How do differences in sexual activity and contraceptive use contribute to differences in conception and abortion rates among young people in Britain and France?

Scott, R.

Department of Population Health, London School of Hygiene and Tropical Medicine

Abstract

Young women in Britain are more likely to become pregnant than young women in France. Among those who conceive, young women in Britain are less likely to have an abortion. The two countries are geographically contiguous and share economic and socio-demographic similarities, yet are dissimilar in ways that affect young people’s lives.

This paper describes the rates and trends in conception rates, abortion ratio and abortion rates among under-20s in Britain and France, and examines differences in sexual activity and contraceptive use that might underlie some of the variation. We draw on routine data on conceptions and abortions collected by French and British authorities, as well as several probability surveys of sexual behaviour in Britain and France from 1983-2010.

Differences in sexual activity are an important driver of the differences in conception and abortion rates. Even if contraceptive use was the same, conception rates would be higher in Britain because of the greater proportion who are sexually active and therefore at risk of (unintended) pregnancy. Among 18-19s, use of a reliable method is higher in France, but among 16-17s it is lower. It is possible that if the pattern of contraceptive use among 16-17s was the same in Britain and France, the difference between the conception and abortion rates would be even greater.
Introduction:

Young women in Britain are more likely to become pregnant than young women 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 women in Britain are less likely to have an abortion (ONS, INSEE). Certain socioeconomic factors are known to be associated with youthful pregnancy and abortion. The most consistent risk factor for adolescent pregnancy is socioeconomic 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). However, little is known about why conception and abortion rates might be so different in the two countries. The two countries are geographically contiguous and share economic and socio-demographic similarities, yet are dissimilar in ways that affect young people’s lives. In particular, Britain is a country more marked by social inequality 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).

This paper will examine and compare the current rates and trends over time in reproductive health outcomes, namely conception rates, the abortion ratio and abortion rates, in Britain and France, focusing on under-20s. We will also consider trends in sexual behaviour and contraceptive use among young people, in order to examine the relative contribution of these aspects to variation in the stated reproductive health outcomes. The objective of this paper is to consider how socio-demographic changes in the past three decades have affected reproductive outcomes, and how social and economic differences between Britain and France might explain the variation in conception and abortion rates among young people.

Methods:

To examine trends over time in conceptions and abortions, we used routinely collected administrative data from the Office for National Statistics (ONS) in Britain and the National Institute of Statistics and Economic Studies (Insee) in France. We obtained data on the numbers of births and abortions that occurred each year between 1980 and 2011 in France and Britain, alongside mid-year population estimates for the same period. We calculated conception rates (the total number of births and abortions per 1000 women, not including miscarriages), abortion rates and birth rates by age group. We also calculated the abortion ratio, that is the percentage of conceptions that end in abortion. Alongside these data, we draw on individual level data from two nationally representative probability surveys, the 2010 National Survey of Sexual Attitudes and Lifestyles (Natsal-3) in Britain (total sample size 15,162) and the 2010 Fertility, Contraception and Sexual Dysfunction Survey (FECOND) in France (total sample size 8,645). These surveys contain detailed, comparable information on sexual behaviour and contraceptive use, and we use these data to examine trends over time in onset of sexual activity by comparing age at first sex among different cohorts (ranging from those aged 16-19 at time of interview to those aged 45-49), and to examine sexual activity and contraceptive use among 16-17 and 18-19 year olds in 2010.

Finally, we make use of three consecutive Natsal surveys going back to 1990, and the General Household Survey for 1983 in Britain, as well as several sexual and reproductive health surveys in
France dating back to 1983, to describe trends in contraceptive use over time. For this analysis we limit the sample to women aged 18-19, as under 18s were not included in some of the earlier surveys.

Results

Current rates

In Britain, conception rates among 15-17 year olds are more than two times higher than in France, and among 18-19 year olds are a little less than two times higher (Table 1). Among those who do become pregnant, a greater proportion of young people in France have an abortion, among both age groups. Consequently, the abortion rate is just over fifty percent higher in Britain than in France among 15-17 year olds and just under fifty percent higher among 18-19 year olds. Although a lower proportion of young people choose to have an abortion in the event of pregnancy in Britain, the abortion rate is still higher because of the higher conception rate.

