaning the study of disease) and physiology (meaning the study of functions of the human body). This science is not only concerned with cellular and organs changes that will lead to disease but also with the effects that these changes have on whole body function. Indeed, without understanding the organs function that is affected by pathological disorders and the mechanisms of the underlying disease process certainly it would be difficult for prevention as well as therapeutic health care in the context of pathophysiology with a focus on fever in the body.

Methods: The electronic search was contacted from various scholarly literature before March 15 2018 and synthesized. To explore the human body and thermoregulatory mechanisms of heat production mechanism of heat loss human body and fever pathophysiology mechanisms of fever protection by heat shock proteins fever consequences fever linked to inflammation drug-induced fever after brain injury endocrine fever etiology and fever treatment.

Results: Evaluation: Two general issues are important in the initial evaluation of acute fever: Identifying any localizing symptoms (e. g. headache cough) Determining whether the patient is seriously or chronically ill (particularly if such illness is unrecognized). History of present illness review of systems past medical history drug history physical examination and lab testing.

Conclusion: The delicate human body involves with the complex cellular and organs changes that will lead to the understanding of disease and health functions concepts but also with the effects that these changes have on whole body function. Indeed, without understanding the organs function that is affected by pathological disorders and the mechanisms of the underlying disease process certainly it would be difficult for prevention as well as therapeutic health care without the science of pathophysiology especially in the developing countries with many challenges indeed further research is required.

Disclosure: As board-certified internal and geriatric medicine at Stockton California USA as well as an associate clinical professor at the U. C. Davis School of Medicine associate fellow of the American College of Cardiology.

Trends of underweight andobesity, defined by anthropometric measurements among male students at the universities of thamar and al saeeda-yemen

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Abstract

The general characteristics of the study sample the total number of study participants amounted to 300 males; with mean age of (M=21.3 SD=3.01 y). The majority of students were unmarried (86.3 %) while the married students were (13.7%). Around (15.7%) of students reported eating less than three meals per day. However, (12.7%) of participants skipped their breakfast. Those who appetite poor felt sad (most the time) and Qat chewing percentage was around 78% Respectively. A larger proportion of the parents (fathers) education of participants (33%) were more than High School education while A larger proportion of the parents (mothers) education of participants (61.5%) were no education. Anthropometric measurements were done for the participants together with questionnaire administration.

Results indicated that the median BMI was 20.2 Overall 17% 70.7% 9.7%and 2.7% were underweight normal overweight and obese respectively. 96% normal and 4 % at risk related to waist circumference. while abnormallyextremely healthyoverweight and obese were (4% 45.7% 44.7% 4% and 1.7%) related to WHtR. poor diet and high prevalence of unhealthy eating habits was recorded among the participants; and unhealthy lifestyle as Qat chewing had been identified as risk factors of underweight disease.

Assessment of anthropometric measurement for early detection of atherosclerosis in type 1 diabetic patients

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Abstract

Objective: To assess different anthropometric measurement for detection of early atherosclerosis in type 1 diabetic patients.

Methods: The study included 135 type 1 diabetic patients and 100 healthy volunteers of the same age and sex. Blood samples were taken for assessment of OxLDLglycosylated hemoglobin and lipid profile. Urine samples were taken for assessment of albumin/creatinine ratio.Doppler for assessment of carotid intimal medial thickness (cIMT) aortic intimal medial thickness (aIMT)and renal Doppler(RI)were also done.

Results: HbA1 albumin/creatinine ratiolipid profile OxLDL cIMT aIMT and RI were significantly higher in diabetic patients.Body mass index had a significant positive correlation with age of patients insulin dose waist/height ratio blood pressure LDL and cIMT. Waist/hip ratio had a significant positive correlation with duration of the diseaseinsulin dosewaist/height ratio and albumin creatinine ratio. Waist/height ratio had a significant positive correlation withglycosylated hemoglobin (HbA1c) lipid profile and cIMT.

Conclusion: Waist/height ratio is the best anthropometric measurement for assessment of atherosclerosis and glycemic control in diabetic patients.

A review on the role of dietary and lifestyle behaviors in breast cancer: an opportunity for prevention

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Abstract

Breast cancer in women is a foremost health problem both in developed and developing countries. Breast cancer is rising at a faster rate in UAE. Breast cancer is characterized from other cancers that it presents extreme financial costs coupled with both physiological and psychological consequences for the impacted women and their families. While genetic mutation BRCA1 and BRCA2 genes represent no more than 10% of the total incidence rates of breast cancer hormonal dietary and lifestyle factors are known contributors to the escalating rates of breast cancer. Controlling environmental factors represent the first line in the defense against breast cancer and may end with a substantial reduction in the incidence of this type of neoplasm. Smoking alcohol consumption even in moderation physical inactivity excess body weight with emphasis on visceral adiposity dependence of energy-dense fast foods and bisphenol A-containing canned foods; all are among the triggering factors for the development of breast cancer. One the other side practicing vigorous physical activity sticking to healthy diet rich in bioactive phytochemicals such as fruits and vegetables with emphasis on sulforaphane-containing cruciferous vegetables phytoestrogen-rich soy products catechins-rich green tea sulfur-containing Allium sp. such as garlic antioxidant rich-olive oil as well as calcium and vitamin D-rich foods and sun-exposure; all are among the protective dietary factors against the development of breast cancer. Breastfeeding during childcare period has been consistently reported as one of the strongest protective factors against breast cancer. Maintaining normal body weight and fat distribution pattern represent a substantial protective factor against breast cancer.

Preliminary cross-sectional screening for the assessment of macronutrient consumption and body mass index in orphanages aged (7 To 15 Y) in Amman, Jordan

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Abstract

The aim of this study is to screen malnutrition via the evaluation of macronutrients intake and calculating the body mass index (BMI) of orphans in 7 governmental selected orphanages in Amman Jordan. The study involved 277 orphans; 156 girls and 121 boys aged from 7 to 15 y. Nutritional assessments (BMI and 3 d recall food record) were recruited by trained nutritionists. Macronutrients content was analyzed by EISHA software.

Results: The average BMI for orphans were at the lower normal range (18.8 20.73; respectively). Their macronutrients daily intake met the requirements for their age groups.

Conclusion: The majority of assessed orphans from orphanages in Amman had proper body weight and met the recommendation of macronutrients and energy intake. Eating habits should be improved. These changes should apply to improve the orphanages intake of fruits and vegetables servings. This suggests that orphans in Amman do not suffer from malnutrition but their dietary quality should be enriched.

Assessments of BMI, health status, nutrients and energy intakes in nursing home residents in Amman Jordan

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Abstract

Nutritional related disease is a common problem in the elderly living in nursing homes. A clear understanding of associated factors is not yet clear. The aim of this study is to evaluate the prevalence of nutritional status and to determine factors independently associated with under or over-nutrition in this setting.

Methods: a cross-sectional study conducted 9 nursing homes in Amman Jordan. The nutritional status was assessed using anthropometric measurements and food records analyzed by EISHA.

Results: the study included 139 residents (ages from 41 till over 70 years old). Malnutrition were not detected inverse obesity were more common (BMI around 45 kg/m2). Non-communicable Chronic diseases were observed among most of the residents. Macro-nutrients intake varied between age groups although all of the residents received reasonable percentage of nutrients groups. Micronutrients intake varied also between age groups. Sodium intake was higher than the recommendation. Vitamin D intake was less than the requirements for all age groups.

Conclusion: energy intake and inactivity in combined with non-communicable chronic diseases is a problem among nursery residents in Amman Jordan. Systematic screening and well-defined tailored interventions should be further developed and evaluate in this population.

Knowledge, attitudes and practices of HIV-AIDS positive mothers towards their Infant feeding methods

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Abstract

This is descriptive cross-sectional study was conducted between May 2010 and February 2011 to study the HIV/AIDS knowledge and awareness among HIV/AIDS-positive mothers towards modes of HIV/AIDS transmission from mother to child and safe mode of infant feeding. This study was conducted in Omdurman VCT Center at Omdurman Teaching Hospital. A sample of 50 HIV positive women was selected to which the questionnaire about knowledge attitudes and practice towards child breastfeeding was distributed.

Results revealed that 60% of women were low educated (received only primary and secondary education). The majority of the participants (68%) were housewives. The majority of the respondents (72%) mentioned that they have children infected with HIV. Sixty percent believe that HIV/AIDS is infectious 56% regard breast milk as the suitable method for child feeding 48% of the respondents believe that the major mode of HIV/AIDS mother-to-child transmission is during lactation 66% preferred stopping lactation as a method for the prevention of children infection with HIV/AIDS 72% mentioned that they don't know about prophylaxis. The study recommends educating mothersabouttheimportance of prophylaxes. Therefore, most mothers however used prophylaxes with no clear reason. Although their knowledge about the importance of prophylaxes is good their practices do not conform to the knowledge they seem to have.

