A cross-cohort comparison of childhood behaviour problems

Summary of preliminary findings from a project for the Sutton Trust

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The aim of this project is to compare the prevalence of child behaviour problems in two cohorts of British children born a decade apart. Using a common instrument to measure behaviour (the parent-reported Strengths and Difficulties Questionnaire, SDQ), we compare behaviour problems for young children (age 3 to 7) in the ALSPAC cohort of children born in the Avon area of England in the early 1990s and the MCS cohort born in the early 2000s (see notes for details of the cohorts).

The SDQ is a widely-used measure that asks parents to rate their children's behaviour across four domains: hyperactivity/inattention, conduct problems, emotional symptoms and peer problems. SDQ measurements are available in the earlier cohort when children are 3 years 11 months and 6 years 9 months, and in the later cohort when children are 3 years 2 months, 5years 3 months and 7 years 3 months. Some care must be taken when comparing outcomes across cohorts as behaviour problems tend to decline with age, and we risk confusing cohort-related and age-related changes. We note here that the last observations from each survey at around age seven are the most comparable in age.

A common finding from both cohorts is that behaviour problems are much more common among disadvantaged children prior to the start of schooling, and these differentials change little between the ages of 3 and 7. Figure 1 contrasts the average level of symptoms among the poorest fifth of children and those in the higher four-fifths of the income distribution, for different ages and cohorts. The difference between the left- and right-hand bars in each pair can be thought of as the "income gap", and it is consistently large and significant. For example, thirty-five percent of boys from the poorest fifth of households had clinical-level symptoms of behaviour problems[1] at age three, compared with 15% of those in the higher four-fifths of the income distribution. By age seven, 22% of poorer boys still experienced behaviour problems, compared with 10% of those from wealthier homes.

The results in Figure 1 also suggest that the income gap widened between the 1990s and 2000s cohorts. Levels of symptoms among the higher income groups were generally lower in the later MCS cohort, but fell by less or even increased slightly among the low income groups.

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[1] See notes

An important measurement issue that arises when examining behaviour problems is what constitutes "normal" variation in behaviour as opposed to symptoms of a likely mental health disorder, as recognized for example, by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). The originators of the SDQ defined fixed cut-off scores that can be used to classify scores as normal, borderline, or abnormal; the latter two categories may signal problems that require clinical intervention. When trends in the proportion of children with symptoms in the higher two clinical range categories are analyzed rather than average scores, the cross-cohort trends for girls appear similar (Figure 2). Low income 6/7 year old girls were nearly twice as likely as other girls to record clinical levels of symptoms in the earlier cohort, and this differential increased to over three-and-a-half times higher in the later born cohort. For boys, there is less evidence of a widening gap in clinical levels of problems than in the average levels of symptoms, with low income 6/7 year olds boys nearly twice as likely to record high levels of symptoms in both the earlier and later cohorts. This suggests that the gain apparent for the higher income groups shown in Figure 1 tends to reflect a reduction in more moderate levels of symptoms rather than severe ones.

Overall our results show that behaviour problem symptoms are much more common among children from disadvantaged backgrounds. In both cohorts these differences are strongly apparent at age 3, before children begin school, with the gap changing little by age 7. We find evidence of some improvements in average behaviour in the later cohorts, with the strongest improvements for more advantaged children with moderate levels of symptoms. This trend has led to a widening socio-economic gap over the period for most children, although the prevalence of clinical level problems, and the socio-economic gap in such problems, have changed less over time.

Notes

The cohorts

ALSPAC. Data for the older cohort are taken from the Avon Longitudinal Study of Parents and Children (ALSPAC), a birth cohort study of children born in the Avon area of England between April 1991 and December 1992. A core sample of 14,541 pregnancies was recruited, estimated to be around 85% of eligible women meeting the area of residence and expected delivery date criteria. The sample pregnancies resulted in 13,988 live cohort children at one year of age, and mothers, study children and other family members have been followed up at high frequency intervals using a variety of instruments.

MCS. Data for the younger cohort are taken from the Millennium Cohort Study (MCS), a study of 19,517 children born in the United Kingdom between September 2000 and January 2002. Children and their families were first surveyed at nine months of age, with three follow-up waves at ages 3, 5 and 7. The MCS over-sampled children in areas with high child poverty rates, high proportions of ethnic minorities and those in the three smaller countries of the UK. However,

survey weights supplied with the data can be used to adjust estimates so they are representative of all UK children.

