ORIGINAL ARTICLE

A comparative study of psychosexual problems in women who have undergone sterilization versus hysterectomy

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ABSTRACT

Background: Female sterilization a popular contraceptive procedure that results in loss of reproductive function whereas hysterectomy, the surgical removal of uterus results in loss of both reproductive and menstrual function. These are important events in women that are found to be contributing for psychological problems as these are related with feminine identity. Though the usual age at operation is different for both the groups, the concerns are same like feminine identity and sexual life.

Aim: To compare and study the psychological problems in terms of depression and anxiety and sexual problems in women who have undergone female sterilization and hysterectomy and also to find out whether these procedures affect quality of life; and, also to study whether better information education communication (IEC) activities, round the clock medical services and careful selection of cases have impact on outcome of these procedures.

Methods: A cross sectional epidemiological Study conducted in urban slums by administering semi structured questionnaire and instruments like Hospital Anxiety and Depression scale(HADS), World Health Organization Quality of Life-BREF scale (WHOQOL-BREF)

Results: Though the hysterectomy group showed slightly higher mean scores in terms of anxiety and depression but they are not statistically significant. Quality of life was good in all domains in both groups where as sexual problems are slightly more in hysterectomy group.

Conclusion: Thus the knowledge about procedure, round the clock medical facility, careful selection, pre procedural distress has impact on outcome

Key message: We can minimise psychosexual problems by careful selection and regular follow up counselling.

Key words: Women; female sterilization; hysterectomy; psychiatric morbidity

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INTRODUCTION:

Women are at greater risk of experiencing mental illness because of social factors like gender discrimination, over work, poverty, malnutrition and biological factors like menstruation, pregnancy, and menopause. Apart from these, contraceptive procedures and gynaecological procedures that affect reproductive and sexual functions are important events that are found to be contributing psychosocial problems as these functions are related with feminine identity.

Female sterilization is very popular and widely accepted family planning procedure in India.1,2 But it is associated with certain beliefs like sterilization causes menstrual problems, weight gain, sexual problems and future acquisition of uterine pathology which are expressed when they are offered sterilisation in the field.

Tubal sterilization is indicated for women who want permanent method of contraception and free of gynaecological pathology. Also indicated for women in whom pregnancy could pose a significant clinical and medical threat. Female sterilization can be done either during postpartum period or as interval sterilization done six weeks after delivery. The sterilization can be done by mini laparotomy through abdominal or vaginal route and also through laparoscopic sterilization. Under family welfare programme female sterilizations are done in all government hospitals free of cost with incentives.

Hysterectomy is a surgical procedure for removal of uterus. Though it renders the woman unable to bear the children this method is not used as contraceptive method. Hysterectomy is thought to have impact on psychological morbidity of women because of cultural emphasis on the reproductive and menstrual function of uterus and its relationship with feminine identity. Many people think that women are no more attractive, feminine, sexual without uterus. Some women believe that uterus is necessary for physical strength and cleaning function.

Indications for hysterectomy include uterine fibroids, severe endometriosis, adenomyosis, vaginal prolapse, malignant conditions of genital tract and uncontrolled postpartum haemorrhage. In total hysterectomy body of uterus along with cervix is removed while in partial hysterectomy body of uterus is removed leaving a cervical stump. Depending on pathology, removal of adnexia is planned. In radical hysterectomy uterus is removed along with adnexia, part of vagina, parametrium and lymph nodes. The procedure may
be done either through abdominal or vaginal route. Another method is laparoscopic assisted vaginal hysterectomy.