Community led interventions to tackle and mitigate the impact of HIV and AIDS on older people in Ethiopia

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Abstract

Background: An estimated 3 million people over 50 are living with HIV in sub-Saharan Africa. HIV has caused a shift in household composition and responsibilities.At a time when older people expect to be supported and cared for by their own children a large number are taking on caring roles of younger adults living with HIV and orphans and vulnerable children they leave behind.Traditional support systems within the family and wider community that used to be a major cushion for older people have also diminished due to the impact of HIV and AIDS economic hardships and the erosion of traditional values. Health-care providers are not geared to treating older people with HIV misdiagnosing them failing to enquire about their HIV status or sexual activity and not offering tests. This huge burden is having an unprecedented economic and psycho-social impact on them.

Description: In order to address these issues; HelpAge International implementing different programs with the objective of: â€¢Strengthening social protection to prevent and mitigate the impact of HIV and AIDS and poverty.Combinations of approaches have been adopted with a broad range of activities at different levels involving multiple partners whilst the main driving actors are older people.Different support groups were established by older people in order to empower their peers and to bring changes in the lives of the most disadvantages ones.These peer support groups play crucial role in sustaining and scaling up the efforts.

Lessons learned: Strong peer support boosts self-confidence that creates voice for voiceless.Promoting a collective approach to manage small loans together with customized training that enable them to run their businesses has significant contribution in poverty reduction among beneficiaries.Furthermore, home based care induced by cash grant has demonstrated a reduction in severity of destitution as measured by improvements in food consumption ART adherences and increases access to health services.

Next steps: Continue empowering older people and putting them in the driver's seat and providing support in holistic way that will bring the required impact upon the lives of the poor on a sustainable way.

The impact of night shift work

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Abstract

Background: The objective of this cross-sectional study was to evaluate the association between night shift work eating habits and food choices among Lebanese nurses.

Methods:A total of 307 nurses aged 24 to 45 y with at least two yearsexperience and without any health problems were randomly selected from five hospitals localized in Beirut. Data about demographic and professional characteristics anthropometric measures dietary habits and intake were collected through a face to face questionnaire adapted from two validated questionnaires. Data were analyzed using the SPSS (V22).In order to study the relation between night shift works and eating habits khi-2 test t-test and logistic regressions were used.

Results: The majority of nurses (78 2%) had an irregularity in meals timing with a significant decrease in the number of complete meals consumed during the day and an increase in the number of snacks consumed during night (p<0 05). The most consumed snacks during night were sweets and potato chips. The average daily consumption of fruits vegetables and milk products was significantly lower than the recommended daily amount while the consumption of fats desserts juices soda caffeinated beverages and energetic drinks was significantly higher (p<005).

Conclusion: The findings of this study highlighted that night shift work contributed to poor eating habits and food choices among Lebanese nurses. Therefore, nutritional interventions were developed to improve the quality of their diet.

Keywords: Night shift work eating habits nurses

Applicability of the greuilch and pyle bone age atlas to children in Saudi Arabia

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Abstract

Background: Doubt exists as to the applicability of the Greulich and Pyle atlas (GandP) to populations of different ethnicity. This study aims to determine the applicability of GandP to Saudi Arabian children.

Methods: Two readers independently evaluated 422 hand trauma radiographs (220 males X left age range birth to 18 y) performed from 2012 - 2016 for bone age (BA) according to GandP. Pearson correlation was used to evaluate the relationship between BA and chronological age (CA). Paired sample t test was used to indicate the difference between mean BA and mean CA. Statistical analysis was undertaken using SPSS v.23.

Results: Analysis showed a strong correlation between BA assessed by GandP and CA for both females (r=0.91) and males(r=0.96). overall mean difference between BA and CA was 0.1 y (1.3±) for females and-0.3 y (1.13±) for males. The difference was statistically significant in males ($p<0.05$). GandP underestimated males ($p<0.05$) at age 7 y (mean difference 0.75 y) 8 (1.1 y) 9 (1 y) 10 (0.96 y) and 12 y (0.58 y). GandP overestimated females ($p<0.05$) at age 12 y (mean difference 0.94 y).

Conclusion: Results indicate that GandP can be applied in females but not in males form Saudi Arabia. Clinicians should be aware of these differences in males particularly between the ages of 7 and 12 y.

Health benefits and barriers to physical activity among secondary school students

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Abstract

This study investigated public secondary school students' perceived health benefits and barriers to physical activity in the United Arab Emirates (UAE). A sample of 585 secondary school students (288 males 297 females) currently taking physical education were asked to voluntary participate in this study from the City of Al-Ain Abu-Dhabi UAE. For research purposes perceived benefits and perceived barriers were evaluated by perceived health benefits and exercise barriers of physical activity questionnaire. It was comprised of two scales: perceived health benefits to physical activity (PA) and perceived exercise barriers to PA. The health benefit scale consisted of 40 items and they were divided into 5 subscales while the perceived exercise barrier scale was consisted of 24 items and were divided into 4 subscales. This study utilized both descriptive and inferential research methods to determine students' perceived health benefits of and barriers to physical activity. Students' education levels played a role in the perception of health benefits and PA barriers. Gender differences were also existed between health benefits and barriers of PA. it was indicated that almost all secondary school students either agreed or strongly agreed with all of the health benefit statements. Developing physical fitness subscale got the highest level of agreement among participating students followed by promoting psychological health and then preventing hypokinetic diseases subscales. Barriers such as climate changing clothes physical education grades are not counted and not prefer wearing sport uniforms were the most ranked scores. From the benefits list males and females were significantly different in their perceptions of maintaining healthy lifestyle behaviors promoting psychological health and promoting social health. As for the barriers secondary school male students reported significantly greater physical health barriers than secondary school female students. It was suggested to reschedule the time of PA and find ways to overcome most barriers since all students' perception to PA benefits was high.

Nutritional care for patients with psychiatric and mental disorders

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Abstract

There is no doubt that good nutrition plays a vital role in improving the health status of patients with psychiatric and neurological disorders. So we must pay great attention to providing meals therapeutic for the patient consistent with the state of his health taking into account the symptoms in the side of drugs and overlapping incident between food and medicine. So shall offer high calorie diets and protein compensation psychiatric patient for what he has lost his body when the weakness of appetite associated with psychiatric acute or addiction. Note that there are some medicines lead to increased patient's appetite and thus gluttony to eat and gain weight. In this case we recommend monitoring weight changes in a patient in order to avoid excessive obesity with a description of the food a few calories and the protein increases the production of the hormone dopamine and Noripirnfrin which strengthens attention and vigilance and makes the patient tends to think and act quickly and private activity depressed patient that these proteins are vital high value such as meat fish poultry eggs and some medicines provided to patients psychiatrists cause a lack of white blood cells which requires the rate they get an adequate amount of protein to make up the shortfall incident in white blood cells. Also take into account the interest in the meal contain complex carbohydrates of vegetables fruits pulses and full of bread and oats as it is rich in the amino acid tryptophan main manufacturer of nervous transmission of serotonin in the brain. And it should contain the meal provided to patients with psychological conditions and nervousness sufficient amounts of unsaturated fats and reducing as much as possible or avoid foods rich in saturated fat shall rising saturated fat in the blood interfere with blood easily flow which leads to weakness session especially in brain vessels.

Growth monitoring for low birth weight infants in omdurman maternity hospital-sudan

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Abstract

This was a longitudinal study to investigate the growth monitoringof LBW infants (weight length and head circumference)from birth to 6 mo of age.84 LBW infants delivered at Omdurman Maternity were included in the study. Data was collected by questionnaireincludedbackground of the familiesand Infant's health. Mothers were interviewed firstin the wards 3-4 h after deliverythenduring home visits after 2 w and monthly follow up monitoring were used forup to 6 mo for (weight length and head circumference).Infant's birth weight was taken immediately after birth and classified as LBW (1500-<2500 g) or VLBW (1000-<1500 g).The datawas analyzed using(SPSS) and Chi-square test. The most important results of the study were as follows; 96.4% of the infants had LBW and 3.6% VLBW 78.4% had normal health at birth and the rest suffered from jaundice chest infection and diarrhea were transferred to Newborn Intensive Care Unit (NICU) for 1-3 w. 32.1% of the infants reached standard weight at the 6th month and 33.3% never reached it at any age. Boys and girls had the same mean weight at birth and both doubled their weight in the second month. Length at birth was 58.3% and at 6th month was 53.6% standard length. Growth monitoring using Z-scores showed that girls had normal weight-for-age growth from 1st to 6th months but boys suffered mild underweight for the same period. Both had normal length-for-age growth from 1st to 6th months and both had normal weight-for-length growth only in the 5th and 6th months. Determinants of infants reaching standard weight at 6 mo were: order of infant (P<0.037) number of family members (P<0.039) type of area (P<0.027) and diarrhea infection (P<0.042). There was a significant correlation (P<0.000) between weight at birth and at 2 w but not with any other weights. The study recommended special care for LBW infants by admitting to the newborn intensive care unit (NICU) till they achieve the optimum weight for their age.

