

Attendance for contraception and termination of pregnancy—a comparison of two practices

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SUMMARY. Two populations of women consulting their general practitioner for contraceptive advice in an inner and an outer London area are compared. Despite adequate contraceptive facilities in both practices, a smaller proportion of those in the inner London practice attended for advice, and in these women there was a higher incidence of terminations of pregnancy. The possible factors involved in these findings are discussed.

Introduction

THE general practitioner with an average list size might expect to deal with three or four terminations of pregnancy a year (OPCS, 1977). Some doctors practising in atypical situations can expect to see considerably more. Since 1969, the rate of termination in young, single women has been rising, whilst it has been static or falling in other groups (OPCS, 1970–1974). The general practitioner with a larger than average population of young, single women may therefore be in an atypical position.

This situation is influenced by the fact that young, single people are the very group who use effective contraception least. Not only are they inhibited from approaching their general practitioner for advice (Bone, 1973), preferring the impersonal atmosphere of a family planning clinic, but they also fail to initiate contraception, even when they know themselves to be at risk of pregnancy (McCance and Hall, 1972; Stott, 1980). Many of the studies which have looked at contraception in single people have been confined to atypical groups like college students (Fujita *et al.*, 1971; King, 1975; Anderson *et al.*, 1978), those attending sex lectures (Page *et al.*, 1975) or those having had a recent termination (Coblener *et al.*, 1975). These studies have indicated

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that such contraception as is used by younger people is infrequent, erratic and tends to be the less effective methods. When an unplanned pregnancy occurs in this group, it invariably ends as a termination.

This survey looks at two very different populations of women. The first was largely a young, unmarried population; the second was a population more typical of Britain generally. Attendance for contraceptive-related advice and past experience of terminations of pregnancy are compared.

The practices

Practice A

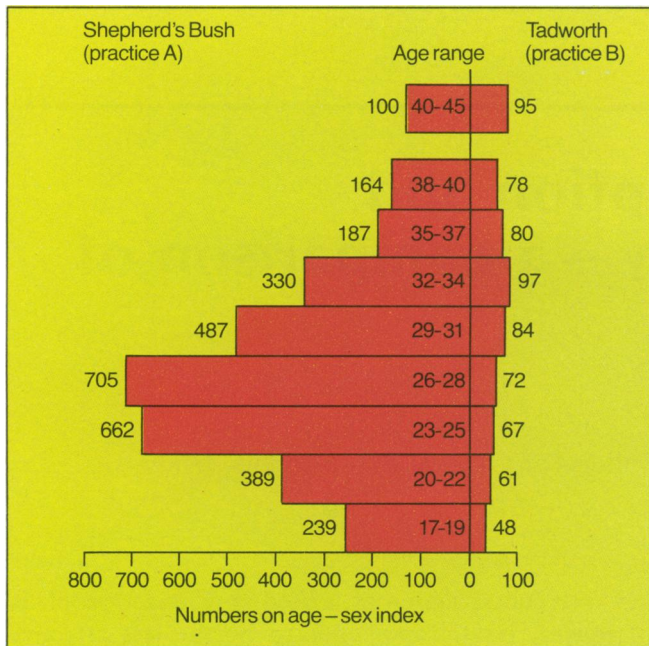
Inner London (Shepherd's Bush). Classification—urban. Three thousand women in age range 17–45 years, 70 per cent of them single. Two female and one male principal. Population—largely Caucasian, including some Irish, Asians and Greeks. Social class—largely III, IV and V. Full family planning services, including a nurse, but no formal family planning clinics. Good local authority family planning provision.

Practice B

Outer London/rural Surrey (Tadworth). Classification—mixed. Six hundred and seventy women in age range 17–45, 80 per cent of them married. One male principal (part of a group practice with four other principals; personal practice list maintained). Population—Caucasian. Social classes—I, II, III and IV. Formal family planning clinic held every other week by a woman doctor from outside the practice. Some local authority family planning clinics.

