INFERTILITY AND ADOPTION

FOLLOW-UP OF 216 COUPLES ATTENDING A HOSPITAL CLINIC

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It has been pointed out (Lewis, 1965) that the general practitioner has an important role in adoption. In this paper we shall present evidence to suggest that the gynaecologist consulted by a childless couple has an equally valuable part to play. Most of the published follow-up studies have been concerned with the number of women who have become pregnant after investigation and treatment; our inquiry deals also with the frequency of adoption among couples who have attended an infertility clinic. With the notable exceptions of Sloan (1964) and Sandler (1965), this aspect seems scarcely to have been mentioned in the literature.

We believe that the narrowly mechanistic approach favoured by so many workers is responsible for the widely-expressed scepticism about the value of the infertility clinic. Little confidence has been expressed in treatment, especially of male defects; and even the standard procedures of investigation have been queried (Bender, 1952; Barns, Campbell, and Snaith, 1953). More recent writers (*e.g.* Sloan, 1964) have been equally cautious in their claims, and the whole subject has become imbued with an aura of therapeutic pessimism. It is tempting to conclude that the elaborate facilities in use are both wasteful of manpower and likely to raise false hopes in the patient.

Yet wherever social and emotional as well as physical factors are involved, the efficiency of treatment is hard to demonstrate. There are several reasons for believing that the clinic serves a useful purpose. First, it has been observed that a number of women become pregnant while attending it or even while awaiting their first appointment; and many others conceive within a year of discharge.

These considerations alone might be held to justify the investigation of all suitable cases. Secondly, the opportunity to help couples with the psychological aspects of their problems can be rewarding, if properly handled. Russell and Mitchell (1954) described their practice of conducting the first interview jointly with husband and wife. This not only emphasizes their mutual participation, but allows questions to be answered and anxieties allayed. Thirdly, many couples will benefit from diagnostic advice even when nothing else can be offered. Although a bad prognosis can sometimes make a difficult situation worse by depriving a couple of hope (Campbell, 1958), in general it is better to know the worst and plan accordingly than to delay until the moment for constructive action has passed. And although adoption is not the only positive response to childlessness, it is one that particularly calls for an estimate of the couple's reproductive potential.

THE CLINIC

The Essex County Hospital at Colchester serves a predominantly rural population of nearly 300,000. The infertility clinic was established in November, 1948, and has been directed by the same consultant (K.M.M.) since then. Patients are referred by their general practitioner, who remains responsible for any treatment prescribed. Although the clinic population cannot be regarded as nationally representative, it probably affords a fairly complete local coverage of infertile couples seeking advice under the N.H.S. After physical examination of both partners a comprehensive programme of investigations is carried out over an average period of 5-6 months. The couple are then seen by the consultant, who explains the findings as frankly as possible. If

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the prognosis is hopeless or very poor, the possibility of adoption is broached; and if interest is expressed, they are advised to discuss this with their G.P., to whom a certificate of full investigation will be sent if required by an adoption society. If there are minor defects which may reduce the chances of conception, the possibility of treatment (*e.g.* hormonal or antibiotic) is discussed, and such couples may be reviewed later if they remain infertile. Couples without demonstrable pathology are usually advised to wait for a period (depending on age and length of marriage) before contemplating adoption.

THE SAMPLE

Between January, 1955, and December, 1964, a total of 520 couples was seen at the clinic, which is held fortnightly. As it was part of our original purpose to compare adopters with couples who had remained childless, we excluded 28 couples who had produced a live child before attending the clinic, together with four couples who had reported a successful pregnancy in an earlier survey (MacKenzie, 1960). Another seventeen couples were excluded because the wife had become pregnant while under investigation, and we thought it unlikely that they had remained infertile. We also eliminated those who had either defaulted from the clinic, or had not replied to the 1958 questionnaire, or were known to have left the district, which accounted for another 155 couples. We were left with 320 couples (62 per cent.) whose fertility was still in doubt and who had given no hint of migration or failure to co-operate. Of these, 37 (12 per cent.) had experienced at least one miscarriage before attending the clinic. A pilot questionnaire was sent to a random 10 per cent. sample in October, 1965, of which a revised version (available from the authors on request) was sent to the rest in the following month. It dealt principally with occupational and marital status, family structure, and details of the adoption process. Reminders were sent to 92 couples after an interval of 3 weeks.