Estimation samples are 3141 boys and 3196 girls from the MCS, and 7224 boys and 6762 girls from ALSPAC.
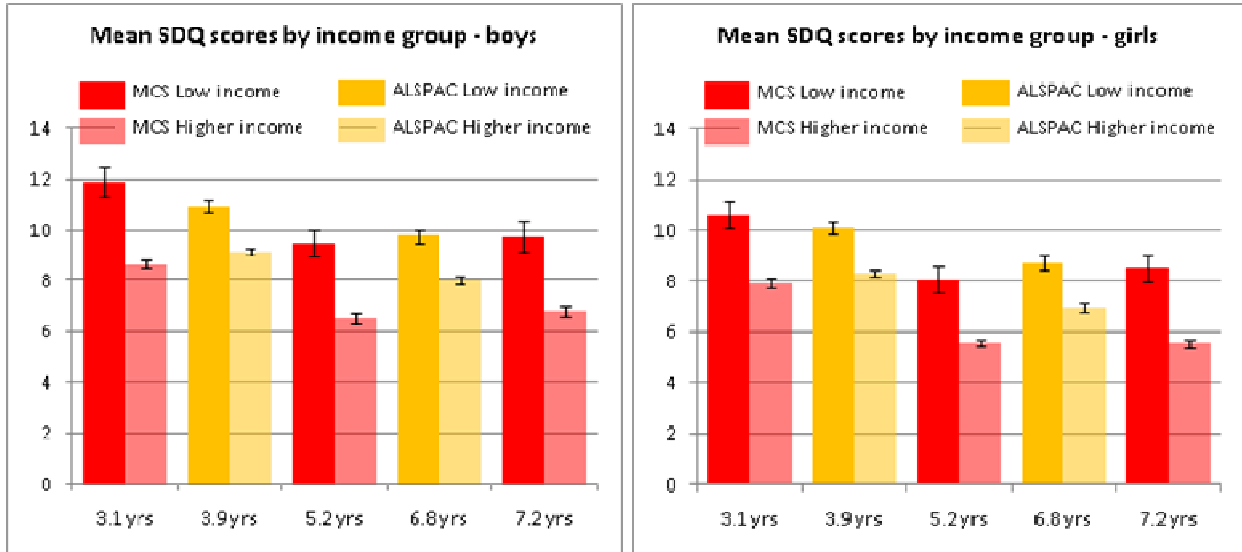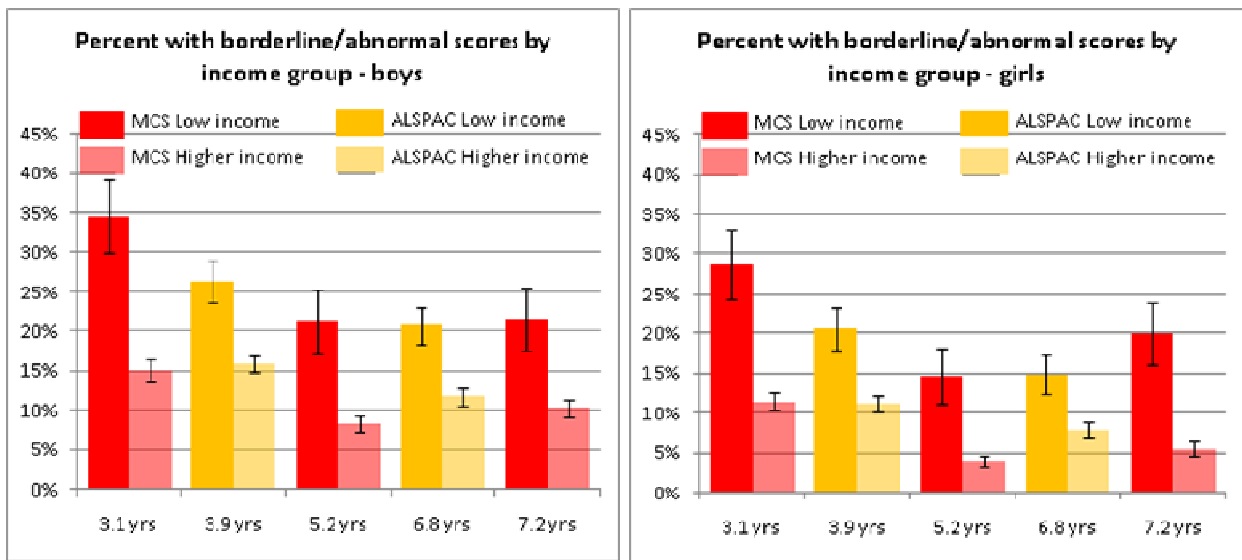
Figure 1

Figure 2

The low income group are those in the bottom fifth of the income distribution; the higher income group is all other children (the better-off 80%). Black lines indicate 95% confidence intervals.