

## **Comparing the conception and abortion rates among young people in Britain and France: What is the role of social disadvantage?**

Scott, R.<sup>a</sup>, Bajos, N.<sup>b</sup>, Wellings, K.<sup>c</sup>, Slaymaker, E.<sup>a</sup>.

<sup>a</sup> *Department of Population Health, London School of Hygiene and Tropical Medicine*

<sup>b</sup> *Department of Social and Environmental Health Research, London School of Hygiene and Tropical Medicine*

<sup>c</sup> *Department of Gender, Health and Sexuality, Institut national de la santé et de la recherche médicale*

*As prepared for the Population Association of America Annual Conference 2015.*

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### **Introduction**

Young people in Britain are more likely to become pregnant than young people in France. The conception rate among under 20s was 55 per 1000 in Britain in 2010, compared to 29 per 1000 in France (ONS, INSEE). Among those that do become pregnant, young people in Britain are less likely to have an abortion. Certain socioeconomic factors are known to be associated with youthful pregnancy and abortion. The most consistent risk factor for adolescent pregnancy is socio-economic status; studies in Britain show that individuals from deprived households, and those living in deprived areas, are more likely to become pregnant before age 20 (Conrad, 2012; Lupton & Kneale, 2010). In Britain, early school leaving age and lower educational attainment are associated with pregnancy before age 20 (Wellings et al, 2001; Kiernan, 1995).

However, whilst we know that conception and abortion among young people is associated with certain social characteristics, this reading of the data can mask important nuances. Abortion is the result of a multistage process, which starts with sexual intercourse and contraceptive use or non-use, continues with the occurrence of an unintended pregnancy, and ends with a woman's decision to end the pregnancy and access abortion services (Bajos, Guillaume, & Kontula, 2003; Rossier, Michelot, Bajos, & Group, 2007). Differences in teenage pregnancy rates may therefore be partly due to the proportion that is sexually active, or in the steps that sexually active young women take to prevent pregnancy (including method use or non-use, choice of method and the effectiveness with which they are used). The abortion rate is further determined by the fact that those who do become pregnant also differ in their likelihood of resolving the pregnancy by abortion (Darroch et al., 2001).

Socioeconomic factors have been found to be associated with each of these stages in the pathway to abortion. Wellings et al (2001) find that British women with lower educational attainment are more likely to report earlier sexual debut, and that this was a better predictor of early sex than parents'

social class. In France, disparities were found in age at first intercourse between different educational groups, but variation according to parent's occupation were much smaller (Bozon, 2008). In France, women with low socioeconomic security, living in rural areas or with low education more frequently report non-use of contraception (Bajos et al., 2012; Rossier et al., 2007). In Britain, young people from more affluent backgrounds are more likely to use contraception effectively and to use emergency contraception, and more likely to have an abortion than to carry the pregnancy to term if they do become pregnant (Singh et al., 2001, Wellings et al, 2001, Wight et al, 2006).

The impact of social characteristics at different stages in the pathway to abortion may differ cross nationally. A five country comparative study of socioeconomic disadvantage and young people's sexual behaviour (considering the cases of the United States, Britain, France, Sweden and Canada using national level aggregated data) found that contraceptive use at first intercourse differed greatly according to socioeconomic indicators in some countries, but not in others (Singh et al, 2001). Furthermore, the impact of social characteristics at each stage of the pathway may not be the same for men and women, and this may also vary cross nationally. This paper presents a comparative analysis of the effect of level of education on selected stages of the pathway to abortion in Britain and France. The two countries are geographically contiguous and share economic and socio-demographic similarities, yet are dissimilar in ways that affect young people's lives. The aim of this paper is to better understand the role of social characteristics at each stage of the pathway to abortion among young men and women in Britain and France, and to establish whether these pathways differ between the two countries. Ultimately, we seek to establish whether some of the variation in the conception and abortion rates between the two countries may be explained by differing effects of social characteristics.

