

1970. Mortality inequalities continue to exist between population sub-groups.

Methods Ecological study using data about mortality of the Improvement Program of Information on Mortality of São Paulo and population estimates by demographic census (IBGE–2000). Areas were drawn from the Social Inclusion Map for the City. The outline was based on territorial classification of the 96 administrative districts in five areas, according to the index of social districts: Areas 1 and 2 (inclusion) and 3, 4, 5 areas (exclusion). We examined cardiovascular mortality rates calculated for 3-year averages age-standardised, relative to differences and rates ratio between areas (CI of 95%).

Results Cardiovascular mortality declined in all areas and both male and female sexes in these periods. It was observed major decline (30%) between 1996–1998 and 2003–2005 in rich areas and it was smaller in poor areas (5%). The highest differential was among male, with rate ratio (A5/A1) that it changed from 1.02 (95% CI 0.99 to 1.05) in first period for 1.38 in the last period (95% CI 1.34 to 1.42). In the women this ratio changed from 0.79 (95% CI 0.77 to 0.81) for 1.07 (95% CI 1.03 to 1.09).

Conclusion Although overall decline in cardiovascular mortality in all socioeconomic status, it was observed increasing of the inequality in reduction of this death rates, which may reflect worsening living conditions or less access to the health services and to the development diagnostic and therapeutic methods.

SP1-100 SURVIVAL ANALYSIS AND RISK FACTORS FOR VALVE SURGERY IN BRAZILIAN CHILDREN AND ADOLESCENTS WITH RHEUMATIC HEART DISEASE

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Introduction Rheumatic heart disease (RHD) is still prevalent in developing countries, with 332.000 annual deaths estimated worldwide. In Brazil, RHD remains a major problem, responsible for high mortality/morbidity and great social impact, with many patients requiring surgical intervention during childhood. Our aim was to investigate the time and risk factors leading to valve surgery in children and adolescents with RHD in a tertiary center in Rio de Janeiro.

Methods Data were reviewed on 137 patients followed-up between 1988 and 2007. RHD diagnosis was assigned with revised Jones criteria and/or Doppler-echocardiography indicating chronic mitral/aortic lesions. Kaplan–Meier method was used to determine time until surgery and Cox model to evaluate potential risk factors: age; gender; clinical status (acute; recurrence; chronic heart disease); recurrence rate; secondary prophylactic status and endocarditis.

Results The studied population was 52.5% female, median age 11.2 years. Median follow-up time 7.3 years. The proportions were 33.5% for non-adherence to prophylaxis, 31.4% for recurrence rate, 8.8% for endocarditis where most underwent surgery (83.3%). Surgical rate (41%) was different between male (53.8%) and female (29.2%). Survival curves showed most events on the first 2 years and none after 10 years. Cox analysis confirmed the male gender and endocarditis as significant factors.

Conclusion Brazilian RHD children and adolescents committed with endocarditis suffered more risk of having valve surgery. Although most patients underwent surgery in first 2 years, long-term surveillance of this population is necessary because of possible reintervention. Survival analysis for repetitive events should be applied to the evaluation of recurrent episodes and reoperation.

SP1-101 A MODEL OF INTERNATIONAL MULTI-SITE COLLABORATION FOR CHRONIC DISEASE RESEARCH IN DEVELOPING COUNTRIES

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The impact of chronic diseases continues escalating among populations in developing countries. In an effort to combat chronic cardiovascular and lung diseases globally, NHLBI and the United Health Chronic Disease Initiative support local research and training capacity building programs for a network of 11 collaborating Centers of Excellence (COEs) in low- and middle-income countries. Each COE plans to implement 1–4 projects; 20 projects are research-related [four focus on pulmonary diseases, eg, chronic obstructive pulmonary disease (COPD), and 19 focus on cardiovascular diseases (CVD), eg, hypotension and stroke] and others provide training, community outreach service, and institutional capability building opportunities. Six projects are conducted in multiple countries, involving 21 developing countries. Studies typically target adults, though two studies target children and adolescents. Projects adhere to the following study designs: qualitative assessment and focus group discussion, case-control, cross-sectional, prospective cohort, quasi-intervention, randomised clinical trial, and simulation. COEs primarily collect data on socio-demographics; anthropometry and blood pressure; lifestyle such as smoking, alcohol use, and physical activities; medical history and medication use; and nutrition. For other studies, COEs collect data on mental health, quality of life, health service utilisation, female reproductive history, spirometry, and biomarkers of CVD and pulmonary diseases. Collecting similar types of data may allow cross-study and cross-national data analysis. Each developing country is paired with at least one academic partner from a developed country to enhance sustainable research and training activities to tackle the complex challenges of the CVD and pulmonary non-communicable chronic disease burden.

SP1-102 ORAL STATUS AND ITS ASSOCIATION WITH UNDERWEIGHT AND OVERWEIGHT/OBESITY IN BRAZILIAN INDEPENDENT-LIVING OLDER PEOPLE

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Introduction Evidence suggests that tooth loss may lead to changes in food choice due to eating difficulties. The relationship between use of dental prosthesis and changes in body mass index among elderly is still unclear. This study aimed at assessing the association between oral rehabilitation, self-perceived chewing ability and nutritional status in Brazilian elderly.

