PSYCHOLOGICAL ASPECTS OF INFERTILITY*

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SUMMARY

Forty couples who attended the Infertility Clinic of Government Royapettah Hospital, Madras, were included in the study and compared with matched controls who had offspring. All 80 persons were administered the M.H.Q. and the E.P.I. Psychosocial data was recorded and a clinical psychiatric evaluation was done. 51 out of 80 in the study group had psychiatric problems, predominantly depression and anxiety. These problems increased with increasing duration of childless marriage. 40% of the infertile group had psychosexual dysfunction such as premature ejaculation and erectile disturbances as opposed to 2.5% in the controls. Presence of vaginisms, dysmenorrhea and sexual dissatisfaction were more in the women of the study group. 15 males had oligospermia/azospermia.

Introduction

Infertility according to Menninger may "represent a psychic conflict sailing under a gynaecological flag". "Psychogenic infertility" is a term used to imply that psychological factors have interfered with or prevented any of the processes, thereby impeding conception. Emotional factors, apart from playing an etiological role in infertility have found to be significant components of a childless marriage.

The interesting psychological correlates of this vital aspect of marital life and the dearth of such studies in Indian literature prompted us to undertake this study, whose chief aims were:

1). To note the relationship between infertility and psychological morbidity.
2). To study sexual dysfunction in infertile couples.

Material and Methods

The study was conducted at the 'Infertility Clinic' of the Govt. Royapettah Hospital, Madras, in collaboration with the Urology Department of the same hospital.

40 consecutive couples (80 patients) who attended the clinic from September 1980 to November 1980 and who fulfilled the following criteria were included:

1) Duration of marriage - over 2 years.
2) No history of contraceptive use at any time during this period.

Both the husband and wife were examined separately by qualified psychiatrists and a mental state examination was done. They were questioned in relation to age, occupation, education, social class, living conditions (joint or nuclear) with special reference to privacy, duration of marriage, detailed sexual and marital histories. A specially designed proforma was used to record psychosocial data.

The following questionnaires were administered to them:

1) Middlesex hospital questionnaire: as a screening test for psychological morbidity.
2) Eysenck personality inventory: levels of extroversion and neuroticism.

All the men were subjected to a

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Table 1
Psychiatric disturbance in infertile and control groups

| SEX  | INFERTILITY (N = 80) | CONTROL (N = 80) |
|------|---------------------|------------------|
| PD   | No. | %  | PND  | No. | %  | PD   | No. | %  | PND  | No. | %  |
| Males | 28  | 70 | 12   | 30  | 6  | 15  | 34  | 85 |
| Females | 23  | 57.5 | 17   | 42.5 | 10  | 25  | 30  | 75 |
| Total | 51  | 29 | 16   | 64  |

$X^2 = 29.68$  $P < .001$ (PD: Psychiatically disturbed; PND: Psychiatically not disturbed).

Results

1). While 70% of the males and 57.5% of the females in the infertile group (study group) had psychiatric disturbance, it was only 15% and 25% respectively in the control group. This was statistically significant at .001 level.

When the male and female patients were considered separately, the same trend was seen to persist. Significantly more males and females in the study group had psychological problems than the members of the same sex among the controls.

2). When the infertile and control groups were compared to each other regarding the relative risk of developing psychological morbidity, it was found that the study group had 7 times more risk than the control group. This shows conclusively the association between infertility and psychiatric disturbances.

Similarly the two sexes were compared for relative risk and it was seen that the males in the study group were at a greater risk of developing psychiatric problems.

When an intragroup comparison within the infertile group was made, the males had 3 times more risk than females.

3). The age group of the patients extended from 18 to 45 which is of course, the normal reproductive age group. No parti-
number of individuals who were disturbed almost equaled the normal ones in cases where the duration of marriage was less than 5 years, while a three fold increase of psychological morbidity was noticed in marriages whose duration exceeded 5 years. It is probable that as years roll by, hopes die to give place to futility, despair and depression.

When the infertile and control groups were compared to each other duration of marriage was again significant (p<.05). When the duration was less than 5 years, more than \( \frac{3}{4} \) of the study group (54.5%) had psychological problems as against only 7.7% of the controls. In cases when duration exceeded five years, 75% of infertile couples were psychologically disturbed, the corresponding figure in controls being 25.9%.

4). Parental deprivation, which was loss of either parent before the age of 15 years by death or separation was found more in the sterility group, though this was statistically insignificant.

5). Our enquiry into the religious treatment sought before coming to the clinic revealed that 63% had done so.

6). Interrogation about the sexual problems of our patients revealed that the history of masturbation, pre and extra marital sex in males was noteworthy and more than one of these practices co-existed in one individual.
Male patients expressed guilt feelings regarding these and wondered if this could be contributing factor to their childless state. None of our female patients admitted to any of these practices. There was no significant difference in the frequency of coitus among the groups.

7). Presence of sexual dysfunction in males such as premature ejaculation and erectile difficulties was found to be more in the psychiatrically affected group.

8). Among females, the presence of vaginismus, dysmenorrhea and sexual dissatisfaction was more among the infertile group. Many patients tended to attribute dysmenorrhea as a probable cause of infertility. Every menstrual cycle was an unpleasant confirmation of their failure again to conceive and a few also reported increased psychological problems during the menstrual cycle.

9). Out of 40 males in the study group, semen analysis reports of only 28 were available. About 54% of them had either azospermia or oligospermia. These patients were being treated by the urologists for this.

10). Clinical psychiatric evaluation revealed that only 29/80 patients of the infertile group had no diagnosable psychiatric illness while the corresponding number in the control was 64.

