

Family structure and child health, a comparison of France and the UK

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A large body of literature has shown marked differences in the average level of child well-being across different family structures. Findings suggest that children living with two married parents are relatively advantaged; children living with two cohabiting unmarried parents generally have slightly worse outcomes than those living with married parents; while those living with a lone parent fare the worst (for reviews see Amato and Keith, 1991a; Amato and Keith, 1991b; Amato, 2000; McLanahan and Sandefur, 1994; Sigle-Rushton and McLanahan, 2004). Although studies examining cognitive, educational and behavioural outcomes are more numerous, there is some evidence of differentials in physical health (Harknett, 2009).

Family structure may have a more detrimental effect on child health if in combination with other hardships, such as poverty. On the other hand, families experiencing other disadvantages may be already experiencing more significant sources of risk for their children's health. This may vary by country: different social policies across countries may modify these effects. Socio-economic differences could influence union formation and parenthood in a number of ways. Disadvantaged women may become mothers at younger ages, single, or experience union separation, lower levels of social support, greater stress and time constraints, which would in turn affect child health. Therefore, the *interplay* between family structure and socio-economic inequalities may be crucial to consider when studying outcomes for children.

International comparative research is an emerging area of population research. Recent approaches analyse data at an individual level and compare two countries in detail, rather than look at aggregate data for several countries. Most such comparative work has been between the US and UK. Furthermore, the relationship between family structure and outcomes for children or parents has been less studied in a comparative manner, even though family policies differ significantly across developed countries (Thevenon, 2011). In this paper, we consider whether family structure works in combination with socio-economic status to produce health inequalities in postnatal outcomes in the UK and France.

Hypotheses concerning the interplay between socio-economic background, family structure and child outcomes have been tested in the US and, to a smaller extent, the UK. However, these relationships might differ in France: compared to the US and the UK, family and welfare policies differ significantly in France; the concentration of certain family structures within more disadvantaged socio-economic groups is not as marked as in the US and the UK; and socio-economic inequalities in health may be smaller in France. Thus, the mediating role of family structure in explaining health inequalities might differ between France and UK.

Context

The proportion of French and British children living with a lone parent has been increasing: in the UK, the proportion of all children living with a lone parent has gone from 5% in 1960 to 25% in 2006 (ONS, 2010). In France, while the proportion of lone parent families was stable until the early 1980s, it climbed from about 10% in 1982 to 18% in 2005 (Chardon et al, 2008). In both countries nearly a quarter of children live with two unmarried cohabiting (ONS, 2010; INSEE, 2008).

While there are demographic similarities, family policy differs across the two countries. Both British and French policies focus on employment for lone parents to protect them from poverty (Eydoux and Letablier, 2009), but in the UK this is not supported by help with childcare, a policy emphasis in France (Fagnani, 2002). The French social system aims to compensate *all* families for the cost of raising children, irrespective of their socio-economic profile or family status (Thevenon, 2009), while in the UK public aid concentrates on the poorest to maintain their standard of living at the threshold of poverty (Thevenon, 2011).

Perhaps because of these different policies, combined with different demographic profiles of French lone mothers (French lone mothers are older and less likely to be never-married), the concentration of lone mothers in the most disadvantaged groups seen in the UK and the US does not seem to apply to France as much. French lone mothers have high levels employment: in 2000 three quarters were employed or looking for a job, compared to 40% in the UK, the highest and lowest levels in Europe, respectively (Chambaz, 2001). While poverty is an issue for French lone mothers, it is not the pervasive feature of British lone parenthood: in France, 27% of lone parents were classed as poor (Chambaz, 2001). In the UK, only 10% of lone parents were never poor and 60% were *always* poor by their child's fifth birthday (Panico et al, 2010).

While we do not limit ourselves to comparing lone parents in the two countries, there is much less data describing the socio-economic background of unmarried cohabiting parents in France. In the UK, unmarried parental cohabitation is linked to slightly lower socio-economic status than stably married parents (Panico et al., 2010). In France, older evidence shows that this might not be true (Kiernan and Lelievre, 1986).

Alongside differences in socio-economic and policy context, there is also evidence of a divergence in health inequalities in the two countries. While inequalities in child health and mortality are widening in the UK (Marmot et al., 2010), socio-economic inequalities in children's mortality may be declining in France (Dinh, 1998). There is less data in France to see if trends in mortality apply to early child health and well being.

Data

This paper focuses on two birth cohorts, the British Millennium Cohort Study (MCS) and the French Etude Longitudinale Francaise depuis l'Enfance (Elfe). The **MCS** involves over 19,000 households containing an infant born in the UK during 2000 to 2002. So far, sweeps of data collections relate to ages 9 months, 3, 5

and 7 years. Most data is collected through interviews with the mother, although a separate interview with their co-residential partner is also carried out. **Elfe** is France's first large scale birth cohort study. It follows roughly 19,000 babies born at a nationally representative sample of 344 maternities recruited from mid-2011 for a year. Two waves of data will be used: data collected at maternity ward (currently available) includes information taken from medical notes, including birthweight, gestational age, and other relevant information. Roughly 2 months following the birth, a telephone interview was conducted collecting more in-depth data on socio-economic status, family living arrangements, etc. This sweep of data will be made available in a few weeks.