## **Methods**

This paper draws on data from two nationally representative probability surveys, the National Survey of Sexual Attitudes and Lifestyles (Natsal) in Britain (total sample size 15,162) and the Fertility, Contraception and Sexual Dysfunction Survey (FECOND) in France (total sample size 8645). In this analysis we limited the sample size to men and women aged 16-24, resulting in a final sample size of 3869 and 2111 for Natsal and FECOND respectively. Fieldwork for both surveys began in 2010; Natsal was conducted through computer-assisted personal interviews (CAPI) with computer assisted self-administered interview (CASI) sections for more sensitive questions, and FECOND was conducted over the phone, using both landline and mobile numbers. Natsal used a multistage, clustered and stratified probability sampling strategy; within each primary sampling unit (postcode sectors), addresses were randomly selected. In FECOND, two samples were independently selected to include a random sample of individuals who had a landline and a random sample of mobile phone

users who did not have a landline, following a two stage random probability sampling process. An initial probability sample of households or mobile phones was selected using random digit dialling, and one eligible individual per household or mobile phone was randomly selected for participation in the study. These surveys have the benefit of being conducted at the same point in time, and covered similar topics, facilitating comparability between the two. Both surveys gathered detailed information on sexual behaviour, as well as information on the socioeconomic characteristics respondents, including whether they were currently studying and their highest qualification attained.

The key variables relevant to the questions addressed in this paper were age at first sexual intercourse, condom use at first sex, reporting of a conception before age 20 and reporting of an abortion before age 20, among those that had conceived. We also selected comparable variables for level of education. Individual level educational attainment, derived from information on the highest qualification achieved and current educational activity, was defined as having completed some post-16 education or training *versus* having completed none.

### *Analysis*

We first describe the two survey samples in terms of sexual behaviour and contraceptive use and sexual health outcomes (first sex before age 16, condom use at first sex, recourse to abortion among those who had a conception before age 20) and describe the differences between men and women and between Britain and France. We then use bi-variate analysis to examine the relationships between reporting each of these behaviours and outcomes and level of education. Finally, we conduct logistic regression models to study these associations, controlling for parent socioeconomic group, religiosity (reporting of importance of religion) and family structure at age 14/15 (whether the respondent lived with both, only one or neither parent at this age), for men and women aged 16-24. All analyses were conducted using Stata 13.

### **Results**

In preliminary analyses for this paper we find some important differences in sexual behaviour and contraceptive use between Britain and France. In Britain, approximately one third of men and women reported first sex before age 16. In France, around one third of men reported first sex before 16 but there was a large gender difference; only 15% of women reported first sex before 16. In terms of condom use, a greater proportion of respondents in France reported using a condom at first sex than in Britain. In both countries, the proportions reporting condom use at first sex were around the same among men and women (just over 80% in Britain and just over 90% in France). Among women aged over 20 who had ever had sex, a greater proportion of respondents in Britain compared to France reported a conception that occurred before age 20 (25% in Britain compared to

13% in France). Finally, among women aged over 20 who had conceived before age 20, the data show that 33% of respondents in Britain reported having an abortion aged under 20, compared to 14% in France.

[Table 1 here]

Among men and women in Britain and France, fewer respondents with some post-16 education reported first sex before 16 compared to respondents with no post-16 education, although this association was weaker among women in France. In multivariate analyses, reporting of sex before age 16 was associated with level of education in Britain and France, among both women and men. The magnitude of the effect of education was similar among men and women in both countries, but among both sexes was higher in Britain than in France.

In both Britain and France, a greater proportion of men and women with some post-16 education reported condom use at first sex. In multivariate analysis, condom use at first sex remained associated with level of education among men and women in Britain. In France, there was weak evidence for an association between level of education and condom use at first among men, but no evidence for an association among women. The magnitude of the effect of level of education was similar among men in Britain and France.

[Tables 2 and 3 here]

In terms of reporting of abortion before age 20 among those who had had a conception, in Britain, fewer women with a lower level of education reported that they had had an abortion compared to those with a higher level of education. In France, a larger proportion of women with a lower level of education reported an abortion, but this association was not significant and the number of women reporting an abortion was small. In adjusted analyses, there remained a strong association between level of education and reporting of abortion among women in Britain who had conceived before age 20. Because of the small numbers of women reporting an abortion before age 20, particularly in the French survey, we also ran this analysis on the whole female sample aged over 20. There was no association between level of education and reporting of an abortion among women of all ages in France (results not shown).

