O26 - Comunicación Oral/Oral communication

Estilos de vida: Nutrición y actividad física

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Life slyles: Nutrition and physical activity

Viernes 3 de Octubre / Friday 3, October
11:30:00 a/to 13:30:00

Moderador/Chairperson:
Jesús Vioque

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GENETIC AND COMMON ENVIRONMENTAL FACTORS IN PHYSICAL ACTIVITY IN YOUNG ADULT MALE TWINS FROM SWEDEN

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Introduction: One aim of the study was to analyse within-pair correlations for physical activity (PA) among young adult monozygotic (MZ) and dizygotic (DZ) male twins. A second aim was to test whether the equal environment assumption is valid for PA.
Methods: A nation-wide population of 213 MZ and 144 DZ male twin pairs was studied longi-tudinally with respect to PA. The mean age of the twins were 22.2 years in 1998 and 25.6 years in 2002 when information on PA was collected by questionnaires. The same questions on PA were used in 1998 and 2002. The impact of genetic and/or common environmental factors was estimated by within-pair correlations in PA.
Results: Among the MZ pairs the within-pair correlations for PA in working life were 0.51 in 1998 and 0.50 in 2002. Among the DZ pairs the corresponding correlations were 0.22 and 0.12 respectively. The correlations for PA during leisure time were 0.64 in 1998 and 0.45 in 2002 among MZ pairs. The corresponding figures were 0.31 and 0.20 for DZ twin pairs. 79% of the MZ twins were in contact with their co-twin several times per week in 2002 while only 53% of the DZ contacted each other that frequently. Higher within-pair correlations for PA were ob-served for twins who had frequent contact compared with twin pairs with less frequent contact.
Conclusions: The within-pair correlations were much stronger for MZ than for DZ twins suggesting that genetic factors may be important for PA in working life and during leisure time. However, our results indicate that the equal environment assumption may not hold.

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EATING BEHAVIOR AND BODY SIZE IN YOUNG ADULT MALE TWINS FROM SWEDEN

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Introduction: Few population-based studies have been conducted on eating behavior in male twins. The aims of the present study were (1) to study the relative importance of genes and environment in eating behavior in a unselected group of twins, and (2) investigate whether the impact of genes and environment are affected by current body size (BMI).
Methods: In 2002 666 male twin pairs aged 24-30 years from all parts of Sweden responded to a mailed questionnaire including the Three Factor Eating Questionnaire (TFEQ) with the dimensions: cognitive restraint, emotional eating, uncontrolled eating. This information as well as self-reported height and weight were obtained from 378 MZ and 288 DZ pairs.
Results: The mean of BMI was 23.68 kg/m2 (s.d. 2.9) for MZ twins and 24.02 (s.d. 3.1) for DZ twins. Among MZ twins the within-pair correlations were 0.54, 0.37 and 0.44 for cognitive restraint, emotional eating, and uncontrolled eating respectively. Among the DZ twins the corresponding correlations were 0.08, 0.09 and 0.08 (all non-significant). The size of the within-pair correlations did not differ materially between pairs of twins concordant for high and low BMI. The strength of the within-pair correlations in eating behavior did not differ between pair of twins with frequent contacts compared to pairs with less frequent contacts.
Conclusions: The much stronger within-pair correlations among the MZ twins compared with DZ twins regarding all three dimensions of the TFEQ strongly indicate that genetic factors are important for eating behavior in this population-based group of male twins. Although common environmental factors might potentially be important, our results did not indicate any violation of the equal environmental assumption.

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DIETARY CHANGE IN THE EPIC-POTSDAM STUDY

