

Who presents more than once? Repeat abortion among women in Britain

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Abstract

Background and methodology Around one in three sexually active women in Britain will have an abortion during their lifetime and a third of those women will experience more than one. Using data collected during the second National Survey of Sexual Attitudes and Lifestyles the characteristics of women who have presented for a second or subsequent abortion are compared to those women who have obtained only one.

Results Results indicate that increased age and parity are key characteristics distinguishing between women who have experienced only one abortion and those women who have had more. Findings also reveal that those who have sought abortion on more than one occasion are more likely (than those who have had one abortion) to be Black, have left school at an earlier age, be living in rented accommodation, report an earlier age at first sexual experience, be less likely to have used a reliable method of contraception at sexual debut and report a greater number of sexual partners.

Discussion and conclusions It is well recognised that attendance at abortion services presents an important opportunity for the provision of individually tailored information regarding contraception to assist women avoid the need for subsequent procedures. However, differential use of abortion services may also indicate variations in knowledge levels, attitudes to risk, attitudes towards abortion, partner communication, gender power and differential access to services. Further research is required to clarify these potential relationships so that suitable health promotion activities can be developed.

Background

Data collated by the Office of National Statistics show that, in 2009, 1.7% of resident women of reproductive age in England and Wales underwent an abortion. This resulted in 189 100 abortions of which 66% were first time procedures and 34% second or higher-order abortions.¹ Data collected by the Information Service Division Scotland show similar

Key message points

- ▶ Around one in three women will have an abortion during their lifetime and a third of those women will experience more than one.
- ▶ Women who have sought multiple abortions are more likely to have been younger at first sexual experience, be poor users of contraception at sexual debut and report a greater number of lifetime sexual partners.
- ▶ In the main, repeat abortions are not simply unintended pregnancies occurring near the beginning and then again at the very end of a woman's reproductive years.

figures. As one would expect, the proportion of women obtaining a second or subsequent procedure increased markedly with age; for instance, among presenting women aged 18–24 years, 28% had had at least one abortion before, while among women aged 30 and over, 43% had experience of a previous abortion, including 13% having had two or more. On the basis of the 2009 age-specific abortion rates it is possible to determine that just over one in three (35%) women will have an abortion during their reproductive lives, and that a third (34%) of those women will experience more than one.¹

Ethnic differentials in repeat abortion are also evident. Across the entire age range, 48% of women of Black and Black British ethnic origin obtaining an abortion in 2009 were undergoing a second or subsequent procedure; this compares to 32% among the White population and 30% among women of Asian origin.¹ Additionally, there is considerable geographic variation in repeat abortion; among presenting women aged under 25 years, the proportion attending for a second or subsequent procedure ranged from 13% in Merthyr Tydfil to 36% in Croydon, compared with 25% across England and Wales as a whole.¹

Previous authors have documented the stigmatisation women potentially face when requesting a second or subsequent abortion procedure. For example, those

presenting more than once can be perceived as having difficulty in using contraception, lacking motivation to prevent unintended pregnancy, using abortion as a method of family planning or as being somehow different from other women in more fundamental ways, for example, regarding their fecundability.²⁻⁷ Negative attitudes continue to be evident despite the fact that previous studies have found that women presenting for repeat abortions either do not differ from women requesting their first abortion in their attempts to use contraception or are more likely to be actively using contraception at the time of conception. There is little evidence to suggest that women seeking more than one abortion are using it as a form of birth control.⁷⁻¹⁶

As statistical models have clearly demonstrated, repeat abortion would occur even in populations where there are high levels of contraceptive use, due simply to the fact that unintended pregnancies occur even when contraception is being used.^{17 18} As an illustration, annual pregnancy rates for typical use are around 3% for injectable users, 7% for users of the combined contraceptive pill, 14% for regular condom users and 24% for users of natural family planning.¹⁹ Based on the fecundability assumption of Tietze – that 20% of sexually active women would become pregnant in a month if no contraception were to be used – it is estimated that 35% of women who had abortions would experience at least one subsequent abortion within 2 years if they used a contraceptive method that had a typical user failure rate of 10%.⁴

National statistics and research into repeat abortion inevitably attract attention – little of it positive – with subsequent calls for the development of policies and programmes to help reduce the number of unintended pregnancies. Despite this, information regarding repeat abortion, and the women who undergo them, remains somewhat limited.

