

P1-215 DEPRESSION IN DIFFERENT WELFARE STATE REGIMES IN EUROPE: THE ROLE OF ATTITUDES TOWARDS STATE RESPONSIBILITY FOR AN ADEQUATE STANDARD OF LIVING

doi:10.1136/jech.2011.142976e.8

^{1,2}K Levecque, ^{*} ²R Van Rossem, ³E Ronda, ⁴J Love. ¹Research Council Flanders, Brussels, Belgium; ²Ghent University, Department of Sociology, Ghent, Belgium; ³Alicante University, Preventive Medicine and Public Health, Alicante, Spain; ⁴Robert Gordon University, Faculty of Health & Social Care, Aberdeen, UK

Introduction Recent cross-national research by Levecque *et al* (Journal of Health and Social Behaviour, in press) has shown that the health effects of social experiences are attenuated, boosted or even reversed by the sociopolitical context. More specifically, it was found that the link between economic hardship and depression varies between different welfare state regimes in Europe.

Objectives Currently, we assess whether this variation in depressing effect is totally attributable to differences in welfare state arrangements or whether welfare state attitudes play a significant role as well. Is economic hardship more depressing when the individual considers the state as the main provider for an adequate standard of living, or is the risk of depression higher when emphasis is put on self-provision and individual responsibility?

Methods Analyses are based on data for 23 countries in the European Social Survey 2006–2007 (N=41686). Multilevel linear regressions are performed. Depression is measured using the Center for Epidemiologic Studies Depression Scale (CES-D 8).

Results We find that experiencing economic hardship is significantly more depressing for individuals who consider the state as the main responsible for providing an adequate standard of living. This pattern is observed in all welfare state regimes and remains significant when controlling for gender, age, having a partner, educational level, social support and locus of control.

Conclusion The link between economic hardship and depression is dependent on both structural welfare state arrangements and welfare state attitudes.

P1-216 SURVIVING EXPERIENCE OR LIMITED FUTURE? A COMPARATIVE ANALYSIS OF ECONOMIC HARDSHIP AND DEPRESSION ACROSS THE ADULT LIFE SPAN IN DIFFERENT WELFARE STATE REGIMES IN EUROPE

doi:10.1136/jech.2011.142976e.9

^{1,2}K Levecque, ^{*} ²R Van Rossem. ¹Research Council Flanders, Brussels, Belgium; ²Ghent University, Department of Sociology, Ghent, Belgium

In a study of depression in the general population living in the USA, Mirowsky and Ross (2001) found that economic hardship related depression decreases with age, suggesting increasing *surviving experience* as one gets older. We test whether this pattern can be generalised to other developed nations. Based on data for 23 countries taking part in the European Social Survey (2006–2007), multilevel analyses shows that the moderating role of age is in itself dependent on the socio-political context. The link between economic hardship and depression is not significantly different across the life course in the Nordic and Bismarckian regimes, it increases in the Southern and Eastern European countries and decreases in strength in the Anglo-Saxon welfare states. Our findings suggest that welfare state regimes play a significant role in attenuating, boosting or even reversing the health effects of social experiences such as economic hardship and ageing. Health knowledge gained through research that ignores the socio-political context might be limited in terms of generalisation.

P1-217 THE RELATIONSHIP BETWEEN LEISURE TIME PHYSICAL ACTIVITY, DIET CONTROL, SMOKING AND UTILISATION OF MEDICAL SERVICES IN DIABETES: RESULTS OF A NATIONAL COHORT IN TAIWAN

doi:10.1136/jech.2011.142976e.10

¹C L Li, ^{*} ¹T A Wang, ¹J T Sheu, ²H Y Chang. ¹Department of Health Care Management, Chang Gung University, Kwei-Shan, Tao-Yuan, Taiwan; ²Division of Health Policy Research and Development, Institute of Population Health Sciences, National Health Research Institutes, Maoli, Taiwan

Introduction The aim of this study is to investigate whether leisure time physical activity, diet and smoking behaviours are associated with hospital utilisation in a nationally representative sample of adults with diabetes.

Methods We conducted a prospective study on persons aged 18 and above with self-reported physician-diagnosed diabetes (N=797) who participated in the National Health Interview Survey in Taiwan, 2001. A total of 596 participants had complete data for self-care behaviours and provided consent for data linkage and were successfully linked to the National Health Insurance claims data. Multiple logistic regression (occurrence of hospitalisation) and negative binomial regression (number of admissions and hospital bed days) were done to analyse the associations between self-care behaviours and hospital utilisation for any cause during 2002.