It was noticed that some women felt that they no longer complete women due to loss of reproductive function after female sterilization. [2] Few women had unsatisfied maternal instinct. [3] Psychological disturbances in the form of depression and anxiety were reported in many studies. Post operative psychiatric disturbances were largely associated with preoperative psychiatric disturbances. [4] There were no significant differences in the frequency of mental ill health between sterilization cases and controls in a multicentre study conducted by WHO. Further there were no significant differences in relation to the timing of sterilization i.e. interval, post partum or post abortion. Another study reported greater risk of depression and anxiety after tubal ligation. They found acceptors of relatively older age, higher level of education and higher income group were more likely to report depression and anxiety and also associated with poor communication skills on part of the sterilization providers. [5] Another study concluded that preoperative depression scores are significant predictors of post operative risk of psychiatric morbidity. [6] Some authors noticed psychiatric disturbances less in urban population. [7]

Some studies reported that many sterilization acceptors experienced improvement in their health and sexual relationship. [8] Regarding sexual problems one study reported decline of sexual desire and 29% had not resumed sexual intercourse. [9] In a review on female sterilization sexual problems were noticed with wide disparity ranging from 5% to 22.1%. [10]

Hysterectomy the surgical removal of uterus is thought to have impact on psychological morbidity of woman. There is anxiety for loss of uterus and its effect on their physical health and sexual life. In addition sometimes removal of ovaries may also lead to biological changes.

Many studies reported that majority of women experienced psychopathology preoperatively and noticed significant improvement after the procedure. [11, 12] Depression occurred more often in women who had emergency surgery and women who had high anxiety scores were more likely to be depressed both before and after the operation. [13] Outcome of hysterectomy was influenced by the presence of pre-existing psychiatric diagnosis. [14, 15] Some of the Indian studies also reported psychiatric problems after hysterectomy and found that preoperative psychiatric illness was a risk factor. [16, 17] Regarding sexual problems there are mixed findings ranging from improvement, to no change. [18] Another study reported change in sexual desire where hormonal factors and indication for surgery to be considered. [19]

Aims and objectives:

1. To know the prevalence of sexual and psychological disturbances in the two groups and compare in terms of quality of life.

2. To assess whether the careful selection of cases, knowledge of the procedure, round the clock medical services and access to IEC activities has any impact on the outcome of the procedure

MATERIALS AND METHODS:

The present study conducted by Institute of Mental Health, Hyderabad, India. The sample for study collected from urban slums with round the clock medical facility. All the participants were women living under similar socio cultural background belonging to low socioeconomic status. They have migrated to urban slums for job opportunities.

Subjects included were women in the age group of 15-49 years, married living with husbands who were undergone either female sterilization or hysterectomy as an elective procedure. All the different methods irrespective of timing and duration were included. Women with major medical disorders, substance abuse, nulliparous women and with emergency hysterectomy past and family history of psychiatric illness were excluded to avoid confusion and to know the effect of surgery alone. In case of hysterectomy those with indication of malignancy were also excluded because the diagnosis of malignancy itself may have psychological consequences. A prior permission was taken from appropriate authorities and both the sterilization and hysterectomy subjects were chosen from auxiliary nurse midwife’s (ANM) field register. Then these subjects were identified in the field. Subjects chosen for the study were explained about the nature of the study and written informed consent was obtained from each member. None of them refused to give the consent. Each subject was then administered semi-structured questionnaire initially which included questions related to sexual function. Then World Health Organisation Quality of Life-Bref scale, [20] and Hospital Anxiety and Depression rating Scale [21] were administered in order.

Tools used:

World Health Organisation Quality Of Life-Bref scale:

[20]

The WHOQOL-BREF field trial version was developed to provide a short form quality of life assessment. It comprises 26 items which measures 4 broad domains: physical health, psychological health, social relationships and environment. It has good to excellent psychometric properties of reliability and performs well in preliminary test of validity.

Hospital Anxiety and Depression rating Scale (HADS):

[21]

HADS was developed by Zigmond and Smith in 1983. This is an acceptable, reliable, valid and easy to use practical tool for identifying depression and anxiety. This is valid only for screening purpose. HADS consists of 14 items, seven reflecting anxiety and seven reflecting depression. The
HADS appears to have a high internal consistency; Cronbach's values ranged from 0.870 to 0.885 for all the items.