RESPONSE RATE

The G.P.O. returned 68 questionnaires and we must assume that the remaining 252 couples (79 per cent.) were reached. Of these 33 failed to respond and three wrote explaining their refusal to co-operate. A conservative estimate of our response rate, based on the 320 couples who were circularized, would be 68 per cent. If we discount those who did not receive the questionnaire, the figure rises to 86 per cent.

The parental status of the 216 respondents and the number of children in the family are shown in

Tables I and II. Seven childless women were currently pregnant, as also was a woman who had adopted a child before attending for a second series of investigations. Only five couples had already succeeded in producing a child after adopting. One woman produced her first child after two miscarriages and then adopted after a third miscarriage.

TABLE I
PARENTAL STATUS OF 216 RESPONDENTS

Respondents	No.	Per cent.
Children of marriage only	83	38.4
Adopted children	59	27.3
No children	74	34.3

TABLE II
NUMBER OF CHILDREN IN FAMILY

No. of Children	1	2	3	4
By marriage (89)	53	28	6	2
By adoption (59)	37	20	2	—

AGE DISTRIBUTION

The ages of the wives when seen at the clinic ranged from 20–39 years. Twice as many were in their 20s as in their 30s, the commonest 5-year span being 25–29. The mean age of fertile, adopting, and childless women was 26.4, 28.4, and 29.7 years respectively. Most fertile husbands were the same age or a few years older than their wives, according to the normal pattern; whereas anomalies, with the wife either older or more than 10 years younger than her husband, were twice as common (30 per cent. as against 14 per cent.) in the adoptive and childless groups. (One childless wife was 27 years and another 20 years younger than her husband; one wife was 7 years older than her husband in both adoptive and childless groups.) Duration of marriage ranged from 7 months to 18 years. More than half (55 per cent.) had been married less than 5 years, and only 7 per cent. for more than 10 years.

Where no absolute barrier to conception is present, age at marriage is probably the most important limiting factor, since the young wife with her greater fecundity is also likely to have a more virile husband. The advantages of youthful marriage may indeed be offset by prolonged and rigorous birth control, and information on contraceptive practices in our sample is necessarily incomplete. But it is our impression that the great majority of couples seeking advice for infertility have been trying actively for a child during most of their married life, those who postpone parenthood being more likely also to fight

shy of medical consultation. Thus we may assume that the figures in Table III tell a primarily biological story. The national figures are taken from the Registrar General's Population Tables, 1955 being chosen as the median year of marriage in our sample. It will be seen that fertile women follow the normal pattern, except that more were married in their early 20s and fewer in their 30s. The trend towards later marriage in the sample as a whole is contributed by the adopting and more especially by the childless women. The mean age at marriage was 22.1 for the fertile women, 22.9 for the adoptive mothers, and 24.0 for the childless women. This means that the average interval before investigation was 4.3, 5.5, and 5.7 years respectively. Thus there is no evidence of any tendency to compensate for delay in marriage by seeking advice more promptly when no baby arrives.

TABLE III
WIFE'S AGE AT MARRIAGE

Age Group (yrs)	17-19		20-24		25-29		30-36	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
General population (1955 figures $\times$ 000)	65	20.5	171	53.9	52	16.4	29	9.1
Fertile women (83)	16	19.3	53	63.9	12	14.5	2	2.4
Adopting women (59)	4	6.8	40	67.8	13	22.0	2	3.4
Childless women (74)	11	14.9	38	51.4	14	18.9	11	14.9
Combined (216)	31	14.4	131	60.6	39	18.1	15	6.9

Note: The proportions in each age group differ significantly between the three categories of women ($\chi^2 = 16.84$; d.f. 6; $P < .01$).