Table 1: Conception rate, abortion ratio, abortion rate and birth rate in Britain and France, 2010. All rates are calculated per 1000 women in age group

<table>
<thead>
<tr>
<th>Age group</th>
<th>Conception rate</th>
<th>Abortion ratio</th>
<th>Abortion rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Britain</td>
<td>France</td>
<td></td>
</tr>
<tr>
<td>15-17</td>
<td>35</td>
<td>16</td>
<td>48%</td>
</tr>
<tr>
<td>18-19</td>
<td>83</td>
<td>47</td>
<td>38%</td>
</tr>
</tbody>
</table>

Trends over time

Among both 15-17 and 18-19 year olds, conception rates declined steadily until the late 1980s and then remained stable in France, but in Britain, fluctuated throughout the 1980s and 1990s, showing no consistent decline until the late 1990s (Figure 1). The difference between the conception rates in Britain and France therefore widened between the 1980s and 1990s, and began to narrow only in the late 1990s. Among 15-17 year olds (left column) the abortion ratio in France increased steadily from the beginning of the period under study. In Britain, the increase is less marked. As a result, the abortion rates in both countries have remained relatively stable in this age group, with rates in Britain staying at a higher level than those in France. Reflecting the steeper decline in conception rates in Britain in the mid-2000s, abortion rates also show a decline during this period. In France, the abortion rates among 15-17s have remained stable because although the conception rate has declined, the proportion of those conceptions that are terminated by abortion has increased, in effect cancelling out the effect on the abortion rate of the decrease in conceptions. Among 18-19 year olds (right column), the abortion ratio increased steadily in both countries, but was higher in France throughout the thirty year period, and increased more rapidly in France. The abortion rate among 18-19 year olds has increased over time in Britain, as a greater proportion of a stable number of conceptions are terminated by abortion. It begins to decline in the mid-2000s, corresponding to the steep decrease in conception rates. In France, the abortion rate declined in the 1980s, corresponding to a steep decline in conception rates, then stabilized before rising again, corresponding to the stable conception rate at this time yet a continuing increase in the abortion rate.
**Age at first sex**

In both Britain and France, the proportion of women and men having first sex before age 16 has increased. In Britain, the proportion is higher than in France and has increased more rapidly. Among those aged 16 in the period 2007-2010, 29.8% of young women in Britain reported first sex before age 16 compared to 16.5% of young women in France. The proportions in both countries reporting first heterosexual intercourse before age 18 are more similar. Among those aged 18 in the period 2007-2010, 67.4% of women in Britain reported sexual debut before age 18, and 58.1% in France.
Contraceptive use trends

The proportion of women aged 18-19 years old, who have ever had sex but are not trying to get pregnancy, who are using a medical of contraception has increased in both countries over time. Medical methods here include the pill, patch, implant, injection, and IUD. It does not include condoms, other barrier methods, or traditional methods of contraception. In France, use of medical methods has doubled since the early 1980s from 24% to 48%; in Britain the increase has been smaller as contraceptive use was higher than in France in the 1980s, and in 2010 use was similar.

Current contraceptive use

Figure 3 shows the distribution of risk of conception among young women in Britain and France assigned to categories based on their contraceptive use and sexual activity. Among 16-17s in Britain, 50% had never had sex, compared to 58% in France. 31% were using a medical method of contraception, and 19% were not using a medical method of contraception. In France, 22% of young women aged 16-17 had had sex and were using a medical method, and 19% were using no medical method of contraception. The top bar shows those most at risk of conception, i.e. those who are sexually active but are not using a reliable method of contraception. The proportion in this category among 16-17s is the same in Britain and France. Among 18-19s it is slightly higher in Britain, at 23% compared to 20%. In addition, the proportion in Britain who have never had sex is smaller, at 26% compared to 29%.

Among young women who were sexually active, contraceptive method mix was different in Britain and France (Figure 4). Among 16-17s, the proportion using no contraception or relying on traditional methods or EC was higher in France than in Britain (10% vs. 7%). A slightly greater proportion of 16-17s in France reported using condoms (36% vs. 33%), but the largest differences are found between pill and long term reversible contraceptive methods (LARC), the latter being much more prevalent in Britain whilst in France the proportion using these methods is negligible and the pill is dominant. This is also the case among 18-19s, 75% of 18-19s in France were using the pill but very few reported LARC methods. In Britain, a quarter of women relied on condoms compared to less than 20% in France.
Discussion

During the last 40 years dramatic changes have taken place in Europe. Characterised as the ‘second demographic transition’, these changes include declining fertility rates, increase in age at first birth, decrease in marriage rates and increase in age at first marriage, increased extra-marital births and increased divorce rates (Bajos et al. 2003). These changes reflect changing social mores: changing attitudes to family and sexuality; increased educational participation among women and increased female participation in the work force; and the diffusion of modern contraception. Although one aspect of these demographic changes is the increase in average age at first birth, the average age at first sex has decreased over this period, and the proportion who have first sex before age 16 has increased. A consequence is that the interval between first sex and first birth has lengthened, resulting in an increased period during which young people, who are also particularly fecund, are at risk of unintended pregnancy and abortion. It is therefore not unexpected, when we situate the results in this demographic context, that conception rates among young people should have declined, and abortion rates increased, over this period (Rossier & Pirus 2007).