Methods This study is part of a major project—the FIBRA study—carried out in Campinas, Brazil. The sample of this cross-sectional study was composed by 900 independent-living older people. Complete data were available for 545 persons. Dental prosthesis was assessed in accordance with the WHO criteria. Height and weight were used to generate body mass index (BMI) data. The data regarding dental prosthesis use and self-perceived limitation in the type or amount of food intake due to problems with prostheses or their lack generated a new variable, oral status. Participants were categorised into eutrophic, underweight or

overweight/obesity. Multinomial logistic regression was used to model the relationship between oral status with underweight and overweight/obesity.

Results The mean age was 72.7 years and the prevalence of overweight/obesity was 41.4%. Oral status wasn't associated with underweight. Participants who reported using prostheses in both arches with self-perceived limitation in the type or amount of food intake and subjects that rated their oral health as good were less likely to be overweight/obese.

Conclusions Our findings suggest that dental prosthesis use with self-perceived limitation in food intake is associated with overweight/obesity but not with underweight.

SP1-103 THE SOCIAL EXPERIENCES OF INFERTILITY IN A RELIGIOUS AND SPIRITUAL CONTEXT: A SOCIO-EPIDEMIOLOGICAL PERSPECTIVE

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Introduction Existing research has predominantly focused on medical, psychological, social and cultural aspects of infertility, while religious and spiritual dimensions have received little attention. This study using a socio-epidemiological perspective designed a qualitative study to explore how religion/spirituality affect social consequences of infertility.

Method The design was a grounded theory study including semi structured in-depth interviews with 30 infertile women affiliated to different denominations of Christianity (Protestantism, Catholicism, Orthodoxy) and Islam (Shiite and Sunni). Data were collected in one Iranian and two UK fertility clinics through theoretical sampling and analysed using grounded theory (Strauss & Corbin, 2008).

Results Emerging categories included: perceived motherhood, relationship adjustment and social functioning. Religious participants viewed motherhood as a highly recommended religious value, something sacred, God's gift, respectful honour and social fulfilment. They perceived infertility as God's will, God's test, being chosen by God and an enriching experience for spiritual growth. These kinds of beliefs helped them to perceive their marital life as something granted by God which could be accepted peacefully and its outcome would be family commitment and cohesion. Their religious views on socialisation as a religious value motivated them to search reassurance through the love and care of congregation members as well as offering support to others to gain intimacy and as a consequence being liberated from social isolation caused by infertility.

Conclusion It seems that religious beliefs are influential for religious/spiritual infertile women to handle the social implications of infertility.

SP1-104 CANCER MORTALITY TRENDS IN BRAZILIAN CAPITALS AND INLAND COUNTIES BETWEEN 1980 AND 2006

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Objective To analyse the trends in mortality for the overall and major types of cancer, by sex, in Brazil and major regions for State Capitals and inland counties between 1980 and 2006.

Methods Data were obtained from System of Mortality Information and from Brazilian Institute of Geography & Statistics. Magnitude of death rates from overall and major types cancers were corrected adding proportional distribution of 50% of ill-defined causes of death, and standardised by age group according to Standard World Population. Trend curves for Brazil and its major regions, for State Capitals and inland counties, by sex, and were evaluated by simple linear regression.

Results Among men ascending mortality rates were observed for lung, prostate and colorectal cancers. Declining trends were seen for stomach cancer and oesophagus cancer remains stable. Among women, mortality rates for breast, lung and colorectal cancer increased, and cervical and stomach cancer declined markedly. Mortality trends varied among Brazilian major regions and exhibited distinct patterns for state capitals and inland counties.

Conclusion Correction of mortality rates, based on redistribution of ill-defined causes of death, increased the overall cancer mortality in Brazil by 10% in 1980 and 5% in 2006. Among inland counties, and different from State Capitals, no decrease or stability in trend of mortality rates was found. Worse access to health services of diagnostic and treatment for cancer and less outreach of prevention actions among populations living away from big urban centers in Brazil, may be part of the explanation for these differences.

SP1-105 THE APPLICATION OF COLLABORATIVE COUNSELLING MODEL TO MANAGE STRESS AND COPING IN INFERTILE WOMEN UNDERGOING IVF: A RANDOMISED CLINICAL TRIAL

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Introduction Infertility is an acute life crisis with psychological consequences which may last for an indeterminate length of time and one of the greatest challenges of infertile women is coping with this crisis. The present study was designed to examine the effect of collaborative counselling model on stress and coping strategies in infertile women undergoing IVF in 2010 in Iran.

Methods In this clinical trial, 60 women with primary infertility were randomly selected from Montaserieh Research Centre in Mashhad and were allocated to intervention and control groups. Women in intervention group were counselled in five meetings with collaboration of midwife, gynaecologist and clinical psychologist. Control group received routine cares. Infertility-related stress and coping strategies were measured at the beginning and embryo transfer day using Fertility Problem Inventory and Ways of Coping questionnaire. Data were analysed using statistical tests including t test and Mann-Whitney.

Results A significant difference was found between two groups in terms of total perceived infertility-related stress score ($p < 0.048$). The amount of stress reduction in intervention group was nearly 3.6 times of control group. There was also a significant difference between two groups in terms of problem focused coping strategies ($p < 0.003$). Infertile women used more focused coping strategies in comparison to emotional focused coping strategies.

Conclusion Conducting collaborative counselling can decrease infertile women's perceived stress and increase the use of problem focused coping strategies. It is therefore recommended to use collaborative counselling approaches in order to help infertile women better come to terms with their stressful situation.