

Contraceptive behaviour and fertility patterns in an Inner London group practice

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SUMMARY. The results of a survey designed to study the contraceptive behaviour of women attending an Inner London general practice for contraceptive advice are described. The workload involved is defined and an attempt is made to study the effectiveness of this service.

I conclude that the services provided were reasonably effective in that the majority of women had been able to try various methods until they found one which suited them. The total contraceptive failure rate was reasonable, but it was found that unplanned pregnancies are still common. Many younger women had not considered contraception until they realized they were pregnant. The availability of termination played an important role in the outcome of unplanned first pregnancies.

Introduction

THE provision of contraceptive services is now undertaken by the majority of general practitioners and is increasingly coming to be accepted as a marker of good medical care (*Journal of the Royal College of General Practitioners*, 1978). As a trainee in a busy Inner London practice, I found that seven per cent of my consultations were for contraceptive advice. Because of the need for regular follow-up and documentation (FP 1001) contraception is a good topic to study in the trainee year. Almost all the women using prescribed methods visit the surgery in any one six-month period and can be approached for information. In addition, since about 66 per cent of married women can be expected to use an oral contraceptive (Bone, 1978), their replies about their families give the trainee much insight into the practice 'profile'.

At the time of this study the practice had a list size of about 7,500 patients of whom about 3,000 were women aged between 17 and 40. They come from mixed ethnic

origins, mostly English, Irish, Asian and Greek, but with a few West Indians. Situated on the west side of Inner London, the housing comprises mostly high-rise blocks and older residential accommodation, which is often sub-let as flats to young people. The age distribution is heavily weighted to the 20- to 30-year-olds, many of whom move away when their studies are completed, when they marry, or when they become more affluent. Redevelopment is slowly taking place as 'little Chelsea' spreads westwards.

Of the three principals in the practice, two of whom are women, two are qualified trainers. The practice includes a full-time privately employed nurse, health visitor, and trainee general practitioner. All the partners provide contraceptive services during the ordinary day-to-day surgeries. No special clinics are organized. Intra-uterine devices (IUCDs) are inserted for the whole practice by one of the lady principals. This is done by appointment after the morning surgery, although the arrangement is flexible as occasion demands. Much of the contraceptive checking such as blood pressure, urinalysis and weight is undertaken by the practice nurse, who then prepares the patient for a pelvic examination and cervical smear by the doctor. The nurse is responsible for all the paperwork (FP 1001) and for provision of necessary sterile equipment. The patients accept this devolution of care very readily.

The area is also served by local authority family planning clinics to which patients may refer themselves. These clinics maintain contact with the general practitioners by letter. There is easy access to hospital specialist advice and investigatory facilities.

Aims

This project was undertaken in order that we might:

1. Define our contraceptive workload;
2. Determine how effectively the services offered had enabled people to plan their families and control their fertility;
3. Discover what factors influenced choice of contraception.

