Health inequalities and welfare state regimes: theoretical insights on a public health ‘puzzle’

Clare Bambra

ABSTRACT

Welfare states are important determinants of health. Comparative social epidemiology has almost invariably concluded that population health is enhanced by the relatively generous and universal welfare provision of the Scandinavian countries. However, most international studies of socioeconomic inequalities in health have thrown up something of a public health ‘puzzle’ as the Scandinavian welfare states do not, as would generally be expected, have the smallest health inequalities. This essay outlines and interrogates this puzzle by drawing upon existing theories of health inequalities—artefact, selection, cultural—behavioural, materialist, psychosocial and life course—to generate some theoretical insights. It discusses the limits of these theories in respect to cross-national research; it questions the focus and normative paradigm underpinning contemporary comparative health inequalities research; and it considers the future of comparative social epidemiology.

BACKGROUND

It is now widely acknowledged that welfare states are important determinants of health as they mediate the social determinants of health. Welfare state provision varies extensively, but typologies have been put forward to categorise them into distinctive types—welfare state regimes. Welfare state regimes have increasingly been used within social epidemiology to analyse cross-national differences in population health. These studies have almost invariably concluded that population health is enhanced by the relatively generous and universal welfare provision of the Social Democratic Scandinavian countries, especially when contrasted to the Anglo-Saxon welfare states. The different types of welfare state and their constituent countries are described in box 1. However, in contrast to their comparatively strong performance in terms of overall health, data from most, but not all, of the recent comparative studies of health inequalities in the general population suggest that the Scandinavian welfare states do not have the smallest health inequalities. For example, Mackenbach et al’s Europe wide study of inequalities in mortality found ‘no evidence for systematically smaller inequalities in health in countries in northern Europe (Scandinavia)’. Indeed, relative inequalities in mortality were smaller in the Southern (Italy, Spain, Portugal) and Bismarckian (Netherlands, Belgium, Germany, France) countries. Data are provided from three other example studies of health inequalities in Europe in table 1.

states, the smaller income inequalities, and the commitment to equality underpinning the Social Democratic welfare model in Scandinavia, it has long been something of a ‘puzzle’ in public health as to why the Scandinavian countries do not have the smallest health inequalities. This essay draws upon the theories of health inequalities to scrutinise this puzzle.

THEORETICAL INSIGHTS ON COMPARATIVE HEALTH INEQUALITIES

Box 2 outlines the main theories of health inequalities. These are commonly used to explain socioeconomic health inequalities within countries. In this paper, they are applied to cross-national differences in the magnitude of socioeconomic health inequalities and used to offer insights into the puzzle as to why health inequalities are not the smallest in the Scandinavian welfare states.

Artefact

The artefact explanation questions the existence of health inequalities, considering them to be a mere artefact of data collection and measurement (box 2). Applying it to the issue of comparative health inequalities leads to the conclusion that the ‘public health puzzle’—of why health inequalities are not the smallest in the Scandinavian countries—is not in fact a real puzzle, but simply the result of the data and methods used. Certainly, the application of different indicators of social inequality (eg, income, occupation and education) and the use of different data sets has produced divergent results (see table 1). Different cross-national patterns also emerge in terms of the different ways in which specific indicators of inequality are calculated. For example, studies of educational inequalities can compare those with average years of education to those with ISD below the national average or the difference between those with no education or only primary education compared with those with tertiary education (box 2). There are also more general issues in terms of making cross-national comparisons of health inequalities as it is not clear whether the bottom groups are the same in each country and whether their composition changes over time.

The use of relative or absolute measures of health inequalities is also an important issue (see ‘Discussion’ section). There is of course another clear measurement problem, which is the use of ‘welfare state regimes’, a concept that assumes a homogeneous approach to welfare provision within and between the countries of any particular regime type.
Comparative studies of educational inequalities in health.23

It is argued, is because the Scandinavian countries are at a very mature stage of the smoking epidemic with the majority of smoking behaviour concentrated in the least educated groups.24

Table 1 | Summary findings from three example comparative studies of socioeconomic inequalities in self-reported health (bad/poor vs fair/good/very good) by welfare state regime

