

SP1-60 COMMUNITY VIOLENCE AND THE PREVALENCE OF ASTHMA IN THE PERIPHERAL AREAS OF SALVADOR

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Introduction Asthma and violence are two complex, multi-factorial phenomena strongly present in Latin America and Brazil. Studies about asthma demonstrate that there are a number of risk factors for the development of the disease; among these are: poverty, diet and psycho-social factors. Violence, in particular community violence, is a significant psycho-social factor.

Objective To identify the degree of community violence reported by carers of children between 4 and 12 years old and the influence of this exposure on the occurrence of asthma symptoms in childhood.

Methods A transversal study was undertaken with 1232 carers resident in 24 areas of the city of Salvador. We investigated asthma symptoms in children and acts of violence in the community.

Results More than 75% of carers had been victims of community violence over the last year, with 20% indicating high degrees of co-existence with this phenomenon. Children exposed to the maximum degree of violence presented greater prevalence of asthma symptoms, peaking at 28.4%, compared to 16.4% in non-exposed children. Children whose carers are exposed to the maximum degree of violence were almost twice as likely to present with these symptoms (OR_{ajs}* 1.94 95% CI 1.12 to 3.36).

Conclusion Exposure to community violence demonstrated a strong association with increase in the prevalence of asthma symptoms, highlighting the importance of this psychosocial risk factor in the manifestation of this disease.

SP1-61 EPIDEMIOLOGICAL TREND IN TUBERCULOSIS (TB) IN ROMANIA BETWEEN 1990 AND 2008

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Background The epidemiology of tuberculosis (TB) in Romania highlights the need for early detection and directly observed therapy. This study analysed the evolution of the TB epidemic in Romania from 1990 to 2008 in order to evaluate the TB control strategy.

Methods A retrospective study describing the evolution of the main epidemiological indicators for TB in Romania, 1990–2008 was carried out. Incident TB cases were obtained from “Marius Nasta” Institute of Pulmonology from Bucharest, Ministry of Public Health Report 2008. Comparative European data were obtained from the European Health for All Database (HFA-DB) 2010 and WHO TB Report 2010.

Results The overall incidence of TB in Romania steadily declined from 142.2 per 100 000 in 2002 to 107.8 per 100 000 in 2008 at which time it was almost eight times higher than EU average (14.1 per 100 000); the fourth highest national incidence of TB in the WHO Europe Region. Of the 21 724 registered TB cases (incident and relapses) in 2008, 61% were smear-positive; of these 9511 were incident cases. The incidence in the paediatric population was 12.7 per 100 000 in 1990, peaking at 42 per 100 000 in 2000 before falling to 28.7 per 100 000 in 2008. Mortality from TB has progressively fallen from 12 per 100 000 in 1990 to 7.2 per 100 000 in 2008. In total 2.8% of all incident and 11% of all re-treatment cases in Romania were MDR TB cases in 2007, compared to 10% and 43% respectively in Europe. In 2008, 816 MDR TB cases were registered; 130 incident and 686 re-treatment cases.

Conclusions A reduction in the incidence of and mortality from TB since 2002 confirms the effectiveness of measures to control TB.

SP1-62 ROSE ANGINA VS SILENT ISCHAEMIA IN PREDICTION OF CORONARY HEART DISEASE: TEHRAN LIPID AND GLUCOSE STUDY

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Introduction Coronary heart disease (CHD) is one of the most common causes of morbidity and mortality in Iran. The aim of this cohort study is evaluating the ability of Rose questionnaire (WHO angina questionnaire) and ECG to predict 10-year CHD events in a population with high prevalence of CHD.

Methods Study population included 5652 subjects ≥ 30 years (3244 females), free of self reported CHD at the baseline. Subjects were categorised to four groups according to their Rose Angina and ECG status (Whitehall criteria, Minnesota codes of 1.1, 1.2, 1.3, 1.4–4.4, 5.1–5.3, 7.1 in ECG) at the baseline as Rose–/ECG–, Rose +/ECG–, Rose–/ECG+, Rose+/ECG+. RR of CHD were estimated using Cox proportional hazard model given Rose–/ECG– as the reference.

Results 387 CHD events (169 women) were observed. After age adjustment, RR was 2.66 (95% CI 1.76 to 4.01) and 2.50 (1.65 to 3.81) for Rose+/ECG– group in men and women respectively. These figures for Rose–/ECG+ were 1.63 (1.09 to 2.45) and 2.21 (1.48 to 3.29). After more adjustment for traditional risk factors, RR was 2.60 (1.72 to 3.93) and 2.28 (1.50 to 3.47) for Rose+/ECG– in men and women respectively. Regarding Rose–/ECG+ group, the multivariate RR was 1.38 (0.92 to 2.08) and 2.04 (1.37 to 3.05) for men and women, respectively.

Conclusions Rose questionnaire is a powerful and independent predictor of CHD events in Iranian men and women. Although, ECG add more information beyond the other risk factors to predict CHD in women but in men Rose questionnaire is a better predictor than ECG.

SP1-63 EVALUATION OF EARLY BODY SHAPE FOR EPIDEMIOLOGICAL RESEARCH IN ABSENCE OF OBJECTIVE MEASUREMENTS

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Introduction Developing countries are undergoing epidemiological transitions with increasing prevalence of non-communicable diseases (NCD). The role of early life exposure in the aetiology of many NCD's particularly the role of body shape and size for given age is increasingly appreciated. However, many environments in resource-limited settings lack early life records of birth and growth so it is not possible to correlate early life characteristics with risk of disease in these populations. Our study evaluated the use of body images as an estimator of body size and characteristics.

