C.5. Health in times of austerity

Health literacy mediates the relationship between education level and health behaviour
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Background
Whereas the association between low SES or low education and health is well established, the pathways through which education influences health remain largely uncharted. In this regard, health literacy, defined as a person’s capacity, skills, knowledge and motivation to access, understand, appraise and use information to take decision regarding health, may be a useful concept. This study investigated whether health literacy mediates the relationship between education level and health related behavior in the general population.

Methods
As part of a larger study on health, a nationally representative stratified sample of 16 999 members of a health insurance fund were invited to complete an online questionnaire containing measures of education level (6 categories; primary to post-graduate), health literacy (16-item version of the HLS-EU-Q), and health related behaviours (17 Likert-type items measuring nutrition, physical activity, alcohol and tobacco use, and medication use). A total of 9616 people completed the questionnaire (59% females, ages 18-88 with mean 55.77). Multiple regression analyses with Baron and Kenny mediation analyses were performed to determine if health literacy mediates the relationship between education level and health behaviours.

Results
5% of the respondents had completed primary education only, 46.5% secondary education, 31% higher education and 17.5% (post)graduate studies. 11.6% achieved an insufficient level of health literacy, 29.7% a problematic level, and 58.7% a sufficient level. Multiple regression analyses revealed significant effects of education level on all behavioural outcomes, and of health literacy on tobacco use, nutrition, physical activity and medication use. Mediation analysis revealed a partial mediation of health literacy on the relationship between education level and health behaviours.

Conclusions
Health literacy is a partial mediator of the relationship between education level and tobacco use, nutrition, physical activity and medication use. In contrast; it does not mediate the relation between education level and alcohol use or alternative medicine use.

Key messages
- Health literacy mediates the relationship between education level and health behaviour.
- As such, health literacy may help to explain the impact of socio-economic inequalities on health behavior and health status.

Intellectual disability among homeless people: prevalence and related psychosocial problems
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Background
Being homeless is apart from the lack of housing, related to a number of additional problems such as mental health problems and substance use problems. A recent topic of interest in the field of research on homelessness is the prevalence of intellectual disability (ID). There is a higher prevalence of intellectual disability (ID) among homeless people than in the general population (e.g. 0.7% in the Netherlands). However, little is known about the additional psychosocial problems faced by homeless people with ID. This study aims to (1) describe the prevalence of ID in a cohort of homeless people in the Netherlands; and (2) to report relationships between ID and psychosocial problems in terms of psychological distress, substance (mis)use and dependence, as well as demographic characteristics.

Methods
This cross-sectional study is part of a cohort study among homeless people in the four major cities of the Netherlands. Data were derived from 387 homeless people who were interviewed and screened for ID in between July 2011 and June 2012. Multivariate logistic regression analyses and χ2 tests were performed to analyze relationships between ID, psychosocial problems and demographic characteristics.

Results
Of all participants, 29.5% had a suspected ID. Participants with a suspected ID had a higher mean age, were more likely to be male and to fall in the lowest category of education than participants without a suspected ID. Having a suspected ID was related to general psychological distress (OR = 1.56, p < 0.05), somatization (OR = 1.84, p < 0.01), depression (OR = 1.58, p < 0.05) and substance dependence (OR = 1.88, p < 0.05). No relationships were found between a suspected ID and anxiety, regular substance use, substance misuse and primary substance of use.

Conclusions
The prevalence of ID among Dutch homeless people is much higher than that of ID in the general Dutch population. Homeless people with a suspected ID have more psychosocial problems than homeless people without a suspected ID. Therefore, homeless people with a suspected ID are a vulnerable subgroup within the homeless population. This endorses the importance of extra attention in care programmes for this subgroup.

Key messages
- The relatively large number of homeless people with a suspected ID emphasises that expertise in the field of intellectual disability among professionals working in homeless services is required.
- Screening on intellectual disability of homeless people may be an effective method to identify those who are particularly vulnerable in terms of psychosocial problems within a homeless population.
Do financial strain and labour force status explain why Nordic countries have wide health inequalities relative to other European countries?

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Introduction

One challenge in public health is to understand why Nordic countries do not have the smallest health inequalities despite having relatively egalitarian social policies. Our aim is to investigate whether important drivers of class differences in health such as financial strain and labour force status account for the health inequalities in Nordic countries to a similar degree to other European countries with different welfare regimes.

Methods

Our analyses used data for working age men (n = 48,249) and women (n = 52,654) for 20 countries from five rounds (2002-2010) of the European Social Survey. The main outcome was self-rated health. Stratified by country and gender we used linear regression models to investigate the degree to which class inequalities – comparing working to professional occupations using the European Socio-Economic Classification – were attenuated by financial strain and labour force status.

