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Psychiatric Aspects of Female Sterilization in Egypt

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ABSTRACT

30 women asking for sterilization were selected from the out-patient clinic of Gynaecology department in Ain Shams University hospital, and they were submitted to a semistructured psychiatric interview and a battery of psychometric tests prior and 3 months after the operation. They were compared to 30 women on oral contraceptive pills and another group of 30 women who did not receive any contraceptive measures regarding different aspects. Statistically significant differences were detected between the different groups regarding the mean age, educational level and family size. Socioeconomic reasons (93.9%) and medical conditions (6.7%)made the operation necessary. Results revealed that 26.7% were suffering from psychiatric illness prior to the operation. The prevalence rate markedly declined 3 months after the operation. Anxiety neurosis formed the main diagnostic category. Only 3.3% showed dissatisfaction. There were no statistically significant differences between the three groups as regards all the psychometric tests applied. The study was recommended to be carried out on larger numbers of cases and for larger periods of follow-up.

INTRODUCTION

The population explosion in the developing countries is the most

pressing problem facing the world particularly where economic growth is largely cancelled out by the increase in the population. Egypt has the highest birth rate in the world with one million increase every ten months (Okasha and Ashour, 1981). Spreading family planning and facilitating the use of contraceptive measures are very important issues to face this problem. Permanent contraception through female sterilization is playing an increasingly important part in family limitation (Thomson and Templeton, 1978; Omran, 1975).

The procedure may be followed by both physical and psychological ill health and general dissatisfaction (Thompson and Baird 1968; Mathis, 1969; Barglow, 1964). Three main adverse psychological effects, namely psychiatric disorders, psychosexual problems and regret are identified. Also, most follow-up studies have shown that tubal ligation very frequently improves the general health of the women, the marital relation and the socio-economic position of the family (Ekblad, 1961; Khorana and Vyos, 1975).

However, Barnes and Zuspan (1958) reported feeling of personal guilt, sense of being defeminized and aggression towards the surgeon. Jeffocate (1967) noted a tension state, feelings of inferiority, weakness and emptiness. Winston (1977) pointed out feeling of being incomplete or not a proper woman. Khorana and Vyos (1975) reported that these reactions were of a mild nature, but many other contemporary studies suggest that there was no evidence that any postoperative psychiatric disturbance could be attributed to sterilization (Hulka and Porter, 1975; Smith, 1979).

This paper was designed to estimate the prevalence of psychological disturbance after sterilization, and to unravel some of the possible influential factors which may contribute to it.

MATERIAL AND METHOD

A total number of 90 female patients were selected from the outpatient clinic (family planning center) of the gynaecological department of the Ain Shams University hospital over the period April 1982 —

September 1982. The material comprised 3 groups of 30 patients in each :

1 – Group A : Women coming for sterilization.

2 – Group B : Women on oral contraceptive pills.

3 – Group C : Women who did not receive any measure for contraception (control).

— Every patient was submitted to a semistructured interview including inquiry about personal, family, past and present history of psychiatric illness.

— Every patient underwent an assessment of anxiety using the Hamilton Anxiety Scale and a battery of psychometric tests including:

a – Heldreath Scale for Mood.

b – Eysenck Personality Questionnaire for assessing personality traits.

Three months after the operation the psychiatric examination and the battery of psychometric tests were re-applied.

RESULTS AND DISCUSSION

Permanent contraception through female sterilization is playing an increasingly important role in family planning in our country. Demand is increasing and adverse psychiatric sequelae have been reported, but how do Egyptian women react to sterilization? This is a question which needs urgent answer to assess whether the advantages of sterilization outweigh the disadvantages. An attempt has been made in this work to highlight the possible psychiatric sequelae of the operation, and some contributing and influential variables.

A. Psychodemographic Data :

Age

The mean age of the women at the time of sterilization was 35.5 ys, only 6.7 % were younger than 30 ys while the majority were in the

30—40 ys age group. On comparing group A with groups B and C we found that younger Egyptian females significantly prefer to use contraceptive methods other than sterilization ($P < 0.001$) and those above 33 ys came asking for the operation. This finding is similar to that of Potts (1972). However, Thompson and Templeton (1978) and Winston (1977) found that most of their patients were remarkably young (below 30 ys) when sterilized. Our finding can interpret the low prevalence of psychological complications and regret in our sample and goes with the findings of Barnes and Zuspan (1958), Parker (1967), Sim et al. (1973) and Cooper et al. (1982).

Education, occupation and socio-economic status

The majority of our sample were illiterate (93.3%) and house wives, the minority received different types of education. This is owing to the fact that all our patients were selected from the out-patient clinic of the gynaecological department, Ain Shams university hospital. 60% belonged to social class 4 and 5, 40% from social class 3, and none from social class 1 and 2. So, we were not able to find a correlation between the social class and outcome of operation since the sample was mostly homogeneous.

Thompson and Templeton (1978) found that 80% of their sample coming for reversal of sterilization were from lower social class. However, Thompson and Baird (1968) and Soliman and Abdel-Moneim (1978) interpreted this finding by the fact that fertility rate is more in lower social class and sterilization as a contraceptive measure has been freely used and widely accepted among them, while fertility is usually controlled in upper social class by other means than sterilization.