THE TEST FINDINGS

If the standard procedures have any diagnostic validity, one would expect consistent differences to emerge between our three groups. Although misleading results were occasionally reported in the fertile group, gross impairment was much more often found in the adoptive and childless groups (Table IV). Thus one in three of the former and one in four of the latter were given a poor prognosis, compared with less than 4 per cent. of the fertile group. It is likely that the age factor played a more important part in the childless group. On the other hand, both partners were diagnosed as within normal limits with much the same frequency in all three groups (between 20 and 25 per cent.). The presence of equivocal findings in three-quarters of the fertile couples is an argument against pitching standards of normality too high, since the chances of pregnancy would appear just about even in these circumstances.

Under this last heading were included minor abnormalities in one or both partners, defective or

TABLE IV
RESULTS OF FERTILITY TESTS

Fertility	Grossly Impaired		Equivocal		Normal	
	No.	Per cent.	No.	Per cent.	No.	Per cent.
Fertile couples (83)	3	3.6	63	75.9	17	20.5
Adopters (59)	20	33.9	26	44.1	13	22.0
Childless couples (74)	19	25.7	37	50.0	18	24.3
Combined (216)	42	19.4	126	58.3	48	22.2

Note: Five husbands refused to be tested. Although the wives were normal these couples have been classified as equivocal.

irregular ovulation accounting for most of these. Their relevance must remain uncertain in the absence of adequate control data from couples who have no difficulty in starting a family. However, it seems reasonable to assume that they are responsible for some cases of persistent infertility, perhaps especially when present in both partners (e.g. anovular cycles combined with a fluctuating sperm count).

Following Sloan (1964), we have taken a sperm count of 10 million/ml. (disregarding motility and morphology) as the lower limit of normality. By this criterion, significantly more adoptive fathers than childless husbands were diagnosed as sterile or grossly sub-fertile, whereas an opposite trend is seen in the wives (Table V, χ^2 with Yates' correction = 3.94; $P < .05$). This trend is less conspicuous in an unpublished series of 58 sterile couples applying to adopt through Oxford City Children's Department, in 25 of whom the cause was attributable to the wife; these included seven hysterectomies and two bilateral salpingectomies, which occurred only in our childless group (three cases of each). Much will depend on the finality of the prognosis, but we would suggest that sterility in the husband may be perceived as more threatening to the marriage relationship. We have learnt from personal interviews (to be reported elsewhere) that artificial insemination (donor) was sometimes briefly considered as an alternative to adoption, but the only couple who ventured to express an interest at the clinic were still thinking about it 3 years later.

TABLE V
DIAGNOSIS OF STERILITY IN RELATION TO THE DECISION TO ADOPT

Sterility	Wife		Husband	
	No.	Per cent.	No.	Per cent.
Adopters (59)	3	5.1	17	28.8
Childless couples (57)*	7	12.1	6	10.3

* Excluding five couples where the husband refused to be tested, five who were waiting to adopt, and seven who had tried unsuccessfully to adopt.

Although the discovery of an absolute bar to conception may clear the way to adoption, the average interval between discharge from the clinic and placement of a child was similar (about 2 years) for couples whose test findings were normal and who were only marginally older than the sterile group. Few women will admit to having adopted with the specific aim of producing a child subsequently (Humphrey and Ounsted, 1964), but all are exposed to the prevailing folklore which doctors are apt to endorse.

THE FERTILE GROUP

In view of the difficulties involved we have made no attempt to relate pregnancy to treatment. Instead we have calculated the proportion of fertile women conceiving within graduated time intervals (Table VI). Like Bender (1952), we find that almost two-thirds of successful pregnancies occurred within a year of discharge from the clinic. There is no age difference between those who conceived promptly and those who took longer. Only 17 per cent of these pregnancies took place after 10 years of marriage.