To improve understanding of the patterning of repeat abortion, the characteristics of women presenting for a second or subsequent abortion are generally compared to those women presenting for their first abortion. Although, typically, such studies have been conducted among opportunistic samples of women from a variety of backgrounds and within a variety of settings, they have consistently revealed a number of differences between the two groups.

In general, compared to women who are presenting for a first abortion, women who have previously had an abortion are older and therefore have had greater exposure to the risks of experiencing unintended pregnancy, are more likely to be unmarried, have children, engage in intercourse more frequently and with a greater number of partners, and report an earlier age at sexual debut. Racial and ethnic variations in repeat abortion have also been observed but any association with socioeconomic disadvantage, as defined through a variety of indicators, has been less conclusive.^{5 7-11 16 20-23}

A small number of studies have further examined the psychosocial precursors to repeat abortion and, although not currently supported through large-scale repetition, suggest a possible link with physical abuse, violence, neglect and poor relationship development.^{9 24-26}

While the international research evidence suggests several important distinctions between women who have had multiple procedures and those who have had just one, only a small proportion of this research has been conducted in Great Britain. This paper aims to explore and expand upon some of the previously reported associations by using data collected from a representative sample of resident women in Britain; the second National Survey of Sexual Attitudes and Lifestyles (NATSAL2).

Methodology

NATSAL2, conducted in 2000–2001, collected sexual behaviour data from over 12 000 men and women aged between 16 and 44 years living in Britain using a multistage stratified random sampling procedure. Data were collected with the use of face-to-face interviews and a computer-assisted self-completion survey tool. Full methodological details are reported elsewhere.²⁷ Induced abortion variables available in the NATSAL2 dataset (accessed through the Economic and Social Data Service) included ‘Had an abortion ever/last year/last 5 years’, ‘Number of abortions ever’ and ‘Age at first/last abortion’.

To ensure the data were representative the NATSAL2 sample was weighted to adjust for unequal probabilities of selection and differential non-response.²⁷ All statistical analyses were performed using Predictive Analytics Software Statistics V18 (SPSS Inc., Chicago, IL, USA). Table 1 contains a listing of the demographic, lifestyle, sexual initiation, sexual history, contraceptive use and pregnancy history factors, both selectively extracted from and created using NATSAL2 survey responses, included in the analyses.

The analysis was conducted in two phases. Phase one compared women who had an abortion with those who had not, each categorical factor being independently examined to identify its bivariate association with abortion using the Chi-square test (χ^2) to test for any differences. The sample was subsequently split and a second phase of analyses conducted among just those women who had experience of abortion. Spacing between procedures was examined among women with experience of only two abortions and χ^2 tests were performed, as before, to test for factorial differences between women who had experience of multiple abortion (two or more) and those who had only had a single procedure. On the basis of those findings, multivariable logistic regression modelling with forward stepwise selection was used to identify the key determinants of multiple abortion. Where both continuous and categorical explanatory variables of the same predictor were available (e.g. age

Table 1 Factors included in the bivariate and logistic regression modelling

Category	Factors
Demographic/ background	Age (continuous, grouped), region, ethnicity, religion, social deprivation, social class, tenure, marital status, family formation, educational achievement, schooling, parental openness
Lifestyle	Alcohol consumption, smoking behaviour, body mass index, drug usage
Sexual initiation	Age at first sexual experience (continuous, grouped), age at first intercourse (continuous, grouped), sexual competency
Sexual history	Number of partnerships (ever, last year, last 5 years), concurrent partnerships, sexually transmitted infection history
Contraceptive use	Contraceptive use at first intercourse (ever, most recent partner), typical use, occasions of unprotected intercourse, use of condoms
Pregnancy history	Parity, number of children, fatherhood, births prior to first abortion, age at last abortion/first abortion (continuous, grouped), experience of spontaneous abortion and stillbirth

at first abortion) both were scrutinised in the model, independently of one another. Appropriate checks for multicollinearity were also made. The final, 'best fit', model is presented.