Keywords: Low Birth Weight

Knowledge and practice of growth monitoring and promotion among primary health care workers in a rural community of North West Nigeria

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Abstract

Growth Monitoring and Promotion (GMP) is a key element in child survival strategy where health workers measure and chart the weights and heights of children to detect abnormality in child growth they then use this information for early action towards reduction of morbidity and mortality due to malnutrition.(1) Nigeria Demographic and Health Survey recently recorded unacceptably high under nutrition indices.(2) For GMP to be successful there is need to have health workers with adequate knowledge and practices.(3) This study was done with the aim of assessing the knowledge and practices of GMP among Primary Health Care workers.

Information was collected using pretested self administered questionnaire and participant observation using a guided checklist. Participants were selected through a multistage sampling technique. Participants (n=103) knew duration of exclusive breastfeeding(92%) age of commencement of GMP (66%) lower limit of birth weight (39%) interpret a normal growth trend (93%)interpret a flat growth trend(35%) and interpret a falling growth trend(40%). Participants ask for GMP card (80%) undress the child appropriately (76%) return the weighing scale to zero reading before each measurement (74%) clean the scale after each measurement (71%) plot the reading on the growth chart(71%) interpret findings to caregiver (78%) ask about previous feeding (81%) ask about previous illness (80%) counsel appropriately (82%) and remind caregiver about next visit (87%). Participants were observed asking for GMP card (90%) undressed the child appropriately (21%) returned the weighing scale to zero reading before each measurement (30%) cleaned the scale after each measurement (20%) plotted the reading on the growth chart(6%) interpreted findings to caregiver (2%) asked about previous feeding (12%) asked about previous illness (55%) counseled appropriately (13%) and reminded caregiver about next visit (88%).

In conclusion majority of participants failed to respond adequately to knowledge questions. Also having knowledge in certain areas of GMP was not translated into practice as majority of participants were not practicing GMP appropriately. There were better scores for reported practice than what participants' observation revealed. Thus participant's knowledge and practice of GMP was not adequate.

Prevalence and clinical characteristics of headache among medical, pharmacy, and health sciences students in the University of Sharjah

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Abstract

Background: Headache is the most common neurological disorder especially among university students. It shows significant effects on their academic social and personal lives.

Objective: Our objectives in this study are to determine the prevalence clinical characteristics impact and management strategies among students of Medicine Pharmacy and Health Sciences colleges at the University of Sharjah.

Methods: Self-administered structured questionnaires were distributed among 471 students. Data was analyzed by SPSS-22 using inferential statistics tests including Chi-square and odds ratio. MIDAS was adopted with some modifications for measuring headache impact.

Results: Prevalence of headache was 84.9% (95%CI 0.0323±ï%) over the last six months. Comparing Medicine to Pharmacy medical students were 2.9 times (90.3%) more likely to experience headache (P=0.001). There was a significant correlation between headache and wearing corrective eye lenses (P=0.033) as 87.9% of students who use corrective eye lenses reported having headaches. Majority reported having one headache episode per month (35%) for less than an hour (46.5%) during the afternoon (39.5%) described it as tightness (46.1%) frontal (35.5%) worsened since enrolment in university (66.8%) moderate in severity (51.6%) with dizziness (31.8%) with no warning signs before episode (62%). Few students (3.3%) reported that headache had significant impact on missing university. However, headaches minimally decreased productivity in university among 62.3% of students. Stress/tension and too little sleep were the most reported factors that predisposed headache episodes 84.4% and 83.1% respectively. Sleep was the main strategy of management followed by majority of students (72.5%) while few sought health professionals (5.8%).

Conclusion:A majority of undergraduates suffer from headaches which affects their academic and daily performances. Therefore, its recommended that more attention should be drawn toward this issue with better guidance on how to manage it more efficiently.

In vitro fermentation of gum acacia impact on the faecal microbiota

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Abstract

Interest in the consumption of gum acacia (GA) has been associated with beneficial health effects which may be mediated in part by prebiotic activity. Two doses of GA and fructooligosac-charide (FOS) (1 and 2%) were tested for their efficacy over 48h in pH-and temperature-con-trolled anaerobic batch cultures inoculated with human faeces. Samples were taken after 0 5 10 24 and 48h of fermentation. The selective effects of GA (increases in Bifidobacterium spp. and Lactobacillus spp.) were similar to those of the known prebiotic FOS. The 1% dose of substrates showed more enhanced selectivity compared to the 2% dose. The fermentation of GA also led to SCFA production specifically increased acetate after 10 24 and 48 h of fermentation propionate after 48 h and butyrate after 24 and 48 h. In addition, FOS led to significant increase in the main SCFAs. These results suggest that GA displays potential prebiotic properties.

Reduction of sugar levels in processed foods in morocco: case of yoghurt

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Abstract

Objective: To contribute to the achievement of global voluntary targets for non-communicable diseases set by ICN2 by 2025 Morocco has recently developed a plan of reducing sugar consumption to reinforce prevention of non-communicable diseases. The main purpose of this study is to assess the degree of acceptability of yogurts with different percentage reduction of sugar by Moroccan population.

Methods:A total of 201 participants (age>15 y.) were recruited to determine the level of sugar reduction in yogurt. Sucrose was added to a plain yoghurt in the following different concentrations 166.5; 149.8; 133.2; 116.5; 99; 83.2 mmol/l corresponding to the reduction of sugar of0%-10%-20%-30%-40% and-50% respectively compared available yogurt in local market. Overall liking Just About Right (JAR) and purchase scales was used to score the different yoghurts.

Results: Yogurts containing-20% and-30% added sugar were highly accepted by 81% and 74% of respondents. Based on JAR score yoghurt with 20% (133.2 mmol/l) and 30% (116.5 mmol/l) reduction were considered as Just About Right by 42.7% and 44.3% respectively. Best average score of purchase intent is obtained for sucrose concentration of 149.8 mmol/l. 35.8% and 40.3% for yoghurt with sucrose concentration of 133.2 mmol/l and 116.5 mmol/l respectively.

Conclusion: Finding of this study indicate that yogurts containing-20% and-30% added sugar were best accepted by respondents. Advocacy before dairy industry to make them commit toward sugar reduction in yogurt is needed in order to help achieving the national sugar reduction strategy in Morocco.

Keywords: Sugar reduction, acceptance, yoghurt, Morocco

Conflict of interestDisclosure: Authors reported no conflict of interest

Acknowledgment: Authors thank to candidates who participated in the sensory tests.

Obesity is associated to fat taste perception and genetic polymorphism in moroccans adults

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Abstract

The epidemic of obesity is become an alarming threat for all human age in all parts of the world. Since 1980 it prevalence has more than doubled. Depending on the results of the national survey on anthropometry in 2011: 3.6 Million adult Moroccans are obese. Several large studies have demonstrated the existence of a fatty acids taste and the ability of humans to detect those with long chain in their diet via lipid receptors like CD36 (cluster of differentiation 36). It has also been established that a polymorphism of this gene may influence oral detection thresholds of lipids among some obese subjects. The aim of our study is to investigate the effect of the dysfunction of oro-gustatory perception of oleic acid (OA) and the implication of genetic polymorphism in the development of obesity. Methods: Eligible participants were recruited and written consents have been obtained. To classify the subjects into 2 group obese (case) and non-obese (control) anthropometric measures were calculated. Also an oro-gustatory fat taste preference test using emulsions containing OA at different concentrations according to the three-alternative forced choice (3-AFC) method; for genetic analysis blood samples were taken.

Results:A total of 90 adults (age 20 y) were recruited (45 obese and 45 non-obese). The average BMI (body mass index) for case and control group was respectively 37.843.60±ı kg/m2 and 22.261.52±ı kg/m2. Obese group show high OA detection thresholds (3.983.16±ı mmol/l) than the non-obese (1.882.66±ı mmol/l). Concerning genetic analyses; they are in the realization phase.

Conclusion: Dysfunction of gustatory system in the perception of fat taste may affect body weight in obese subjects which may having a genetic polymorphism.

Conflicts of interest: Authors reported no conflict of interest.