Results

Before adjustment, Nordic countries had comparatively large inequalities in self-rated health relative to other European countries. For example the coefficient for the health difference between working class and professional men living in Norway was 0.33 (95% CI: 0.25 to 0.40), while the comparable figure for Spain was 0.16 (95% CI: 0.09 to 0.23). Adjusting for financial strain and labour force status led to attenuation of health inequalities for all countries. This is important as not all low social class individuals live in deprived areas. We examine mortality for individual social classes across different levels of area deprivation is unclear. This is important as not all low social class individuals live in deprived areas. We examine mortality for individual social class in combination with area based deprivation, to

The influence of individual socioeconomic status and area deprivation on cause-specific mortality in England

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Introduction

Despite decreasing mortality rates across all socio-economic groups, social inequalities in mortality increased in England from 2001-08. The extent of inequality by social class across different levels of area deprivation is unclear. This is important as not all low social class individuals live in deprived areas. We examine mortality for individual social class in combination with area based deprivation, to
determine social class gradients for each quintile of deprivation.

**Methods**

Social class was measured using the 7 group National Statistics Socio-Economic Classification (NS-SEC) from the 2001 Census. Area deprivation (lower super output area level; average population = 1600) was measured using the income domain of the Index of Multiple Deprivation. Inequalities in all cause mortality and mortality due to ischaemic heart disease (IHD), cancer, accidents, suicide and alcohol related harm for men aged 25-64 in England for 2001-03 were assessed using Poisson regression; analysis was further stratified by area deprivation quintile. The relative index of inequality (RII) was used to assess inequalities.

**Results**

For all cause mortality the RII for social class was 2.4 [95% confidence interval (2.3-2.4)] and area deprivation 3.5 (3.4-3.5). The social class gradient was not constant across area deprivation quintiles (P < 0.001). RII for social class ranged from 2.5 (2.4-2.6) in the most deprived (MD) to 1.8 (1.7-1.9) in the least deprived (LD). All individual causes of death showed similar patterns of inequalities. The social class RII for IHD were MD = 2.5 (2.3-2.7), LD = 2.1 (1.9-2.3); cancer MD = 2.2 (2.1-2.4), LD = 1.3 (1.2-1.4); alcohol related harm MD = 2.4 (2.1-2.8), LD = 2.3 (1.7-3.0); accidents MD = 3.3 (2.7-3.9), LD = 3.2 (2.6-4.1); and suicide MD = 3.0 (2.6-3.6), LD = 3.9 (3.1-5.0).

**Conclusions**

Both individual social class and area deprivation are independently associated with all cause and cause-specific mortality in England. Social class inequalities are not constant across area deprivation quintiles. Social class and area deprivation are different indicators of socioeconomic status and exhibit independent associations with mortality. Policies to reduce inequalities should focus on both.

**Key messages**

- Individual social class and area deprivation are both associated with mortality in men in England.
- Policies to reduce inequalities must focus on both measures of socioeconomic status; deprived individuals living in non-deprived areas should not be overlooked.

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**Financial/material support and access to care as determinants of recovery from post-earthquake psychopathology: a 23 years longitudinal study**

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**Background**

A significant proportion of disaster survivors develop various mental disorders. Studies evaluating determinants for long-term recovery from psychopathology are scarce. This study identified factors associated with recovery from common post-disaster psychopathologies (detected in 1991 baseline assessment) among 1988 Armenian earthquake survivors.

**Methods**

A nested cohort study within a larger cohort study, which followed earthquake survivors from 1990 to 2012 was conducted. The current study included 544 individuals with depression, posttraumatic stress disorder, or anxiety disorder at baseline in 1991. Based on the results of a psychological assessment in 2012, these individuals were divided into two groups: those who recovered from psychopathology and those who did not. Variables on socio-demographic and personal characteristics, earthquake-related experiences, access to health care, and history of negative life events were collected during various phases of the larger study. The research team identified determinants for recovery through multivariate logistic regression.

**Results**

Low socioeconomic status during the 10 years following the earthquake (OR = 0.68, p < 0.05) and low affordability of healthcare services (OR = 0.48, p < 0.01) were negatively associated with successful recovery. Those with severe financial and material loss had 57% lower odds of recovery (OR = 0.43, p < 0.05). Post-earthquake financial/material support significantly contributed to the recovery for those with severe loss (OR = 4.35, p < 0.01). Each additional negative life-event further decreased likelihood of recovery from psychopathology (OR = 0.8, p < 0.01).

**Conclusions**

Earthquake-related losses and lifetime events can have long-lasting negative impact on recovery from post-earthquake psychopathology. These findings can assist clinicians to better identify disaster survivors at high risk for long-term post-disaster psychopathology. Provision of financial and material support to those with severe financial losses could mitigate chronic psychological sequelae of disasters. Additionally, policy changes promoting access to health care could minimize the burden of long-term psychological morbidity among disaster survivors.

**Key messages**

- Earthquake-related losses and lifetime events can have long-lasting negative impact on recovery from post-earthquake psychopathology.
- Provision of financial and material support to those with severe financial losses could mitigate chronic psychological sequelae of disasters.