Family size

Many workers agree that sterilization is most successful in mothers of large families as a final measure of limiting family size (Sim et al., 1973). With the increasing family number the risk of serious regret diminishes strikingly (Thompson and Baird, 1968). Our results show that none of the females coming for sterilization had less than three

children compared to 16.7% of those using pills and 63.7% of the control ($P < 0.001$). This suggests that there is a tendency not to use a contraception measure when having less than three children, to use pills when having less than five chlidren and ask for sterilization when having more than five children.

Being mothers of large families, women of the study sample expressed low regret and dissatisfaction that agrees with the findings of Thompson and Baird (1968), Black and Sclare (1968) and Smith (1979).

Home atmosphere

Data dealing with home atmosphere revealed insignificant difference between the three groups regarding marital dysharmony ($P > 0.05$). Satisfiable outcome of sterilization in the study sample could be understood by the absence of significant marital dysharmony at time of sterilization in 96.7%. This was emphasized by Winston (1977) and Thompson and Templeton (1978) who found that most of the patients who were unhappily married when they had been sterilized were asking for reversal of operation.

B. Types of Birth Control Prior to Operation :

Oral contraceptives are the most popular method used as a contraceptive prior to the operation (46.7%) followed by I.U.D. then the other methods. This is because pills and IUD are the two modern means of contraception available to women in Egypt (Soliman and Abdel-Moneim, 1978)).

C. Reasons for Sterilization :

93.3% of the study sample request sterilization for socio-economic causes and family limitation. Only 6.7% request the operation for medical reasons and none of them were operated upon on psychiatric grounds. No doubt that our results emphasized that the outcome of operation was least satisfactory where the reasons for sterilization were

specifically medical, psychiatric or obstetric conditions alone, and the most pleasing results when the indication is multiparity (Thompson and Baird, 1968; Barnes and Zuspan, 1958). All women received interval sterilization performed by laparoscopic technique. This was also responsible for the low risk of complications recorded. This comes in agreement with the results of McCoy (1968), Sim et al. (1973) and Winston (1977) who found that women requesting reversal of sterilization had been sterilized immediately after labour.

D. Psychiatric Morbidity :

The highest rate of psychiatric illness was obtained by the pill group (33.3 %). They showed symptoms described by Okasha (1977) among Egyptian women taking oral contraceptive preparations. 26.67 % were identified as psychiatric cases at the time of referral for sterilization. They were diagnosed according to the Egyptian Diagnostic Manual of Psychiatric disorders (1975). Our findings were similar to those offered by Black and Sclare (1968) and Sim et al. (1973) and Smith (1979), but much higher than those found by Cooper et al. (1982) who reported that 10.4 % of their sample were identified as psychiatric cases. Neuroses formed by far the largest diagnostic category (Table I); patients with anxiety neurosis (16.7 %) presenting with tension, sense of insecurity, irritability and insomnia, somatic symptoms are more common. Anxiety in most cases had been reactive to chronic environmental stress which was considered by Black and Sclare (1968) the common explanation of neurotic problems in the multiparous women in lower social class group.

Other patients presented with hypochondriacal neuroses (6.7 %) with morbid preoccupation with the body, while patients presenting with depressive neurosis were 3.3 %. However, Ekblad (1961) and Thompson and Baird (1968) reported considerably higher rates of adverse psychological sequelae after sterilization, but the explanation for this probably lies in difference in sampling and research methods.

Though the mean score for neuroticism declined from 13.27

before operation to 12.6 after operation, personality assessment by EPO before and after operation revealed insignificant difference (Table II).

The mean score of the Hamilton Anxiety Scale before the operation was 9.13 and showed insignificant decline to 8.5 after operation (Table III).

The mean score on the Heldreath Scale of Mood before sterilization was 20.96 and increased slightly after the operation (Table IV).

TABLE I

Psychiatric Morbidity

Psychiatric Disorder	Preoperative No	%	Postoperative No	%
Anxiety neurosis	5	16.7	3	10
Hypochondriacal neurosis	1	6.7	2	10
Depressive neurosis	2	3.3	1	—
TOTAL	8	26.7	6	20

TABLE II

Comparison between Preoperative and Postoperative Scores Using EPO Test

	Preoperative Mean	SD	Postoperative Mean	SD	P
Psychoticism	1.90	1.24	1.83	0.91	▸ 0.05
Neuroticism	13.27	4.42	12.63	3.89	▸ 0.05
Extraversion	9.47	3.78	9.97	3.60	▸ 0.05
Criminality	11.70	4.59	11.77	3.88	▸ 0.05
Lie score	12.50	2.05	12.37	1.87	▸ 0.05

TABLE III

Comparison between Preoperative and Postoperative Scores on the Hamilton Anxiety Scale

	Preoperative	Postoperative	P
Mean	9.13	8.5	▸ 0.05
S. D.	7.51	6.74	

TABLE IV

Comparison between Preoperative and Postoperative Scores on the Heldreath Scale for Mood

	Preoperative		Postoperative		P
	Mean	SD	Mean	SD	
Heldreath Scale	20.96	5.84	21.4	5.39	▸ 0.05

CONCLUSION

During the last decades voluntary sterilization has emerged as a method of permanent fertility control in Egypt. However, it is not widely used among Egyptian women as other methods (Soliman and Abdel-Moneim, 1978).