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Nutritional care for patients with psychiatric and mental disorders

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Abstract

Nutritional care for patients with psychiatric and mental disorders Dr. Adel A. BadrClinical Nutrition Consultant General Directorate of Health Affaires in Riyadh Region KSA. There is no doubt that good nutrition plays a vital role in improving the health status of the patients with psychiatric and mental disorders so we must make great attention to providing therapeutic meals for the patient which compatible with his health considering the symptoms in the side of drugs and overlapping incident between food and medicine. We must introduce high calorie and protein diets to compensate the psychological patient for what he has lost his body when the weakness and poor appetite associated with acute psychiatric. Also protein increases the production of the Dopamine and Epinephrinehormoneswhich strengthens attention and vigilance and makes the patient tends to think and act quickly especially in depressed patients that these proteins are highly critical value such as meat fish poultry and eggs and also take into account the interest in the containment of the meal on the complex carbohydrates of fruits and vegetables the full pulses bread and oats as it is rich in the amino acid tryptophan main manufacturer of nervous transmission in the brain called " Serotonin". The meal must contain also sufficient amounts of unsaturated fats and reducing as much as possible or avoid foods rich in saturated rising proportion of saturated fats in the blood which interfere with blood flow easily which leads to weakness especially in the brain circulatory. This paper also discusses some of the interactions between food and medicine for patients with psychological disorders and nervousness as well as exposure of the role of diet in improving Autism spectrum in children as well as "attention deficit hyperactivity disorder" in children. This paper includes several important nutritional recommendations for patients and caregivers.

Calcium intake in moroccan children and adolescents assessed by 24h recall

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Abstract

Background: Calcium is one of the most important nutrients for adequate growth especially in childhood and adolescence. Associated with vitamin D calcium is the principal mineral that maintains bone health. Indeed, its deficiency presents a several health problems. Ensuring a sufficient calcium intake is therefore a critical point for the well-being. The aims of the present study are to quantify of the calcium intake in a sample of Moroccan children aged from 6 to 18 y and to determine its relationship with different risk factors.

Methods:131 children and adolescents are included in this descriptive cross-sectional study. Recruitment has been achieved from public schools at Rabat and its regions. Socio-economic and morbidity status were assessed for each participant and anthropometric parameters were also measured. Quantification of calcium intake was evaluated based on 24h-recall and frequency questionnaire.

Results: The total mean of calcium intake in the studied population was 522.0297.0±ĵ mg/day which reflects a calcium deficiency in 96% of subjects. No significant differences related to sex towards dietary calcium was observed and no correlation with nutritional status was shown. Concerning food consumption just 16% was found conserved for dairy products which present the principal source of calcium.

Conclusion: Findings of this research show that most of children present a calcium deficiency. This requires special interest to deal with different problems that this deficiency can cause specifically in adulthood.

Conflict of interest: Authors reported no conflict of interest.

Acknowledgments: The authors of this article would like to thank immensely all volunteers who contributed by their participation to the realization of this study their parents or guardians their teachers health workers local authorities and all persons who ensured the success of this work.

Determination of the salty taste threshold in the Moroccan population

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Abstract

Sodium is an essential micronutrient and its high consumption is however related to negative health effects such as hypertension cardiovascular diseases and stroke. Following the recommendations of the WHO to reduce the average salt consumption in the populations by 30% to reach a target of less than 5 g per day by 2025 Morocco has recently developed a plan of salt reduction in order to reinforce prevention of non-communicable diseases. The present study is a masterpiece of this national strategy since its objective is to determine the threshold of perception of salt taste in the Moroccan population.A total of 201 participants (age>15 y) were recruited to determine the threshold of perception of salt taste. Different Nacl solutions were tested respectively1 2 4 8 15 30 60 125 250 500 mmol/l using the blind Alternative Forced Choice. Information on age sex height weight and Body Mass Index was collected and transcribed on SPSS software for statistical processing Results show that 38.80% of the testers began to perceive the salty taste from the concentration of 30 mmol/l (1.75 g/l) and 31.84% from the concentration of 15 mmol/l (0.875 g/l) while 1094% and 1393% of the testers perceived the salty taste respectively at concentrations of 8 mmol/l (046g/l) and 60 mmol/l (35g/l). The khi2 test shows a significant correlation between the perception of the salty taste and the sex (p value = 0035) and the perception of the salty taste and the BMI (p value = 0034). The age has no significant effect on the threshold of perception of the salty taste (p value 0.500). The results obtained are very important data that can be used as part of the national salt reduction strategy to convince industrials to reduce salt levels in processed foods

Keywords: Determination salty taste perception Morocco.

Nutrient density of food consumption in children from 03 to 12 y old during breakfast and snack in morocco

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Abstract

Objective: The nutrient density is an index which allows to know the report calorie/nutrient interest/price of a food.Economic constraints direct the food choices to products cheaper and denser in energy. The objective of our study is to classify food consumed in Morocco according to their nutritional composition by attributing to every food a unique score which indicates to the consumer his total nutritional value.

Methods: The study concerned 70 food consumption in children during breakfast and snack. The system of profiling used is based on nutriments to be encouraged and to be limited according to the model of the score NRF (Drewnowski and Fulgoni 2014).

Results: The score of the NRF 6.3 shows a negative nutrient density of the families of fats sweets and drinks fruits have a better nutrient density followed by starchy staple by milk and by dairy products. For the NRF 9.3 the nutrient density of milk and the dairy products the starchy staple and the fruits is improving because of their content in nutriments which are added namely vitamin E potassium and magnesium. In passing in the NRF 11.3 the nutrient density of milk and dairy products exceeds slightly starchy staple and approaches fruits because of its wealth in nutrients and in micronutrients in particular the calcium the magnesium the potassium and the zinc. For the NRF 15.3 the nutrient quality of milk and dairy products is improving what can be explained by the presence of other micronutrients: B1 B2 B9 B12 Viamine D Vitamin E and monounsaturated fats.

Conclusion: As for report calorie/interest/price the analysis allows to put forward to identify food associating a good nutrient quality and an affordable cost what means that in equivalent cost it is possible to improve the nutrient quality of food by favoring the variety specifically certain food as fruits starchy staple and dairy products which contain a big concentration of nutrients and which bring fewer calories.

Keywords: Nutritional density energy price micronutrients Morocco.

Salt reduction in bread among Moroccan population

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Abstract

Objective: To contribute to the achievement of global voluntary targets for non-communicable diseases set by the World Health Organization and to the actions of the Second International Conference on Nutrition (ICN2) Morocco has developed a plan of reducing salt consumption to combat the non-communicable diseases. The objective of the present study is to assess acceptance of bread with different percentage reduction of salt by Moroccan population.

Methods: Our study concerned 201 participants (age>15 y.). They recruited to determine the level of salt reduction in bread. Salt was added to a breadin the following different content 166.5; 149.8; 133.2; 116.5; 99; 83.2 mmol/l corresponding to the reduction of sugar of0%-7%-10%-16%-23%-30% and-53% respectively compared available bread in local market. Overall liking Just About Right (JAR) and purchase scales was used to score the different concentrations of salt in bread.

Results: Bread containing-10% and-16% added salt were highly accepted by 7611% and 7860% of respondents. Based on JAR score bread with 10% (133.2 mmol/l) and-16% (116.5 mmol/l) reduction were considered as â€œjust about rightâ€™ by 50.54% and 56.92% respectively. Best average score of purchase intent is obtained for sucrose concentration of 149.8 mmol/l. 35.8% and 40.3% for bread with salt content of 133.2 mmol/l and 116.5 mmol/l respectively.

Conclusion: Finding of this study indicate that bread containing-10% and-16% added salt were best accepted by participants. Advocacy before dairy industry to make them commit toward sugar reduction in yogurt is needed in order to help achieving the national sugar reduction strategy in Morocco.

Keywords: Salt reduction acceptance bread Morocco

Identification of novel education models to improve health outcomes in people with pre-diabetes living in Saudi Arabia

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Abstract

Type 2 diabetes (T2D) in Saudi affects 7M adults with 3M pre-diabetic (Alwin Robert Abdulaziz Al Dawish *et al.* 2017). To date focus has been on T2D management (Nathan Buse *et al.* 2009) however there is a scarcity of studies on prevention among Saudi pre-diabetic patients (Alberti Zimmet *et al.* 2007). In 2011 Al Daghri and colleagues revealed the prevalence of diabetes mellitus type 2 (DMT2) among Saudis was 31.6% with 10.2% having impaired fasting glucose (IFG). The current project hypothesises that with effective dietary advice progression to diabetes is stopped. The main aim will determine effective models of patient lifestyle based dietician led support and the preventive effect of this support on T2D related outcomes in Saudi pre-diabetic adults. 1st study phase 1 collected baseline data on the impact of routine medical care on weight and blood glucose markers. Recruitment commenced in Dec 2016. In this phase participants were randomised to receive either advice about diet and physical activity only at baseline (control group n=48) or an intensive personalised educational program about lifestyle modification at every 2 w during the 3-month period (intervention group n=73). Study outcomes were assessed at baseline with 3 and6 mo follow-ups. Baseline anthropometric includes body fat composition glycaemic and metabolic profile were taken and include fasting plasma glucose and lipid profile to be repeated every 3 mo. Ethical approval was obtained from the College of Sciences ethics committee King Saud University in Saudi Arabia 2016. Study 2 is likely to investigate the effectiveness of a 3-month intensive educational group program and the effects of Apps technology combined with exercise on T2D-related outcomes.