Differences in conception rates can firstly be considered in the context of differences in sexual activity and contraceptive use. Our analyses suggest that differences between Britain and France in young people’s sexual activity are the main drivers of the differences in conception rates. More young women in Britain have ever had sex and are currently sexually active, which means that a greater proportion of young women in Britain than France are at risk of an unintended pregnancy, even if they were to use contraception with the same effectiveness as young people in France. Furthermore, these differences are greatest in the youngest age group, which corresponds to the bigger difference in conception rates.

However, contraceptive use may also underlie some of the variation in conception rates between the two countries. Use of a medical method of contraception increased in both countries but more rapidly, from a lower initial prevalence, in France. In 2010, among 18-19 year olds in Britain a greater proportion reported ever having had sex but not currently using a reliable method than in France, and a greater proportion of those who were sexually active and trying to prevent a pregnancy reported no usual method of contraception. Contraceptive behaviour among 16-17 years olds was noticeably different. Among this group, no difference was observed between Britain and France in the proportion...
reporting ever having had sex but not using a reliable method (but even those using a reliable method are at risk of conception, and this group is larger in Britain). Examining method choice only among those currently sexually active showed that young women in this age group in France appeared to be using less effective methods than their British counterparts. It could be that if contraceptive use among this age group in Britain and France were equivalent, but the proportion sexually active remained the same, the difference between the conception rates in the two countries would be even greater. Interestingly, LARC methods were more common in Britain, which may reflect issues of contraceptive access and provision. The pill is very much the dominant method in France (Nathalie Bajos et al. 2012), whilst in Britain recent campaigns have focused on LARC uptake among young people, largely in response to high pregnancy rates.

Whilst we might think of sexual activity and contraceptive use as the ‘proximate’ determinants of conception among young people, we must also consider these differences with reference to the social context in which they occur. In this instance, a comparative study is illuminating because it allows us to hypothesise about the role of social contextual factors. Early school leaving is more common in Britain, and the proportion leaving school early has declined less over time than in France (Ní Bhrolcháin & Beaujouan 2012). As a result, many more young women in Britain than in France are not in education, and, in addition, the disparity between the two countries grew during the period analysed. The relatively static fertility rates among young women in Britain may be partly related to the smaller increase in enrolment among teenagers in Britain compared to France (Ní Bhrolcháin & Beaujouan 2012). Early school leaving and educational attainment are known to be associated with earlier sexual initiation and earlier childbearing (Wellings 2001; Kiernan & Hobcraft 2010); whilst staying in education does not necessarily in itself prevent early childbearing, it has been suggested that young people who stay in education prioritise their academic studies (Bozon & Kontula 1998) and also likely have stronger aspirations for future careers that they prioritise over relationships and childbearing.

In Britain and France, and across much of Europe and other industrialised countries, the period of youth is lengthening (Galland 2001) as young people spend more time in education and the difficulties in entering the labour market mean that it is more difficult to reach economic independence. However, the transition to adulthood is experienced differently in Britain and France. Cécile van de Velde (2008), in her study of the transition to adulthood in four European countries, suggests that whilst in Britain the focus is on independence, and a rapid transition to this state, in France the period of youth is considered much more as a period of investment in the future; the focus is on education and the diploma achieved is very strongly linked to the future social status. Whilst in France, becoming pregnant is in complete contradiction with the prescribed social order and the focus on educational success (Le Van 2006), it is more compatible with the British model of the transition to adulthood and can be considered much more as an alternative way of acquiring an adult social status for young women for whom traditional routes (education and employment) may appear less evident. Future research should investigate this further by examining differences in pregnancy intentions among young people between the two countries.

In both countries, the transition to adulthood happens at a more rapid pace among those from more disadvantaged backgrounds (Bidart & Lavenu 2006; Thomson et al. 2004). Entry into parenthood is a commonly used indicator of one ‘threshold’ of the transition to adulthood, and sexual debut a less common one. However, both are important markers of this transition, and are shaped by social-
contextual factors. These results can therefore also be interpreted in light of the differences in social inequality in the two countries. It is known that sexual debut is earlier contraceptive use lower among more disadvantaged groups (Wellings 2001; Bozon 2008; Nathalie Bajos et al. 2012) conception rates among under-18s are higher in more deprived areas (Wilkinson et al. 2006; Conrad 2012). Britain is more marked by social inequalities than France, both in terms of the proportion of the population with an income below 60% of the median (UNICEF, 2013), and in terms of the income ratio of the richest to poorest (OECD 2011). There is therefore a greater proportion, and greater number, of young people living in more disadvantaged situations in Britain than in France. It is possible that the higher conception and abortion rates in Britain are also partly a result of the larger proportion of the population that is disadvantaged relative to France. Future research in this area should examine whether conceptions and abortions among young people are more socially stratified in Britain compared to France.
Bibliography


Lupton, R. & Kneale, D., 2010. Are there neighbourhood effects on teenage parenthood in the UK , and does it matter for policy ? A review of theory and evidence,


OECD, 2011. Divided We Stand: Why Inequality Keeps on Rising, OECD.


