

Objective to investigate the association between body mass index (BMI) and fruit juice intake in Brazilian adults.

Method The Telephone Survey System for the Surveillance of Risk and Protective Factors for Chronic Non-Communicable Diseases (VIGITEL) is conducted every year since 2006. In 2008 was added a question regarding fruit juice intake. We analysed 2008 and 2009 data including 89,841 adults (20–65 years) from 27 Brazilian cities investigated. Weighted regression analyses included sex, age (years), schooling (years), level of physical activity (active/inactive) as independent variables, and BMI (kg/m^2) as the dependent variable. Eating habits were evaluated based on the daily frequency of intake of fruit juices, fruits, vegetables and sugar-sweetened soft drinks.

Results Fifty-three percent of the participants were female, mean age was 37.2 years, mean BMI was 25 kg/m^2 , and 19% reported a daily intake of fruit juice. BMI was negatively and significantly associated with fruit juice intake ($\beta = -0.29$; p -value < 0.0001 for women; $\beta = -0.23$; p -value $= 0.0004$ for men). There is a small negative association of fruit juice intake with soft drinks consumption and inactivity. After adjustment for sex, age, schooling, level of physical activity, intake of fruits, vegetables and soft drinks this association remained statistically significant ($\beta = -0.10$; p -value $= 0.03$).

Conclusion Among Brazilian adults fruit juice intake may be a marker of healthier eating habits.

P2-60 FREQUENCY OF OUT-OF-HOME EATING AND DIETARY HABITS IN THE BRAZILIAN TELEPHONE-BASED SURVEILLANCE SYSTEM

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Introduction The proportion of food purchased for out-of-home eating in Brazil has been increasing.

Objective To evaluate dietary habits associated with out-of-home eating among Brazilian adults.

Methods We analysed data of 135 249 adults (20–65 y), living in 27 Brazilian cities, from the 2007, 2008 and 2009 Telephone Survey System for the Surveillance of Risk and Protective Factors for Chronic Non-Communicable Diseases (VIGITEL). Frequency of out-of-home eating was based on the reported frequency of consuming lunch and dinner away from home per week. Dietary habits were based on the reported consumption of visible fat in meat and chicken and the daily consumption of soft drink, fruit and milk. Frequencies were weighted and analysis incorporated the complex design of the survey.

Results Men reported eating out more frequently than women (52.2% vs 39.4% for at least once per week). Consumption of visible fat and soft drink increased with the frequency of out-of-home eating ($p < 0.008$), whereas daily fruit and milk consumption decreased ($p < 0.01$). After controlling for age and years of schooling, the OR of consuming fruit and milk decreased with the frequency of out-of-home eating (OR = 0.76 (95% CI 0.68 to 0.86), OR = 0.79 (95% CI 0.70 to 0.90) among men and OR = 0.69 (95% CI 0.62 to 0.76), OR = 0.76 (95% CI 0.69 to 0.84) among women, respectively, comparing 5 or more times/week with no out-of-home eating).

Conclusion Frequency of out-of-home eating was positively associated to negative markers of dietary habits and negatively associated to healthy markers of dietary habits among Brazilian adults. Due to the increasing out-of-home eating, public health strategies should be developed.

P2-61 CHILDHOOD OBESITY AND PARENTAL SMOKING AS RISK FACTORS FOR CHILDHOOD ADHD IN LIVERPOOL CHILDREN

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Introduction ADHD prevalence has risen in parallel with rising prevalence of pregnancy smoking and childhood obesity. The objective was to determine the epidemiological association of pregnancy smoking and childhood obesity with ADHD.

Methods A cross-sectional community study was conducted in 2006 using a parental questionnaire. A total of 1074 schoolchildren aged 5–11 years were enrolled from 15 primary schools in a lower socio-economic area of Merseyside. ADHD was defined by the question “does your child have Attention Deficit Hyperactivity Disorder, (ADHD), which has been diagnosed by a doctor?”

Results The prevalence estimates for childhood obesity, maternal smoking during pregnancy and childhood ADHD were 14.9% (116/777), 28.0% (269/955), and 3.4% (32/945), respectively. ADHD prevalence was increased in children with obesity (RR 4.80, 95% CI 2.2 to 10.4, $p < 0.001$) and in children of mothers who smoked during pregnancy (RR 2.44, 95% CI 1.2 to 4.9, $p = 0.02$). Regression analysis adjusting for obesity, overweight, maternal smoking during pregnancy, heavy maternal smoking, household member smoking during pregnancy, doctor-diagnosed asthma, preterm birth, and low birth-weight showed significant independent associations of ADHD prevalence with obesity (AOR 4.66, 95% CI 1.57 to 13.89, $p = 0.006$) and pregnancy smoking (AOR 3.19, 95% CI 1.08 to 9.49, $p = 0.04$). There was a positive dose-response association of ADHD with the number of maternal cigarettes smoked during pregnancy.

Conclusion Measures to reduce both smoking among pregnant women and childhood obesity might reduce prevalence of childhood ADHD.

