

IS THERE AN INCOME GRADIENT IN CHILD HEALTH? IT DEPENDS WHOM YOU ASK

David W. Johnston*, Carol Propper, Stephen E. Pudney*** and Michael A. Shields******

** Queensland University of Technology, Brisbane, Australia, ** Imperial College London, London, UK, University of Bristol and CEPR, *** University of Essex, Colchester, UK, **** University of Melbourne, Melbourne, Australia*

8 March 2010

Non-technical summary

Research on children's mental health and its relationship to family circumstances is extremely important, because of the long-term consequences that childhood difficulties may have for future social mobility, education, family stability, employment, health and crime. There is an enduring debate about the existence and causes of the "income gradient in health" – the tendency for low family income to be associated also with poor health. One of the difficulties facing researchers in this area is the measurement of health status, a difficulty which is particularly acute for mental health, and especially so in relation to children.

The research literature on the income gradient in children's mental health is not large and is mostly based on survey data containing measures of mental health derived from a single observer's assessment of the child – most commonly from a parent. To investigate the reliability of this approach, we analyse data from two large-scale British surveys conducted in 1999 and 2004, which give information on three aspects of children's developmental state: emotional difficulties, conduct disorder and hyperactivity. Observation is made from up to four distinct viewpoints: a parent, a teacher, the child him/herself and a psychiatrist. The standard "Strengths and Difficulties Questionnaire" (SDQ) is used for assessment and children covered by our analysis are aged 11-15.

We find large differences between the four assessments and low correlations between parents', teachers' and children's SDQ scores. Teachers tend to report fewer symptoms than parents, and children on average assess themselves more harshly than either. If used diagnostically, the parental, teacher and children's scores would identify quite different groups of cases as suffering from mental health problems and those diagnoses would, in turn, differ considerably from the psychiatric diagnoses.

Analysis of the income gradient estimated from data derived from a single category of observer can result in quite different conclusions. Using the SDQ scores, we find similar evidence of a significant income gradient for emotional, conduct and hyperactivity disorders using either parents' or teachers' assessments, whereas analysis of children's self-assessments suggests that an income gradient exists only for emotional difficulties. When used to generate a sharp problematic/non-problematic diagnosis for each child, the picture looks quite different. Psychiatric assessments indicate a significant income gradient only for emotional disorder, while teachers' diagnoses indicate gradients in both emotional and conduct disorders. Parental diagnoses suggest that a gradient exists only for conduct disorders, while children's self assessments generate no significant evidence of any income gradient. Overall, the conclusion is that research findings in this area may not be very robust and that findings should be treated with caution and interpreted in relation to the source of health assessments used for the analysis.