A technology-based nutrition education intervention to increase fruit and vegetables consumption in university student: findings from a randomised controlled study

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Abstract

Introduction: The transition from post primary school to tertiary education has been recognized as a vulnerable period regarding the development of unhealthy eating behaviors of university students that may have long-term health implications lasting well into adulthood(1-3).Evidence from surveys in USA and UK have shown that the university student's diet is generally low in fruits and vegetables which leads to poor nutritional intake and weight gain(3-4). The present study aimed to 1) increase FandV intake in university students and 2) to determine whether FandV intake was further enhanced when nutritional education wasprovided via a Facebook page (FB).

Methods: Full-time university students 36 females 24 males were randomly assigned to one of 3 arms: Control group received no intervention; FandV group received two and three portions fruit and vegetables respectively for 4 w from an individualised preferred list; and FandV+FB group received FandV (as for the FandV group) plus nutrition education delivered via FBwhich focused on benefits of FandV consumption. Level of engagement on FB page was categorized as highly active for participants who (interact at least once per week) moderately active (>once per month) or minimally active (<once per month). Consumption of FandV was assessed by a researcher pre and post intervention using a validated 4 d semi-quantitative food diaries. Compliance relating to consumption of FandV was assessed using records of uneaten FandV. Analysis of food diaries was undertaken using Nutritics software.

Results: Of those 20 participants in the FandV+FB group70% engaged with FB regularly with 35% classified as highly active 15% moderately active and 50% minimally active. Level of engagement in FB page were higher at the end of 4 w intervention 49 (3.8) compared to follow up period 25.5 (3.3) (P<.0001). Consumption of FandV increased inintervention groups (P<.0001) at end of the study with food diary data suggesting that 31% of participants in both intervention groups consumed 5 portions of FandV daily.

Conclusion: This study showed that providing FandV weekly increased consumption in university students and providing additional nutrition education (via FB) did not further enhance intakes of FandV

The effect of dairy product intake during an energy-restricted diet on adults who are overweight or obese: a systematic review

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Abstract

Background: The global increase in the prevalence of obesity and associated health problems means that strategies are required to help people better manage their weight. Energy restriction is the first line of approach to treating and managing obesity. However recent studies have reported positive results on weight and body composition when dairy products are part of the energy-restricted diet with and without exercise and health education.

Objective: To critically evaluate the evidence available for the effectiveness of dairy products on body composition and other biochemical markers related to obesity in adults with overweight/obesity who are 18-65 y and following an energy-restricted diet.

Methods: A comprehensive search of the literature on different electronic databases including PubMed/Medline ScienceDirect and Wiley online library (Cochrane Library) was carried out for literature published between 2007 and 2017 to obtain English language articles on relevant randomized control trialsinvestigating the effects of dairy products in conjunction with an energy-restricted diet to treat or manage overweight conditions and obesity.

Results: Ten randomized control trials used dairy products in servings ranging from 1 to 7 per day with energy-restricted diet (-200 to 800 kcal/day) for a duration of 8 w to 16 w found reduction in body composition (weight BMI waist circumference and body fat) and other biochemical markers related to obesity (systolic and diastolic blood pressure triglycerides and glucose). Five of the ten studies combining dairy products intake with exercise and/or health education intervention. The majority of studies did not see adverse effects with a high serving of dairy products amount of energy â€ deficit or exercise in the long-term studies.

Conclusion: The consumption of 2 servings of dairy products during an energy-restricted diet (500 kcal/day) significantly reduces body composition as well as other biochemical markers related to obesity with few adverse effects. Combining physical activity and nutrition education with a high-calcium dairy high protein energy-restricted diet results in greater weight loss. Although the short-term effects look promising further rigorous research to evaluate the effects of dairy products intervention is recommended.

Keywords: Dairy and weight change; dairy and weight loss; dairy and energy restriction; dairy and body composition.my Abstract category is nutrition

Evaluation of energy and nutrient intake from food of lactating mothers in a romanian sample population

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Abstract

Introduction: Maternal diet has a great impact on breast milk composition and therefore on infant nutrition as many nutrients that are important for growth and development are secreted in breast milk. The aim of the present study was to comprehensively evaluate the energy and nutrient intake from food of lactating mothers during a self-selected diet in a Romanian sample population.

Methods: In this study participated 33 lactating women living in urban areas. The subjects were healthy volunteers over 18 y old and were organized according to the period of lactation: 0-6 mo (G1) 6-12 mo (G2) 12-24 mo (G3) and greater than 24 mo (G4). Dietary evaluation was based on data from all 7-day prospective food diaries. The food intake was analyzed by a trained dietitian using EDIM Software. Data obtained was statistically interpreted using Real Statistics Resource Pack add-in for Microsoft Excel.

Results: This study evaluated energy and dietary intake of lactating women such as proteins fatty acids (saturated and unsaturated) carbohydrates fibres vitamins and minerals and compared with IOM recommendations for during a self-selected diet. In terms of energy intake our results indicate that lactating mothers have a deficient intake compared with energy recommandations (1879 kcal/day for G1 group vs. 2744 kcal/day and 1770.08 kcal/day for G1-G4 group vs. 2803 kcal/day). In our study lactating mothers has reached the DRI (Dietary Reference Intakes) during breastfeeding and also the recommended distribution of 15% protein of total energy intake. The intake of fats was relative high covering about 40.7 % of daily energy intake while the intake of carbohydrates 44.3 %. The mean values for hydro-andfat-soluble vitamins were variable. Dietary intake of selected minerals was far below recommended levels for breastfeeding period. Iodine dietary intake are dramatically low (62.61 è¼g vs. 290 è¼g recommended).

Conclusion: This study can represent a fundamental contribution in understanding dietary patterns and identify dietary risk factors and needs of lactating mothers. We recommend that women during breastfeeding should receive proper dietetic information from health care professionals in order to improve their overall diet and health outcomes of the infant.

Knowledge and attitude concerning autism spectrum disorder (ASD) among pediatricians in the united arab emirates

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Abstract

In the last decade there has been increased media attention to autism both globally and across the GCC. This in turn has increased the knowledge and awareness of the condition in the Arabian Gulf region among both parents and professionals. The first report from the region about the prevalence of autism in the community came from the United Arab Emirates (UAE) and reported a weighted prevalence of 29 per 10000 among 3 yolds in the UAE national population. While the rate reported from the UAE is comparable to that observed in other countries none of the UAE children diagnosed during the study have a prior diagnosis. All of them escaped detection by the applicable paediatric healthcare oversight protocols. Parents also did not report any worrying behaviors. Parents and paediatricians are at the best vantage point to spot the earliest warning signs of autism. If the disorder is detected in its infancy early intervention programs can take full advantage of the remarkable plasticity of the brain. Thus if the signs are detected and reported by 18 mo of age intensive treatment may help ameliorate the symptoms significantly. A cross-sectional study will be conducted in February/March 2018 to evaluate the level of knowledge and awareness about autism spectrum disorder among pediatricians practicing in urban areas (Dubai) semi-urban regions (urban parts of Ras Al Khaimah) and rural areas (rural parts of Ras Al Khaimah). A total of 400 pediatricians will be randomly selected. The questionnaire will cover the significant aspects of autism its diagnosis and issues that pediatricians face on a daily basis with regards to diagnostic tools attitudes from parents etc. Assessing the practical knowledge about autism and diagnostic tools of pediatricians in outpatient services will help in establishing an action plan for more efficient awareness programs reaching people living far away from the central metropolis.

Presence of fever in the emergency room in severe sepsis patients predicts survival in ICU

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Abstract

Aims: To study the prognostic value of fever in the emergency department in septic patients subsequently admitted to the ICU.

Methods: Observational cohort study from the Pakistan national quality register for sepsis. The setting was based in twenty ICU's in Pakistan. Fifteen hundred adults who were admitted to an ICU within 24 h of hospital arrival with a diagnosis of severe sepsis or septic shock were included.

Results: Body temperature was measured and classified according to four categories (<37°C 37-38.29°C 38.3-39.5°C>= 39.5°C). The main outcome was in-hospital mortality. Odds ratios for mortality according to body temperature were estimated using multivariable logistic regression. Subgroup analyses were conducted according to age sex underlying comorbidity and time to given antibiotics. Overall mortality was 25%. More than half of patients had a body temperature below 38.3°C. Mortality was inversely correlated with temperature and decreased on average more than 5% points per degree °C increase from 50% in those with the lowest temperatures to 9% in those with the highest. Increased body temperature in survivors was also associated with shorter hospital stays. Patients with fever received better quality of care but the inverse association between body temperature and mortality was robust and remained consistent after adjustment for quality of care measures and other factors that could have confounded the association. Among vital signs body temperature was best at predicting mortality.

Conclusion: Contrary to common perceptions and current guidelines for care of critically ill septic patients increased body temperature in the emergency department was strongly associated with lower mortality and shorter hospital stays in patients with severe sepsis or septic shock subsequently admitted to the ICU.

