



Short report

Siblings and childhood mental health: Evidence for a later-born advantage

David W. Lawson^{a,*}, Ruth Mace^b^a Centre for Population Studies, London School of Hygiene & Tropical Medicine, London, UK^b Department of Anthropology, University College London, London, UK

ARTICLE INFO

Article history:

Available online 23 March 2010

Keywords:

Parental investment
 Sibling competition
 Birth order
 Childhood mental health
 Strengths and Difficulties Questionnaire
 Avon Longitudinal Study of Parents and Children (ALSPAC)
 UK

ABSTRACT

The social and health sciences have often emphasised the negative impacts of large sibship size and late birth order on childhood. For example, it is now well established that, other things being equal, children in large families and/or with many older siblings, receive lower allocations of care time from both parents, are more likely to grow up in conditions of economic hardship, and, as a likely consequence, exhibit relatively poor educational and physical health outcomes. Few researchers have, however, quantitatively assessed how siblings may influence indicators of mental health, where it is conceivable that social interactions with siblings may have a positive influence. Here, using data from a large British cohort survey (the Avon Longitudinal Study of Parents and Children), we explored the effects of sibling configuration on the Strengths and Difficulties Questionnaire, as a multidimensional index for mental health problems. We demonstrate a significant socio-economic gradient in mental health between the ages of three and nine years, but little evidence for negative effects of large sibship size. Rerunning this analysis to examine birth order, a much clearer pattern emerged; the presence of older siblings was associated with relatively good mental health, while the presence of younger siblings was associated with relatively poor mental health. This suggests that being born into a large family, providing the child is not joined by subsequent siblings, may carry important benefits unconsidered by past research. We discuss possible interpretations of this pattern and the wider implications for understanding the family context of child development.

© 2010 Elsevier Ltd. All rights reserved.

Introduction

Siblings, as far as most research in the social and health sciences is concerned, are bad news. Lawson and Mace (2009) for example, in a recent study of contemporary British families, demonstrate that sibship size has a strong negative influence on both maternal and paternal time allocation to child care activities over the first decade of life; number of siblings had a larger influence on this measure of parental investment than any other covariate considered, including socio-economic indicators and parental age (see also: Blake, 1989; Downey, 1995; Hill & Stafford, 1974, 1980). In the struggle, to feed, clothe and house more children, parents in large family households also report increased levels of economic hardship, even after adjustment for a range of factors including differences in income, education and ethnicity (Iacovou & Berthoud, 2006; Lawson & Mace, in press).

As a likely consequence of these deficits, children with many siblings perform worse on IQ tests and on formal educational

assessments throughout life, a pattern recognised as one of the most stable relationships in the study of education (Blake, 1989; Downey, 1995, 2001; Lawson, 2009; Steelman, Powell, Werum, & Carter, 2002; Zajonc, 1976). Number of siblings also has an important negative effect on achieved socio-economic status in adulthood, particularly on wealth ownership (Kaplan, Lancaster, Bock, & Johnson, 1995; Keister, 2003, 2004). Keister (2003) for instance, demonstrates that number of siblings is a strong determinant of the likelihood of receiving a trust fund or an inheritance (see also: Cooney & Uhlenberg, 1992). Finally, siblings are also associated with deficits in childhood growth and achieved adult height, which may stem from reduced parental attention or early-life nutrition (Lawson & Mace, 2008; Li, Manor, & Power, 2004; Li & Power, 2004).

In most cases, later-born children are at the biggest disadvantage in terms of both the division of parental investment (Lawson & Mace, 2009; Price, 2008) and relatively poor educational and physical health outcomes (Kristensen & Bjerkedal, 2007; Lawson, 2009; Lawson & Mace, 2008; see also: Modin, 2002). This pattern may be explained by the simple fact that older siblings, being alive both before and after a child's birth, have an increased potential to dilute parental resources (Downey, 2001). It is also possible that parents systematically bias care by order of birth, reflecting cultural

* Corresponding author. Tel.: +44 (0)20 7299 4696.

E-mail address: David.Lawson@lshtm.ac.uk (D.W. Lawson).

preferences for first and early-born children (for discussion on the ultimate origins of such preferences see: [Hrdy & Judge, 1993](#); [Jeon, 2008](#); [Rosenblatt & Skoogberg, 1974](#)). Few studies have investigated the role of siblings in mental health.

Siblings and childhood mental health

The existing mental health literature has rarely been directed by the resource dilution and life history perspectives on the family which emphasise investment competition between siblings and the resulting trade-offs between quantity and 'quality' of offspring ([Becker & Lewis, 1973](#); [Downey, 2001](#); [Lawson, in press](#); [Mace, 2007](#)). Nevertheless, like physical and educational development, measures of mental health follow a socio-economic gradient; with a lower incidence of behavioural problems in children from high socio-economic status backgrounds ([Dunn, Deater-Deckard, Pickering, O'Connor, & Golding, 1998](#); [Ford, Goodman, & Meltzer, 2004](#); [Green, McGinnity, Meltzer, Ford, & Goodman, 2005](#); [McMunn, Nazroo, Marmot, Boreham, & Goodman, 2001](#)). Parenting style and quality are also assumed to be important in limiting behavioural problems (e.g., [Dunn et al., 1998](#)). As such, the dilution of material and interpersonal investments associated with large sibship size and late birth order can be expected to lead to negative consequences for childhood mental health.