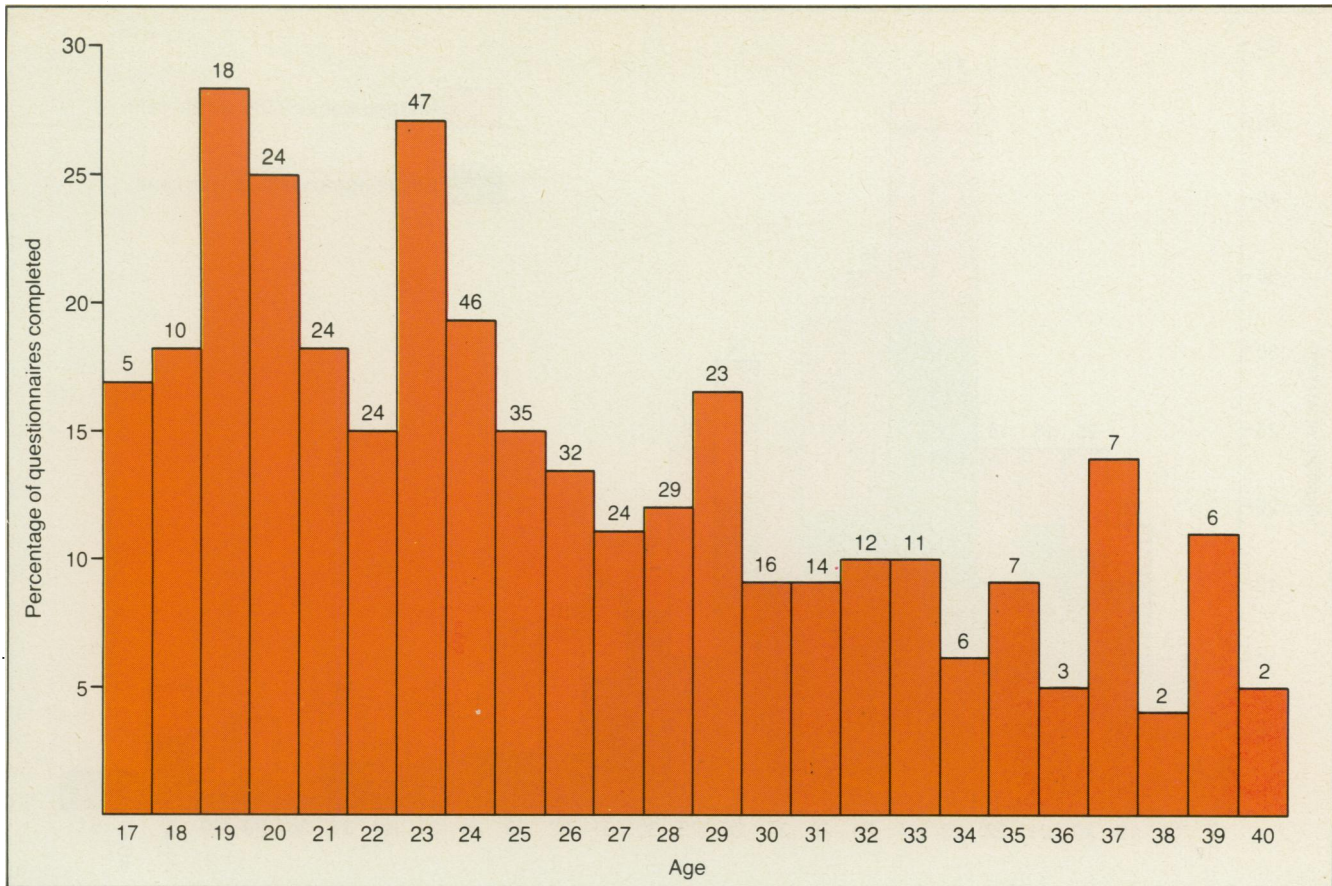


Figure 1. Number of women completing questionnaires as a percentage of the total on the age/sex index (figures above columns are the actual numbers).

Method

During a period of nine months, between November 1977 and August 1978, a questionnaire was given by the doctors, nurse, and health visitor to 600 women attending the surgery for contraceptive advice. No woman completed the questionnaire more than once and confidentiality was ensured.

A small pilot scheme involving 100 similar questionnaires had been tried in September and October 1977 and obvious problems were rectified at this stage.

After the study period an assessment was made of the relative proportions of patients seeking contraceptive advice from their general practitioner, a local authority clinic, both, or neither, by examining the records of 400 alphabetically consecutive female patients in the age range 17 to 40 years. This sample is about 13 per cent of the total number in the age/sex index for this group. Assuming that this method of selection gives a valid indication of the source of contraceptive advice, then the results should be reliable to \pm five per cent with 95 per cent confidence. (Limits with 95 per cent confidence = $\pm 1/\sqrt{N}$)

Results

Of 600 questionnaires handed out, 458 were completed,

a take-up rate of 76 per cent. Because the patients were assured of complete confidentiality, no information is available about the non-responder group.

Source of contraceptive advice

Of the 400 women whose records were examined after the study period 46 per cent had sought contraceptive advice from the general practitioner, 13 per cent from a local authority clinic, and five per cent from the two combined. No reference to contraception was found in 36 per cent of records.

During the study period, questionnaires were given to 600 women, that is 20 per cent of the total 17- to 40-year age group. During this period, therefore, 43 per cent of women who habitually consulted their general practitioner for contraceptive advice had done so. The proportion of women who had done so at any time in their lives was 51 per cent.

Age distribution of the survey population

Figure 1 shows the number of women who completed the questionnaire as a percentage of the total on the age/sex index. The age groups with the maximum consultation rates were in the early 20s, with between 15 per cent and 28 per cent (average 20 per cent) attending during the nine months.