As a preliminary study to explore the psychological morbidity following voluntary sterilization, 30 women asking for the operation were thoroughly investigated through psychiatric interview and psychometric tests.

The prevalence of psychiatric morbidity is 26.67% prior to operation but it declines to 20% 3 months following the operation. Regret is uncommon, only 3.3% expressing dissatisfaction.

Data from the Hamilton Anxiety Scale and Heldreath Scale of Mood reveal that anxiety, irritability, tension and worry diminished after the operation, but the decline is not of statistical significance.

Sterilization is generally associated with improvement in mental health and probably women are freed from fear of future pregnancy and being able to control their economic situations more adequately. Our results emphasized that women over 30 years of age are more likely to ask for sterilization and they do more well than younger ones. The operation for them is the best easy method for contraception, they are approaching the age of decline of the natural fertility and they are not eager to have more children. 53.3% have more than three children, and 46.7% have more than five children. With increasing family size the psychological sequelae of the operation diminish strikingly.

Sterilization was carried out for 93.3% of cases because of socio-economic factors, while only 6.7% for medical reasons. Women do not always like to be deprived of the right to have more children, even if there is a definite medical indication. So, dissatisfaction and regret are more common when the initiation comes from the doctor rather than from the patient.

Psychological repercussions following sterilization are less common in patients where their psychological and social functioning had not been impaired markedly before the operation. 96.7% had no significant mental troubles prior to the operation. The present study emphasized that women who asked for sterilization are not liable to adverse psychological sequelae and the favourable outcome of surgical sterilization in the present study is due to the careful selection of patients. However, it is recommended for future research in this field to be carried out on a larger number of patients and to expand the period of follow-up for one year or more.

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الموجـــــــز

الجوانب الطبنفسية لتعقيم المراة فى مصر

اختيرت ثلاثون حالة طلبت التعقيم من العيادة الخارجية لقسم أمراض النساء بمستشفيات جامعة عين شمس . وأجريت لهن مقابلة نفسية شبه محدودة الاطار ، وبطارية من الاختبارات النفسية قبل وبعد العملية بفترة ثلاثة شهور . وقد قورنت هذه المجموعة بمجموعة أخرى من ٣٠ ســـــيدة تتناول اقراص منع الحمل ، وبمجموعة أخرى من ٣٠ ســـيدة لا تتناول أية وسيلة لمنع الحمل .

ولقد وجدت اختلافات دالة احصائيا بين المجموعات المختلفة بالنسبة لمتوســـط السن ، ومســـتوى التعليم ، وحجم الأسرة . وكانت الأســـباب الاجتماعية ـــ الاقتصادية وتمثل ٩ر٩٣٪ والظروف الطبية وتمثل ٧ر٦٪ هى التى أدت الى ضرورة العملية . وأشارت النتائج الى أن ٧ر٢٦٪ كن يعانين من اضطراب نفسى قبل العملية ، ولكن هذه النسبة انخفضت بشكل واضح خـــلال الثلاثة أشـــــهر التالية للعملية ، وكان القلق النفسى هـــو الزملة التشخيصية الغالبة . وأظهرت ٣ر٣٪ فقط عدم الرضا ولم تظهر اختلافات دالة احصائيا بين المجموعات الثلاث بالنسبة لكل الاختبارات القياسية التى طبقت . وتوصى هذه الدراسة بتطبيقها على عدد أكبر من الحالات ولفترات أطول للمتابعـــة .

ABSTRAIT

Aspects Psychiatriques de la Stérilization des Femelles en Egypte.

Trente femelles demandant stérilization ont été choisies de la clinique de gynaecologie à l'université d'Ain-Shams, et ont été soumise à une entrevue psychiatrique demi-structurée, et à une batterie d'interrogations psychométriques avant et trois mois après l'opération. Elles ont étè comparées à 30 femelles utilisant les contraceptifs oraux, et à 30 femelles qui n'utilisaient aucune des méthodes de contraception. Des différences statistiquement significatives ont été détectées entre les différents groupes à propos de l'âge moyen, du niveau d'éducation,

du calibre de la famille Des raisons socioéconomiques (93.9%) et des conditions médicalles (6.7%) ont éxigé l'operation. Les résultats demonstraient que 26.7% souffraient de troubles psychiatriques avant l'opération. La prévalence diminuait notablement trois mois après l'opération. La névrose d'anxiété formait la catégorie diagnostique principale. La dissatisfaction a été démonstrée en 3.3% seulement. Il n'y avait pas de différences statistiquement significatives entre les trois groupes dans les examens psychométriques appliqués. Cette étude a été recommendée pour être réaliser sur des cas plus nombreux, et pour des périodes d'assistance plus longues.