Results

Description of the sample

The weighted subsample consisted of 5625 female respondents aged 16–44 years who had engaged in sexual intercourse on at least one occasion. Some 71% of women interviewed had experience of carrying at least one pregnancy to term, 31% reported having had a spontaneous abortion or stillbirth and 18% of the sexually active women reported ever having an induced abortion ($n = 1003$); 8% of women aged 16–19 years at the time of interview, 19% of women aged 25–29 and 21% of women aged 35–39 (Table 2).

At the time of their first abortion, 70% of women were nulliparous (had not previously given birth), 42% of respondents were aged 19 years or under and 29% were aged 20–24 years (Table 3).

Characteristics associated with ever having an abortion

At the bivariate level, incidence of ever experiencing an abortion was not found to vary significantly by level of deprivation. Significant variation did exist, however, by ethnic grouping, family structure until age 16 years, age of sexual debut and sexual competency at first intercourse (derived from variables on the reasons for and circumstances surrounding first intercourse²⁸). A third of women classified as Black reported ever having an abortion compared to 18% of White women ($\chi^2 = 26.8$, $df = 4$, $p < 0.001$), while 26% of women who did not live with either of their natural parents up until the age of 16 years reported having an abortion compared to 17% of women living

Table 2 Percentage of sexually experienced 16–44-year-old women reporting ever having an abortion, by selected characteristics

Characteristic	Ever had an abortion (%)		n
	Yes	No	
All respondents	18.0	82.0	5567
Age at interview (years)			
16–19	8.1	91.9	472
20–24	13.6	86.4	788
25–29	18.6	81.4	1021
30–34	20.8	79.2	1166
35–39	20.5	79.5	1128
40–44	19.7	80.3	992
Ethnicity			
White	17.5	82.5	5142
Black	33.1	66.9	139
Indian	19.0	81.0	84
Pakistani and Bangladeshi	10.9	89.1	46
Chinese, other Asian and Other	23.6	76.4	156
Family structure until age 16 years			
Both natural parents	16.8	83.2	4327
One natural parent	21.6	78.4	1067
Neither natural parent	26.6	73.4	173
Age at sexual debut (years)			
13–15	26.0	74.0	1199
16–17	18.0	82.0	2422
18–19	15.6	84.4	1222
20–24	9.1	90.9	584
25+	3.8	96.2	106
Sexual competency			
Competent	12.6	87.4	2287
Not competent	21.9	78.1	3192

Missing responses: Ever had an abortion ($n = 58$); Age at sexual debut ($n = 38$); Sexual competency ($n = 95$).

with both natural parents ($\chi^2 = 19.3$, $df = 2$, $p < 0.001$). A quarter (26%) of women who experienced first sexual intercourse under the age of 16 years had had an abortion, compared to 18% of women whose first intercourse occurred at ages 16–17 years and 16% of women who became sexually active between the ages of 18 and 19 years ($\chi^2 = 103.0$, $df = 4$, $p < 0.001$), while 13% of women classified as sexually competent at sexual debut had sought an abortion as opposed to 22% who were considered not competent ($\chi^2 = 77.3$, $df = 1$, $p < 0.001$).

Characteristics associated with having more than one abortion

Among women reporting experience of abortion, just under one-fifth had had more than one procedure, with just under a quarter of those women reporting three or more abortions (Table 3).

The median time that lapsed between first and second procedures, among women with experience of only two abortions, was 41 months (interquartile

range 80 months) with 17% of women undergoing a second abortion within 1 year of their first abortion and a third within 2 years. At the other end of the spectrum, 10% of these women experienced at least a 15-year time lapse between procedures (Figure 1).

