

# Pattern of Depressive Disorder Among the Permanent Sterilized Women

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## Summary :

A prospective study was done on 100 permanent sterilized women (age 21 to 40 years) attending two model family planning clinics of Dhaka. By using DSM III-R criteria for major depressive episode, 19 were found to have depressive disorder. Among them 3 were severe, 8 were moderate and rest 8 were mild according to HRSD score. The average number of children in postligated depressive group was 5 in number. Almost all the depressives had considerable life events one year before ligation and relationship problem was the most frequent event. The time of occurrence of depressive disorder was within 2-3 months after ligation in 42.11% of the depressives. Only 2 cases of the depressives were getting psychiatric treatment which indicates lack of awareness about the existence of depression among postligated women.

## Introduction :

Depression is one of the commonest psychiatric disorder in Bangladesh. In a rural community survey, the prevalence rate of 28.78/1000 population with predominance of women was reported<sup>1</sup>. Several studies carried out in abroad regarding psychiatric aspects following permanent sterilization in women and adverse physical and psychological outcome, as for example regret, loss of libido and general physical complaints were reported. In one study with 98 women within three months after ligation, a high incidence of psychiatric problems (depressive type) was reported<sup>2</sup>. In other work with 192 women; it was observed that 59% suffered from neurotic depression and 15% suffered from affective disorder (depressive type) after ligation<sup>3</sup>. In a follow-up study of six month after sterilization, 15% reported some dissatisfaction and 2.6% had significant regret<sup>4</sup>.

Considerable number of postligated women attend in different psychiatric units of our country with depression but no work yet has not been reported on depressive disorder following sterilization. In one study on psychosexual outcome of female sterilization, 8% of the women reported to experience psychological symptoms like insomnia, irritability, restlessness and fear of loss of love of husband<sup>5</sup> which be speak the presence of depression among them. The present study was designed to assess the prevalence and pattern of depressive disorder with particular reference to permanent sterilization in women and to assess the role of sociodemographic factors in developing it by comparing allied variables

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between nondepressive group and depressive group of postligated women. The different observations between these two groups will provide information about the extent of depression in sterilized women which will remove misconception about procedure and help in preventive measures.

### **Materials and Methods :**

The study was carried out in the Family Planning Centre of Sir Salimullah Medical College, Mitford Hospital and Family Planning Centre of Dhaka Medical College Hospital, Dhaka. One hundred sterilized women within 6 months of operation were selected randomly during the period of July, 1991 to December, 1991. They were interviewed by a pretested questionnaire after informed consent. The questionnaire consisted of sociodemographic parameters, relevant informations about sterilization and life events including relationship with others. Depressive disorder was assessed clinically by applying DSM III-R criteria for Major Depressive Episode (MDE)<sup>6</sup>. Then Hamilton Rating Scale for Depression (HRSD) was applied to test and quantify it<sup>7</sup>. Statistical analysis was performed to compare the nondepressive and depressive group of postligated women.

### **Results :**

Among the 100 cases of postligated women 19 were found to be suffering from depressive disorder (MDE). Of these, 3 were severe, 8 were moderate and rest 8 were mild. Table-1 shows the sociodemographic characteristics of the cases. Their age ranged between 21 and 38 years with a mean of 29.05 years ( $SD \pm 3.91$ ). Majority of the cases (42.11%) of depressive group fall in 26-30 years age group. Most of the cases (84%) of both the groups were either illiterate or had primary education and mostly housewives (86%). The urban rural distribution of cases were 78% and 22% respectively. They were predominantly of low (52%) or middle (41%) income group.

The subjects were mainly motivated for sterilization by the professional family planning workers (59%) and self-motivation (27%). Forty six (46%) of the subjects identified the poor socioeconomic condition was the main reason for sterilization and another 32% expressed that their reason of sterilization was to keep small family size. Twenty nine (35.8%) of the nondepressive group had 4 children at the time of operation and 36.93% of the depressive group had 6 children at that time. The difference of number of living children between the subjects of two groups was significant ( $P > 0.05$ ). So far the degree of awareness about sterilization is concerned, 41% of the subjects had partial awareness and another 37% had good awareness about sterilization. Fifty four percent of both nondepressive and depressive group had no postoperative complains while amongst there were 23 events of pain in the abdomen which was found as most common complain. Only 2% are found with pain, swelling and fever. Ninety one (91%) of both the groups were found with absence of any other associated diseases.