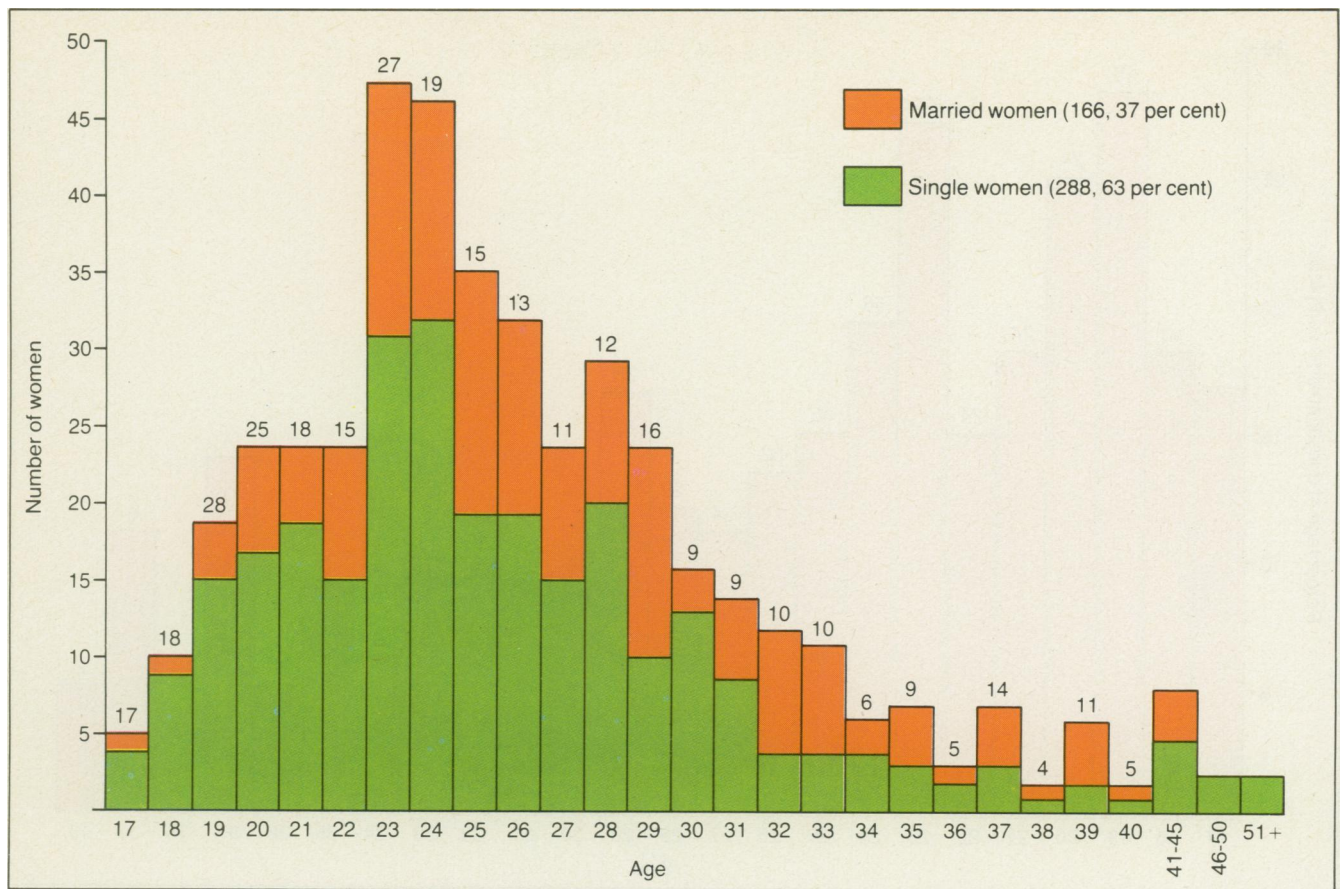


Figure 2. Age and marital status of women participating in the survey (figures above columns are the percentage of the total on the age/sex index).

Age profile and marital status

Figure 2 shows the proportion of married (37 per cent) and single women (63 per cent) attending for contraception.

Smoking

Fifty-five per cent of the women were smokers, spread equally throughout the age range.

Contraceptive methods

Sixty-one per cent were using oral contraceptives and 16 per cent the IUCD. These two methods constituted the greatest proportion of the recurrent workload. Four per cent were using the cap (Table 1).