To date, the best available data come from two large national samples of UK families ([Green et al., 2005](#); [Meltzer, Gatward, Goodman, & Ford, 2000](#)). The results of these analyses, not specifically designed to study the effects of sibling configuration, are difficult to interpret in the face of inconsistent conclusions and a generally poor regard for potential confounds. [Meltzer et al. \(2000\)](#) report that large sibship size is associated with increased prevalence of childhood mental health problems. This effect was largely driven by an increase in conduct disorders, with no significant relationship detected with emotional or hyperactivity problems in multivariate models. However, in a reanalysis of these data, adjusting for a wider range of covariates, [Ford et al. \(2004\)](#) reported no independent effects of sibship size (they also provided a wider discussion of the problem of highly interrelated risk factors for childhood psychological morbidity ignored in many early studies). [Green et al. \(2005\)](#) report that large sibship size was not associated with the overall prevalence of mental disorders, but was associated with increased conduct and emotional problems. However, effect estimates were not adjusted for related socio-economic and demographic factors. [Green et al. \(2005\)](#) also considered autistic spectrum disorders, with no effect of family size detected.

Using a distinct measure of peer-related mental health, [Downey and Condrón \(2004\)](#), found that children in multiple child families were scored as having better social skills than only children in an American sample. This study, based on teacher ratings of child behaviour, adjusted the effects of family size for a range of socio-economic factors. Several studies specifically considering the development of 'theory of mind' have also reported that children in multiple child families tend to perform better for their age on theory of mind tasks ([Peterson, 2000](#)).

None of the main childhood mental health surveys have tested for the existence of birth order effects ([Ford et al., 2004](#); [Green et al., 2005](#); [Meltzer et al., 2000](#)), while [Downey and Condrón \(2004\)](#) reported no difference in the effects of older and younger siblings on social skills. [Gates, Lineberger, Crockett, and Hubbard \(1986\)](#) reported a higher incidence of depression, anxiety and low self-concept in later-born children, but their findings can only be considered suggestive in the absence of multivariate analysis.

Here, we present new data on the influence of siblings on a multidimensional index for childhood mental health problems – the Strengths and Difficulties Questionnaire ([Goodman, 1997](#),

[2001](#)). All data were sourced from the Avon Longitudinal Study of Parents and Children (ALSPAC), a large British cohort. Unlike most past studies we consider both the effects of sibship size and birth order simultaneously. Furthermore, replicating the methodology of our past research into related family structure effects on parental investment and child development in the ALSPAC sample ([Lawson & Mace, 2008, 2009, in press](#)), we used detailed longitudinal data to estimate relationships net of an unusually large range of important covariates.

Data and methods

The Avon Longitudinal Study of Parents and Children (ALSPAC)

ALSPAC is a uniquely detailed, ongoing cohort study designed to examine environmental and genetic influences on the health and development of British children. Study recruitment began in pregnancy, enrolling women who had an expected delivery date between April 1991 and December 1992 from the three main Bristol-based health districts of the former county of Avon. 14,472 pregnant women (14,062 live births) were recruited into the initial sample. Avon has a predominantly white population, and a mixture of rural and urban communities encompassing a broad socio-economic range ([Golding, Pembrey, Jones, & the ALSPAC Study Team, 2001](#)). A major advantage of ALSPAC is the exceptional frequency of data collection. Mothers complete up to three postal surveys a year, one relating to the characteristics of herself and the household in general and two relating to the child. The ALSPAC survey also includes data from other surveys including extraction from clinical records and school-based assessments and direct examination of children at specifically designed research clinics.

The analyses presented in this paper are based on available data from the first 10 years of data collection. All data considered were collected by self-completed questionnaires. Further information on the distribution of each independent variable over the study period and descriptive statistics at each wave can be found in [Lawson and Mace \(2008\)](#). Further information on data collection methodology can be found in ([Golding et al., 2001](#)). We refer readers to these publications for supplementary information on the cohort.

A number of exclusion criteria remove rare family configurations from our sample. Families where the study child is from a multiple birth (i.e., a twin or triplet), families recorded as experiencing the death of a child and families containing children unrelated to either the mother or her current partner (e.g., foster or adopted children) over the study period were all excluded. Cases where the study child's live-in 'mother figure' was ever recorded as other than the biological mother, as absent or in a same-sex relationship were also excluded. Cases of biological father absence after birth were included. We also included cases where the mother was recorded as in a new relationship with someone other than the biological father. However, we excluded rare cases where the mother reported unsure paternity of the study child or started a new relationship during this pregnancy. After implementing these criteria the key study sample contained 13,176 different families each containing a single study child.

Mental health: the Strengths and Difficulties Questionnaire

Assessments of mental health are based on the Strengths and Difficulties Questionnaire (SDQ), a widely used instrument for assessing psychological morbidity in children ([Goodman 1997, 2001](#)). The SDQ measures four domains of poor mental health status, on separate scales with five items each: emotional problems, hyperactivity, conduct problems and peer problems ([Goodman, 1997, 2001](#)). Responses to questions from the emotional

Download English Version:

<https://daneshyari.com/en/article/7338447>

Download Persian Version:

<https://daneshyari.com/article/7338447>

[Daneshyari.com](https://daneshyari.com)