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The effects of socioeconomic incongruity in the neighbourhood on social support, self-esteem and mental health in England

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ABSTRACT

Analyses of neighbourhood socioeconomic characteristics and health indicators consistently show that health is worse in poorer neighbourhoods. However, some studies that examined neighbourhood effects separately for individuals of different socioeconomic position found that poor people may derive health benefits from living in poor neighbourhoods where they are socioeconomically congruous. This study investigates whether such patterns may be driven by psychosocial factors. The sample consisted of 4871 mothers in the Millennium Cohort Study aged 14–53. The outcomes analysed were neighbourhood friendship, emotional support, self-esteem and depression or anxiety. Neighbourhood status was classified by residents' educational and occupational status derived from the 2001 Census. We used multilevel logistic regression, adjusting for mothers' socio-demographic characteristics: first analysing health by neighbourhood status separately for the highest and lowest status mothers, then testing for modification in the association between neighbourhood status and health, by individual status. Results show that for highest status mothers, living in mixed or high status neighbourhoods compared to low status neighbourhoods significantly reduced the odds of having no friends in the neighbourhood by 65%. Living in high status neighbourhoods compared to low status neighbourhoods also significantly reduced the odds of depression or anxiety for highest status mothers by 41%. No associations were found for emotional support or self-esteem amongst highest status mothers. No associations were found for any outcome among lowest status mothers. In conclusion, low status mothers in England did not have better social support, self-esteem, or mental health when living in low status neighbourhoods compared to high status neighbourhoods; any benefits of socioeconomic congruity may have been counteracted by neighbourhood deprivation. Nevertheless, we found that mothers of high status do have significantly better neighbourhood friendship and mental health when living in socioeconomic congruity within neighbourhoods. Whether these associations are causal or are another reflection of material advantage remains unclear.

1. Introduction

Studies on the effects of neighbourhood deprivation on health have mostly concluded that there are detrimental health impacts on residents of deprived neighbourhoods (Pickett and Pearl, 2001; Riva et al., 2007). However, some studies that have analysed the effect of neighbourhood deprivation separately for residents of different socioeconomic position have come to more complex conclusions. A number of studies of mortality in North America found that poor people who lived in poor neighbourhoods had lower mortality rates compared to poor people who lived in rich neighbourhoods (Roos et al., 2004; Veugelers et al., 2001; Wen and Christakis, 2005; Yen and Kaplan, 1999). Evidence for these beneficial health effects was more convincing when neighbourhood deprivation was classified using measures of the social class of residents, and the effects disappeared when using measures of material wealth (Roos et al., 2004; Veugelers et al., 2001; Yen and

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Kaplan, 1999). We have found interactions between individual socioeconomic status of mothers and neighbourhood socioeconomic status in relation to health among mothers in England (Albor et al., 2009). High status mothers had lower risks of obesity and low self-rated health in high status than in low status neighbourhoods. For low status mothers, these health outcomes were not worse in lower status than in higher status neighbourhoods. Despite the mixed evidence arising from these studies, the findings suggest that the socioeconomic congruity of residents – how similar a person is in socioeconomic status to other residents in the neighbourhood – may influence health.

1.1. Theoretical foundations of the status incongruity hypothesis

To provide a theoretical framework for the hypothesised health effects of status incongruity we draw on the psychosocial model of health inequalities, and principles of social capital, social support and social exclusion.

Especially in societies where social inequalities are more apparent, being lower on the social ladder is thought to cause feelings of inferiority and failure, leading to psychosocial stress (Wilkinson, 1997). Chronic stress exerts a major influence on health and wellbeing through biological mechanisms involving changes in blood pressure, functioning of the immune system and cortisol levels, as well as triggering health-damaging behaviours such as smoking, overconsumption of alcohol and comfort eating (MG Marmot et al., 2008; Marmot and Wilkinson, 2009).