TABLE VI
INTERVAL BETWEEN DISCHARGE FROM CLINIC
AND SUCCESSFUL PREGNANCY

Interval (mths)	under 3	3-6	7-11	12-23	2-5 yrs.	Over 5 yrs
No.	20	16	18	11	11	7
Per cent.	24.1	19.3	21.7	13.3	13.3	8.4

Although the fertile group account for less than 40 per cent. of our sample, it must be borne in mind that five couples had produced a child after adoption. Of the eight women who were pregnant at the time of response we know that two have since given birth to a live child, and all but one of the remainder were expecting to be delivered within 3 months. As the still birth rate in our series is only 2 per cent. we can assume that these will meanwhile have become fertile, giving a total of thirteen cases. In addition, we must try to make some allowance for variations in the length of follow-up, which ranged from 1 to 11 years with a median of 5 years. Table VII shows that, despite annual fluctuations, there is a lower pregnancy rate among women who have been followed up for less than 5 years (34 per cent. as compared with 42 per cent.). By adjusting our success rate in terms of this difference, we can postulate that another eight couples (8 per cent. of 102) will eventually achieve a child. If we add these eight to the thirteen already mentioned, our fertile group increases to 104 or 48.1 per cent., which agrees

TABLE VII
FERTILITY IN RELATION TO YEAR OF DISCHARGE

Year	No. of Couples in Series	Fertile Couples	
		No.	Per cent.
1955	9	2	22.2
1956	13	6	46.2
1957	22	13	59.1
1958	24	9	37.5
1959	19	9	47.4
1960	27	9	33.3
1961	30	13	43.3
1962	27	7	25.9
1963	24	10	41.7
1964	21	5	23.8
Combined	216	83	38.4

closely with Bender's figure of 46.3 per cent. And if we could wait another 20 years until all our women had reached the menopause, there would be a further trickle of successful pregnancies to take the final tally beyond 50 per cent. There is no means of knowing how many pregnancies were made possible by action taken at the clinic; however, the time factor strongly suggests that the decision to seek medical help can for some couples act as a kind of "release mechanism", especially where conception occurs before the investigations have been completed.

THE ADOPTIVE GROUP

Until our interviews have been evaluated we cannot say much about the specific motives which prompted 59 couples to adopt. Even where the chances of pregnancy are remote it is not always a straightforward decision, and the clinician can advise only in the most general way. But we can dispose of the common misconception that it is extraordinarily difficult to obtain a child for adoption. Few couples reported an extensive search, and three-quarters acquired their first child within a year of taking the first step. Table II suggests that our adopters are at the same stage of family building as our fertile couples, the ratio of one-child to two-child families being identical at 1.9. Only two wives had embarked on adoption when beyond the age limit of 40 stipulated by some societies, and these were both private placements.

A total of 34 couples (58 per cent.) took a boy first, but despite the alleged preference of adopters for girls, only one such couple declared that they had wanted a girl. There were three sets of twins. Voluntary societies were responsible for 52 adoptions and local authorities for seven; the remaining 24 were arranged by a third party (often a doctor) apart from one case in which no information was given. All but five children (6 per cent.) were placed within the first 6 months of life and the majority (79 per cent.) within 3 months.

As previously stated, five couples had already produced a child after adopting and one other woman has been safely delivered since returning the questionnaire. This post-adoptive fertility rate of 10 per cent. may be regarded as a conservative estimate, as 75 per cent. of the adoptions had occurred within the last 5 years. However, four of these six women conceived within 2 years of adopting, and thus satisfy the criterion of causality proposed by Tyler, Bonapart, and Grant (1960).

Other recent surveys have shown a marked variation in this respect. Weinstein (1962), in his 9-12 year follow-up of 438 unselected adopters, also found that only 10 per cent. had become fertile. Of the 249 "inexplicably barren" couples surveyed by Rock, Tietze, and McLaughlin (1965), 23 per cent. had produced a child after adopting between 1950 and 1959, but so had 35 per cent. of their control group of 113 non-adopters. Although sterility had been less reliably excluded in the adopters, this comparison seems to discredit adoption as a cure for infertility.