The role of technology-enhanced simulation in the field of paediatric education: observations from a meta-analysis

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Abstract

Background and aims: The field of paediatrics shows increasing acceptance of technology-enhanced simulation (TES) as an educational tool. The effectiveness for paediatric education of using this modality is not clear. The aim of this study is to describe the characteristics and judge the effectiveness of using TES in the field of paediatric education.

Methods: Using databases including Medline Embase Web of Science Scopus and key journals from 2011 till 2016 were conducted. Original research articles that evaluated using TES for educating health care providers where the focus on patients aged 18 or less were also included. Information on learners clinical topics instructional design quality of study and outcomes were carefully evaluated.

Results: 87 studies that used TES to teach paediatrics were identified. Effect sizes were pooled using a random-effects model. The studies that compared TES with no TES used pooled effect sizes were large for outcomes of knowledge patient behavior and skills that were free from time constraints. The studies that compared using high instead of low physical realism simulators shows positive effects of using high physical realism.

Conclusion:TES use for paediatric education shows benefits when compared to no intervention. Future research directions should aim to identify instructional methods that include paediatric specific issues into educational settings.

Care of children by children: phenomenon of sibling care

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Abstract

This paper explains the phenomenon of care by children-for children in absence of parents in slums andJhuggies (squatter settlement) of Delhi India. This study is qualitative in nature with ethnographic descriptions of the lived led by families with sibling caregivers. A total of 50 children in age range of 6-18years were part of this study. The outcomes of study depicted that children had responsibilities related tohouse and care of siblings. The list of chores carried out by sibling caregivers for the family were mopping and sweeping washing clothes and utensils cooking for all filling water from community taps buying grocery vegetables for family members looking after brother/s and sister/s. Few tasks that were exclusively carried out for siblings were teaching bathing and getting ready accompanying them till school/classroom cooking playing and more. Children were found to express a mixture of emotions (happy and content to disappointed and clueless about life) while sharing their perceptions on their role. Children believed that agood son/daughter/sibling is the one who obeys instructions of parents loves his/her siblings does all household work cares for everyone and helps in all household chores. The workload on these young shoulders seems to increase with every new change like birth of sibling/s holidays illness of mother poor performance in studies and work pattern of parents. Children learn along with one another as in words ofChaudhary (2013) children learnt effectively from older children since they were caring but not crowding; favoring them but not forever; watchful but not hovering; teaching but not targeting; adapting but not always accommodating to the younger one (p.37). Collaboration of resources was fostered by parents every member of the family extended help and support in weaving daily life functional in form of CREWS(convenient reliable economical some level of wellbeing and safe). Siblings as caregivers build in community spirits and connect. It was also seen as the survival of the fittest.

Coexistence of under-and-over nutrition among mother-child dyads within the same household in urban poor settings in India

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Abstract

Background: According to WHO underweight and obesity are both among the top ten leading risk factors for the global burden of disease. While under-nutrition remains prevalent in children overweight and obesity among adults is increasing at an alarming rate particularly in urban poor population. Developing countries including India has primarily focused on the high prevalence of undernutrition and no national policies/programs are there to address over nutrition/obesity.

Objective: The study aims to find out the prevalence of different forms of malnutrition among mother-child dyads in an urban poor setting in India.

Material and Methods: This data was part of a cross-sectional study of 200 mother-child dyads (children aged 3-5 y) from urban poor settings of Delhi India. Anthropometric measurements (weight height waist-circumference hip circumference in mothers and weight height MUAC in children) were taken from a stratified random sample of mothers aged>18 y with children aged 3-5 y. Households were categorized into different forms of malnutrition based on prevalence of underweight stunting wasting and overweight/obesity in children with corresponding proportions of underweight and overweight/obesity in mothers based on BMI waist circumference and waist-hip ratio.

Results: Of the 200 mother-child dyads the prevalence of underweight child-overweight mother (UC/OM) was found to be 20 per cent. Compared to 40 per cent normal child and normal mother (NC/NM) which was taken as the reference group corresponding households were UC/UM 10 per cent; UC/NM 5 per cent; OC/OM 15 per cent; OC/NM 7 per cent; OC/UM 3 per cent.

Conclusion: Undernutrition and over nutrition are growing parallel within the same household supplementing to increased prevalence of dual form of malnutrition (UC/OM). Therefore, it is arduous to understand the pathways for this concurrent situation challenging present policy and programs which needs to be redirected.*Households represents: UC-Underweight child; NC-Normal weight child; OC-Overweight child; UM-Underweight mother; NM-Normal weight mother; OM-Overweight mother

Quantification of polyphenols in Arabic dishes and estimation of the average daily consumption of polyphenols in the UAE University community

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Abstract

Background: Polyphenols are a class of natural compounds that exists in vascular plants. They are well-known for their anti-inflammatory, antioxidants, neuroprotective and cardioprotective activities. Although everybody agrees on their benefit, there is no data regarding the daily average consumption. Estimation of the level of consumption is needed before providing dietary recommendations to the public, especially to optimize health benefits and avoid any toxicity due to excessive consumption. This quantification is based on the polyphenol content of food products. The PhenolExplorer Database (PED) assesses the polyphenols content of variety of food products. However, Arabic foods are absent from this database.

This study aims to estimate the polyphenol content of some of the most popular Arabic foods, and estimate the average daily intake of polyphenols for individuals in the UAEU community.

Methods: Ten popular Arabic dishes vegetable marag, nakhee, machbous, sambosek, flafel, okra, hummus, margoog, manaqish zaatar, and harees were considered for polyphenol content measurement using Folin-Ciocalteu method. The dietary intake of polyphenols was assessed using a validated food frequency questionnaire including 120 items. One hundred participants were recruited from students and staff at UAEU. Ethical approval was obtained.

Results: The polyphenolic content of the tested dishes ranged from 1630.4 mg/100 g, for manageesh zaatar, to 407.7 mg/100g for harees. Dietary data were obtained from 43 females (48.3%), 46 males (51.7%), including 60 students, 29 staff and faculty members. The average daily polyphenolic intake (mg/d) for the whole sample was 4225.5Â±242.5 and ranged from 1055.0- 15464.0 mg/day. No significant difference was shown among the groups or genders.

Conclusion: Among the tested dishes manageesh zaatar included higher amounts of polyphenols compared to lentils 1234.4 mg/100g which are known as a rich source of polyphenols. High average daily consumption of polyphenols was observed in our community. Further studies should be completed to link daily average consumption of polyphenols with health status.

Growth patterns during the first 12 mo of life and feeding practices: findings from MISC Cohort, UAE

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Abstract

Introduction: Breastfeeding is the optimal feeding practice to achieve healthy growth and development of the infants. This paper aims to compare the growth patterns of breastfed and formula fed infants in the first 12 mo of life using the World Health Organization (WHO) reference data.

Methods:A total of 257 mothers were recruited as part of an ongoing longitudinal Cohort study Mother-Infant Study Cohort (MISC), that was carried out in Emirates of Sharjah, Dubai, and Ajman. Feeding patterns as well infant growth measurements were collected at birth and 2 6 and 12 mo postpartum.

Results: The majority of the infants (98.2%) were breastfed at the age of 2 mo while only (68.2%) were exclusively breastfed. Whereas 67.7% breastfed their infants till the age of at 12 mo. Breastfed infants had significantly lower mean weight 7.9 kgÂ±0.90 and weight for age (WA) z scores, and weight for length at 6 mo of age as compared to formula fed (FF) infants. (WA) z score at 12 mo showed higher WA z score of (1.61) at 12 mo (mean weight of 10.1 kgÂ±1.2) for (FF)versus breastfed groups but with no significance

The effect of gum Arabic on blood Glycaemia, blood Lipidemia, body composition and gastrointestinal tract in UAE adults at risk of metabolic syndrome

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Abstract

Introduction: Metabolic syndrome (MetS) is becoming more prevalent worldwide and 39.6% of UAE population was diagnosed with MetS in 2008. Abdominal obesity, high fasting blood glucose, high blood pressure, elevated triglycerides and reduced high-density lipoprotein cholesterol (HDL-C) are the risk factors for MetS. Natural substances, such as Gum Arabic, are used as medications for treating some of these diseases. However, several studies have proven that Gum Arabic has antioxidant, prebiotic, anti-diabetic, lipid-lowering functions and many commercial forms of Gum Arabic are popular in pharmacies to treat and reduce and risk of these disease hence, reduce the risk of metabolic syndrome.

Objective: To measure the effect of 24 grams of Gum Arabic for 12 w on Blood Glycaemia, Blood Lipidemia, Body Composition and Gastrointestinal Motility on Adults at risk of metabolic syndrome in UAE.