To enable comparisons, we restrict to households where maternal age at birth is 18 and over, and gestational age is 33 weeks and over. We also only consider singleton births, where the birthweight data is not missing. This gives an analytical sample of 17 581 households in the Millennium Cohort and 17 317 for Elfe.

Measures

Analyses focus on an exploration of postnatal outcomes, notably birthweight, a key postnatal outcome, modelled both in a continuous manner and as a binary variable to distinguish low birthweight babies. A cross sectional measure of family structure will be used, capturing concurrent living arrangements at birth. Data on non-residential fathers and custody arrangements will be explored. The MCS and Elfe contain rich data on the socio-economic characteristics of the household. Parental income, education and age, along with employment status and occupational class, will be key variables.

Analytical strategy

Objective 1 is to characterise differences in birth weight and low birth weight across family structures. **Objective 2** explores whether family structure works in combination with socio-economic status to produce health inequalities in postnatal outcomes. This will initially be explored through interactions with key socio-economic markers. In **objective 3** data will be pooled to run a multi-level model with a country level.

Initial results

In weighted analyses, mean birthweight (3334 grams in Elfe and 3405 in MCS) and the proportion of low birthweight babies (3.9% in Elfe and 4.7% in MCS) are comparable in the two samples. After weighting, the Elfe sample appeared more advantaged than the MCS sample in a number of comparable markers of socio-economic background variables, such as maternal education, young maternal age at birth, and occupational class. Socio-economic gradients in birthweight and low birthweight appeared to be similar in both samples (see figure 1 for birthweight).

Initial analyses suggest striking similarity in raw birthweight by family structure at birth, with babies born to cohabiting unmarried parents having lower birthweights than those born to married parents. Children born to

unmarried non-cohabiting parents appear to have the lightest birthweights. In France, we further distinguish between cohabiting parents who are in a civil union, and cohabiting parents who are not in a civil union. The latter appear to have lower birthweights than the former. In the MCS, markers of socio-economic background (maternal education and occupational class) explained much of these differentials, together with maternal age. In the fully adjusted model, there were no significant differences between married and the two unmarried groups. On the other hand, in Elfe these socio-economic variables did not have a strong effect in explaining differences. Half of the difference between the married and the cohabiting parents in a civil union (“Pacs”) was explained by the latter’s younger age profile. Other differences remained largely unexplained.

An interaction term testing the interaction between family structure at birth and maternal education did not appear to be significant in Elfe, but were strongly significant in the MCS sample.

Future work

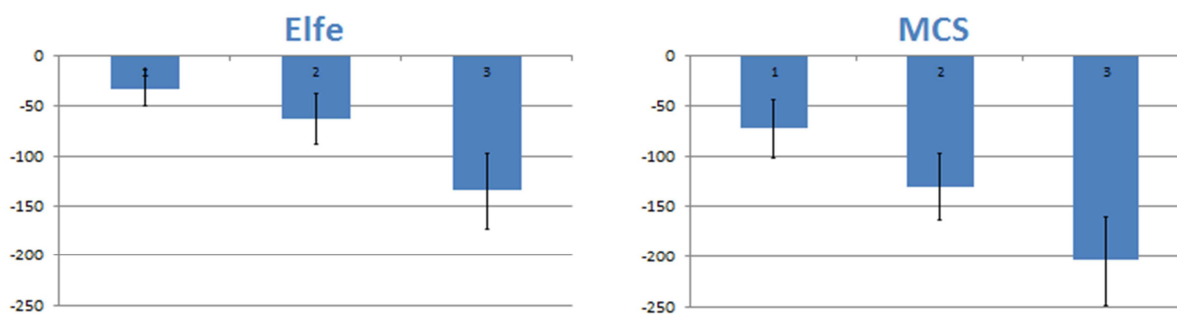
This work is on-going. Final results will use more numerous and sophisticated measures of socio-economic background, thanks to the release of the second wave of Elfe, and will include more interaction terms.

Table 1: Linear regression coefficients, birthweight by family structure at birth. Comparison group is the married group

| Family structure at birth | Model 1 Un- adjusted | Model 2 Maternal age | Model 3 Parity | Model 4 Maternal ed & occupation | Model 5 Models 2+3+4 |
|---------------------------|----------------------------|----------------------------|-------------------|--|----------------------------|
| Elfe | | | | | |
| Pacs | -50** | -48** | -25* | -50** | -27* |
| Cohabiting | -69** | -65** | -50** | -65** | -41** |
| Non-cohabiting | -103** | -98** | -96* | -97** | -86** |
| MCS | | | | | |
| Cohabiting | -54** | -29** | -27* | -40** | 0.5 |
| Non-cohabiting | -106** | -69** | -77** | -66** | -16 |

** p<0.001 *p<0.05

Figure 1: Mean birthweight by a vulnerabilities score¹



¹ A vulnerability score was created by assigning 1 point for each of the following, relating to the mother: age under 25; low or no educational qualifications; single at birth; no profession.

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