<table>
<thead>
<tr>
<th>Study</th>
<th>Measure of inequality</th>
<th>Summary of results*</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Men Absolute prevalence rate difference</td>
</tr>
<tr>
<td>Eikemo et al²²</td>
<td>Education—average education versus 1SD below average</td>
<td>Bismarkian 6.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Anglo-Saxon 9.6 1.35 (1.23 to 1.48) 8.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scandinavian 10.5 1.44 (1.35 to 1.53) 12.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Southern 14.8 1.57 (1.47 to 1.69) 17.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bismarkian 9.8 1.68 (1.50 to 1.89) 11.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Southern 10.9 1.79 (1.46 to 2.19) 14.8</td>
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<tr>
<td></td>
<td></td>
<td>Scandinavian 13.0 1.97 (1.70 to 2.27) 15.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Anglo-Saxon 17.4 2.06 (2.12 to 3.70) 17.4</td>
</tr>
<tr>
<td>Espelt et al²¹</td>
<td>Social class (education aspects = secondary or more vs less than secondary)</td>
<td>Christian Democratic 11.2 1.24 (1.12 to 1.37) 12.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social Democratic 13.3 1.43 (1.26 to 1.63) 13.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Late Democracies 18.9 1.87 (1.45 to 2.42) 24.2</td>
</tr>
</tbody>
</table>

*Age-standardised differences between the top and bottom socioeconomic groups in each analysis.
This suggests that one consequence of the Social Democratic welfare states is that the universal health messages and health promotion interventions are taken up primarily by the middle classes. This results in what has been referred to as ‘intergenerational inequalities’, as while the health of everyone improves, that of the middle classes does so at a faster rate.

**Materialist**

The (neo)materialist explanation focuses on income and what income enables such as access to goods and services and the limitation of exposures to physical, and psychosocial, risk factors. Materialist approaches give primacy to structure in their explanation of health and health inequalities, looking beyond individual-level factors (agency), in favour of the role of public policy and services such as schools, transport and welfare in the social patterning of inequality.

**Psychosocial**

Psychosocial explanations focus on how social inequality makes people feel and their biological and health consequences. Social inequality leads to long-term feelings of subordination or inferiority, which in turn stimulate chronic stress responses that have profound consequences for physical and mental health. The socioeconomic class gradient is therefore explained by the unequal social and economic distribution of psychosocial risk factors.

**Life course**

The life course approach combines aspects of the other explanations, thereby allowing different causal mechanisms and processes to explain the social gradient in different diseases. Health inequality between socioeconomic classes is the result of inequalities in the accumulation of social, psychological and biological advantages and disadvantages over time.

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**Box 2 Theories of health inequalities**

**Artefact**

The artefact approach suggests that socioeconomic inequalities do not really exist but are a result of the data used and methods of measurement: that difference in health by socioeconomic class can be explained by differences in measurement and that the size of the inequalities observed is due to differences in data measurement tools.

**Health selection**

The health selection approach asserts that health determines socioeconomic class status rather than socioeconomic class determining health. Individuals who are ‘fitter’ are more likely to move up the social hierarchy. In contrast, people with ill health are downwardly mobile (or less upwardly mobile) and are therefore concentrated within the lower socioeconomic classes.

**Cultural—behavioural**

The cultural—behavioural approach asserts that the link between socioeconomic class and health is a result of differences between socioeconomic class in terms of their health-related behaviour: smoking rates, alcohol and drug consumption, dietary intake, physical activity levels, risky sexual behaviour and health service usage. Such differences in health behaviour, it is argued, are themselves a consequence of disadvantage, and unhealthy behaviours may be more culturally acceptable among lower socioeconomic class.

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inequalities—may be present in all welfare state regimes to a greater or lesser extent, but as a result of different causal mechanisms. This suggests that the welfare state regimes approach is perhaps too generalised and only able to offer a rough guide to inequalities.34

DISCUSSION
These theoretical insights are rather limited and somewhat speculative: none of the theories alone can provide a wholly convincing explanation. While there appears to be some power to the cultural—behavioural perspective, really, beyond issues of artefact, it is very difficult to explain why health inequalities are not smaller in the Scandinavian countries through reference to existing theories of health inequalities. This is perhaps because all the other theories (selection, psychosocial, materialist, life course) to a greater or lesser extent expect health inequalities to be smaller in the Scandinavian countries. This may indicate that the existing theoretical explanations are lacking and need to be combined and developed. Certainly, no single theory is able to empirically explain within-country inequalities, never mind between country ones.