The commonest diagnosis was neurotic depression followed by anxiety. Z test reveals that depression and anxiety were significantly more in the infertile group.
11). On administration of the MHQ, more scores were found in the infertile group on the scales of depression, anxiety and somatic anxiety, which was significant using the 'Z' test. This is similar to the diagnosis made on clinical examination (Table 10).

12). In the Eysenck Personality Inventory, the infertile group had higher scores on the neuroticism scale. The average score of the study group was 19.2 (8 - 15 Medium Neuroticism; >15 high Neuroticism) while that of the controls was 6.8. (Table 11).

| Table 10 | MHQ |
|----------|-----|
| Infertility | Control | \( \chi ^ 2 \) Value |
| Anxiety | 15 | 4 | 2.6882 \( p < .01 \) |
| Depression | 40 | 9 | 5.317 \( p < .01 \) |
| Somatic Anxiety | 21 | 2 | 4.2814 \( p < .01 \) |
| Obsession | 1 | - | |
| Hysteria | 2 | - | |

| Table 11 | EPI | High Neuroticism Score |
|----------|-----|-----------------------|
| Sex | Infertility | Control | Total |
| Male | 13 | 4 | 17 |
| Female | 12 | 6 | 18 |
| Total | 25 (51.25%) | 10 (12.5%) |
| \( X ^ 2 = 0.4539 \) | \( p = N.S. \) |

**Discussion**

Clinical examination revealed that 40 persons in the study group were depressed, with almost equal distribution between males and females. Similar results have been reported in Western studies and the sequence of initial surprise, denial, isolation followed by anger, guilt, depression and even grief has been highlighted.

In our sample, depression in men was often due to a sense of personal failure, since fertility in our culture particularly, is held to be a supreme affirmation of masculinity. In women, more factors were at work - hostility of the husband's family and ostracization from the community. Invariably, the woman was held responsible for the childless state. The threat of the husband's remarriage always loomed large and this resulted in interpersonal and intrapsychic turmoil.

Anxiety and hypochondriasis when present often co-existed with depression. Many patients reported a number of somatic complaints, generally secondary to depression or anxiety, which in several women were exacerbated during the premenstrual and menstrual phase.

Forty percent of the males of the study group had psychosexual dysfunction such as premature ejaculation and erectile dysfunction. Ebstein (1975) has described 3 types of association between infertility and psychosexual functions:

1). Infertility causing psychosexual problems e.g., loss of libido, inhibition of orgasm etc.,

2). Psychosexual problems masquerading as a case of infertility, e.g., vaginismus, impotence.

3). Incidental psychosexual abnormalities.

In our sample, a careful history revealed that in most cases psychosexual dysfunction was present right from the onset of marital life and appears to be an important contributing factor in infertility. This highlights the need of the General Practitioners and Gynaecologists to be sufficiently trained in discussing sexual matters with patients. A careful elicitation of psychosexual history and appropriate counselling spare the infertile couple from unnecessary diagnostic and therapeutic procedures.

From this study it's difficult to conclude that there is a definite cause-effect relationship between infertility and psycholo-
gical problems. However, the fact that 63% of the infertile individuals had some psychological morbidity shows the strong association between the two. In addition, a sizable number of the individuals had functional sexual disturbances like premature ejaculation, which, however, did not influence the frequency of coitus. Although this dysfunction cannot be a major cause of infertility, it is worthwhile eliciting the history so that the patient can be helped to overcome these problems. A psychiatrist has no small role in the management of these patients which includes treatment of accompanying psychological problems, recognition and treatment of sexual dysfunction and increasing their self esteem and self worth. Artificial insemination which is being increasingly accepted and practiced in several parts of the world should prove to be an effective alternative in at least a small percentage of the cases and should be considered by the team of Gynaecologists, Urologists and Psychiatrists dealing with the infertile couples.

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References

BARRERA, et al (1980), Emotional needs of infertile couples, Fertility and Sterility, 34, 312-319.

BENEDIK, T., HAM, G. C., ROBBINS, F. P. et al (1953), Some Emotional Factors in Infertility, Psychosomatic Medicine, 15: 485.

COOPER, A. J. (1968), A factual study of male potency disorders, British Journal of Psychiatry, 114: 719.

EISTERS, M. (1975), Effects of Infertility on Psychosexual function, British Medical Journal 3: 290-299.

EISNER, R. (1968), Some Psychological differences between fertile and infertile women, Journal of Clinical Psychology, 119: 391.

GREENHILL, J. (1956), Emotional factors in female infertility, Obstetrics & Gynaecology, 7, 502-606.

MARSHALL, J. R. (1976), Infertility, Current Obstetrics and Gynaecology Diagnosis and treatment, 3rd Ed. 41, 922-26.

MCUIRE, L. (1975), Psychological management of infertile women, Post-graduate medicine 57, 173.

MOJBY, P. D. (1980), Emotional parameters of infertility, Psychosomatic Obstetrics & Gynaecology, 2, 41-53.

NOYES, R. W. et al. (1964), Literature on psychology and infertility - A critical analysis, Fertility & Sterility, 15, 543-58.

ROTHAM, KAPLAN, et al. (1962), Psychosomatic Infertility, American Journal of Obstetrics & Gynaecology 83, 373-77.

SANDLER, B. (1968), Emotional stress and Infertility, Journal of Psychosomatic Research, 12, 54-59.

SEWARD, G., BLOCHS, & HEINRICK, J. (1967), The question of Psychophysiological infertility, some negative answers, Psychosomatic Medicine, 29, 151.