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What (or who) causes health inequalities: Theories, evidence and implications?

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ABSTRACT

Health inequalities are the unjust differences in health between groups of people occupying different positions in society. Since the Black Report of 1980 there has been considerable effort to understand what causes them, so as to be able to identify actions to reduce them. This paper revisits and updates the proposed theories, evaluates the evidence in light of subsequent epidemiological research, and underlines the political and policy ramifications.

The Black Report suggested four theories (artefact, selection, behavioural/cultural and structural) as to the root causes of health inequalities and suggested that structural theory provided the best explanation. These theories have since been elaborated to include intelligence and meritocracy as part of selection theory. However, the epidemiological evidence relating to the proposed causal pathways does not support these newer elaborations. They may provide partial explanations or insights into the mechanisms between cause and effect, but structural theory remains the best explanation as to the fundamental causes of health inequalities.

The paper draws out the vitally important political and policy implications of this assessment. Health inequalities cannot be expected to reduce substantially as a result of policy aimed at changing health behaviours, particularly in the face of wider public policy that militates against reducing underlying social inequalities. Furthermore, political rhetoric about the need for 'cultural change', without the required changes in the distribution of power, income, wealth, or in the regulatory frameworks in society, is likely to divert from necessary action.

1. Introduction

Health inequalities[1] are the, "*systematic differences in the health of people occupying unequal positions in society*" [1]. They occur across a range of social dimensions including income, social class, deprivation,caste, ethnicity and geography. Mere *variations* in health outcomes within a population do not necessarily represent *inequalities*; they do soonly if those variations are patterned by some characteristic of the population which renders the variations unfair. Populations which have large health inequalities affecting the majority of the population are likely to have

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[1] Some authors use inequalities to denote differences between groups and inequities to denote unjust differences between groups, but this distinction is not consistently applied across the literature. The more commonly used term "inequality" has been adopted throughout this article to describe unjust differences.

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large health *variations*. In contrast, if a health inequality affects only a small proportion of the population (e.g. amongst stigmatised benefit recipients or a minority ethnic or migrant population) the *variation* across the whole population may be small, even when the gap between the two groups is large.

As with poverty measures, inequalities in health can be considered in absolute or relative terms. This can be important when there are secular trends in the population health mean (e.g. a downward trend in the mean can increase relative inequalities even whilst absolute differences remain stable). Methods of enumerating health inequalities consequently vary depending on which inequality is of most interest [2,3].

Health inequalities are persistent through time and have been found in most countries where they have been investigated [4]. Yet they represent the starkest and most profound inequalities: the right to life itself is at stake. In the UK, inequality in health and its causes were investigated in detail in 1980 [5] and have been the explicit focus of policy since at least 1997. Despite this attention, there is little or no evidence that these inequalities have narrowed [6,7].

Theories of health inequalities matter, for the obvious reason that the successful identification of causes of any problem is crucial to the elaboration of appropriate measures to address the problem. The Black Report, published in 1980, identified four key theories for understanding how health inequalities arise [5]. These were: artefact; selection (including natural and social selection); structural factors; and behaviours (including culture). Since then, there have been elaborations of these underlying theories [6,8–11] (including that of MacIntyre which distinguishes between 'hard' and 'soft' versions of each) [12]; different approaches to categorising the underlying causal mechanisms [13], and numerous UK and international reviews of health inequalities tasked with recommending policy measures to bring about their reduction [14–18].

In light of empirical developments, the manifest failure of policy, and a global financial crisis with a near ubiquitous response of inequality-heightening public expenditure, and particularly welfare cuts, it seems necessary to revisit and critically appraise the main theories on how health inequalities arise, so as to aid clarity in thinking about how best to address them.

In reviewing these theories we utilise the broad categorisation employed in the Black Report – which has had common currency both internationally and over time. Where some recent contributors have identified more than the four key theories identified by Black, we have treated these additional theories as sub-categories within Black's four-way categorisation [19,20].

We seek to evaluate the extant theories as to how and why health inequalities arise, including the most recent elaborations, using basic epidemiological reasoning relating to association, causality and confounding. In doing this, we help clarify which retain validity, and in what respects they may do so, and we briefly draw out the vital political and policy ramifications which emerge.

2. Health inequalities theory I: the artefact theory

The artefact view proposes that the association between markers of social status and health outcomes is a statistical artefact relating to the way in which social status has been classified over time [5,14].

The theory is gravely undermined by the ubiquitous demonstration of inequalities in health outcomes [21], even where different statistical measures of social status are used (including income, area deprivation, education, social class and occupational group). In light of this, it is very difficult to sustain a theory that such outcomes are unrelated to social status. Consequently, this theory can confidently be discarded – as indeed it has been since at least the time of the Black Report. However, this is not to suggest that improved measures of social status, or, perhaps better, of the social realities of people's 'lived experience', could not be found.

3. Health inequalities theory II: selection theory

3.1. 'Health selection'

The possibility that a health selection effect might explain inequalities was examined, and quite decisively rejected, in the Black report. The theory is essentially that of reverse causation: that poor health causes a social selection (a 'social slide') which leads to the observed association between ill health and low social status [5,22].

This 'health selection' theory can be tested using longitudinal studies which measure pre-morbid social status and test for an association with subsequent morbidity and mortality. A large number of such longitudinal studies have subsequently demonstrated that the vast majority (although not all) of the concentration of ill-health in lower social groups is explained by pre-morbid social status rather than any subsequent social slide. Such evidence indicates that this view fails to account for health inequalities [23–25].

3.2. Intelligence

Despite the rejection of *health* selection as a major explanation of health inequalities, an attempt has been made to reinvigorate selection hypothesis more recently – in particular by those proposing a role for *intelligence* [26].

Intelligence and health are closely associated, but this could be due to:

1. Chance (which can be discounted on the basis of the cumulative, statistically significant evidence of association) [27,28];
2. Reverse causation where the differences in intelligence are caused by differences in health (a possibility for measures of intelligence gathered in later life which may be affected by stroke disease or similar, but which can be discounted given the association between pre-morbid intelligence and later health outcomes) [27,28];