Methods:A controlled, randomized, single blind, parallel-design study conducted on 64 UAE adults with risk of developing metabolic syndrome. Participants were divided into two groups, placebo and intervention. The intervention group were given 20 grams of Gum Arabic per day divided into two sachets. On the other side, the placebo group were given 0.5 grams of pectin on each sachet for 12 w. Anthropometric measurements were taken for the participants, as well as body composition and systolic and diastolic blood pressure, fasting blood glucose, HbA1c, total cholesterol, LDL-C, and HDL-C, at baseline. However, Questionnaires on bowel motion, physical activity, hunger and satiety scales, as well as 24-hour recall for three days were conducted and collected from the participants at week 6 of the study. All of the blood readings and body measurements as well as the questionnaires will be conducted again at week 12 (end point).

Results: The study group were twenty-five males (11 for the intervention and 14 for the placebo) and thirty-nine females (19 for the intervention and 20 for placebo) with mean age [Â±SD] 25.4Â±8.9 y, weight (kg) 95.21Â±17.8, height (cm) 166.45Â±9.96, BMI (kg/m2) 34.33 Â±5.03, waist circumference (cm) 100.79 Â±13.59, and body fat percentage (%) 38.8Â±7.5. Regarding the physical activity (PA) (mins/day) levels they were; vigorous PA 4.92Â±12.31, moderate 22.86 Â±26.1, and light PA 54.95Â±39. Furthermore, Gum Arabic had a significant effect on reducing hunger and improving satiety

Comparison of proteins, minerals, cholesterol and vitamin D3 levels in patients with end-stage renal failure

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Abstract

Introduction: End-stage renal disease is associated with changes in the mineral elements and the control of rage proteins, cholesterol and vitamin D3 through therapeutic nutrition.

Objective: To determine the level of Na+relation, k+, Ca+, Po4, creatinine, cholesterol and vit. D3 in the blood serum in Sudanese patients with ESRD pre and post dialysis interims of nutrition and relation with renal failure.

Methods:A cross-sectional included patients with ESRD of patient's renal failure on regular hemodialysis continually in three hospitals in the Khartoum area, and Omdurman collected sampling the National Laboratory of Public Health (Stack) as well as the University Hospital of Rabat and medical arms in Omdurman by taking a sample of 31 patients pre and post hemodialysis and then worked laboratory analysis of these samples.

Results: Included search 31 patients (16 males, 15 females) with age ranged (mean was 47.05 y Â±32.05) and findings from this study indicate an increase in sodium mean at post dialysis (141.52 mmol/l) and decrease significantly at pre dialysis (136.96 mmol/l) as noted that there is a difference in the level of (k+) (4.132 mmol/l) compared with that pre dialysis (4.306 mmol/l) The study also pointed out that there is a rise in creatinine pre dialysis (6.394 mg/dL) and low significantly in the level of creatinine post hemodialysis (5.039 mg/dL). As well as the observed difference in Po4 at pre dialysis (4.903 mg/dL) compared with that post dialysis (4.329 mg/dL). In addition to study of calcium mean low ca2 pre dialysis (8.787 mg/dL) and a large change in calcium post dialysis (13.27 mg/dL) moreover study of cholesterol mean it showed a big change post dialysis (130.3 mg/dl) compared with that pre dialysis(124.13 mg/dl), as well as Vit. D3 study mean which showed a significant increase markedly post dialysis (6.184 microgram/ml) compared with pre dialysis (4.977 microgram/ml). The study also showed that there is no obvious effect the age of the patients and the level of mineral elements, Cholesterol, proteins and vitamin D3, but this study demonstrated that there is a clear impact of the gender on the level of patient's variables.

Enterobacteriaceae in neonatal enteral feeding tubes

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Abstract

In the recent years, international interest has been directed toward the microbiological safety of powdered infant formula (PIF). These products are not sterile and have been implicated in neonatal infections by *Cronobacter* spp. and *Salmonella serovars*. Other members in the Enterobacteriaceae family have been also isolated from PIF. The WHO has set guidelines for the hygienic preparation of infant feeds. However, premature babies are routinely feed via a feeding tube since they lack the suckling reaction. The objectives of this study were to conduct a microbiological analysis of neonatal enteral feeding tubes from NICUs in two separate hospitals. Eighty-seven neonatal enteral feeding tubes were collected from the NICUs of two hospitals in Jordan. The feeding tubes were placed in sterile plastic bags and samples of PIF were collected. Any liquid residues in tube lumen were collected by flushed into a sterile Eppendorf tube. The flushed tube residues, cell suspension from the tubes and rehydrated PIF were spread on Violet Red Bile Glucose agar. The plates were incubated aerobically at 37Â °C for 48h. Typical Enterobacteriaceae colonies were counted and representative colonies were identified using phenotypic profiles using Gram negative bacteria identification card (VITEKÂ® bioMerieux). Ninety-two isolates identified from flushed residual feed were primarily *K. pneumoniae* (40 isolates, 44%), *A. baumannii* (24 isolates, 26%), and E. coli (19 isolates, 21%). Other organisms were single isolates of *S. maltophilia, P. aeruginosa, P. putida, C. freundii,* and *E. cloacae*. Eighty-four isolates were identified from biofilms on the tube inner wall. These were primarily *K. pneumoniae* (36 isolates, 43%), *A. baumannii* (21 isolates, 25%), and E. coli (19 isolates, 23%). Other organisms isolated less frequently included 2 isolates each of *E. cloacae*, and *P. rettgeri*, and single isolates of *P. aeruginosa, P. stutzeri, E. asburiae*, and *C. freundii*. This study shows that neonatal enteral feeding tubes act as loci for the bacterial attachment and multiplication of numerous opportunistic pathogens within the Enterobacteriaceae family. Subsequently, these organisms will enter the stomach as a bolus with each feed. Therefore, enteral feeding tubes are an important risk factor to consider with respect to neonatal infections. This project was funded by Jordan University of Science and Technology, Jordan.

Dietary patterns and its association with overweight/obesity among Iranian school-aged children

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Abstract

Background: Childhood obesity is one of the most serious public health challenges of the 21st century. The problem is global and is steadily affecting many low-and middle-income countries, particularly in urban settings. The prevalence has increased at an alarming rate. The fundamental causes behind the rising levels of childhood obesity are a shift in diet towards increased intake of energy-dense foods that are high in fat and sugars but low in vitamins, minerals and other healthy micronutrients, and a trend towards decreased levels of physical activity. The aim of this study was to determine the association between major dietary patterns and overweight/obesity in a group of Iranian school-aged children.

Methods: This cross-sectional study was conducted in Isfahan, Iran with 637 elementary school-aged children. A semi-quantitative food-frequency questionnaire was used to assess usual dietary intakes. Data on socio-demographic, physical activity and other lifestyle habits were collected using standard questionnaires. Obesity was determined based on national cut-offs. Factor analysis was used for identifying major dietary patterns.

Results: Three major dietary patterns were extracted; Healthy, Westernand Sweet-Dairy. After adjusting for confounders, girls in the second quartile of healthy pattern, were more likely to be overweight (OR= 2.23, CI=1.003, 4.96) compared to those in the highest quartile. Likelihood of being overweight was lower for girls in the second quartile of western dietary pattern vs. the forth quartile (OR= 0.46, CI=0.21, 1.01). Accordingly, lower adherence to sweet and dairy pattern was associated with lower BMI among girls (OR= 0.42, CI=0.21, 0.85). There was no significant relationship between western and sweet-dairy pattern with BMI among boys, however significant association was observed between lowest and highest quartiles of healthy pattern (OR= 0.36, CI=0.15, 0.84).

Conclusion: We found significant associations between the three dietary patterns and obesity among girls. Only healthy pattern was related to weight status of schoolboys. Longitudinal studies will be needed to confirm these associations. Key words: Dietary patterns, children, overweight, obesity

Quantification of polyphenols in Arabic dishes and estimation of the average daily consumption of polyphenols in the UAE University community

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Abstract

Background: Polyphenols are a class of natural compounds that exists in vascular plants. They are well-known for their anti-inflammatory, antioxidants, neuroprotective and cardioprotective activities.

Although everybody agrees on their benefit, there is no data regarding the daily average consumption. Estimation of the level of consumption is needed before providing dietary recommendations to the public, especially to optimize health benefits and avoid any toxicity due to excessive consumption.

This quantification is based on the polyphenol content of food products. The PhenolExplorer Database (PED) assesses the polyphenols content of variety of food products. However, Arabic foods are absent from this database.

This study aims to estimate the polyphenol content of some of the most popular Arabic foods, and estimate the average daily intake of polyphenols for individuals in the UAEU community.

Methods: Ten popular Arabic dishes vegetable marag, nakhee, machbous, sambosek, flafel, okra, hummus, margoog, manaqish za'atar, and harees were considered for polyphenol content measurement using Folin-Ciocalteu method.The dietary intake of polyphenols was assessed using a validated food frequency questionnaire including 120 items. One hundred participants were recruited from students and staff at UAEU. Ethical approval was obtained.