**Statistical analysis:**

The data collected was subjected to statistical analysis using means, medians and standard deviation for continuous variables and depicted in tables. Confounding factors minimized to certain extent by selecting two groups under similar setting of living conditions and socio-economic status but cannot be totally controlled. MS EXCEL 2007 edition was used for tables and statistical analysis.

**RESULTS:**

The total number of subjects was 30 in each group (Table 1). Some of the demographic characteristics of the study population are shown in (Table 2).

Some of the sexual problems noticed are depicted in figure 1. Anxiety about sex, decreased libido, and decreased satisfaction is more prevalent in hysterectomy group.

### Table 1: Study sample

<table>
<thead>
<tr>
<th></th>
<th>Tubectomy Group</th>
<th>Hysterectomy Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identified in field register</td>
<td>40</td>
<td>46</td>
</tr>
<tr>
<td>Identified in the field</td>
<td>34</td>
<td>36</td>
</tr>
<tr>
<td>Excluded</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Finally identified for study</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

### Table 2: Demographic details of study sample (Yrs.)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Tubectomy</th>
<th>Hysterectomy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (S.D)</td>
<td>Mean (S.D)</td>
</tr>
<tr>
<td>Age</td>
<td>24.23(2.13)</td>
<td>41(3.59)</td>
</tr>
<tr>
<td>Age at menarche</td>
<td>13.1(0.92)</td>
<td>13(0.83)</td>
</tr>
<tr>
<td>Age at marriage</td>
<td>16.9(1.85)</td>
<td>15.3(1.51)</td>
</tr>
<tr>
<td>Duration of married life</td>
<td>7.17(2.19)</td>
<td>25.7(4.53)</td>
</tr>
<tr>
<td>Age at operation</td>
<td>22.6(2.41)</td>
<td>37.2(3.74)</td>
</tr>
<tr>
<td>% (n)</td>
<td></td>
<td>% (n)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>33.3(10)</td>
<td>66.6(20)</td>
</tr>
<tr>
<td>Literate secondary school</td>
<td>50(15)</td>
<td>50(15)</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housewives</td>
<td>73.3(22)</td>
<td>56.7(17)</td>
</tr>
<tr>
<td>Unskilled</td>
<td>20(6)</td>
<td>40(12)</td>
</tr>
<tr>
<td>Semiskilled</td>
<td>6.7(2)</td>
<td>3.3(1)</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hindu</td>
<td>86.7(26)</td>
<td>90(27)</td>
</tr>
<tr>
<td>Muslim</td>
<td>13.3(4)</td>
<td>10(3)</td>
</tr>
<tr>
<td>Family type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuclear</td>
<td>70(21)</td>
<td>63.3(19)</td>
</tr>
<tr>
<td>Extended</td>
<td>16.7(5)</td>
<td>23.3(7)</td>
</tr>
<tr>
<td>Joint</td>
<td>13.3(4)</td>
<td>13.3(4)</td>
</tr>
</tbody>
</table>

Physical symptoms in the form of body pains and joint pains are present more in hysterectomy group. They are 16.7% and 10% respectively whereas tubectomy group reported 6.7% in the form of body pains.

The mean anxiety and depression scores are low in both the groups. Psychological problems in the form of depression and anxiety are almost not reported in both the groups. only one subject in the hysterectomy group reported depression which is not significant statistically.

The quality of life in all the four domains is good in both the groups as shown in figure 2.