Contraceptive methods related to age

The number of women using different contraceptive methods in relation to age is shown in Figure 3.

Outcomes of pregnancies

Figure 4 shows the outcomes of the 373 pregnancies which had occurred in the survey group relative to age. Fifty-eight per cent of the pregnancies were unplanned and 42 per cent were planned. The number and percentage of parous women in each age group (total 43 per cent) and nullips is also shown.

Table 1. Contraceptive method at time of survey.

	Number	Percentage
Oral contraceptive	281	61
IUCD	76	16
Nothing	31	7
Cap	17	4
Multiple methods	14	3
Sheath	12	3
Withdrawal	10	2
Sterilization	9	2
Rhythm	3	<1
Pessaries	2	<1

The outcomes related to planning are shown in Table 2. Eighteen per cent of all pregnancies miscarried, 29 per cent of all pregnancies and 50 per cent of all unplanned pregnancies ended in terminations.

Method failures

Answers to the question: "If you have had an unplanned pregnancy what method failed you?" are shown in Table 3. This question was answered by 121 women out of a possible 215 who had unplanned pregnancies (56 per cent take-up rate). These 215 un-

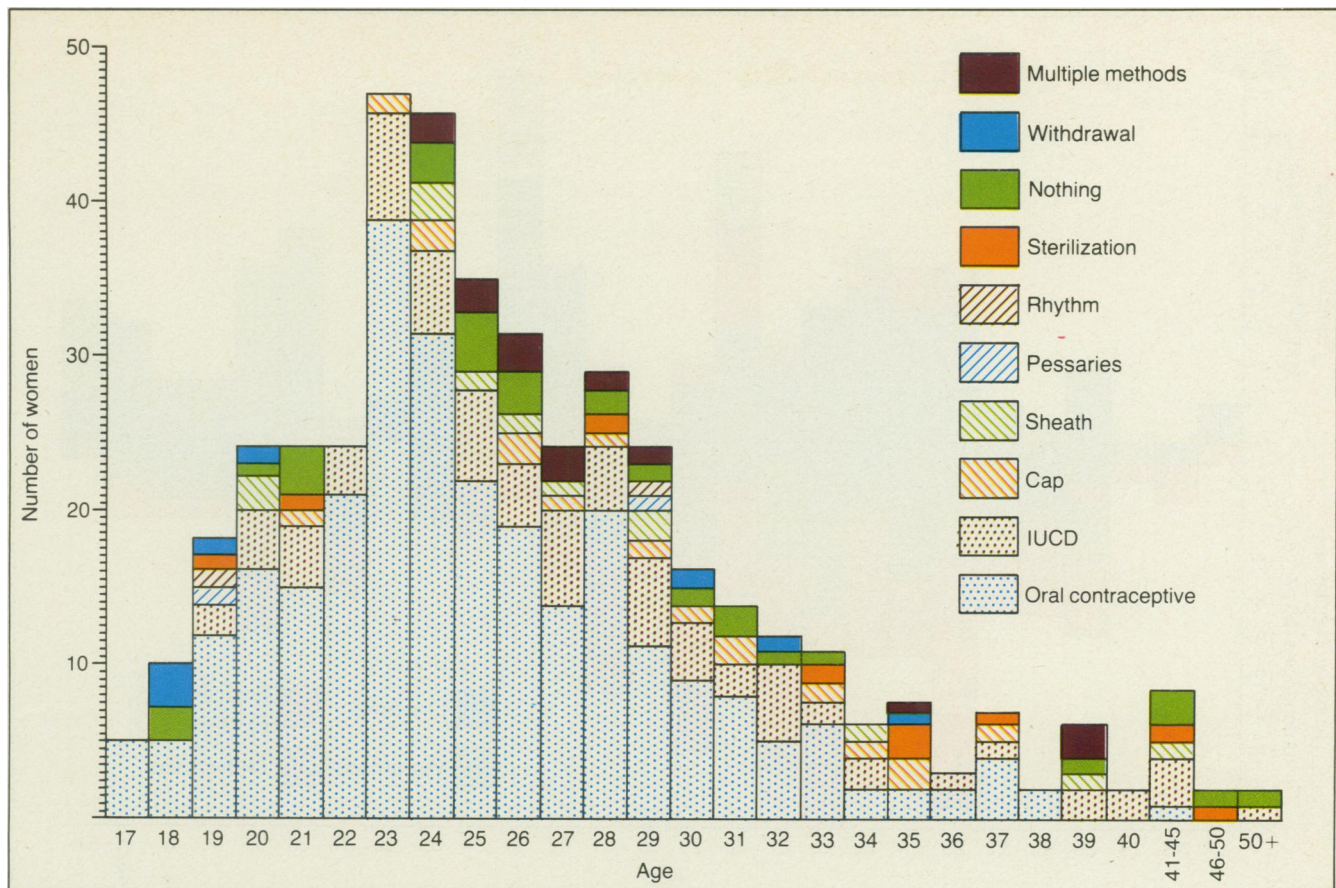


Figure 3. Contraceptive method by age.

planned pregnancies occurred in a total of 4,652 fertile woman-years. This is equivalent to an unplanned pregnancy rate of 4.6 per 100 woman years.

Assuming an equal distribution of method failures in the 44 per cent who did not answer the question, since 45 per cent became pregnant whilst using no contraception at all, the overall contraceptive failure rate becomes 2.5 per 100 woman years.

Method changes

Figure 5 shows the numbers of women who used each method at any time, their subsequent choices, and their main reasons for changing. The shaded areas in the circles represent proportionally the number of women who used each method. The small letters on the arrows indicate the most common reasons for changing.