Results After adjusting for demographic characteristics, comorbidities, and diabetic related attributes, participants having a diet control was associated with fewer hospital bed days (incidence rate ratio IRR=0.57; 95% CI [0.32 to 0.99]). Moreover, those participants reporting leisure time physical activity of ≥ 1000 kcal per week had a significantly lower risk of hospitalisation (OR=0.35; 95% CI [0.16 to 0.77], fewer admissions (IRR=0.31; 95% CI [0.16 to 0.58]) and fewer hospital bed days (IRR=0.17; 95% CI [0.07 to 0.37]) compared with inactive individuals.

Conclusion Our findings suggest that the promotion for adults with diabetes in performing their self-care behaviours, especially exercising and having a diet control may have economic benefits. However, more research is needed to explore the underlying obstacles to engaging in self-care behaviours among people with diabetes.

P1-218 IS INFORMAL CHILD CARE ASSOCIATED WITH CHILDHOOD OBESITY? EVIDENCE FROM THE HONG KONG'S "CHILDREN OF 1997" BIRTH COHORT

doi:10.1136/jech.2011.142976e.11

S L Lin, ^{*} G M Leung, L L Hui, T H Lam, C M Schooling. The University of Hong Kong, Hong Kong, China

Introduction In western populations, informal child care is associated with childhood obesity. However, in western populations, informal child care and childhood obesity are associated with lower socio-economic position (SEP), making these observations vulnerable to residual confounding. In this situation, evidence from non-western developed settings can be valuable.

Methods We used multivariable linear and logistic regression to estimate the association of child care at 6 months, 3 years, 5 years and 11 years with body mass index (BMI) z-score and overweight (including obesity) at 11 years in a large population-representative Hong Kong Chinese birth cohort, "Children of 1997", comprising 88% of births in April and May 1997. We also assessed if the associations varied with sex or SEP.

Results Of the original 8327 cohort members, 7933 are alive, participating and living in Hong Kong. At approximately 11 years, 6796 had clinically assessed BMI. Higher SEP was associated with informal care. Informal care at each of 3, 5 or 11 years was

separately associated with higher BMI z-score (3 years: 0.11, 95% CI 0.03 to 0.19; 5 years: 0.13, 0.05 to 0.20; 11 years: 0.16, 0.05 to 0.27) and the presence of overweight at 11 years. Current informal care had the strongest association, however, informal child care at 5 years also made a contribution. There was no evidence of differences by sex or SEP.

Conclusions In a developed non-western setting, informal child care was associated with childhood obesity. Modifiable attributes of informal child care warrant investigation for obesity prevention.

P1-219 MUSLIMS, HINDUS AND SIKHS ACCESS TO NHS SERVICES IN SCOTLAND

doi:10.1136/jech.2011.142976e.12

¹J G Love,* ^{1,2}K Leveque, ^{1,2}R Van Rossen, ^{1,3}E Ronda. ¹Robert Gordon University, Aberdeen, UK; ²Ghent University, Ghent, Belgium; ³Alicante University, Alicante, Spain

Introduction Scotland is a multi-cultural society with 2% of the population made up of people from a minority ethnic background, more than 70% of whom are Asian and from a Pakistani, Indian, Bangladeshi or other South Asian background. Such a mix of people from minority ethnic backgrounds gives rise to a multitude of different needs and expectations that require to be incorporated within health service planning and delivery.

Objectives Muslims generally experience some of the poorest health in the UK. The present study (2008–2011), funded by the Scottish Health Council, sought to examine, through comparative analysis with Hindus (and a small number of Sikhs), the extent to which NHS services engaged with Muslims.

Methods The research, based on a mixed methods approach combined a survey (n=111) and focus group discussions with Muslims, Hindus and Sikhs living in three of Scotland's major cities: Aberdeen, Dundee and Glasgow.

Results The study found heightened levels of poor general health coupled with high levels of satisfaction with NHS services among study participants. Making greater use of GP services and similar use of hospital out-patient services, individual factors (eg, knowledge, experience) were positively implicated in service use while organisational factors (eg, waiting lists) inhibit such use. Although most participants did not perceive there to be a problem of religious or ethnic discrimination in the NHS, a fifth disagreed, with Muslims more likely to do so.

Conclusion Improvements are needed to ensure fair and adequate access to healthcare is provided to minority ethnic groups in Scotland.