**Table-1 : Sociodemographic characteristics of postligated women**

Characteristics	Nondepressive group		Depressive group		Total		X <sup>2</sup> Significance
	N	%	N	%	N	%	
<b>Age :</b>							1.62,df=3,P>0.005
21-25	13	16.05	4	21.05	17	17.00	
26-30	40	49.38	8	42.11	48	48.00	
32-35	23	28.40	6	31.58	29	29.00	
36-40	5	6.17	1	0.00	6	6.00	
	81	100	19	100	100	100	
Mean : 29.23 years (SD±3.91)			Range : 21-38 yrs.				
<b>Education :</b>							1.56,df=2,P>0.05
Illiterate	45	55.56	11	57.00	56	56.00	
Primary	20	24.71	8	42.10	28	28.00	
Secondary	4	4.93	0	0.00	4	4.00	
SSC	4	4.93	0	0.00	4	4.00	
HSC	5	6.17	0	0.00	5	5.00	
Graduate	2	2.47	0	0.00	2	2.00	
Postgraduate	1	1.23	0	0.00	1	1.00	
<b>Occupation :</b>							1.56,df=2,P<0.05
Housewife	68	83.95	18	94.74	86	86.00	
Service	11	13.58	1	5.26	12	12.00	
Self-employed	2	2.47	0	0.00	2	2.00	
<b>Social background</b>							1.53,df=2,P<0.05
Rural	14	17.28	8	42.11	22	22.00	
Urban	67	82.72	11	57.89	78	78.00	
<b>Economic background</b>							1.17,df=2,P<0.05
Higher	6	7.41	1	5.26	7	7.00	
Middle	35	43.21	6	31.58	41	41.00	
Lower	40	49.38	12	63.16	52	52.00	

Life events were considered one year prior to the day of interview, Table-II shows that of the nondepressive group, 46 (56.79%) were found no considerable life events. In contrast, only 2 (10.54%) of the depressive group were found absent of life events. Relationship problem was found most common event in both the nondepressive and depressive groups

with 24 (29.63%) and 12 (63.16%) cases respectively. The difference was significant ( $p < 0.05$ ). The relationship with husband and family member were significantly worst in postligated depressed group after operation and that were slightly improved in nondepressive group.

**Table - II :** *Distribution of subjects according to the presence of life events*

Event	Nondepressive group		Depressive group		Total	
	N	%	N	%	N	%
Absent Relationship	46	56.79	2	10.54	48	48.00
Problem	24	29.63	12	63.16	36	36.00
Death of child	8	9.89	2	10.54	10	10.00
Death of father	1	1.23	1	5.26	2	2.00
Death of Mother	1	1.23	1	5.26	2	2.00
Major operation	1	1.23	0	0.00	1	1.00
Abortion	0	0.00	1	5.26	1	1.00
Ttotal	81	100	19	100		

Ninety four (94%) of both nondepressive and depressive group had no past history of psychiatric illness. Among the depressive group, 3 (15.79%) had past history of anxiety disorder and 2 (10.5%) had previous history of depressive disorder. Ninety two (92%) of the subjects of both the group had no family history of psychiatric illness in the first degree relatives. Among the rest, 5 had family history of schizophrenia, 2 had depressive disorder and 1 had bipolar mood disorder in their first degree relatives. Table-III shows that the time of onset of depressive disorder in 42.11% cases of depressive group was within 2 to 3 months after operation and in 31.58% cases of that group it was 3 to 4 months. The frequency of depressive symptoms on the basis of DSM III-R among the 19 cases of depressive group, 18 (94.74%) were found depressed mood as the main symptom. Insomnia and fatigability were found 16 cases for each. Twelve (63.16%) of the depressives are retarded and suicidal idea were found among 10 cases (Table-IV). The frequency distribution of symptoms of depression on the basis of HRSD was found more or less same as found in DSM III-R criteria. This further revealed that all postligated depressives had both psychic and somatic symptoms of anxiety. Among the postligated depressive patients, only 2 were receiving anti depressants. They were those who had past history of depressive disorder and previously suffered and treated in psychiatric department of a teaching hospital.