Method

During the period November 1977 to August 1978, and whilst undergoing a year's traineeship in practice A (inner London), I surveyed contraception and fertility patterns in women who attended for contraceptive



Age profile of all women aged 17-45 in practices A and B.

advice. Part of this questionnaire survey looked at patients' past experience of terminations of pregnancy. Six hundred women attended for contraception during this time and 458 (76 per cent) completed forms. Four hundred and thirty-three respondents were aged between 17 and 45 years, the age range of the present study (see Figure).

After the study period, I assessed the relative proportions of women seeking contraceptive advice from their general practitioner, local authority family planning clinic, both or neither. This assessment was carried out by examining the NHS medical records of 400 alphabetically consecutive female patients in the age range 17-40 years (13 per cent of all the women in the practice in this age range). Such retrospective examination of records is intrinsically inaccurate because of information lost from the system previously, but I chose this number of records in order to give results reliable to ± 5 per cent with 95 per cent confidence. (Limits with 95 per cent confidence = $\pm 1/\sqrt{N}$.)

After becoming a principal in general practice in Tadworth, I repeated the above process during the nine months July 1980 to April 1981. This time, I gathered the data personally from the women when they consulted for contraceptive-related reasons, by direct questioning and by examining NHS medical records. Using this method, very few women (less than 2 per cent) refused to give adequate details. I scrutinized the lists of women attending the bi-weekly formal family planning clinic and inspected my patients' clinic notes. The standard record card used in the clinic includes details of all previous conceptions and their outcomes. The proportion of women attending the clinic was less than 6 per cent of the total sample.

In practice B, 305 women attending for contraceptive advice were aged between 17 and 45 (see Figure). In both practices I chose a study period of nine months since I felt that over such a period the majority of women using prescribed methods would have attended for advice. The women included in the surveys of both practices were reasonably representative of the two practice populations with respect to marital status. In practice A, 70 per cent of all the women and 63 per cent of the sample were single; in practice B, 20 per cent of all women in the age range 17-45 years and 20 per cent of the sample were single.

The mean differences between the two sample populations were compared for each three-year age group using the χ^2 test in respect of the proportions attending for contraceptive advice and having previously had a termination of pregnancy. Results are expressed as "not significant" (NS) or significant at the < 0.05 or < 0.01 level of probability.

Results

Attendance for advice

During the nine months of the survey, 600 women attended practice A and 305 attended practice B for contraceptive advice. Despite the greater number of attenders in practice A, this result means that only 20 per cent of those within the fertile age range in practice A had consulted for contraceptive advice compared with 46 per cent in practice B. Retrospective analysis of NHS records indicated that as many as a further 6 per cent might have been expected to be seeking advice currently elsewhere. Even if no women from practice B were seeking advice elsewhere, there were still proportionally twice as many women using prescribed methods in practice B as in practice A ($p < 0.01$).

Marital status

The marital status of the women in the two practices was very different. In practice A, 63 per cent of the women attending were single. This proportion was relatively constant until the age of 32, after which it became about 50 per cent. In practice B, the predominance of single women dropped sharply after 22 years of age; overall, only 20 per cent of those attending were single, and above the age of 32 there were only four single women out of a total of 120.

Terminations (Table)

In practice A, 23 per cent of women attending for contraceptive advice had had a termination at some time. In practice B, this proportion was significantly lower (7.5 per cent, $p < 0.01$). The difference was marked in women between the ages of 23 and 34; outside this range the proportions were roughly equivalent in both practices. (There were too few women in the older age ranges for statistical comparison.)

Comparison of the terminations having occurred in the women attending for contraceptive advice.

	Age									Total
	17-19	20-22	23-25	26-28	29-31	32-34	35-37	38-40	41-45	
<i>Shepherd's Bush (practice A)</i>										
Terminations	3	11	24	27	19	7	3	6	1	101
Number of women	33	72	128	83	53	29	17	10	8	433
<i>Tadworth (practice B)</i>										
Terminations	3	1	2	2	5	3	2	1	4	23
Number of women	31	35	41	45	33	31	29	20	40	305
Significance of difference	NS	NS	S	S	S	S	NS	*	*	S
χ^2	0.01	3.6	6.9	12.9	4.3	2.3	1.3	—	—	67
Level of significance	—	—	<0.01	<0.01	<0.05	<0.05	—	—	—	0.01

*Numbers too few for statistical evaluation.