## **Discussion**

A key strength of this study is that we have been able to contrast common outcomes and their associations with social structural characteristics in roughly comparable survey data sets in two countries. Such comparable data are difficult to obtain for sexual and reproductive health, and as such international comparisons have often been restricted to comparing aggregated data for entire countries and so have paid less attention to the variability within them (e.g. Singh et al. 2001). The

rich individual level data on social characteristics enable us to analyse in detail the role of social factors. Although recall of personally significant events such as first sex is known to be good (Copas et al., 2002), the data may nevertheless suffer differentially in the two countries from social desirability bias (Copas et al., 2002; Wellings & Collumbien, 2012). The proportion of young women reporting both conceptions and abortions does not correspond to national statistics, that is to say fewer of these events are reported in the survey. The underreporting is more marked in France. Underreporting in surveys is common, particularly of sensitive or non-socially sanctioned behaviours, and may be biased towards particular groups (Jones & Kost, 2007). It is likely more useful to use national level figures on conceptions and abortions to explore associations between socioeconomic status and reproductive health outcomes, and this will be the subject of a future analysis. However, despite these limitations, we are able to use the rich data on sexual behaviours to study the stages in the pathway to abortion, and these data allow a comprehensive analysis of the role of social characteristics in shaping sexual health status in Britain and France.

Our preliminary findings suggest that sexual behaviour and contraceptive use varies between Britain and France, and that the effect of socioeconomic characteristics on sexual and contraceptive behaviour and sexual health outcomes may be stronger in Britain. This is consistent with the work of Darroch et al (2001) on country level differences in sexual behaviour and contraceptive use among young people, and of Singh et al (2001) on the different effect of socioeconomic factors on sexual behaviour and contraceptive use between countries, as well as with previous research that has examined separately the effect of socioeconomic factors on sexual health behaviours and outcomes. However, we also show that social characteristics intervene differently at each stage in the pathway leading to abortion, and between women and men. In Britain, respondents with a lower level of education were more likely to report first sex before 16 and less likely to have used a condom at first sex. This was the case for both men and women. Women with a lower level of education were less likely to report an abortion if they did become pregnant before age 20. In France, men with a lower level of education were more likely to report first sex before 16, but among women this association was weaker. There was a weak association between level of education and condom use at first sex among men, and among women there was no evidence of an association, although the odds ratio was of the same direction. Among women in France there was no association between level of education and reporting of abortion among those who reported a pregnancy aged under 20.

Our results suggest that sexual health outcomes are more socially stratified in Britain than in France. Britain is a society that is more marked by social inequalities than France. The percentage of the British population with an income less than 60% of the median is 21%, compared to 16% in France (Eurostat, 2012 data). There is also a wider gap between the incomes of the richest 20% and the poorest 20% in Britain compared to in France (Eurostat, 2012 data). Given these differences in social

inequality between the two countries, it is possible that socioeconomic characteristics have a stronger effect in Britain.

Other aspects of the social context are also important. Van de Velde (2008) studied the transition to adulthood in Britain and France, and stresses that this is shaped by the country context. She suggests that in Britain, the transition is shorter, with the aim of becoming independent quickly and acquiring an adult social status. In France, the period of youth is considered an investment in the future, strongly determinant of future social status. Whilst in France, becoming pregnant at a young age is in complete contradiction with the prescribed social order and the focus on educational success (Le Van, 2008), in Britain it can be considered much more as an alternative way of acquiring an adult social status, for young women for whom alternative routes (education and employment) appear less evident. This is shown in Britain by the fact that conception rates are strongly associated with area level disadvantage (Wilkinson et al, 2006). Much less is known on this association in France. Not only can pregnancy be considered a way of obtaining an adult social status in Britain in a context where a rapid transition to independence is encouraged, but also, given that the wider social inequalities in Britain, a larger proportion of young women are in a position where their means of acquiring a social status through educational success and employment are not obvious, and so for whom pregnancy may therefore be a rational alternative. This research highlights the crucial role of social context in shaping sexual health status – a central focus of sexual health promotion to date has been on changing individual risk behaviours (Collumbien et al. 2012), but the impact that these interventions can have is limited by wider social and structural constraints.

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