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FOOD CONSUMPTION FREQUENCY QUESTIONNAIRES DEVELOPED FOR THE DIABETIC POPULATION: A SYSTEMATIC REVIEW

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Rationale: This systematic review was conducted to identify food frequency questionnaires (FFQ) developed to measure the dietary intake of the diabetic population and to describe the methodology used for the validation.

Methods: A robust search strategy was carried out to identify studies through Medline, Scopus and Web of Science until August, 2020. Original studies with data on FFQs developed for diabetic patients and its validation process were included. The selection was carried out from the title and the abstract, and from the full text, then. A qualitative summary were done to present relevant data.

Results: The initial search generated 2117 records, among which six FFQs were identified (1–6). Two FFQs were developed for cohort studies (4,5), two for clinical trials (1,3) and two for cross-sectional studies (2,6). Relative validity was examined in all the FFQs found (1–6). However, only one FFQ assessed the reliability (4). Mostly, FFQs are validated against 24-hour recall (1,3) or food records (4,5) by using correlation statistics in all cases (1–6), among other tests.

Conclusion: To date, only six FFQs have been developed specifically for the diabetic population. All FFQs reported on the validation process, but few studies assessed the reliability.

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A HEALTH RISK EVALUATION OF HABITUAL UNFILTERED COFFEE CONSUMPTION: A NATIONWIDE CROSS-SECTIONAL STUDY

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Rationale: Despite the rapid increase in coffee consumption, previous epidemiological studies have provided limited and inconsistent conclusions regarding the association between unfiltered coffee consumption and human health. The primary aim of this study is to briefly investigate the impact of Turkish coffee (TC) consumption on health and to determine the relationship between TC intake and anthropometric measurements at different levels. The study also explores whether TC that differs in varying degrees of roasting will affect outcomes differently.

Methods: The study was conducted with 389 participants who were 18–65 years old, living in different districts of the Turkish Republic of Northern Cyprus. A survey was carried out (between 2017 and 2018) to gather information regarding their coffee intake, demographics, physical activity level (PAL), and medical condition. Additionally, diet was assessed by a food frequency questionnaire, and anthropometric measures were collected. The amount of coffee consumption was categorized into three levels; < 1, 1–3, and ≥ 3 cups/day, and the roasting degree of coffees assigned to light, medium, and dark roast groups.

Results: Statistical analysis revealed that TC consumers were significantly older and had significantly higher body mass index (BMI), waist circumference (WC), and body fat percentage (BF %) compared to non-consumers (p < 0.05). After adjusting for age, sex, BMI, PAL, smoking, alcohol use and nutritional intake, the frequency of hypertension was found significantly higher in TC consumers than in non-consumers (p < 0.001). Those with habitual consumption of TC were significantly less likely to be in the ‘healthy’ BMI range and tend to have a higher risk of cut-off WC value (p = 0.033 and 0.045, respectively). The average daily intake of total caffeine for the highest coffee consumption (≥ 3 cups) group and for the individuals consuming dark roasted TC is significantly higher compared to other groups (p < 0.001 and 0.029, respectively). However, there were no significant differences in the reported health status of individuals according to the amount of coffee consumed or the state of roasting degree.

Conclusion: The present observations indicated an unfavorable association between the habitual consumption of TC, BMI, WC, BF % and hypertension incidents compared to non-consumers. Future research is warranted to investigate the causality and effects of specific coffee amounts and roasting degrees.

Disclosure of Interest: None declared.

P118

EATING HABITS AND PHYSICAL ACTIVITY OF THE MEDICAL STUDENTS DURING THE COVID-19 PANDEMIC

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Rationale: The number of people with deviant body mass index (BMI) has increased during the COVID-19 pandemic. Disturbed eating habits associated with decreased physical activity (PA) result from psycho-emotional deviations.

Methods: The signs of restrictive, emotional and external eating habits should be revealed; the level of students PA is to be estimated. 144 students at the age of 17 and 23 were questioned; there were 127 female and 17 male respondents showing the total gender correlation at the university. EAT-26, DEBQ, PA, IPAQ and a specialized questionnaire ODAZ2+ were used.

Results: EAT-26 is a widely used screening of eating habits disorders. A high score means high probability of anorexia, bulimia and reveals “risk groups”: 15% of all respondents corresponded to the level of bulimia and binge eating. The Dutch questionnaire DEBQ revealed restrictive, emotional and external eating habits 2.6; 2.3; 3.2 respectively. All three indicators are increased. The level of restrictive eating habit varies from 1 to 5; emotional eating habits level varies from 1 to 5; and ineffective restrictive eating habit level is from 1.6 to 5. A questionnaire of PA revealed that it depends on the level of motivation. Thus 67% of respondents try or do intense or moderate PA but not regularly; 19% are physically active; and 14% are physically inactive. IPAQ questionnaire helps reveal hypodynamia. We have estimated PA in a workplace, PA at home, PA in free time and sitting. 51% of respondents suffer from hypodynamia, 49% have no signs of hypodynamia. A specialized questionnaire ODAZ2+ has divided all the respondents into the groups according to their PA intensity. The respondents showed the following results: 0% - very low level of PA, 29.9% - low, 63.9% - moderate, 5.5% - high and 0.7% - very high. The results of BMI calculations show that 1% has deficient BMI, 18% insufficient BMI, 65% normal BMI, 13% overweight BMI, 2% obese BMI of the 1st class, and 1% obese BMI of the 2nd class.