A range of indicators were found to be associated with experience of multiple abortion (two or more) as compared to a single procedure at the bivariate level. These included, among others, poor contraceptive use at first intercourse with most recent partner, recent unsafe sexual activity, increased number of lifetime sexual partners, marital status and cohabiting

partnerships, greater parity, lower educational achievement, experience of spontaneous abortion and/or stillbirth and sexually transmitted infection clinic attendance.

At the multivariate level, the factors found to be predictive of a woman experiencing a second or subsequent abortion if she had previously undergone a termination of pregnancy are shown in the final model displayed in Table 4. The results show that the odds of a woman having obtained more than one abortion increase with age at last procedure, as would be expected. Parity was also shown to be a key factor, with experience of a live birth prior to first abortion reducing the likelihood of a woman having obtained more than one abortion by 88% while, conversely, the odds of repeat abortion increased incrementally with the number of natural children ever born.

Compared with women who had experienced only one abortion, women who had undergone repeat abortions were more likely to have been younger at first sexual experience (e.g. kissing, cuddling or petting), be poor users of contraception at sexual debut and report a greater number of lifetime sexual partners (anyone with whom they had ever had oral, vaginal or anal sex). As shown in Table 4, once all other factors have been accounted for, women who reported not using any method of contraception – or who used a traditional method such as natural family planning or withdrawal – at first sex were roughly twice as likely to have experienced more than one abortion than those women who had used a modern method. Additionally, women who reported five or more lifetime sexual partners were twice as likely to have had a repeat abortion.

Black, as compared to White women, were almost four times more likely to have sought more than one

Table 3 Percentage distribution of 16–44-year-old women who have experience of abortion, by selected characteristics

Characteristic	%	n
Age at first abortion (years)		
<16	5.4	53
16–17	18.1	177
18–19	18.5	181
20–24	28.6	279
25–29	17.1	167
30–34	8.2	80
35–39	3.2	31
40+	0.9	8
All ages	100.0	976
Number of abortions ever		
1	80.8	810
2	14.8	148
3+	4.5	45
1 or more	100.0	1003

Missing responses: Age at first abortion ($n = 27$).

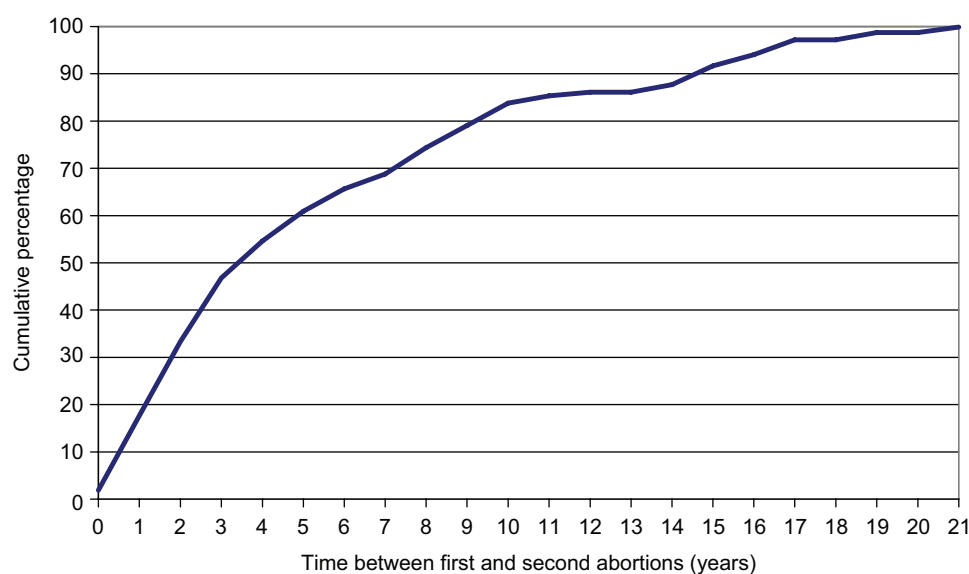


Figure 1 Cumulative percentage of women experiencing two abortions by elapsed time between procedures.

abortion [odds ratio (OR) 3.76]. Further, relative to women who left school aged 17 years or older, women who left school aged 16 years had over twice the odds of experiencing a repeat abortion, regardless of whether or not they gained any qualifications prior to leaving (ORs of 2.36 and 2.61, respectively).