A second factor of importance in the relationship between social status and health is social capital, together with related concepts such as social support and social exclusion. More equal societies have been found to be more cohesive, more inclusive, and characterised by higher levels of trust and fairer policies that stimulate greater social equality and reduce health inequalities (Kawachi and Kennedy, 1997; Rothstein and Uslaner, 2005). In unequal societies, the socially disadvantaged are less likely to derive health benefits from social capital available through the social networks of those higher up the social ladder (Arneil, 2006). A study in the US confirmed that the effect of area-level social capital on health varies between individuals within the same community. Community trust was associated with better health for those with high personal levels of trust, whilst for people with low levels of trust higher community trust was associated with worse health (Subramanian et al., 2002).

In more unequal societies where people are prone to experiencing social exclusion, they may rely on their close group of friends and family for social support, providing a buffer against the detrimental health impacts of social inequality (Uphoff et al., 2013). For socially disadvantaged groups in particular, turning inward to close-knit networks may create a social environment in which people feel safe and accepted. Various studies in the US and Europe have confirmed such a buffer effect (Abdou et al., 2010; Cohen et al., 2003; Pearson and Geronimus, 2011; Stafford et al., 2008; Van Der Wel, 2007). As such, not having these networks locally may be a health disadvantage. In relation to this hypothesis, there is a growing body of literature examining whether for ethnic minorities, living in neighbourhoods with high levels of own ethnic density is associated with better health (Bécares et al., 2012b; Shaw et al., 2012).

An extensive systematic review of 155 studies on income inequality and health concluded that the most convincing evidence is found at the societal level, and the authors have questioned the importance of social position relative to one's neighbours with regard to health (Wilkinson and Pickett, 2006). However, the literature extending this theory to the neighbourhood level is not well-developed yet, in that methods mostly do not separate health patterns specific to low status residents from those specific to high status residents. This may partly explain the lack of evidence to date. A number of qualitative studies do support the idea of neighbourhood status being of importance for residents in addition to their social position in the wider society. A study from the 1960s in Dagenham, East London, found that one of the major factors that worsened people's perception of neighbourhood friendliness was "differences in status" (Willmott, 1963). More recently a qualitative study based in the North West of England had a similar finding, referring to a related concept of socioeconomic congruity as a person's "ontology" within the neighbourhood (Popay et al., 2003). In the US a study of the relationship between relative earnings and well-being entitled "Neighbors as negatives", found that, on average, individuals feel worse off when their neighbours earn more (Luttmer, 2005). These findings are in line with the evidence on health effects of social position on the regional and national level, and combined with the theory on mechanisms of social capital they suggest a potential role for status incongruity in the development of ill health.

1.2. Study aim

In this study we aim to address the scarcity of quantitative findings for the influence of socioeconomic incongruity on health and wellbeing. Embedded in the psychosocial model of health, our hypothesis is that social support, self-esteem and depression and anxiety are improved by socioeconomic congruity on a neighbourhood level. Investigating whether these measures are influenced by socioeconomic congruity contributes to the evidence on varying neighbourhood effects on health by socioeconomic status.

2. Methods

2.1. Sample selection

The sample was selected from mothers of babies recruited into the Millennium Cohort Study (MCS), the fourth nationally representative British cohort study (Dex and Joshi, 2005), for which we have previously studied interactions between individual socioeconomic status of mothers and neighbourhood socioeconomic status in relation to health. In the present study, we included data relevant to mothers from the first, second and third surveys, which took place in 2000–1, 2004–5, and 2006 respectively. The follow-up period for our study was just over five years on average. Only mothers that were surveyed at all three points were included in our sample in order to create a more reliable measure of the incidence of anxiety and depression over this period. The data analysis was thus based on one observation per mother. Also, to ensure mothers experienced the same neighbourhood environment throughout the three surveys, only mothers who were living in the same neighbourhood during the entire follow-up period were included. We were granted a special license to use geographical markers in the MCS under strict conditions to preserve anonymity and data security, so that we could link neighbourhood characteristics from the Census to mothers.

We excluded non-White mothers, as the social experiences and status comparisons of minority ethnic groups are likely to differ from those of the White majority (Bécares et al., 2012a). What is more, any differential effect of low status neighbourhoods experienced by low status minority ethnic groups may be confounded by an effect of 'ethnic density', instead of socioeconomic congruity (Bécares et al., 2012b). We also excluded those residing outside of England to minimise the possibility of regional confounding. After applying these exclusion criteria the final sample used in the analyses of this study consisted of 4871 mothers.