Method 1058 workers at a government office in Nigeria were enrolled in a study of body size, dietary energy intake, physical activity and anthropometric characteristics.

Results The mean age (SD) of participants was 41.5 (9.3) years and mean BMI (SD) was 27.0 (4.9), mean waist (SD) =75.4 (26.8) cm, mean hip circumference (SD) =86.7 (33.1) cm, mean waist hip ratio (WHR) =0.88 (0.10) and mean weight (SD) =74.6 (14.2) kg. There was strong correlation between the interviewee perception of their current body type and that of the interviewer ($r=0.73$, $p<0.001$). Compared with anthropometric characteristics, the body images correlated most strongly with BMI ($r=0.56$, $p<0.001$) but less so with waist circumference ($r=0.33$), hip circumference ($r=0.33$), WHR ($r=0.15$).

Conclusions Our results suggest that participants perception of body image correlate well with BMI and can be used in epidemiological studies where availability of objective measures are limited.

SP1-64 A COHORT STUDY ABOUT THE ASSOCIATION BETWEEN METABOLIC SYNDROME AND FTO GENETIC POLYMORPHISM IN A JAPANESE WORKER POPULATION

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Introduction The association between the fat-mass and obesity-associated (FTO) genetic polymorphism and the metabolic syndrome (MS) has been suggested by genome-wide association study. We reviewed it using a retrospective cohort study to determine the association between FTO genetic polymorphism and MS in a Japanese worker population.

Methods In the employees of a certain business institution of Shimane Prefecture, subjects were persons who were without MS at a health examination of 1998 and continued the health examination from 1998 to 2006. We identified three SNPs of the FTO gene of each subject as rs9939609, rs1121980 and rs1558902. For the diagnostic criteria of the MS, we adopted National Cholesterol Education Program-Adult Treatment Panel III (NCEP- ATP III) proposed in 2001. However, we used Body Mass Index 25.0 or more as obese criteria in substitution for abdominal circumference. The number of the subjects was 859 people. The mean observation period was 7.1 years.

Results The HR of TA+AA for TT of FTO genetic polymorphism rs9939609 for the MS incidence adjusted in sex, age, a lifestyle (alcohol consumption, smoking, exercise, satisfaction of the sleep, a diet balance) was 1.48 (95% CI 1.08 to 2.02); the HR of GA+AA for GG of rs1121980: 1.60 (95% CI 1.18 to 2.19); the HR of TA+AA for TT of rs1558902: 1.41 (95% CI 1.04 to 1.92).

Conclusion These results suggested that FTO genetic polymorphism may associate the MS incidence by NCEP-ATP III criteria in the Japanese worker population.

SP1-65 PREVALENCE AND INCIDENCE OF CHRONIC CONDITIONS IN AN AUSTRALIAN POPULATION BASED COHORT STUDY: 2000 TO 2010

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Introduction The North West Adelaide Health Study is a representative population cohort study of approximately 4000 adults

aged 18 years and over in the northern and western regions of Adelaide. Cohort assessment has been conducted over a 10-year period to provide baseline and ongoing information about chronic disease and health-related risk factor status from self-reported and biomedically measured data. The study identifies those across the chronic disease continuum from those without disease, those at risk, undiagnosed and diagnosed.

Methods The initial sample was randomly selected and over 4050 participants attended a clinic assessment in Stage 1. The number of participants undertaking a clinic assessment in Stage 2 was n=3200 and in Stage 3 approximately n=2500. Data have been collected using Computer Assisted Telephone Interview (CATTI) surveys, self-completed questionnaires and biomedical measurements and include musculoskeletal and respiratory conditions and diabetes and related risk factors.

Results An overview of the study's findings from 2000 to 2010 will be presented, highlighting initial disease prevalence, incidence and characteristics of at-risk populations. This information provides epidemiological evidence relating to relevant conditions and risk factors which can be used in the development of prevention and treatment programs.

Conclusion Chronic diseases play an important role in today's society in terms of costs and impact on the population, both for those with the disease and for the wider community. It is important that these conditions are prevented if possible and managed effectively in order to reduce societal burden.

SP1-66 CHRONIC DISEASE IN SPECIFIC POPULATIONS: AN EPIDEMIOLOGICAL ANALYSIS

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Introduction The rising prevalence of chronic diseases in Australia is a significant challenge to both healthcare systems and the population. While it is the older population that is, the primary focus of chronic disease prevention programs, other population groups are also significantly affected by these conditions and present a challenge to governments and healthcare professionals alike. Factors that influence the development of chronic disease have been comprehensively studied in the older population but other groups have received less focus.

Methods The North West Adelaide Health Study is a cohort study being conducted in the northwest suburbs of Adelaide, Australia. The initial sample was randomly selected and over 4050 participants attended a clinic assessment in Stage 1. Participants undertaking a clinic assessment in Stage 2 was n=3200 and Stage 3 approximately n=2500. Data have been collected using Computer Assisted Telephone Interview (CATI) surveys, self-completed questionnaires and biomedical measurements. The chronic conditions examined include asthma, diabetes, cardiovascular disease, chronic obstructive pulmonary disease and osteoporosis.

Results Univariate and multivariate analyses of specific population subgroups such as young people, carers and non-English speaking background demonstrate various associations between the presence of a chronic condition, socioeconomic factors and health service use as well as risk factors such as smoking status, depression and quality of life.

Conclusions Improvements in chronic disease management is becoming a greater imperative in today's society. Targeting of prevention and treatment can occur based on epidemiological analyses. Chronic disease does not discriminate and requires a societal wide perspective.