ejpmr, 2022,9(12), 73-78

SJIF Impact Factor 6.222

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Research Article

ISSN 2394-3211

EJPMR

PSYCHIATRIC MORBIDITY FOLLOWING HYSTERECTOMY

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Article Received on 14/10/2022 **Article Revised on 04/11/2022** **Article Accepted on 24/11/2022**

ABSTRACT

Background: Hysterectomy is one of the most commonly performed gynecological surgical procedure throughout the world. The surgical operations on the uterus are thought to be an insult to the women's emotional equilibrium. So that its loss leads to be a feeling of reduced feminity which in turn leads to psychiatric disorder. The prevalence of psychiatric disorder after hysterectomy was estimated vary widely ranging up to 70%. Majority of the women after hysterectomy can be depressed and can also show symptoms of mixed anxiety and depressive disorder. So, screening of psychiatric disorder in every hysterectomized woman is necessary. **Objective:** To evaluate psychiatric morbidity among the hysterectomized women. **Material and Methods:** This was a cross sectional comparative study, conducted in the Department of Psychiatry, Sylhet MAG Osmani Medical College Hospital, Sylhet, Bangladesh during the period from January 2012 to December 2012. Inclusion criteria were married women after 3 to 6 months following planned hysterectomy with reproductive age. Women having past history of psychiatric illness or substance abuse, history of any malignancy leading to hysterectomy or history of any chronic medical illness or any other major surgical treatment were excluded. 365 women following hysterectomy were selected according to inclusion and exclusion criteria and categorized as hysterectomized group. Another 366 age matched nonhysterectomized women were selected as control group. **Results:** The mean age of the respondents was 41.48 (SD±3.79) years which was almost identical to control group (p=0.953). Most of the women (49.5%) were below the age of 40 years. Psychiatric co-morbidity was most frequent in hysterectomized group (38.3%) as compared to control group (28.1%) (p<0.001). The most common psychiatric disorder was Major Depressive Disorder (26.5%) followed be Panic Disorder (5.2%), Obsessive Compulsive Disorder (3.8%) and Conversion Disorder (2.7%). **Conclusion:** The results of this study suggest that a significant number of women suffer from psychiatric disorder after hysterectomy than the age matched control.

KEYWORDS: Hysterectomy, Psychiatric disorder, Depressive disorder.

INTRODUCTION

The uterus or womb is a major female hormone responsive sex organ. A common psychodynamic theory states that, the uterus has a special symbolic meaning for women that play a very special role in the women's emotional thinking.[1] A hysterectomy is the surgical removal of the uterus, usually performed by a gynecologist. Hysterectomy may be total (removing the body, fundas and cervix of the uterus; often called "complete") or partial (removal of the uterine body while leaving the cervix intact; also called "supracervical"). Removal of the uterus renders the patient unable to bear children (as does removal of ovaries and fallopian tubes) and has surgical risks as well as long- term effects, so the surgery is normally recommended when other treatment options are not available.[2]

The hysterectomy is one of the most commonly performed gynecological surgical procedures throughout the world.[3]

Common indication of hysterectomy includes lieomyomata (fibroids) of the uterus, abnormal uterine bleeding, symptoms accompanying pelvic inflammatory disease, ovarian diseases, endometriosis and carcinoma of the endometrium or cervix. In addition to these indications, there is also a "combined syndrome" in which women display a multitude of physical &/or psychological symptoms.

The surgical operation on the uterus is thought to be an insult to the women's emotional equilibrium. So that its loss leads to a feeling of reduce femininity which in turn leads to psychiatric disorder.[1,4,5] This reaction has been

described not only as depression, but also an agitation, insomnia (Lindemann, 1941), non-specific anxiety (Drellich, 1956), reduce psychosexual functioning (Dennerstein et al., 1977) and psycho somatic disorder (Zervos and Paloncus, 1972).[4,6–8] Many workers using various measures and methodologies, have found a high prevalence of psychiatric morbidity following hysterectomy estimate vary widely, ranging up to 70%.[9] Traditionally, hysterectomy has been ascribed adverse psychiatric sequelar.[9]

In our country the prevalence of psychiatric morbidities were estimated as 38.8% out of which 33% patient were suffering from depressive disorder.[10] But in an earlier study it was estimated about 73.1% out of which 27% women were suffering from anxiety disorder.[11]

Majority of the women after hysterectomy can be permanently depressed and can also show symptoms of mixed anxiety and depressive disorder.[12] So that, women following hysterectomy should examined by a psychiatrist and should receive appropriate treatment for better improvement. So the purpose of the study is to find out the prevalence and pattern of psychiatric disorder among the hysterectomized women.

