

associated with frailty is less well studied. We investigated the extent to which socioeconomic factors at individual and area level are associated with frailty in two studies of older populations in the UK.

Methods Data are from two studies of older populations: the British Regional Heart Study (BRHS) comprised a socially representative sample of men (n=1622) from 24 British towns aged 71–92 years in 2010–12; the English Longitudinal Study of Ageing (ELSA) comprised a representative sample of older men and women (n=5344) aged ≥ 60 years in 2004 from England. Using the Fried phenotype, frailty was defined by the presence of ≥ 3 of the following components: unintentional weight loss, low grip strength, low physical activity, slow walking pace and exhaustion. Socioeconomic measures included occupational social class and area-level deprivation was based on the Index of Multiple Deprivation (IMD). Logistic regressions models were used.

Results Prevalence of frailty was 19% and 9% in the BRHS and ELSA populations respectively. In the BRHS sample, the risk of frailty increased from the highest (social class I) to lowest social class V; age-adjusted odds ratio was 1.18 (95% confidence interval (CI)=1.07–1.31) for each category from social class I to V, which remained significant on adjustment for smoking, history of cardiovascular disease (CVD) or diabetes, body mass index (BMI) and alcohol consumption. The risk of frailty also increased from the least (quintile 1) to most deprived IMD quintile (quintile 5); OR per quintile=1.19 (95% CI 1.08 to 1.30). This increased risk remained significant on further adjustment for covariates. Similarly, in the ELSA population of older men and women, frailty risk was greater in lower social classes (OR=1.21 (95% CI 1.16 to 1.27) for each group from highest to lowest social classes. Frailty risk was greater also in deprived quintiles (OR=1.35, 95% CI 1.28 to 1.43, for every increase in quintile of deprivation). These associations remained significant on adjustment for covariates.

Conclusion Adverse socioeconomic factors are associated with risk of frailty in older populations. These associations were independent of lifestyle factors and comorbidities, and were observed both for individual and area-level socioeconomic factors. Socioeconomic factors are potentially important in reducing the burden of frailty in older people. These findings merit further investigation prospectively.

Thursday 6 September 2018

Ageing and mental health

OP26

TEMPORAL TRENDS IN MULTI-MORBIDITY AND HOW IT IMPACTS EMPLOYMENT AMONG OLDER ADULTS IN CANADA AND ENGLAND: UNDERSTANDING GENERATIONAL AND SOCIAL INEQUALITIES

¹L Bentley*, ²Q Liao, ¹B Barr, ²C Mustard. ¹Department of Public Health and Policy, University of Liverpool, Liverpool, UK; ²Institute for Work and Health, Toronto, Canada

10.1136/jech-2018-SSMabstracts.26

Background In most countries policy makers are seeking to raise the age at which people become eligible for state pensions due to population aging. Aging societies are also characterised by an increase in the number of people are living with chronic conditions and multi-morbidity which can affect

employment later in life. This study examines the prevalence of multi-morbidity by age, birth-cohort, and socioeconomic status before assessing the impact that this has on employment status for workers approaching retirement age. It presents a comparative analysis of the UK and Canada and discusses the different policies that each have adopted regarding older workers with chronic conditions.

Methods We estimate the prevalence of multi-morbidity (composed of 6 broad categories of disease) for those aged between 50 and 64, by sex, educational level, and by two birth cohorts: the silent generation (pre-1946) and the baby boomers (1946–1964), using the Health Survey for England and the Canadian Community Health Survey. The prevalence of each condition and the changes in specific comorbidities between the generations were estimated. Finally, the association between multi-morbidity on the employment status (in employment or not) is assessed. Each of the analyses uses logistic regression models.

Results Prevalence of multi-morbidities has increased between generations, particularly for the lower educated in England and higher educated groups in Canada. As the number of conditions increased the probability of being in employment decreased. While employment rates are similar for people with no-conditions in the UK and Canada there was a more negative impact of having more than one condition in the UK. For example, silent generation women with a low education in the England with 3+ conditions were much less likely to be employed than women with no health conditions (odds ratio of 0.095 (0.071–0.128), whilst the effect was lower for low educated silent generation women in Canada 0.318 (0.235–0.431)). The consequences of multi-morbidity for employment was found to be similar between generations. The increase in multi-morbidities may have led to reduced employment prospects particularly amongst the less educated groups in England.

Conclusion Many countries are facing the challenge of an aging population. The effect of multi-morbidity on employment for older workers has been understudied even though it presents a set of challenges which risk exacerbating existing social inequalities because they are concentrated among less advantaged groups and associated with reduced employment prospects. The research presented here suggests that different policy approaches might be effective in ameliorating these inequalities.

OP27

PSYCHOLOGICAL FACTORS ASSOCIATED WITH STANDING BALANCE PERFORMANCE AT AGE 69 IN A BRITISH BIRTH COHORT STUDY

JM Blodgett*, F Harkness, D Kuh, DHJ Davis, R Cooper. MRC Unit for Lifelong Health and Ageing, University College London, London, UK

10.1136/jech-2018-SSMabstracts.27

Background Balance ability from midlife has been consistently shown to predict future health outcomes including mortality, morbidity and falls risk. Evidence has identified socioeconomic, behavioural and anthropometric contributors to balance, however there is little evidence on the role of psychological factors. We aimed to examine the associations between five psychological factors – stressful life events, symptoms of anxiety and depression, wellbeing, mastery and fear of falling – and standing balance performance at age 69.