Conclusion: Restrictive eating habits show little deviation of the coefficient from the referential meaning. It indicates that the cases of cognitive deviations are uncommon. Emotional and external eating habits have
marked deviation from the referential meaning. It shows abnormality in behavioral and emotional spheres.

Disclosure of Interest: None declared.

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THE RELATIONSHIP BETWEEN DENTAL CAVITIES, FOOD INTAKE AND BODY COMPOSITION IN SCHOOL-AGE CHILDREN

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Rationale: The aim of this study is to evaluate the relationship between dental caries, food intake and body composition in school-age children.

Methods: The study was conducted on 210 children, 105 boys and 105 girls, aged 6-12 years, without mental and/or physical disorders. Oral examinations of the children were performed by pediatric dentists. Teeth brushing and nutritional habits of children were questioned with the questionnaire and the 24-hour food records were taken to determine the food consumption of the children. Waist circumference and hip circumference measurements of children were taken by the researcher; body weight and body compositions of children were evaluated with Tanita BC-601F body analyzer.

Results: DMFT values were found to be lower in children who consumed milk, buttermilk and white cheese daily, but this differences were not statistically significant (p > 0.05). While the number of permanent decayed teeth in children who consume cheese daily was higher than children who do not consume cheese daily (p < 0.05). Body weight and waist circumference are found to be positively correlated with DMFT and negatively correlated with dmft. BMI was found to be positively correlated with DMFT; negatively correlated with dmft (p < 0.05).

Conclusion: There is a negative correlation was found between the daily total dairy consumption and DMFT index (p < 0.05). A positive correlation was found between DMFT and dmft indexes with daily total sugary food consumption (p < 0.05). In permanent dentition, a positive correlation was found between BMI and waist circumference with dental health indicators. In primary dentition, a negative correlation was found between BMI and waist circumference with dental health indicators (p < 0.05).

Disclosure of Interest: None declared.

P120

UNDERNUTRITION, OVERWEIGHT AND OBESITY AMONG ELDERLY LIVING IN COMMUNITIES IN AFRICA: A SYSTEMATIC REVIEW

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Rationale: Several studies have noted undernutrition, overweight and obesity among elderly people (1) but African data were scattered. The aim of this review was to review studies on nutritional status among elderly people living in communities in Africa, using Body Mass Index (BMI) and Mid-Upper Arm Circumference (MUAC) as tools.

Methods: Literature was extracted from Web of Science, GoogleScholar, PubMed, Research4Life, AJOL and Scopus database using MeSH-terms. Only studies addressing nutritional status among the elderly (regardless of age) in Africa, irrespective of geographical area and using BMI and MUAC were finally included. The NEWCASTLE-OTTAWA QUALITY ASSESSMENT SCALE was used to assess the quality of the articles. The 4-stage review included 43 studies. Search was performed up to 25th November 2020. Cross-sectional and prospective studies were identified, with a sample between 62 and 2091, aged ≥ 55 years. Average prevalence (undernutrition/overweight/obesity) and correlation with Human Development Index (HDI) were calculated. This systematic review was registered to PROSPERO under number CRD42021216268(2).

Results: All studies were of fairly good quality with scores (6 to 9/10). MUAC was used in two (4.7%) when BMI was used by 100% studies. Using BMI, overall undernutrition was 19.9% high in Central African Republic (33.4%) and low in South Africa (3.4%). Overweight (14.1%) was high in South Africa (27.6%) and low in Ethiopia (3.1%) when obesity (12.8%) was high in South Africa (50.4%) and low in Tanzania (0.7%). No correlation found between undernutrition and HDI (r = -0.326, p = 0.235). Overweight and obesity were respectively and positively correlated with HDI (r = 0.748, p = 0.003; r = -0.691, p = 0.004).

Conclusion: Nearly one in five people in Africa is undernourished and about 30% are overweight or obese. This should be a challenge to African authorities, especially since excess weight could be a problem in the future due to the nutritional transition. Nevertheless, there is an urgent need of complementary studies more accurate and robust.

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CHARACTERIZATION OF FOOD INTAKE IN PATIENTS WITH PSORIASIS

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Rationale: Characterization of food/nutrient intake is highly relevant in designing preventive and therapeutic strategies for people with psoriasis, however the data remains scarce, claiming for nutrition epidemiology studies to overcome this gap. Our aim was to assess daily food/nutrient intake of participants with psoriasis and to compare it with reference intake values.

Methods: Observational descriptive study, evaluating food intake of participants from the Portuguese Association for Psoriasis. Food intake was evaluated by a validated food frequency questionnaire (Lopes, 2000; Lopes et al., 2007). Food frequencies were transformed into daily amount of food and nutrients using the Portuguese food composition table and the European food portion list as reference, by a method described in literature. Data was analysed using the SPPS program, and the consumption averages of each nutrient were compared with values recommended for the adult population (Recommended Dietary Allowances – RDA; Acceptable Macronutrient Distribution Range – AMDR), and the average consumptions of specific food sources of each nutrient were studied.

Results: 102 answers were obtained. Compared to the RDA values, mean intake values were low for Retinol, Folate, Pantothenic Acid, Vitamin D, E and K, Calcium, Potassium, Biotin, Chromium, Fluorine, Iodine and Molybdenum. As for the macronutrients, Total Fat intake was slightly elevated compared to AMDR values.

Conclusion: We observed low intake of several micronutrients with important roles in psoriasis pathophysiology. We highlight the reduced intake of vitamin E, folate, retinol and vitamin D, and the increased fat intake. Our findings suggest that nutrition should be included as part of the multidisciplinary follow-up of people with psoriasis to avoid nutritional deficiencies.

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