Thus those age groups in which the greatest proportions of women had had a termination were those in which there was the greatest proportion of single women. This was true of both practices.

Discussion

Three factors seem to stand out in the comparison of the two practices:

1. Women in practice A were less likely than those in practice B to attend for contraceptive advice and therefore to be using one of the more reliable, prescribed methods.
2. Women in practice A who attended for contraception were more likely than those in practice B to have had a termination of pregnancy.
3. However, there was no significant difference in the termination rates for younger contraceptive users (those under 22 years) in the two practices.

These differences are interesting and are obviously brought about by multiple factors. In part they may be explained by differences in the contraceptives used and the greater likelihood of method failure with the mechanical methods. However, it is known that a significant proportion of terminations in single women occur when no contraception has been used at all, and that several years of unprotected coitus are likely to precede the use of effective contraception (Schofield, 1973). My earlier study, in practice A, confirmed that here the interval was in the order of one to two years (Stott, 1980). This period is obviously one of high risk in which the termination rate can also be expected to be high.

Once contraception has begun, motivation, personality and the stability of the relationship will affect the reliability of the method. The need to restrict family size or to remain in employment will increase motivation (Cutwright and Groenveld, 1978). Women with more conservative personality traits are likely to use contraception less frequently, are unlikely to use a variety of

methods and also have less knowledge of birth control generally (Joe *et al.*, 1979). Women who have had terminations have been shown to display a personality characteristic labelled 'frustration intolerance' (Cobliner *et al.*, 1975) which manifests itself in several areas of their lives, one of them the inability to use contraception reliably. Some of these personality traits may play a part in a woman's decision to marry or to remain single.

Contraception has been noted to be more effective when the sexual partners have a stable relationship (Anderson *et al.*, 1978). Since a greater proportion of the women in practice A were single in all age groups, their sexual relationships may have tended to be less stable than those of their married sisters. Moreover, if they were having coitus relatively less frequently, regular contraceptive provision may have seemed less important to them.

Thus a subtle interplay of reliability of method, personality, motivation and stability of relationship will have played a part in the overall contraceptive and termination patterns in the two practices.

It is interesting to note that in both practices the younger, single women appeared to have the same incidence of terminations. Above the age of 22, however, the number having had terminations in practice B was reduced, probably because of the greater proportion of married women, for whom any unplanned pregnancies would be much less likely to end as a termination. It is tempting to suggest that, once the ideal family size has been reached, the incidence of terminations will start to rise again. However, in the present study numbers were too few to either confirm or refute this.

Whatever the reasons, it is apparent that practices with populations like that in practice A, which had a large number of single women, have substantially greater termination rates than those like practice B. Yet, despite this, such women attend less often for contraceptive advice. More health education work is needed with such patients if the termination rate is to be reduced.

Appendix: Statistical note

Assuming that the method of selecting case records produces a sample which is totally representative of the population from which it came, the error in predicting population behaviour can be shown as follows:

If P is the percentage occurrence in the sample, n is the sample size, c is the confidence level to which the prediction is being made, the limit of error (L) =

$$\pm K_c \sqrt{\frac{P(100-P)}{n}}$$

where K_c is a constant derived from the percentiles of a binomial distribution. For example:

K_c	Confidence interval
2	95%
2.6	99%
3.3	99.9%

For a finite population (N), the limit of error should be corrected by

$$\left[\frac{N-n}{N-1} \right]$$

If P is unknown at the start of the survey, then some estimate of L can be obtained by maximizing the value of P and therefore (100-P). If we assume that the maximum value P and (100-P) can attain is 50 per cent (that is probability = 0.5), then L =

$$\pm 2 \sqrt{\frac{\frac{1}{2}^2}{n}} = \pm 2 \sqrt{\frac{\frac{1}{4}}{n}} = \pm 1 / \sqrt{n}$$

(that is for 95 per cent confidence, where $K_c = 2$ and n is large, that is > 30).

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Note

The author is interested in contacting general practitioners who would like to compare interesting epidemiological features of their practices with those of his own. The author's practice runs a full diagnostic (Weaver) index which covers most significant diseases seen in general practice. The author's address is as given below.

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