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Introduction: Measurement of dietary change in study populations is complex and challenging taking into account the differentiation between measurement error and real changes. In the EPIC-Potsdam cohort we applied two approaches in order to reflect dietary changes. One approach was a second dietary assessment 7 years after baseline and the other a single repeated question about dietary changes every two years.
Methods: In 2002 540 participants of the EPIC-Potsdam cohort received the FFQ which was already applied 1994/95. 512 participants (230 men, 282 women) returned complete questionnaires. The in-between biennial follow-up questionnaires asked whether participants' changed their diets during the previous two years (yes, partly, no). In the statistical analysis mean food intake (g/d) in 1994/95 was compared to intake in 2002 either in the total group and stratified by changers and non-changers. We used logistic regression procedures to investigate if an increase in consumption could be predicted by self-reported dietary change.
Results: After 7 years we observed increased consumption of whole grain bread on the expense of other bread. Both men and women drank more water, juices (women), herbal and fruit tea, and decreased their consumption of coffee and black tea. Furthermore the use of fat spreads decreased. Participants ate more fish and women on the contrary to men consumed less meat and processed meat. Food consumption of participants reporting a change in diet (50% of men and 75% of women) differed more often in contrast to those not reporting any change. However, most of the overall trends could still be found in the group that did not report any change. The logistic regression revealed that self-reported change in diet predicted an increased consumption of 1 portion per day of fruits (Odds Ratio (OR) 2.01, 95% Confidence Limit (CL) 1.14; 3.56), vegetables (OR 2.24, 95%CL 1.09; 4.57), water (OR 1.48, 95%CL 1.02; 2.15) and 1 portion per week of meat (OR 0.50, 95%CL 0.28; 0.88). Multivariate adjustment for age, sex, change in smoking and occupation, education and incident diseases did change OR only marginally.
Conclusions: Taking the FFQ data we observed an overall trend in food consumption towards avoiding fat and foods rich in fat and preferring foods high in fibre and caffeine-free drinks. This trend also existed disregarding self-reported dietary change. The question about dietary change did not discriminate between changers and non-changers taking the overall trend. However, this question about changes seems to work for specific individual changes, e.g. fruit and vegetables.

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FOOD INTAKE AND SMOKING STATUS IN PARTICIPANTS OF THE THIRD PORTUGUESE NATIONAL HEALTH SURVEY

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Introduction: Unhealthy life style choices tend to cluster but controversy remains regarding the relation between smoking and dietary habits. Also, the association between smoking and diet could be culturally determined or dependent on the phase of tobacco epidemics. The aim of this study was to compare dietary intake according to smoking status in a representative sample of the Portuguese general population.

Methods: The study sample included all subjects (20302 women and 17923 men) older than 19 years who reported their smoking status and dietary intake when participating in the Portuguese third National Health Survey (Ministry of Health, National Institute of Health - Dr. Ricardo Jorge) carried out in 1998-1999. Participants were selected from 21808 households distributed according to the five regions of Portugal (NUTS II), using a multi-stage random probability design. Trained interviewers inquired participants on social and demographic characteristics, smoking status, presence of chronic diseases and handicaps, and food and beverages intake. Participants were classified as non-smokers (never, ex-smokers and smoking less than one cigarette per day) and smokers, grouped in five categories of cigarettes smoked per day. The consumption of soup, meat, fish, vegetables, fruit, bread and other starchy foods (pasta, rice and potatoes) during the day before interview was collected and recorded as a yes or no answer. Separate logistic regression models were fitted for male and female to estimate the magnitude of the association between food groups and smoking.

Results: After adjusting for age and education the odds favouring soup consumption was 0.61 (0.54-0.68) in males and 0.51 (0.38-070) in females for those smoking more then 20 cigarettes/day compared to non-smokers. Similar odds ratios were observed for vegetables, fruit and bread. Overall, there were significant decreases in the consumption of these food items with increasing number of smoked cigarettes. No such significant association was observed for every other analysed food groups (fish, meat and starchy foods).

Conclusions: This study showed that smokers tend to have significantly lower consumptions of food items rich in fibre, antioxidants or phytochemicals with a suspected beneficial role on the prevention of multiple chronic diseases.

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RISK FACTORS FOR ACUTE MYOCARDIAL INFARTION IN YOUNG ADULT MALES

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Background: The pathogenesis and triggering factors for acute myocardial infarction (MI) in young adult male remain essentially unknown. Most epidemiological studies on coronary heart disease concentrated on middle aged or older people, but the importance of evaluating the variation of risk factors among young adults is an emerging issue. We designed a community based case-control study to identify risk factors for AMI in young adult males.