Finally, women who at the time of interview were living in rented accommodation, as opposed to owning their own home outright or with a mortgage, were almost twice as likely to have had more than one abortion (OR 1.96), and, while deprivation was additionally found to be associated with incidence of repeat abortion, no clear incremental pattern was apparent.

Table 4 Odds ratios and confidence intervals from logistic regression analyses predicting the effects of various characteristics on the likelihood of repeat abortion among women who have had prior experience of abortion

Characteristic	n	OR	p	95% CI
Age at time of interview	1003	0.96	*	0.92–1.00
Index of multiple deprivation				
First quintile (least deprived)	167	0.51	*	0.26–1.00
Second quintile	212	0.80		0.45–1.42
Third quintile	200	0.36	**	0.18–0.70
Fourth quintile	210	0.68		0.38–1.22
Fifth quintile (most deprived) [ref]	209	1.00		
Age at first sexual experience	998	0.87	**	0.80–0.95
Ethnicity				
White [ref]	900	1.00		
Black	46	3.76	**	1.61–8.80
Indian	16	1.27		0.22–7.28
Pakistani and Bangladeshi	5	4.19		0.39–44.5
Chinese, other Asian and Other	36	2.80	*	1.15–6.82
Number of natural children	1003	1.33	**	
Education				
Left school at 16 with no qualifications	161	2.61	**	1.37–4.99
Left school at 16 with some qualifications	309	2.36	***	1.46–3.81
Left school at 17+ [ref]	529	1.00		
Housing tenure				
Own outright/with mortgage or loan [ref]	598	1.00		
Rented accommodation	402	1.96	**	1.27–3.03
Contraceptive use at first intercourse				
Condom (+ other modern method) [ref]	470	1.00		
Other reliable	122	0.76		0.38–1.56
Non-reliable (withdrawal/rhythm)	86	1.96	*	1.00–3.87
Non-use	314	2.04	**	1.25–3.32
Number of sexual partners				
≤4 [ref]	289	1.00		
≥5	701	2.13	**	1.25–3.63
Birth prior to first abortion				
No [ref]	693	1.00		
Yes	291	0.12	***	0.07–0.22
Age at last abortion (years)				
<16	46	0.01	**	0.00–0.18
16–17	139	0.12	***	0.05–0.30
18–19	153	0.22	***	0.10–0.50
20–24 [ref]	282	1.00		
25–29	207	2.49	**	1.46–4.25
30–34	108	6.20	***	3.12–12.3
35–39	63	7.53	***	3.18–17.8
Constant		1.45		
–2 log likelihood		643.29		
df		26		

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

CI, confidence interval; df, degrees of freedom; OR, odds ratio; ref, reference category.

Discussion and conclusions

Women having more than one abortion are generally older. This is not surprising given that older women have had more years of exposure to the risk of experiencing an unintended pregnancy. Parity is also a key distinguishing factor; for every additional child born to a woman there is a 33% increase in the odds of experiencing more than one abortion. Yet timing of these births is also highly important; for instance, if a woman experiences a birth prior to her first abortion the likelihood of her having a subsequent abortion is reduced by 88%, after controlling for all other factors.

The analysis presented here also reveals that compared with women who have had one abortion and after controlling for all other factors, those who have obtained multiple abortions are more likely to be Black as opposed to White, to have left school at an earlier age, to be living in rented accommodation, to report an earlier age at first sexual experience, to have been less likely to have used a reliable method of contraception at sexual debut and to report a greater number of lifetime sexual partners.