**DISCUSSION**

The mean age at marriage is less than 18 years in both the groups. The study groups are residing in urban slums and most of them are young people migrated for job opportunities. Hindu community is most represented in accordance with the representations of various religions in general population as per census of India. Most of the subjects belong to nuclear families which indicate most of them are self motivated without influence of other family members with less adjustment in post operative period. Both sterilization and hysterectomy groups received round the
clock services and better IEC activities throughout their stay in that field area. But, field staff is well versed with sterilization procedures and management of minor problems. Age at menarche, age at marriage, duration of married life does not seem to have influenced the outcome. The mean age at tubectomy is 22.6 years and hysterectomy is 37.2 years. The literacy rate in majority of subjects in both groups is up to secondary school level. It is observed that sterilization acceptors of relatively older age, higher level of education, and high income group were more likely to report depression and anxiety. \(^{[5]}\) Our sample being of younger age with low literacy and belongs to low socioeconomic status is not showing significant psychiatric morbidity. It is also observed that urban population showed less psychiatric problems probably because of better accessibility for medical services and availability of IEC activities. \(^{[7]}\)

**Sexual problems:**

Hysterectomy group showed more sexual problems (43.3\%) compared to tubectomy group (16.6\%). Sexual problems in terms of decreased libido was reported in many studies with wide disparity ranging from 5\% to 22.1\% after tubectomy. \(^{[10]}\) Some studies reported improvement in sexual problems after hysterectomy while some other studies reported no change in sexual function. \(^{[18]}\) Few studies reported worsened sexual symptoms. \(^{[19]}\) Many factors influence the sexual functioning like indication for hysterectomy, type of hysterectomy. Removal of ovaries leads to hormonal changes, attitude of women to her womb and husband’s attitude towards hysterectomy. The field staff is better trained in family planning rather than hysterectomy procedure. So may be less efficient in dealing with hysterectomy group. One patient in the present study expressed that sexual life is not permitted after hysterectomy. This highlights the importance of providing information to both woman and her partner.

**Psychiatric problems**

Regarding psychiatric symptoms, in both the groups the mean anxiety and depression scores are less. Many times anxiety symptoms appear to be due to fear of surgery, weight gain and future acquisition of uterine pathology in case of tubectomy. Creation of awareness, improved technique, better counselling before adopting the procedure and regular follow up counselling by field staff may be explained in tubectomy group who are self motivated and are better dealt by field staff as they are well trained and are available round the clock. Many studies related psychiatric symptoms in women after sterilization to pre-existing psychopathology. \(^{[4,6]}\) In present study we have excluded women with psychiatric problem.

Some studies reported psychiatric symptoms in persons undergone hysterectomy without clear indication who are nulliparous young women with history of pre-existing psychiatric illness done as an emergency procedure. \(^{[13-15]}\) Present study excludes nulliparous women and emergency surgery. The psychiatric symptoms not reported in hysterectomy group because of the severe distress they experienced pre operatively and better screening of cases. Many studies reported significant improvement in psychiatric symptoms and even if reported they are more in persons with previous history of psychopathology and persons with higher degree of neuroticism. \(^{[11,12,22]}\) Similarly the quality of life in all domains in both the groups is good. Similarly one previous study reported improvement in quality of life despite of impaired quality of sexual life after hysterectomy. \(^{[23]}\)

It is also learnt that many women delayed seeking treatment for gynaecological problems for fear of loss of function, impairment of sexual function, or threat of serious illness. \(^{[24]}\)

**Limitations:**

Our study has certain limitations like small sample size, lack of controls and being a cross sectional study long term effects are not evaluated. Interviewer was not blind to the study procedures and the study was conducted in urban area with round the clock service facility so cannot be generalised to population with other settings like rural populations.

**CONCLUSION**

Careful selection of cases with better IEC activities and availability of round the clock medical services have impact on the outcome of gynaecological procedures. Information about various gynaecological procedures and communicating the need and effectiveness may help to clear misconceptions which are vital in causing psychological and sexual problems. Regular counselling is crucial to minimise psychosexual problems in persons adopting these gynaecological procedures which are important for their health. A structured counselling programme may be developed and its effectiveness can be established on large numbers.

**Authors’ information:** The first author is also a postgraduate in Obstetrics and Gynaecology with more than ten years of clinical and administrative experience in reproductive child health in urban slums.

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**References:**


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