But perhaps a more appropriate question is whether there are *any* circumstances in which adoption can promote fertility. Sandler (1965) followed-up two groups of 25 couples in whom physical normality was combined with emotional stress or immaturity. In the first group eighteen couples achieved pregnancy within 2 years of deciding to adopt; in the second group, who did not adopt during this period, only eleven pregnancies occurred (on our calculation $\chi^2 = 4.02$; $P < .05$). This suggests that adoption *may* help to overcome psychogenic infertility; but we would not recommend it for this purpose, especially as the chances of rapid conception in these circumstances appear relatively high in any case.

THE CHILDLESS GROUP

It is sometimes assumed that a childless marriage is doomed to unhappiness. The two broken marriages in our series were indeed both childless: in one case a doubtfully fertile woman had divorced her husband for adultery, and in the other a sterile husband was separated from his wife who was pregnant by another man. Otherwise our material affords no evidence of gross marital discord, although it must be stressed that only a minority of the sample were coping with a childless middle age.

Childless women were invited to give their views on adoption in the final section of the questionnaire. Five couples were waiting to adopt, seven had failed in their efforts to adopt, and seven were pregnant. Nine had no comment and two comments

were unclassifiable. If we also exclude the divorced couple, we are left with 43 respondents whose expressions of opinion are classified in Table VIII.

TABLE VIII
ATTITUDES OF CHILDLESS COUPLES TO ADOPTION

Still hoping to produce own child	16
Conflict and doubts about capacity to love adopted child	10
Idea made no appeal	6
Fear of rejection by adoption society or intervention by natural mother	4
Prevented by family circumstances Content with long-term fostering Hobbies and other interests Husband not in favour	3
Getting too old } Genetic anxiety }	2

Note: Some replies were included in more than one category.

These reasons for rejecting or delaying adoption are superficially intelligible, although they may well mask deeper anxieties and resistances which would be hard to elicit in an interview, let alone in a postal questionnaire. Reproductive optimism, and the belief that adoption imposes an extra test of maternal capacity, account for half of the expressed attitudes. The optimistic group had an age range of 25-45 years (mean 33.4), and in six cases there were medical grounds for a cautious prognosis. The couples in whom hope springs eternal are well known to adoption societies and are often viewed with disfavour on the grounds that they may have left it too late. There is no evidence of a socio-economic bias operating against the group as a whole, since many of the adoptive fathers also were manual workers.

COMMENT

In assessing the frequency of adoption in childless couples, various considerations must be taken into account. First, the women in this particular sample had originally presented with a complaint of infertility and were prepared to undergo prolonged medical investigation. Their husbands were almost equally co-operative, only six refusing to be tested even if a number of others failed to comply with the request for a second specimen. Thus it would be unsafe to assume that they were typical of childless couples as a class. They were almost certainly genuine in their wish for a child, with perhaps a few exceptions where one partner was bringing pressure to bear on the other; and some may even have been influenced by the knowledge that most adoption societies require a gynaecologist's report. Indeed, it is not unknown for a couple to defer seeking medical

advice until they apply to adopt and are asked to provide evidence as to the nature of their reproductive incapacity. An interest in adoption may therefore have activated some of our couples from the start.

Secondly, a comparison of childless and adopting couples in the present age range of 23–47 years can be valid only at a particular point of time. Our interviews have revealed that some childless couples have a fluctuating interest in adoption, and we can no more predict how many will eventually adopt than we can predict how many will become fertile. It is true that the probability of either decreases with age, yet only a lower age limit for adoption is laid down by law.