**Table-III :** *Time of onset of depression after ligation.*

Time of onset	Number	%
upto 1 month	2	10.53
1 to 2 months	3	15.78
2 to 3 months	8	42.11
3 to 4 months	6	31.58
Total	19	100

**Table - IV :** *Frequency of symptoms of postligated depressive disorder on the basis of DSM III-R.*

Symptoms	Number (N=19)	%
Depressed mood	18	94.74
Diminished interest or pleasure	12	63.16
Weight loss	5	26.32
Insomnia	16	84.21
Psychomotor agitation	3	15.79
Psychomotor retardation	12	63.16
Fatigue or loss of energy	16	84.21
Feeling or worthlessness or guilt feeling	10	52.63
Diminished ability to think or concentrate	5	26.31
Suicidal idea or attempted suicide	10	52.63

**Discussion :**

The present study included only hospital based postligated women and using DMS III-R criteria, 19% of the subjects had depressive disorder (Major Depressive Episode). Among the postligated depressives, only 2 had previous history of depressive disorder. Yet the figure is certainly higher than what is found in general population. This is about 3-4%<sup>8</sup>. This figure is lower than seen in postligated women. The presence of depressive disorder in postligated women in our study is consistent with those of other studies<sup>2,3,4,9</sup>. In our study, the severity of depression assessed by HRSD were well consistent with DSM III-R which indicates reliability and validity of the assessment.

Most of the postligated depressive women were found to be above 26 years of age (14 out of 19) which simulates the age incidence of reactive depression in general population. No difference was found in the mean age between nondepressive and depressive group as a whole. This may be due to the fact that ligation are commonly done after 29 years. Most of the cases of nondepressive group and depressive group were illiterate, housewives, poor socioeconomic class and from urban area. Overall, there was unsatisfactory motivation which was proved by low rate of self referral. Poor socioeconomic condition, increased number of children of the subjects and partial degree of awareness about sterilization, were found higher in depressive group which might be the cause of depression after ligation.

Ligation itself can act as life events. Life events were found in most of the postligated depressive (17 out of 19) and relationship problem was the most frequent events found in 63.66% of this group. This result is consistent with other reports where life events were found more common at least one year before onset of depression and relationship problems was the main event<sup>10,11</sup>. These life events may play as aetiological role in depression. The relationship with the husband and family members was slightly improved in case of nondepressive group after operation which is similar with the findings of other studies<sup>12</sup>. Five among 19 postligated depressives had previous psychiatric illness. Both of which were statistically significant ( $P < 0.05$ ).

In our study, the high incidence of major depressive episode among the postligated depressive group was reported within 2 to 3 months after ligation which is consistent with Enoch & Jones<sup>2</sup>. Using DSM III-R, almost all the postligated depressives had depressive mood. Other most frequent symptoms were insomnia, fatigability. Retardation was more frequent than agitation. Diminished interest, pleasure, guilt feelings and suicidal idea were also frequent. These frequency of symptoms was consistent with the HRSD. Moreover, from HRSD, it was observed that anxiety symptoms were invariably associated with all depressives and somatic symptoms. In our country, the female of poor socioeconomic class are less privileged in family and cannot express their feelings in words. Lack of acceptance of depressive state as illness, they complain of various physical symptoms. Most of the cases of depressive group (18 out of 19) were found to have genital symptoms mainly loss of libido. It is probably due to the presence of depression and partly due to psychological effects of ligation. Moreover, it was observed that majority of the ligated women did not come after one or two visits in the family planning centre. These indicate the poor follow-up services of the postligated women and lack of awareness about the existence of depression among the permanent sterilized women.

Depression among postligated women is not uncommon. In most of the cases they remain undetected and therefore untreated. It needs a thorough study to find out psychiatric disorder among the permanent sterilized women to initiate a plan for treatment, before it becomes a big social problem.

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