Results: The polyphenolic content of the tested dishes ranged from 1630.4 mg/100 g, for manageesh za'atar, to 407.7 mg/100g for harees.Dietary data were obtained from 43 females (48.3%), 46 males (51.7%), including 60 students, 29 staff and faculty members. The average daily polyphenolic intake (mg/d) for the whole sample was 4225.5±242.5 and ranged from 1055.0–15464.0 mg/day. No significant difference was shown among the groups or genders.

Conclusion: Among the tested dishes manageesh za'atar included higher amounts of polyphenols compared to lentils 1234.4 mg/100g which are known as a rich source of polyphenols. High average daily consumption of polyphenols was observed in our community. Further studies should be completed to link daily average consumption of polyphenols with health status.

Development of an online food frequency questionnaire for the UAE population

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Abstract

Background: The UAE has been undergoing a nutritional transition in the last few decades; consequently, diet-related chronic diseases are emerging as an important health problem. In order to investigate the relationship between diet and chronic diseases specifically for UAE nationals; we have developed an online quantitative Food Frequency Questionnaire (FFQ) that can measure the habitual dietary intake of adult UAE nationals.

Objective: To introduce and describe a newly developed innovative and user-friendly tool for the assessment of dietary intake of the UAE National population.

The new tool is called "Online Food Frequency Questionnaire for the UAE" and it consists of a self administered online food frequency questionnaire specific to the UAE national population and in Arabic language.

Methods: The "Online FFQ for the UAE" tool was developed in 3 stages; the development of paper-based FFQ, based on the specific foods consumed by the UAE national population, the creation of the food photographs depicting the food portion sizes and the integration of the paper based FFQ and the food photographs to create the online tool. The layout and format of the "Online FFQ for the UAE" was inspired from the European Prospective Investigation of Cancer (EPIC)-Norfolk FFQ and the content was based on relevant Emirati food habits. The portion sizes were derived from the national food consumption survey and the nutrient composition were derived from local and international food composition databases.

Results: The Online FFQ for the UAE can be viewed on the website http://www. foodfrequencymiddleeast. com/ It was designed completely in Arabic language and is composed of three main parts: The home-page, the Login page and the FFQ itself. A validation study comparing the online FFQ for the UAE population with 3 x 24h recalls has been conducted and the results will be published soon.

Effect of polyphenols from date seeds on adipocyte differentiation

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Abstract

Obesity is escalating at an alarming rate, in most of the countries, including the UAE, in spite of the huge efforts that are exerted into public campaigns, research and interventions. It is becoming a major public health issue. In obese state, adipose tissue expands through hyperplasia (increase in number) and hypertrophy (increase in size) of adipocytes. Thus, identifying potential factors that regulate these processes could help in preventing obesity.Polyphenols are phytochemicals that are found naturally in plant sources for which a promising inhibitory effect on adipocyte differentiation has been suggested but in few studies only. It is well known that date seeds are a good source of polyphenols. In UAE, dates are abundant and a favorable food choice for locals. So far, no study has been performed on the effect of date seeds on 3T3-L1 preadipocyte differentiation.

Thus, the aim is to study the effect of polyphenols from date seed on 3T3-L1 preadipocyte differentiation.

Method: The 3T3-L1 cells were grown in a cell culture flask supplemented with growth factors for 2-3 d until confluent. In the fourth day, the confluent cells were then treated with different concentrations of Date Seed Extract (DSE): 0ug/ml, 5ug/ml, 10ug/ml, 25ug/ml, 50ug/ml, 100ug/ml, 250ug/ml, 1000ug/ml and 2000ug/ml etc. The cells were then kept for 2-3 d to develop into mature adipocytes. After that, maturation media was added along with the DSE. Media was changed daily to avoid the thickening of the media with lipids and the process was continued for 8 d. After 8 d of differentiation, cells were then strained with add Oil red O solution and the absorbance was measured at 500 nm.

Results: No cell viability reduction was observed up to100 µg/ml DSE. The reduction in lipid accumulation was 36% with 25 µg/ml of DSE, 48% with 50 µg/ml DSE and 78% with 100 µg/ml DSE.

Conclusion: Polyphenols from DSE were able to prevent from lipid accumulation in preadipocyte. This is supporting a potential use of DSE as an ingredient to prevent obesity.

Self-Efficacy for healthier eating and physical activity among university students in the United Arab Emirates: A comparative of body weight status

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Abstract

Background: Health Beliefs Questionnaire (HBQ) was previously validated for its validity and reliability by Anderson and colleagues. Self-efficacy, a main construct of the Social Cognitive Theory (SCT) is assessed in the HBQ and includes two sub-scales: Healthier Food Beliefs and Step Count Beliefs. This study assessed self-efficacy related to healthier foods and physical activity among university students.

Methods: Data related to self-efficacy for Healthier Food Beliefs and physical activity were collected from 278 female students from the United Arab Emirates University. The self-efficacy scale consists of 33 items related to healthier eating beliefs with three subscales (increase fiber, reduce sugar and reduce fat) and 24 items related to physical activity with two subscales (integrating physical activity into daily routine and overcoming barriers).Mean scores of the participants for healthier foods and their subscales, as well as the step count were calculated. Anthropometric measurements, including weight, height and body fat were measured.

Results: Overall, participants reported highest scores for the sub-scale "reduce sugars" (mean score= 61.4 out of a maximum possible score of 100). Moreover, the participants reported that they are more certain to integrate physical activity into their daily routine than to overcome barriers (mean scores 62.5 and 47.3, respectively).Participants who were either overweight or obese reported significantly higher scores for physical activity and healthier food sub-scales except "reduce sugars" ($p<0.05$).

Conclusion: Overweight and obese participants reported higher scores for physical activity and healthier foods except "reduce sugars" compared to those who were either underweight or within normal weight. Further studies are needed to confirm these findings.

Alzhei glass for alzheimer's patients

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Abstract

Introduction: Alzheimer's is the most common form of dementia, which attacks the brain. It causes memory loss and some intellectual disabilities that disturbs the daily life not only for the patients but also for their families. Alzheimer's patients pass through 3 stages of the disease mild, moderate and sever. Patients may function normally with the social activity, work, and drive in the mild stage, which can be determined by scoring 20-24 at the MMSE. The mild stage (early stage) is the stage where AlzheiGlass functionalities can be fully used. In this stage Alzheimer's patients face Troubles in Remembering names of distant friends and relatives, events and appointments, home address, and more. In addition, no matter how dedicated caregivers are, at some point they will need some help in caregiving specially when patients need care 24/7 and when they start wondering around. AlzheiGlass provides solutions for all the problems mentioned previously for both the patient and the caregiver.

Objective: The primary objective is to investigate whether AlzheiGlass helps Alzheimer's patients in remembering relatives and friends in the early stage of the disease without adding any major burden to the patients. The secondary objectives are to investigate whether AlzheiGlass helps: 1. Alzheimer's patient: • Get back home safely. • Remember daily tasks and appointments • Call caregiver when needed. 2. Caregiver: • Track patient's location. • Get notification when patients exit specific areas. • Get glass status. • Manage appointments for the patient. • Manage patients' and relatives' profiles. Methods: Participants of the study include male or female, aged 50 y or above with Alzheimer's disease in the mild stage (early stage), with good eyesight and able to read and speak simple English words. The exclusion criteria include the following: -Participant who started to take drugs for the disease.Participant who is terminally ill or is inappropriate for the tested system.Any other significant disease or disorder which, in the opinion of the Investigator, may either put the participants at risk because of participation in the study, or may influence the result of the study, or the participant's ability to participate in the study. Each participant will try the glass 2 h every day for 6 w, and notes about the experience will be taken. The same will be applied for the caregivers/guardian. Each function will be tested separately after teaching the patient how to use it, then notes about the usage and how the patient accepts it and use it without any problem. By the end of the test the patient should be able to use face recognition, call caregiver, take me home, and appointments application.

Results/findings: After testing this with 14 samples that contains both patient and his/her caregiver, we found that the caregivers are very interested in the usage of it and they say that it will help them in saving the time and effort of taking the care of the patient especially the tracking and geo-fence features, which will reduce the number of lost cases. Also, having multiple caregivers can help the whole family members to share the task in taking care of the patient. We also found that the patients were facing some difficulties in the first prototype of the solution, which was Google Glass, as most of the features were selected manually, due to the hardware limitations, and they mentioned that: it is not easy to learn how to use this glasses at the beginning, also we have to do some functions manually by ourselves and remembering the steps that we have to do is hard. after noticing the patients and how they have used the glasses, we decided to upgrade it to the second version and use new hardware of glasses that allows the function to work automatically, without patient intervention, which will make it easy to use. Also, making an alternative solution using a smart watch.

Conclusion: After testing this system with 14 samples that contains both patient and his/her caregiver, we can conclude that this system will help both of them in their daily life, and they are very happy with the usage and progress.