

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 off springs. 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 vaginismus, dysmenorrhoea 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 extroversions 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		PND		PD		PND	
	No.	%	No.	%	No.	%	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	

$\chi^2 = 29.68$

$P < .001$ (PD: Psychiatrically disturbed; PND: Psychiatrically not disturbed).

Table 1(a)
Males

Group	PD		PND	
	No.	%	No.	%
Infertility	28	70	12	30
Control	6	15	34	85
Total	34		46	

$\chi^2 = 22.5$

$P < .001$

Table 1(b)
Females

Group	PD		PND		Total
	No.	%	No.	%	
Infertility	23	57.5	17	42.5	40
Control	10	25	30	75	40
Total	33		47		80

$\chi^2 = 7.42$

$p < .01$.

thorough physical and laboratory examination (including semen analysis) to detect any systematic or local causes which may be responsible for the infertility. Only in those cases where men were found to be normal, the wives were evaluated gynaecologically. No such examinations were done on controls. 40 males and 40 females with children matched for age, sex and socio-economic status were taken as controls.

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-

Table 2
Infertility as a risk factor

Group	PD		Relative risk	Statistical significance
	No.	%		
Infertility	51	63.75	7.03	$X^2 = 29.68$
Control	16	20	1.00	$p < .001$

Table 2(a)
Sex Distribution as a Risk Factor

Sex	PD (Infertile group)		Relative Risk (Inter group) Intra group	
	No	%		
M	28	70	13.22	3.22
F	23	57.5	4.10	1.00

Inter group: Comparison with control group.

Intra group: Comparison within infertile group.

Table 3
Age Distribution

AGE	PD		PND		Total	
	No.	%	No.	%	No.	%
<20	4	80	1	20	5	6.25
21-30	22	61.1	14	38.9	36	45
31-40	15	60	10	40	25	31.25
40+	10	71.4	4	28.6	14	17.5
Total	51		29		80	

Table 4
Duration of Marriage

Years of marriage	Infertile group				Total	Controls				
	PD		PND			PD		PND		
≤ 5 years	24	54.5%	20	45.5%	44	2	7.7%	24	92.3%	26
> 5 years	27	75%	9	25%	36	14	25.9%	40	74.1%	54
Total	51		29		80	16		64		80

$X^2 = 4.37\%$

$p < 0.05$

ticular age group was found to have more psychiatric disturbance.

Although age did not appear to be a significant factor to account for the presence of psychological morbidity, the duration of marriage was. As seen in Table the 4 the

number of individuals who were disturbed almost equalled 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 1/2 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.

Table 5
Sexual practices in males (infertility group)

Type	PD	PND
Masturbation	19 (67.9%)	8 (66.7%)
Pre-marital sex	18 (64.3%)	8 (66.7%)
Extra-marital sex	8 (28.6%)	2 (11.1%)

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.

Table 6
Premature ejaculation and erectile problem

Group	PD		PND		Total
	No.	%	No.	%	
Infertility	14	87.5	2	12.5	16
Control	1	100	0	0	1
Total	15		2		17

8). Among females, the presence of vaginismus, dysmenorrhoea and sexual dissatisfaction was more among the infertile group. Many patients tended to attribute dysmenorrhoea 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.

Table 7
Sexual dysfunction in females

Type	Sterility		Control	
	PD	PND	PD	PND
Vaginismus	4	6	-	-
Dysmenorrhoea	12	5	4	7
Sexual dissatisfaction	11	2	2	-

Table 8
Physical defects in males-Infertility group

Type	PD	PND
Epididymitis	3	1
Hydrocoele	3	1
Oligospermia	4	2
Azoospermia	9	-

Detailed physical examination by the urologists had revealed the presence of epididymitis in 3 and hydrocoele in another 3 of those patients who had psychological problems.

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.

Table 9
Clinical psychiatric diagnosis

Diagnosis	Sterility	Control	Z Value
Depression	40	12	4.7297 p < .01
Anxiety	15	2	3.3358 p < .01
Hypochondriasis	5	2	1.1595 NS
Others	1	--	--
Nil Psychiatry	29	64	5.6085 p < .01

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
M.H.Q

	Infertility	Control	Z Value	p 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 (31.25%)	10 (12.5%)	

$\chi^2 = 0.4539$

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 sizeable 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 atleast 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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