Methods: We evaluated 179 incident cases of AMI and 180 community controls, aged less than 45 years and living in Porto. Population controls were selected by random digit dialling (participation rate of 70%), without evidence of myocardial infarction (MI) as assessed by the Rose questionnaire and electrocardiography. Trained interviewers collected data using a structured questionnaire, comprising information on demographic, social, psychosocial and behavioural aspects, namely diet and physical activity. Information on diet was obtained using a semi-quantitative food frequency questionnaire previously validated for the Portuguese population. Also, an anthropometrical evaluation was performed, the waist circumference (>102 cm) being used as indirect measure of abdominal fat. Unconditional logistic regression was used to estimate the independent effect of measured exposures.

Results: Age, education, family history of MI, angina, diabetes, hypertension, dyslipidemia, use of vitamin or mineral supplements, smoking, physical inactivity, abdominal fat, alcohol and energy intake were significantly associated with the occurrence of MI. After mutually adjusting for all significant factors, education (<4 vs. >12 years, OR=0.09; 95% CI 0.04-0.22), family history of MI (OR=2.42; 95% CI 1.17-4.98), tobacco smoking (OR=4.13; 95% CI 2.07-8.21), abdominal fat (OR=2.82; 95% CI 1.24-6.38) and vitamin or mineral supplements (OR=0.40; 95% CI 0.16-1.01) remained independent risk factors. Also an independent effect was found for vitamin E intake, the ORs according to increasing quartiles of intake were 0.47 (0.21-1.05), 0.18 (0.07-0.46), and 0.21 (0.08-0.56) (p for trend<0.001).

Conclusions: These data support the hypothesis that low education, family history of MI, smoking and central obesity are independent risk factors for AMI in young adult males. Also, an important independent protective effect of vitamin E was observed. This set of factors is similar to those present in older adults making plausible the same preventive orientations.

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CANCER, NUTRITION AND FITNESS COVERAGE IN GENERAL AND HEALTH RELATED PORTUGUESE MAGAZINES

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Introduction: Lay public use general and health oriented magazines as sources of health-related information, including life style choices about cancer prevention, nutrition and fitness. It is thus important to know how these subjects are reported, what type of information is presented and if there are differences according to the scope of the magazine.

Methods: The highest-ranked 2001 four Portuguese monthly general magazines and three widely circulated monthly health magazines were analysed for their coverage of cancer, nutrition and fitness. For all articles information was collected about length, season of publication ear, source of information (physician, scientific journal, other or not identified) and whether there was a call on the cover. e were recorded. Data were collected about types and frequency of coverage of cancer, nutrition (items pertaining to food or nutrients, including dieting) and fitness-related (physical activity or exercise) messages. Advertisements and recipes were excluded.

Results: In general magazines, 9,9% of the 313 health-related articles were devoted to cancer, 30,4% to nutrition and 7,3% to fitness and the 708 articles in health magazines comprised, 6,6%, 20,6% and 12,2% articles on the same subjects, respectively. All magazines reported on breast cancer more often than any other, colon and lung cancers receiving little coverage. In general magazines, prostate cancer also received very little coverage. Cancer-related topics discussed were mainly epidemiology (55%) and primary prevention (60%). A physician was more often reported as the source of information in health magazines (31,9% vs. 19,4%) but most cancer-related articles published identified no source of information (40,4%). Regardless the type of magazine, nutrition and fitness-related articles were published essentially during the summer or spring, and 20% information was devoted to dieting. Although most data on dieting described health and well being as a reason for losing weight, 29% of the dieting-related messages in health magazines and 11,8% in general magazines indicated becoming more attractive as the only reason to loose weight. In both types of magazines, 80% of the articles with statements about dieting emphasized the importance of activity as part of a weight loss program. General magazines wrote more often about nutrition-related diseases (56,9 vs. 66,3%) and fitness-related diseases (60,8% vs. 32,6%), whereas health magazines focus mainly on specific sport or exercise plans. Becoming attractive was the most common reason cited for following fitness or exercise plans.

Conclusion: In this quantitative analysis, we found no differences according to the magazine scopes (general subjects or health oriented) concerning cancer, nutrition and fitness coverage, with cancer concerns focusing mainly breast cancer and neglecting two very important locations, colon and lung, even for the supposed mainly female audience of the magazines.