

Growing Up in Scotland – 2010 – Topic Research Findings

Growing Up in Scotland: Maternal mental health and its impact on child behaviour and development

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The Growing Up in Scotland Study

The Growing Up in Scotland study (GUS) is an important longitudinal research project aimed at tracking the lives of a cohort of Scottish children from the early years, through childhood and beyond. The study is funded by the Scottish Government and carried out by the Scottish Centre for Social Research (ScotCen). Its principal aim is to provide information to support policy-making, but it is also intended to be a broader resource that can be drawn on by academics, voluntary sector organisations and other interested parties. Focusing initially on a cohort of 5,217 children aged 0-1 years old (birth cohort) and a cohort of 2,859 children ages 2-3 years old (child cohort), the first wave of fieldwork began in April 2005.

Background to the report

This document is one of a series that summarises key findings from the fourth sweep of the survey, which was collected in 2008/09 when children in the birth cohort were aged 3-4 years. It presents key findings from the Growing Up in Scotland study (GUS) report *Maternal mental health and its impact on child behaviour and development*. This report focuses on the birth cohort only.

A mentally healthy childhood can be a precursor to a healthy and productive adulthood. Children's development can be affected by their socio-economic circumstances, but also by the emotional climate within the home. This may include the quality of relationships between a child's parents, the supports that are available to a family and the health and well-being of the child's primary care-givers.

There is consistent evidence that depressed mothers may be less responsive than mentally healthy mothers to their infants' efforts to engage with them and that this, in turn, affects the strength of infants' attachment to the mother. Poor attachment, in turn, has been shown to be related to impaired cognitive functioning at 18 months. There is also evidence to suggest that there may be different developmental outcomes for children exposed briefly to a mother with poor mental health compared with those exposed over a prolonged period. Understanding the possible causal mechanisms is, however, not straightforward as the factors associated with poor maternal health may also be those associated with less favourable developmental outcomes for children.



Aims of the research

The overall aim of the research is to explore the impact of poor maternal mental health on children's pre-school emotional, cognitive and behavioural development and to distinguish between children exposed briefly or over a longer time period. This report considers a number of specific research questions:

- How many mothers in Scotland experience poor mental health in the first four years of their child's life?
- What are the characteristics of these women?
- What are the longer-term impacts on child development and behaviour (at age 4) of a brief period of maternal emotional ill-health?
- What are the impacts on child development and behaviour (at age 4) of persistent (long-standing or repeated) exposure to maternal emotional ill-health?

How maternal mental health was assessed

Maternal mental health was assessed by GUS using two different scales: at Sweeps 1 and 3 (ages 10 months and 34 months respectively) the SF12 Mental Health Component Score (MCS) was used, whereas at Sweeps 2 and 4 (ages 22 months and 46 months respectively) selected items from the Depression, Anxiety and Stress Scale (DASS) were used. Both scales are widely used and well validated and we were able to demonstrate a significant correlation between them.

Mothers who had poor mental health recorded at one sweep only were classified as having "brief" mental health problems, while those who had poor mental health at two or more sweeps were classified as having "repeated" mental health problems. As we were measuring health at four discrete points in time, it cannot be assumed that repeated negative scores indicate continuous mental health problems. Nor can it be assumed that those classified as having "brief" emotional health problems were experiencing transitory or fleeting difficulties. It may simply have been that they had problems at other times as well, but not at the point when a study interview was carried out.

How child development outcomes were assessed

Social, emotional and behavioural development was assessed using the Strengths and Difficulties Questionnaire. The Strengths and Difficulties Questionnaire (SDQ) is a brief behavioural screening questionnaire designed for use with 3-16 year olds. The scale includes 25 questions which are used to measure five aspects of the child's development: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and pro-social behaviour. Cognitive ability was assessed in the GUS birth cohort at age 34 months via two measures: the naming vocabulary and picture similarities subtests of the British Ability Scales Second Edition (BAS II). These two assessments measure, respectively, language development and problem solving skills. Children were assigned to "positive" and "negative" child development outcome categories based on mean or median scores for the various tests used.

The statistical techniques used

Logistic regression models were used to assess whether particular variables were associated with each other. This technique explores relationships between variables and outcomes while controlling for other factors, such as socio-demographic characteristics.

The incidence and prevalence of maternal mental health problems

- Almost a third of all of the GUS mothers interviewed experienced poor mental health at some point in the four years after the survey baby's birth.
- At any one sweep, between 12 and 16% of the mothers was experiencing mental health difficulties.
- 1 in 6 mothers had poor mental health recorded at one sweep only and 1 in 7 had poor mental well-being recorded on at least two occasions.
- Poor mental health at the first sweep was a strong predictor of having poor mental health scores recorded at a subsequent sweep or sweeps: two-thirds (67%) who had poor mental health at Sweep 1 went on to have mental health problems at subsequent sweeps.

- Mental health difficulties were associated with a mother's social circumstances: those who experienced poverty and those living in an area of deprivation were more likely to experience brief and repeated mental health problems.
- Repeated mental health problems were additionally associated with reported relationship difficulties and with poor social support from friends, family or within the local community.

Maternal mental health and child development outcomes

- Children's development was associated with a number of social factors, including maternal age and educational level, income, employment and family characteristics.
- Maternal mental health was significantly associated with child development outcomes (i.e. emotional, behavioural and cognitive development) and there was evidence that the degree of exposure to maternal mental ill-health affected outcomes.
- Children whose mothers had good or average mental health throughout the survey period had better social, behavioural and emotional development than those whose mothers had brief mental health problems, and they in turn, had better development than those whose mothers had repeated mental health problems.
- The relationships between maternal mental health and children's social, emotional and behavioural development remained statistically significant, even after we took account of maternal family characteristics and socio-economic factors.
- Cognitive development at 34 months was not independently associated with the mother's mental health once other factors, such as income and other family characteristics, were taken into account.

Conclusions and implications

Maternal mental health is closely associated with socio-economic disadvantage and with deficits in relation to emotional and social support. Maternal mental health problems in the first year after birth were often associated with further episodes of poor mental health and, to a large extent, predicted future difficulties. The Sweep 1 assessments took place when the study child was already 10 months old, beyond the immediate postnatal period often associated with maternal depression. By age four, children who experienced prolonged (repeated) exposure to a mother with mental health problems were particularly likely to have poor behavioural, emotional and social outcomes. At the point when they are about to start formal education, these early deficits may affect their transition to school and their subsequent development and attainment.

There were significant associations between brief exposure to maternal mental ill-health, but the outcomes for these children were less marked than for those repeatedly exposed to a mother with mental health problems. The significant gradients in outcomes for children of mentally well mothers, those with brief problems and those with repeated difficulties suggests that the impact of maternal mental health on children's development may be causal. It was not possible to explore how or why maternal mental health impacted on child outcomes, but we postulate that deficits in attachment may play a role by disrupting the mother-child relationship at inhibiting their interactions.

Identifying and supporting mothers with mental health problems beyond the post-natal period may have a direct impact on young children's development and well-being and could enhance children's early school experiences.

Further information on the Growing Up in Scotland Study can also be found at: www.growingupinscotland.org.uk

If you require further copies of this research findings please contact:

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This document, along with the full research report and other social research publications commissioned and published on behalf of the Scottish Government, can be viewed on the Internet at: <http://www.scotland.gov.uk/socialresearch>.

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