The failure of effective contraception obviously has a central role in the occurrence of unintended pregnancy and subsequent abortion; indeed, several studies suggest modern method usage rates of around 50% among women presenting for abortion.^{20 29 30} Unfortunately, NATSAL2 did not collect comparable data; however, it does appear that early sexual competency, contraceptive use at sexual debut and contraceptive use at first intercourse with a new partner (see bivariate analyses) could impact on subsequent effective contraceptive use practices and, as such, be used as an advance indicator of potential risk. Similarly, is it evident that women who engage in sexual behaviour from an early age and those who have greater numbers of sexual partners are also at increased risk of experiencing repeat abortion.

Although social deprivation was not found to clearly predict the occurrence of repeat abortion in the regression model, this is perhaps not so surprising for two main reasons. First, it may be redundant due to the inclusion in the model of proxy indicators such as housing tenure, ethnicity and early school leaving age and, second, due to the complex interplay between deprivation, unintended pregnancy, pregnancy decision-making and subsequent likelihood that an unintended pregnancy may result in a live birth rather than an abortion.

It could be reasonably assumed that a frequent pattern of repeat abortion would be that women experience an unintended pregnancy and abortion near the start of their reproductive lives, go through a period of safe sexual practices and planned childbearing and then experience a subsequent unintended pregnancy. If so, one would expect a lengthy delay between abortion procedures; however, half of all second abortions reportedly occurred within 41 months of the previous

procedure, and only 10% occurred more than 15 years apart. This suggests that, for the majority of women, such abortions are clearly not unintended pregnancies occurring at the extremes of their reproductive careers. It seems there are more complex patterns of delay and spacing prior to completion of their childbearing goals, and indicates likely context or situational specific barriers to the prevention of unintended pregnancy, including poor partner communication, planning and a possible lack of control in sexual situations. Regrettably, from NATSAL2 it is not possible to determine what proportion of these relatively close repeat abortions occur to women prior to entering a stable relationship.

What is interesting to note is that despite legal and cultural differences between Britain and the USA, the median time span of 41 months between first and second procedures is remarkably similar to the 44-month span between all procedures as reported in the 2002 US National Survey of Family Growth.¹¹

Although it is recognised that the analyses presented here are based on a relatively small sample of women reporting experience of an abortion (weighted $n = 1003$), the sampling techniques employed during NATSAL2 and subsequent weighting should mean that the final respondent sample is representative of British women and there is no reason why the relationships between variables cannot be accepted with confidence. What is less certain, however, is the level of under-reporting of abortion that occurred during data collection (in the light of the sensitivity surrounding the issue) and the reliability of respondent recall of situations and events that may have occurred some time previously.^{11 31 32} Comparison with national statistics does tend to suggest a possible degree of under-reporting, although it is not immediately clear how any associated stigma would co-vary with the variables of interest.

Although the purpose of this paper was not to draw negative attention to women who present more than once or to the incidence of multiple abortion procedures themselves, it is possible to build a profile of women who are likely to present at abortion services on more than one occasion. Through doing so, support can be focused towards assisting such women to avoid the need for multiple visits, and the findings presented here point to some areas where attention might profitably be directed in terms of trying to reduce the incidence of repeat abortions. Clearly, differential use of abortion services may indicate one or more of variations in knowledge levels, attitudes to risk, attitudes towards abortion, partner communication, gender power and differential access to services. Further research will be required to clarify these potential relationships so that suitable health promotion activities can be developed.

In any event, it is well recognised that attendance at abortion services presents an important opportunity for the provision of detailed, individually tailored

information regarding contraception to assist all women to avoid the need for subsequent procedures. Contraceptive counselling and, where appropriate, provision in abortion clinics is increasing in scope and will, it is assumed, lead to a reduction in second and subsequent procedures.^{14 33}

Indeed, since not every woman will attend an abortion service, such information should be provided as a matter of routine to all women; schools and colleges are ideal settings for such interventions. The provision of adequate knowledge, as well as developing the competencies to enable women to put their knowledge and wishes into practice, are the least that all young women should expect from the education system.

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