Alternatively, of course, it may be that the contrasting performances of the Scandinavian welfare states in regards to overall health versus health inequalities cannot really be considered to be a puzzle at all. First, there have only been a small number of cross-national comparative studies conducted to date and these have focused on the health gap rather than the social gradient.9–12 Second, the use of welfare state typologies has been extensively critiqued not least on the grounds that it obscures important policy differences between welfare states (eg, the flexicurity of Denmark compared with the protectionism of Sweden or Norway).34 35 Furthermore, some have argued that there is a need to move beyond Scandinavian welfare state exceptionalism and to acknowledge the commonalities that there are between, say, the Bismarckian and Scandinavian models, particularly in terms of the status of the lowest socioeconomic groups, as well as the progress of other welfare states, such as Japan, in terms of creating healthy environments.36 This suggests that comparative social epidemiology should shift focus and conduct comparisons of more precise policy areas and specific social determinants (such as the work environment) instead.37 38 This could enable a deeper and more nuanced understanding of how particular national policies, or the shared policies of specific welfare state regimes, impact on health inequalities.34

Another factor that needs to be taken into consideration is that the puzzle has emerged partly as a result of the focus of comparative epidemiological research on relative, as opposed to absolute, measures of health and inequality. This has meant that the Scandinavian countries are effectively victims of their own success, as while they have substantially improved the health of all, the high level of health of the middle classes has meant that relative social inequalities remain.34 This, it could be argued, is the real issue in terms of why the Scandinavian countries perform comparatively poorly in terms of relative health inequalities, and, as Lundberg34 has pointed out, this is an achievement, not something to be criticised. The lowest socioeconomic groups in the Scandinavian countries are objectively better off in absolute terms than the lowest socioeconomic groups in the other welfare state regimes. For example, the absolute mortality risk difference between manual and non-manual is lowest in Sweden and Norway.39 There is also emerging evidence to suggest that among the most vulnerable social groups—the old, the sick and children—there are smaller socioeconomic inequalities in the Social Democratic welfare states.40–42 Indeed, there is by no means an accepted research consensus that relative health inequalities among the general population are not the smallest in the Nordic countries as, for example, Borell and colleagues43 analysis of data from individual country health interview surveys suggested that the Social Democratic countries did exhibit the smallest adult health inequalities. Furthermore, it has been shown that relative measures of inequalities are negatively associated with total population health: countries with lower overall mortality tend to experience larger inequalities in mortality.44 This is perhaps because the social determinants of population health differ from the determinants of health inequalities.45

The use of absolute or relative measures of health inequality also raises important normative and political issues about whether the role of the welfare state is to improve the status of those at the very bottom of society or whether it is about promoting general equality. Implicitly, cross-national research to date has tended to favour the latter view; however, it is possible to suggest that it should move beyond relative comparisons and focus instead on absolute ones. This would perhaps also enhance the policy relevance of such research,46 after all, as Rose46 famously commented, ‘relative risk is not what decision-taking requires … relative risk is only for researchers; decisions call for absolute measures’ Future comparative research could therefore benefit from examining the absolute health of the most marginalised, poorest and vulnerable within different types of welfare state.

The limits of the study of the formal welfare state are also perhaps exposed by the puzzle. Comparative social epidemiology has to date largely focused on analysing the influence on health and health inequalities of the formal and the public—the state, the economy, politics, public policies, welfare services and social benefits. In contrast, there has been relatively little attention paid to the potential influence on differences in cross-national health and health inequalities of the informal and the private side of welfare capitalism—unpaid care, the family, community and social support and different constructions of gender roles.47–49 For example, some studies have suggested that those countries with a higher proportion of unpaid family care and domestic labour by women have smaller health inequalities.49 Such social differences in the informal welfare sector could therefore be a factor behind the smaller than expected health inequalities found by some studies in the Southern and Bismarckian welfare states49 (C Alvarez-Dardet, personal communication, 2011).

The impact of the social—the private and the informal welfare sphere—on comparative health inequalities is under-explored in public health and might provide important insights. However, as Raphael and Bryant’s50 research has noted, women’s health is more sensitive to public welfare and is improved by high levels of state social welfare, so Bartley’s49 assertion that analysing the social sphere is challenging and complex is therefore well made. The intersectional nature of inequality—gender, social class and ethnic stratifications—is therefore also something that needs to be considered in future cross-national research on health.51

CONCLUSIONS
The existence, extent, interpretation and causes of the Scandinavian public health puzzle remain controversial. On the one hand, the puzzle highlights the limitations of existing theories...
of health inequalities and thereby challenges conventional public health thinking. On the other hand, it has been seen to act as a distraction away from the real potential of comparative social epidemiology. On the other hand, it has been seen to act as a distraction away from the real potential of comparative social epidemiology.

Policy implications

The paper raises normative issues about whether the role of the welfare state and public health policy is about improving the status of those at the very bottom of society (absolute measures of health) or about promoting general equality (relative measures of health).

A focus on the absolute health of the most vulnerable as well as an awareness of the social sphere and intersectionality could enhance the policy relevance of comparative health research.

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