P1-220 HOW DO IN-HOSPITAL AND 30-DAY POST DISCHARGE HOSPITAL MORTALITY MEASURES COMPARE? AN AUSTRALIAN PERSPECTIVE

doi:10.1136/jech.2011.142976e.13

¹S Lujic,* ^{1,2}L Jorm, ¹D Randall. ¹University of Western Sydney, Sydney, New South Wales, Australia; ²Sax Institute, Sydney, New South Wales, Australia

Introduction The hospital standardised mortality ratio (HSMR) has been used internationally to help support improvements in hospital quality of care. Most commonly, HSMRs are computed using only in-hospital deaths, influenced by length of stay. Following a major review, the National Health Service in England recommended that HSMR calculations include both in- and 30-day post-discharge mortality. Our study investigated the relationship between these two measures.

Methods Retrospective analysis of probabilistically linked mortality and hospital data for patients admitted to 162 hospitals in New

South Wales, Australia between July 2000 and June 2008. HSMRs for in-hospital and 30-day post discharge (30-day HSMR) were calculated by dividing an observed number of deaths by the logistic-regression derived expected number and compared using correlation coefficients and outlier status.

Results There were 270 456 hospital admissions ending in death either in-hospital (147 926; 55%) or up to 30 days post discharge (122 530; 45%). HSMRs ranged from 12.5 to 251.7 for in-hospital HSMR and 14.3 to 195.4 for 30-day HSMR. Correlation between the two measures was high (Spearman $\rho=0.868$, $p<0.001$) but there was moderate agreement on outlier status ($\kappa=0.58$). Five hospitals swapped status between significantly higher/lower HSMR of 100.

Conclusions In-hospital and 30-day HSMRs were similar across hospitals, even though there were differences in agreement on outlier status and whether HSMRs 'signalled' as significantly high or low. 30-day HSMRs are more difficult to calculate, and may present few advantages over conventional HSMRs where the aim is to initiate more detailed investigation of possible hospital performance issues.

P1-221 EPIDEMIOLOGY OF DEPRESSION IN OLD AGE: RESULTS OF THE LEIPZIG LONGITUDINAL STUDY OF THE AGED (LEILA 75+)

doi:10.1136/jech.2011.142976e.14

¹M Lupp,* ¹C Sikorski, ^{1,2}T Luck, ³S Weyerer, ⁴A Villringer, ⁵Hans-Helmut König, ⁶S G Riedel-Heller. ¹Institute of Social Medicine, Occupational Health and Public Health, Public Health Research Unit, University of Leipzig, Leipzig, Germany; ²LIFE—Leipzig Research Center for Civilisation Diseases, University of Leipzig, Leipzig, Germany; ³Central Institute of Mental Health, Mannheim, Germany; ⁴Max Planck Institute for Human Cognitive and Brain Sciences and Day Clinic of Cognitive Neurology, University of Leipzig, Leipzig, Germany; ⁵Department of Medical Sociology and Health Economics, University Medical Center Hamburg-Eppendorf, Hamburg, Germany; ⁶Institute of Social Medicine, Occupational Health and Public Health, Leipzig, Germany

Background Depression is one of the most common mental disorders in old age. In order to assess future needs of the healthcare system for prevention and treatment, information on epidemiology of depression among the highest age groups is required. However, most previous studies just focused on prevalence and incidence rates of late life depression across the entire old age.

Methods For a population-based sample of 1265 elderly individuals aged 75 years and older, prevalence and incidence rates as well as risk factors of depression were determined. Individuals were requested every 1.5 years over six waves. Depression was assessed dimensionally by the CES-D (Center of Epidemiologic Studies Depression Scale) and categorically by the SCID (Structured Clinical Interview for DSM-IV). The prevalence rates were 1.0% for Major Depression, 2.5% for Minor Depression according to DSM-IV and 38.2% for depressive symptoms according to CES-D. The rates increased for Minor and depressive symptoms with rising age. Risk factors were divorced or widowed marital status, low educational level, poor self-rated health status, stressful life events, and poor social network. The incidence rates were 6.9 per 1000 person-years (py) for Major Depression, 16.6 per 1000 py for Minor Depression and 33.9 per 1000 py for depressive symptoms.

Discussion Since depressive symptoms are common in oldest age and associated with broad categories of risk factors, latest-life depression represents an important public health issue. Employment of comprehensive geriatric assessment to ascertain depressive symptoms and its concomitants could help to improve treatment success.