P2-62 EARLY DETECTION OF COLORECTAL CANCER IN THE US IN APPALACHIA

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Colorectal cancer is currently the 3rd leading cause of cancer death worldwide. For rural, medically underserved populations in the US, and particularly in Appalachia, the burden of this disease is even greater. Elevated colorectal cancer rates in rural populations represents a missed opportunity for early detection through screening. Low screening rates are particularly concerning for Appalachia because of poverty and limited access to healthcare. To address this problem, a 5-year study to increase screening through outreach to rural primary care providers was conducted from 2005 to 2010. Practices were randomised to early or delayed intervention groups and an intervention was provided in personal visits at the practices. The intervention was designed to assist practices in identifying opportunities to increase screening by providing education regarding screening efficacy, clinical performance measures, patient counseling, and creating a screening-friendly practice environment. Evaluation data were collected through medical record reviews before and after intervention delivery. Baseline data for both study groups indicated that healthcare providers had completed screening by any method in 36.7% of the 3906 patient records patient records reviewed. There was no significant difference in screening rates between the early or delayed group practices at baseline. At follow-up, screening rates remained low overall, 37.9%. However, for practices that received the intervention, analyses of follow-up data

showed a statistically significance difference in screening rates ($p < 0.05$). These results suggest that outreach to rural primary care practices can be effective in increasing screening for colorectal cancer.

P2-63 HOW SOCIO-CULTURAL AND RELIGIOUS BELIEFS INFLUENCE ATTITUDES OF IRANIAN RECIPIENT COUPLES TOWARDS ASSISTED REPRODUCTIVE DONATION PROCEDURES

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Introduction The revolutionary advance in the field of reproductive technologies has created controversial sociological, cultural, religious, moral and legal issues. Considering the potential impact of these complex issues on the practice of reproductive technologies, this study aimed to investigate how socio-cultural and religious beliefs influence attitudes of recipient couples towards assisted reproductive donation procedures in an Iranian population.

Methods This correlational study was carried out on 60 male and female with primary infertility who referred to the Montaserieh Infertility Research Center in Mashhad and used donated egg, embryo or uterus and were selected using convenience sampling. Socio-cultural and religious beliefs, attitudes and knowledge of infertile couples towards donation procedures were measured using valid and reliable self structured questionnaires. Data were analysed using T test, one way ANOVA and Pearson' correlation coefficient.

Results There was a direct correlation between socio-cultural ($p < 0.001$) and religious beliefs ($p < 0.001$) of recipients with their attitudes towards donation procedures, that is, people with more positive socio-cultural and religious beliefs had higher degree of acceptance towards donation procedures. A direct correlation also was found between socio-cultural beliefs and couples' knowledge ($p < 0.001$) and also their place of residence ($p < 0.001$). An indirect correlation was found between socio-cultural beliefs and infertility length ($p < 0.017$) and the duration of treatment ($p < 0.009$).

Conclusion Promotion of social-cultural and religious beliefs at the community level may endorse positive attitudes in infertile couples which could provide appropriate bases for the decision made by infertile couples in an environment free from tension and fear of the wrong beliefs.

P2-64 ABSOLUTE RISK CHARTS FOR DEATH WITHIN 10 YEARS FOR AUSTRALIAN IN THEIR 70'S BY BEHAVIOURAL RISK FACTORS

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Introduction Demographic changes and increasing life expectancy in developed countries mean that ever increasing numbers of people

will live into their 70s. These individuals, their families and healthcare providers, and healthcare policy makers will be seeking valid, yet simple, information that helps them predict their long-term mortality and how their risk may be reduced. Increasing age and health-related behaviours, such as smoking and physical activity, are major modifiable determinants of long-term mortality. We aimed to develop a valid, user-friendly colour-coded chart of absolute risk of death for elderly men and women in Australia.

Methods Data were from people aged 71–79 participating in the Australian Longitudinal Study on Women's Health (national sample, $n = 7438$) and the Health in Men Study (Perth, Western Australia, $n = 6053$). Logistic regression models were fitted for each sex separately with age, level of physical activity, body mass index and smoking as explanatory variables. The expected proportion of deaths within 10 years for each combination of explanatory variables was estimated.

Results The risks of death were high, all exceeding 10% for women and 20% for men. Risks were substantially higher for men than women. For both sexes risk was highest in the oldest age group among smokers who reported little or no physical activity.

Conclusions The risk charts we have developed provide a tool for clinicians to explain to their patients the risks (and benefits) of health related behaviours for older people in the context of the substantial effects of age and sex.

P2-65 IMPACT OF ACCULTURATION ON CORONARY ARTERY DISEASE IN THE SOUTH ASIAN IMMIGRANTS- UNIQUE POPULATION WITH INCREASED RISK

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Although differences in coronary artery disease (CAD) risk factors between immigrants and non-immigrants have been examined previously, the effect of acculturation on CAD risk factors in immigrants has not been fully studied less well studied. The aim of this study is to measure the level of acculturation and its association with CAD and other factors, including Type 2 Diabetes (T2D) in South Asian immigrants.

Methods Using an epidemiologic cross-sectional study design, 161 South Asian immigrants between the ages of 35–65 years were randomly recruited from the US States. CAD markers and common carotid artery intima media thickness (CCA-IMT) were assessed. Scaled (The Suinn-Lew Asian Self-Identity Acculturation scale-SL-ASIA Scale) and non-scaled (≥ 10 years stay in the US) methods were used to measure the acculturation status.

Results Of the total sample, 67.7% were identified to have high acculturation. On the logistic regression model, ≥ 10 years stay in the US ($p = 0.0068$), cholesterol level ≥ 200 mg/dl ($p = 0.0002$), BMI ≥ 23 ($p = 0.0044$) and family history of CAD ($p = 0.0078$) were found to be independent predictors of CAD. Similar results were seen with T2D as an outcome. Those with high CAD had 2.11 (CI 1.32 to 6.68) odds of having total cholesterol ≥ 200 mg/dl compared to those without CAD.

Conclusions Acculturation plays a major role in predisposing immigrant population to CAD. There is need for developing tools that consider acculturation as a predictor for CAD. Further studies that test tailored strategies to improve lifestyle behaviours across diverse racial/ethnic groups of immigrants are needed.