Objective

General objective

To determine the psychiatric morbidity following hysterectomy.

Specific objectives

1. To evaluate the prevalence of psychiatric morbidities.
2. To identify psychiatric disorders of hysterectomized and non-hysterectomized women.
3. Compare psychiatric disorders between the hysterectomized and non-hysterectomized women.

METHOD

Type of study

This was a comparative and cross sectional study.

Study design

- One stage structured assessment procedure was used in this study.
- Psychiatric assessment was carried out by a semistructured instrument.

Place of study

Department of Psychiatry, Sylhet MAG Osmani Medical College Hospital, Sylhet.

Period of study

The duration of this study was from January 2012 to December 2012.

Study population

All the hysterectomized women attending the Gynae and Obs. Out Patient Department of Sylhet MAG Osmani Medical College Hospital, Sylhet for follow up were considered as study population in this study.

Sample

Women attending in Gynae and Obs. Out Patient Department, Sylhet MAG Osmani Medical College Hospital, Sylhet after hysterectomy for follow up fulfilling the inclusion and exclusion criteria were taken as case and control were selected matching age from accompanying non-hysterectomized women with no apparent gynaecological or medical illness.

Inclusion criteria

1. Women after three to six months following planned hysterectomy with reproductive age.
2. Women belonging to any socio economic status.
3. Married women.
4. Women having no previous or present history of taking any psychotropic medication.

Exclusion criteria

1. Women with history of psychiatric illness or substance abuse.
2. Women following emergency hysterectomy.
3. Women having malignant lesion leading to hysterectomy.
4. Women having chronic medical illness or other major surgical treatment.
5. Nulliparous women.

Sample size: 365

Sampling technique

Non-probability sampling technique (Purposive) was applied to select sample.

Research instrument

1. Semi structured questionnaire for socio-demographic and other information.
2. Questionnaire for mental state examination.
3. DSM-IV-TR criteria for diagnosis of psychiatric disorders.

Procedure of data collection

- At first the aims and objectives of the study were explained to the patients in easily understandable local language and then inform written consent was taken from all respondents.
- All attendants were interviewed using the semi structured questionnaire containing socio-demographic and other relevant information about psychiatric disorder.
- Data were collected in a pre-design questionnaire by the researcher himself.
- The questionnaires were semi-structured and fix response type.
- The interview was conducted in a single stage procedure.

Statistical analysis

After collecting data editing was done manually and was analyzed with the computer software program SPSS version 16.0 (Statistical package for social science). Quantitative data were expressed as mean and standard deviation and qualitative data as frequency and percentage. Comparison was done by Chi-Square (χ^2) test and t-test where applicable. A probability (p) value of < 0.05 ($p<0.05$) was considered statistically significant and $p<0.01$ was considered highly significant but $p > 0.05$ was taken as non-significant.

RESULT

Table-I shows the distribution of the respondents by co-morbid psychiatric disorder. In hysterectomized group co-morbid psychiatric disorder was found in 140 (38.3%) respondents, while in control group co-morbid psychiatric disorder was found in 103 (28.1%) respondents. The co-morbid psychiatric disorder between the groups was statistically highly significant ($p<0.001$).

Table I: Distribution respondents by co-morbid psychiatric disorder.

Co-morbid Psychiatric disorder	Hysterectomized group (n=365)	Control group (n=365)	p- value
Present	140 (38.3)	103 (28.1)	*p<0.001
Absent	225 (61.7)	262 (71.9)	
Total	365 (100.0)	365 (100.0)	

***χ^2 (Chi- square) test was employed to analyze the data. Figure in the parenthesis indicates corresponding percentage.**

Table-II shows the distribution of respondents by specific type of co-morbid psychiatric disorders. In hysterectomized group co-morbid psychiatric disorder was found in 140 (38.3%) respondents. Out of which 97 (26.5%) respondents were diagnosed as Major Depressive Disorder, 19 (5.2%) as Panic Disorder, 14 (3.8%) as Obsessive Compulsive Disorder and 10 (2.7%) as Conversion Disorder. On the other hand in control group co-morbid psychiatric disorder was found in 103 (28.1%) respondents. Out of which 41 (11.2%) respondents were diagnosed as Major Depressive Disorder, 36 (9.8%) as Generalized Anxiety Disorder, 10 (2.7%) as Obsessive Compulsive Disorder, 06 (1.6%) as Panic Disorder, 06 (1.6%) as Somatization Disorder and 04 (1.1%) as Conversion Disorder. The difference between the groups were statistically highly significant ($p<0.001$)

Table II: Distribution of respondents by specific type of co- morbid psychiatric disorders.