Thus, it appears that in our practice oral contraceptives are the most commonly used method, 92 per cent of the women in the survey having tried them at some time. Of these about 40 per cent had never used anything else, 36 per cent came to the Pill after trying other methods (notably the sheath), and 23 per cent had left it to try mainly the IUCD or the cap. The most common reasons for change were medical problems caused by the Pill (38 per cent) and fear of possible side-effects (38 per cent).

In contrast, only 13 per cent of the 123 women who

had tried an IUCD had started with this method and stayed on it; 60 per cent had come to it after trying other methods, and 27 per cent had left, mainly because of the medical problems it caused (35 per cent) and failure resulting in pregnancy (24 per cent).

Sixteen per cent of the women had tried the cap, but only two had used this solely; 48 per cent were using it because other methods had proved unsuitable; and 49 per cent had tried it and discontinued because it spoiled their sex life (18 per cent), they felt they needed better protection (26 per cent), or because it was too messy (31 per cent).

Of the women who had used unprescribed methods (39 per cent) such as withdrawal, the sheath, or pessaries, only a very small number had never tried anything else—the majority had progressed rapidly to more reliable methods. A smaller number had turned to these methods when problems had occurred with the Pill, the IUCD, and the cap. Women left the unprescribed methods because they felt they spoiled their sex life (22 per cent), they needed better protection (42 per cent), or that they were too messy (17 per cent).

The survey revealed only nine women who had been or whose husbands had been sterilized (two per cent). This number does not reflect the total number in the practice since such patients would have no further reason to seek contraceptive advice and would only

