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Eyes on Evidence
expert commentary on important new evidence

Socioeconomic disadvantage and onset of disabling chronic conditions in childhood

Overview: In the UK, around 0.8 million children (6%) under the age of 16 years are disabled (Family Resources Survey 2013). Children with disabling chronic conditions are likely to experience social exclusion, have comorbidities and have poor health in adulthood.

People who live in families with disabled members are more likely to live in poverty than people who live in families in which no one is disabled (Office for Disability Issues 2013). Cross sectional studies have suggested a link between low socioeconomic status and subsequent onset of disabling chronic conditions (for example, Emerson et al. 2006), but no causal link between socioeconomic status and likelihood of developing disability has been established.

New evidence: Blackburn et al. (2013) conducted a prospective cohort study to investigate the association between socioeconomic disadvantage in early childhood and development of disabling chronic conditions in later childhood. Data were taken from the UK ONS Longitudinal Study, which has used census data to track a representative sample of 1% individuals in England and Wales since 1971. A disabling chronic condition was defined as 'any long-term illness, health problem or handicap that limits daily activities'.

The present study included children born between 1981 and 1991 whose data on the presence or absence of disabling chronic conditions were provided in the 1991 and 2001 censuses. Data from 1991 on highest household-member social class, housing tenure (owned or rented), and car or van ownership were combined to create an aggregate index of household socioeconomic disadvantage.

The study cohort comprised 52,839 children, 2049 (4%) of whom had at least 1 disabling chronic condition in 2001 but not in 1991. The remaining 50,790 children did not have a disabling chronic condition in either 1991 or 2001. In bivariate analyses, household socioeconomic disadvantage in 1991 was associated with increased odds of developing disabling chronic conditions by 2001 (OR=2.20, 95% CI 1.86 to 2.59), as were each of the 3 individual markers of socioeconomic disadvantage.

In adjusted logistic regression models, early socioeconomic disadvantage had a graded association with onset of disabling chronic conditions. Children whose households had all 3 of the markers of socioeconomic disadvantage had the highest risk of developing disabling chronic conditions compared with children whose household had no markers (OR=2.11, 95% CI 1.76 to 2.53). Children whose household had 2 markers had a slightly lower likelihood of developing disabling chronic conditions (OR=1.45, 95% CI 1.20 to 1.75), whereas the association was not significant for children whose household had 1 marker (OR=1.14, 95% CI 0.93 to 1.39).

The population attributable risk for the onset of disabling chronic conditions in 2001 on the basis of socioeconomic disadvantage in 1991 was 17.5%. If none of the children in the cohort had been

exposed to socioeconomic disadvantage in early childhood, 359 could have been prevented from developing disabling chronic conditions in later childhood.

Commentary: "This research provides evidence of the social gradient in the development of limiting long-term illness or disability in a cohort of children followed up for 10 years. This social gradient was present irrespective of the age of the child at the start of follow-up, which emphasises the fact that the accumulation of health inequalities across the life course starts in childhood. Early interventions are therefore the first priority in tackling the social gradient in health, as recommended in the 2010 report Fair Society, Healthy Lives (The Marmot Review).

"People who work within the healthcare sector have an important and often under-used role in reducing health inequalities through action on the social determinants of health. Health professionals working with children and their parents should be aware of the social conditions that predispose to specific diseases or injuries (for example, respiratory diseases and obesity-related diseases) and that result in acute episodes becoming chronic, limiting or disabling (for example, the environment in which the child lives).

"The Working for Health Equity report has guidance from relevant professional bodies or Royal Colleges on how each of the health professions can work to reduce social gradients in health. Several of these guidance documents relate specifically to people who work with parents and children (for example, midwives, paediatricians, obstetricians and gynaecologists). For these groups, working in partnership is essential – both in terms of partnerships with parents and children and partnerships between the health sector and other agencies. In addition, individual healthcare professionals and organisations should, where appropriate, act as advocates for individual patients and their families." **–** ***Professor Peter Goldblatt, Deputy Director, Institute of Health Equity, University College London***

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