Thirdly, we need to consider a possible bias in our sampling due to the omission of couples who either could not be reached or failed to return a questionnaire (104 in all). The no-contact group differed from respondents in that more were seen in the first half of the survey period, as we had expected. Less predictable was the finding that in their test pattern they resembled the adoptive and childless rather than the fertile group, gross impairment being diagnosed in 26 per cent. And the same trend appeared in the non-respondents, of whom 28 per cent. were grossly impaired. The possibility of broken marriages or disharmony in these groups must be entertained. It is also worth noting that, compared with other respondents, significantly more childless couples required a reminder before replying ($\chi^2 = 6.36$; $P < .02$). This would suggest an understandable reluctance to communicate where neither natural nor substitute parenthood had been achieved. It looks therefore as if relatively few children will have been produced by the couples who eluded us. On the other hand, our clinical records provide independent knowledge of adoption in one case in which we received a letter objecting to the inquiry, and six other couples among our non-respondents are known to the Essex Children's Department as having adopted.

If we include the five prospective adopters from our childless group, the proportion of adopters among our respondents is 30 per cent. This supports our assumption that, even where the prognosis for conception is good, alternative paths to parenthood should be explored in the final interview at the clinic. But we do not suggest that the consultant should actually advise adoption in any given case, since this is something which the couple must be encouraged to decide for themselves. Still less should the clinic aim at running an adoption service, any more than it can provide comprehensive marriage guidance merely because some couples present with sexual

difficulties. What we are suggesting is that a working relationship should be cultivated not only with referring doctors but with the local community services, particularly the Children's Department. Many couples are ignorant of adoption procedures and will benefit from informed discussion at the critical stage.

Since reproduction is one of the prime objectives of marriage, and failure to achieve it is the reason for attending an infertility clinic, it is not surprising that the success or failure of the enterprise should often have been judged in purely biological terms. Yet biological failure need not imply total failure, and much will depend on the manner in which the investigations are handled (Russell and Mitchell, 1954). An obsessive preoccupation with the mechanics of reproduction, and blindness to the value of a sympathetic approach to the total problem, can only dishearten the patient who is not going to conceive. Doctors like to comply with their patients' wishes, and no doctor enjoys having to deliver a harsh verdict; yet by remaining sensitive to his diagnostic-cum-advisory role and discarding all pretensions to therapeutic omnipotence he will often earn more gratitude than he has any right to expect.

We shall conclude by recalling part of an editorial which appeared in the *British Medical Journal* (1952) after Bender's article of 15 years ago but which remains equally apposite to-day: "On the whole, therefore, the outlook for the couple complaining of infertility is not too bad, since 50 per cent. of such couples can expect to have a child eventually. Whether their chances are materially increased by attending a fertility clinic is somewhat doubtful; perhaps they will be for a quarter to a third of such couples. In a further quarter to a third the investigations will demonstrate the extreme improbability of conception and at least let the couples know where they stand. Limited though the value of this assistance may be, it is probably greater than some have supposed, and points more to the need for further carefully controlled research than to the abandonment of the investigation and treatment of human infertility".

SUMMARY

A questionnaire was sent to 320 couples who had attended a hospital infertility clinic during a 10-year period. The median length of follow-up was 5 years. Replies were received from 216 (86 per cent.) of the 252 couples reached.

Two-fifths had become fertile, a third were still childless, and over a quarter had adopted. Early marriage was commonest in the fertile group and late marriage in the childless. It was estimated that

at least 50 per cent. of the sample would eventually manage to produce a child.

Male infertility was commonest in the adopting group. This included 39 potentially fertile couples of whom only five had produced a child subsequently. The majority of adopters had succeeded in obtaining an infant less than 3 months old within a year of making the first move.

Some attitudes of childless couples to adoption are reported, and implications for the medical management of infertility are discussed.

We are grateful to Miss L. Faithfull and Miss G. M. Wansbrough-Jones, Children's Officers of Oxford City and Essex respectively, for supplying information from departmental records; and to Mrs R. E. Imray, Miss K. M. Pringle, and Miss S. M. Best for secretarial help. Prof. J. K. Russell and Dr B. Sandler made helpful comments on an earlier draft. We are particularly indebted to our respondents for their co-operation. The

personal interviews emerging from the postal survey were supported by a grant from the Mental Health Research Fund.

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