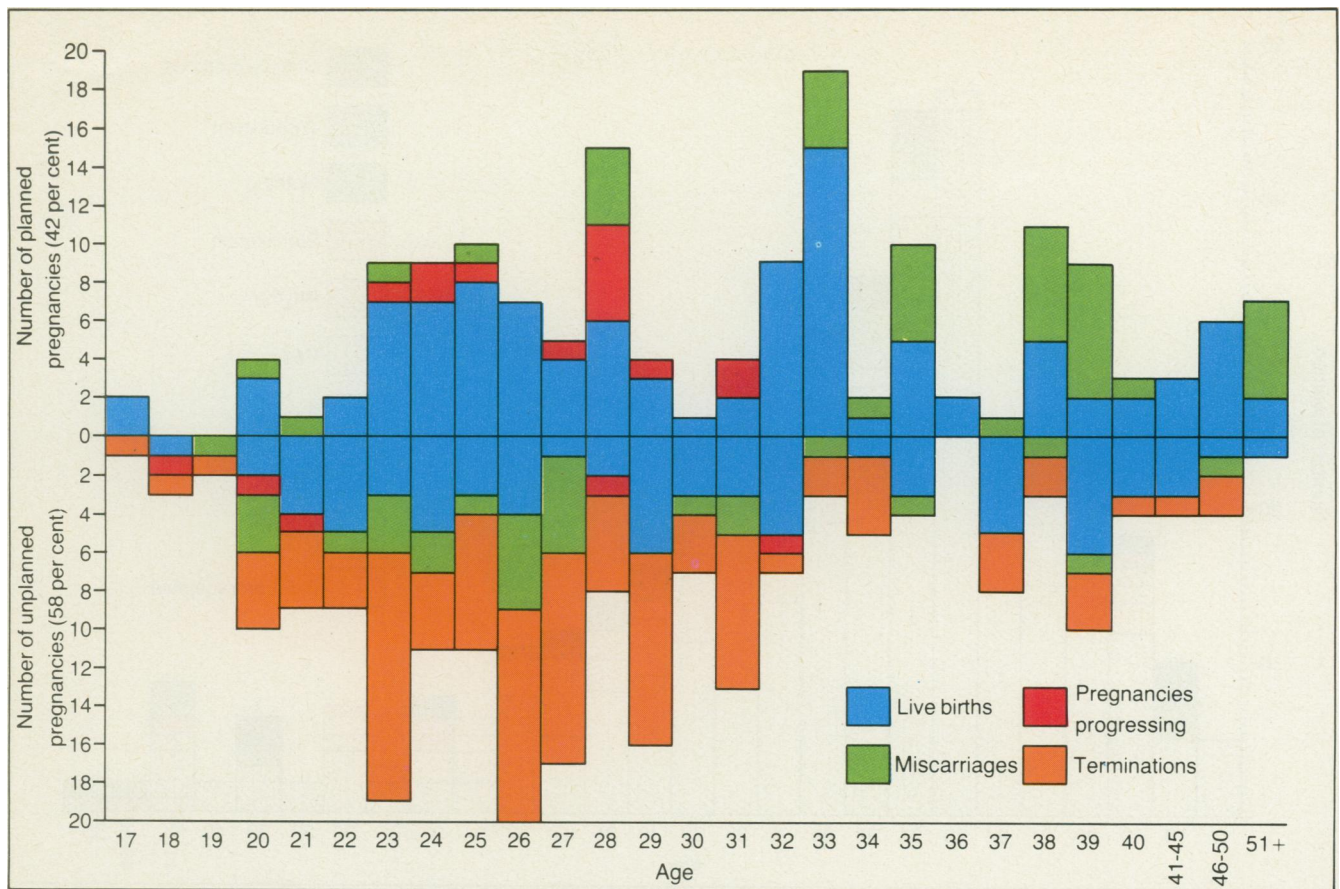


Figure 4. Outcome of 373 conceptions in 196 women by age.

attend by chance in the nine-month period. More reliable surveys in this respect have revealed higher numbers, for example, 13 per cent (Davies *et al.*, 1976).

Age at first intercourse and time of starting contraception

The age at which women first had intercourse was remarkably constant for the majority of women, 70 per cent having first coitus between the ages of 15 and 17 years.

The average length of time from first coitus to starting contraception was between one and two years in all age groups. The oral contraceptive was first choice for 63 per cent of women.

Terminations of pregnancy

Of the 458 women in the survey, 93 (20 per cent) had undergone terminations of pregnancy. Of these, 13 (three per cent) had had two or more. Thus, 14 per cent of women who had had one termination had subsequently had another and three per cent of the survey population could be said to be using termination as a method of contraception. A study of repeat terminations in a similar socio-economic area of New York (Coblner *et al.*, 1975) showed that 19 per cent of women having one termination subsequently had a second.

Table 2. Outcome of 373 conceptions in relation to planning (percentages in brackets).

	Planned	Unplanned
Live births	107 (29)	71 (19)
Pregnancies progressing	13 (3)	5 (1)
Miscarriages	38 (10)	31 (8)
Terminations	108 (29)	

Mistakes in completing the questionnaire

Ninety-two women (20 per cent) made major mistakes in completing their questionnaires. These women shared between them 38 planned and 84 unplanned pregnancies (ratio of planned to unplanned 1:2.2). Those who completed their questionnaires correctly or with only trivial mistakes shared 113 planned and 125 unplanned pregnancies (ratio of planned/unplanned 1:1.1). Thus, the women who failed to complete their questionnaires correctly had twice the incidence of unplanned pregnancies compared with planned events, regardless of their method of contraception.

Out of the 13 women who had had two or more terminations of pregnancy, 10 had made major errors.

Discussion

This survey was reasonably successful in achieving its aims. It proved possible to make an assessment of our workload during the nine-month period and the relatively high proportion of young IUCD users was noted (16 per cent compared with national figures of approximately 5 per cent; Cartwright, 1976). This higher proportion may be related to the easy availability of IUCDs in the practice studied.

The survey indicated that the population had used contraception reasonably effectively. At first sight, the

proportion of unplanned pregnancies (58 per cent) seems excessive. However, as has been shown, since 45 per cent of these pregnancies occurred whilst no contraception was being used, it represents a true contraceptive failure rate of 2.5 per 100 woman years.

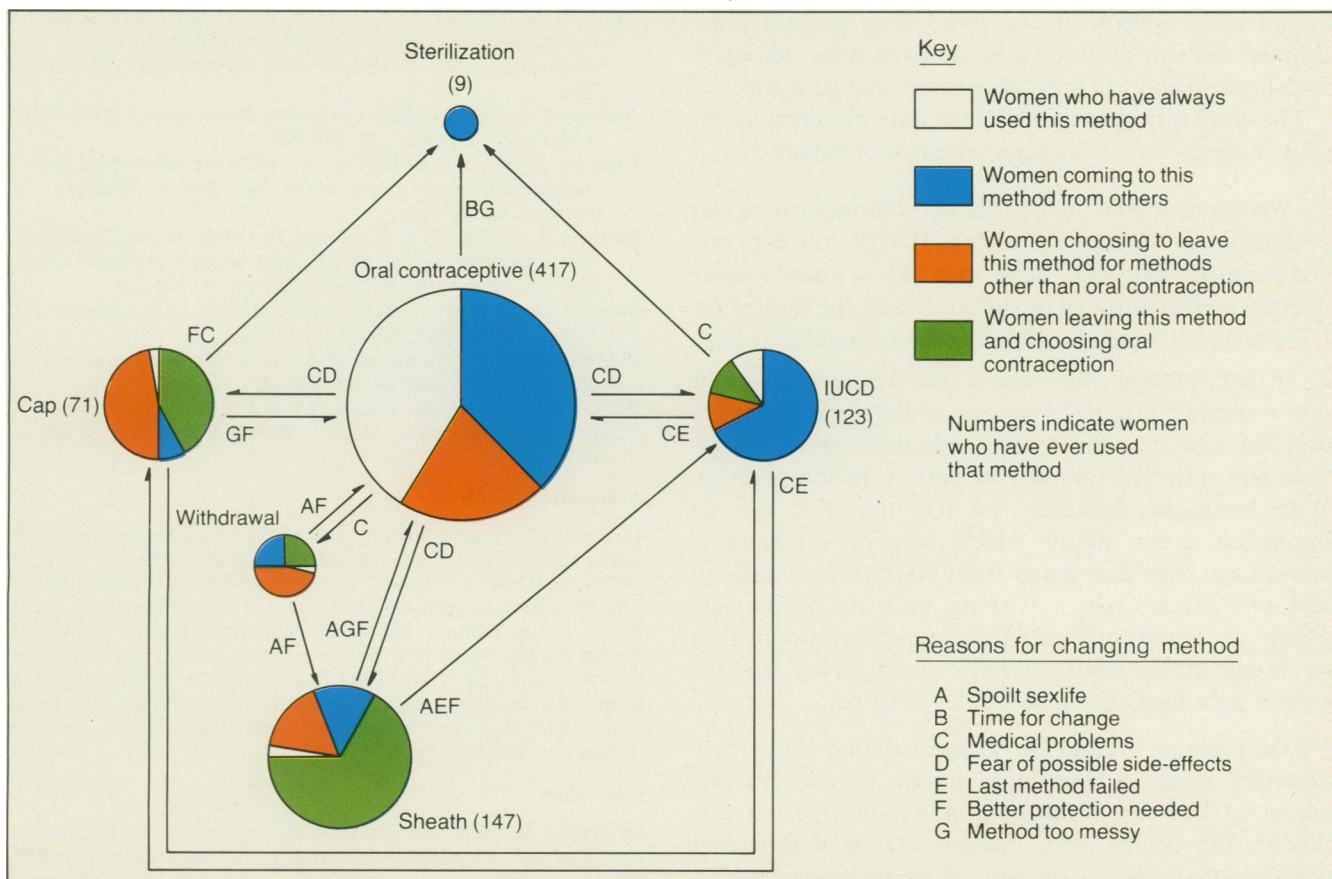
Fifty per cent of all unplanned pregnancies and 29 per cent of all conceptions ended as a termination. Nearly half (45 per cent) of the unplanned pregnancies resulted from lack of foresight, no contraception being used; the majority of such events were first pregnancies. Cobliner and colleagues (1975) showed a lower incidence (25 per cent) of unplanned pregnancies ending as terminations.

Many workers have shown the rapid transition that young people make from emotional relationship to petting, and then to full coitus and that this is becoming more common (Sorenson, 1973; Page *et al.*, 1975). Others have found that contraceptive use by young people is infrequent, erratic, and based upon less effective methods (Wood *et al.*, 1969; Fujita *et al.*, 1971; Settlege *et al.*, 1973). In this study, as in others, pregnancy was in many instances the motivation for seeking contraceptive advice. Perhaps our health education should not only include details of the methods and their risks, but also of the situations in which it would be realistic to initiate contraception. The general practitioner may be in a good position to identify the at-risk groups (Whitley, 1977).

Table 3. Number of failures related to method of contraception.

	Number of failures	Percentage of total failures
Using no contraception at time	54	45
IUCD	17	14
Sheath	15	12
Oral contraceptive	13	11
Cap	9	7
Withdrawal	7	6
Rhythm	4	3
Temperature	1	< 1
Pessaries	1	< 1

Figure 5. Most common subsequent choice of contraceptive method and reasons for changing.



It is interesting that the incidence of unplanned pregnancies in women who made major mistakes on their questionnaires was double that of those who made none or merely trivial mistakes and that there was a higher incidence of errors from those who had had two or more terminations. It is tempting to suggest that this may be a manifestation of the 'frustration intolerance' which has been suggested as one of the characteristics of women who recurrently fail to use contraception effectively (Coblner *et al.*, 1975).

The survey results confirmed our expectations about patterns of contraceptive use and reasons for changing method. The most common first choice was oral contraception, only a minority having used the sheath previously, or needing to change subsequently.

The survey was of limited value in determining the practice's overall pattern of contraceptive use, since it included only those women seeking medically prescribed methods during the study period, that is, 15 per cent of the population at risk. National figures indicate that 27 per cent of women use a prescribed method (Central Health Services Council, 1974). Other studies using sampling techniques have produced more reliable profiles (Davies *et al.*, 1976).

The retrospective analysis of patients' NHS records indicated that 51 per cent of patients had sought contraceptive advice from their general practitioner at some time. The figures which rely upon notification from local authority clinics may well be unreliable. Such clinics require the patient's permission before they can inform the general practitioner. Since many women attend them specifically to avoid their general practitioner this can often be denied. Even when initiated, such notification will inevitably sometimes go astray.

There are other reasons why the data obtained in this study may not be wholly representative of the practice:

1. Women using methods which do not require regular attendance at the surgery, such as IUCDs, the cap, and sterilization, may not have received a questionnaire during the nine months of the study and the figures for these methods would be therefore correspondingly low.
2. In interpreting our results we assumed that the non-responder group (24 per cent of the sample) was not atypical and that the answers obtained from the responders reflected the general pattern in the practice. With hindsight, however, we feel that this was an important group about which baseline information could have been abstracted from NHS records without loss of confidentiality. Without such details as age, parity, or current method of contraception, doubts can be thrown on the statistical basis of the survey, and the figures produced cannot be wholly justified.

Furthermore, it should be recognized that this article describes what is happening in one practice in one corner of London during one nine-month period. Although the results may indicate trends within that practice, they cannot be applied to society generally.

For example, in the practice population 50 per cent of unplanned pregnancies ended as terminations. Since there is a heavy bias towards sexually active, single young adults and first pregnancies, this figure is not representative of the country or even London as a whole.

Conclusion

As a trainee project, this survey was perhaps over-ambitious. Many of the problems encountered during analysis of the figures might have been lessened by more initial discussion and a larger pilot study. Nevertheless, carrying the project to a reasonable conclusion within a year was a valuable learning exercise, highlighting many of the problems arising during any general practice research: responder compliance, the need for control data, difficulties in interpretation of skewed figures, problems of analysing subjective data, multi-observer studies, and observer bias.

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Addendum

Dr Stott is now a principal in general practice in Tadworth, Surrey. Details of the questionnaire on contraception are available from the author.