Psychiatric illness	Hysterectomized group (n=365)		Control group (n=365)		P value
	No.	(%)	No.	(%)	
None	225	(61.7)	262	(71.9)	0.0001***
Major Depressive Disorder	97	(26.5)	41	(11.2)	
Generalized Anxiety Disorder	0		36	(9.8)	
Obsessive Compulsive Disorder	14	(3.8)	10	(2.7)	
Panic Disorder	19	(5.2)	6	(1.6)	
Somatization Disorder	0		6	(1.6)	
Conversion Disorder	10	(2.7)	4	(1.1)	

***Chi-square test was employed to analyze the data.**

Distribution of respondents on the basis of parity

Figure-1 shows the distribution of respondents according to parity. There were 360 (98.6%) multiparous and 05 (1.4%) primaeparous respondents in hysterectomized group; whereas 335 (91.8%) multiparous and 30 (8.2%) primaeparous in control group. Chi square test was employed to analyze the data that show the parity difference between the respondents of hysterectomized and control group was statistically significant ($p= 0.0001$).

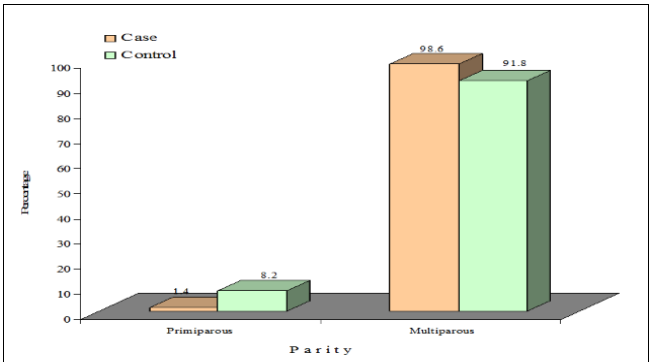

Fig. 1. Distribution of respondents on the basis of parity

Distribution of respondents according to occupation

Table-IV shows the distribution of respondents according to occupation. In hysterectomized group 339 (92.9%) respondents were housewife, 20 (5.5%) respondents were service holder and 6 (1.6%) respondents had their own business. Whereas in control group 340 (93.2%) respondents were housewife, 20 (5.5%) respondents were service holder and 5 (1.4%) respondents had their own business. The difference between the hysterectomized group and control group in relation to occupation was not statistically significant (p=0.955).

Table IV: Distribution of respondents according to occupation.

Occupation	Hysterectomized group (n=365)		Control(n=365)		P value
	No.	(%)	No.	(%)	
Housewife	339	(92.9)	340	(93.2)	0.955*
Service	20	(5.5)	20	(5.5)	
Business	6	(1.6)	5	(1.4)	

***Chi-square test was employed to analyze the data.**

Distribution of respondents according to socio-economic status:

Figure-2 shows the distribution of respondents according to their socio-economic status. In hysterectomized group 205 (56.3%) respondents were from low socio-economic group, 159 (43.4%) respondents were from middle socio-economic class and 1 (0.3%) respondents were from high socio-economic class. Whereas in control group 231 (63.4%) respondents were from middle socio-economic class, 129 (35.2%) respondents were from low socio-economic class and 5 (1.4%) respondents were from high socio-economic class. Chi square test was employed to analyse the data that shows there was statistically significant difference between two groups (p=0.0001)

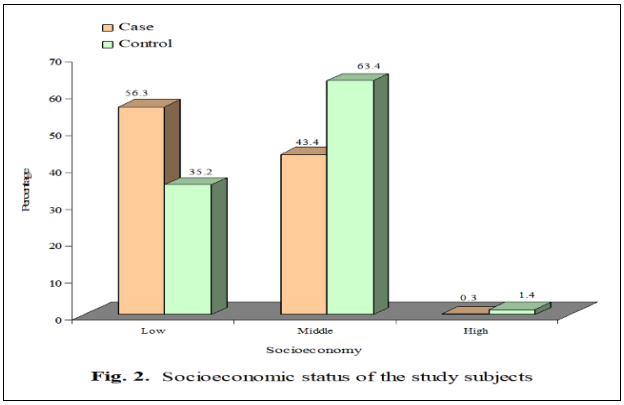

Fig. 2. Socioeconomic status of the study subjects

Distribution of the respondents according to family status

Figure-3 shows the distribution of respondents according to their family status. In hysterectomized group 188 (51.6%) respondents had nuclear family and 177 (48.4%) respondents had joint family. Whereas in control group 181 (50.3%) respondents had joint family and 184 (49.7%) respondents had nuclear family. Chi square test was employed to analyse the data that show there was no statistical significant difference between two groups (p= 0.605)

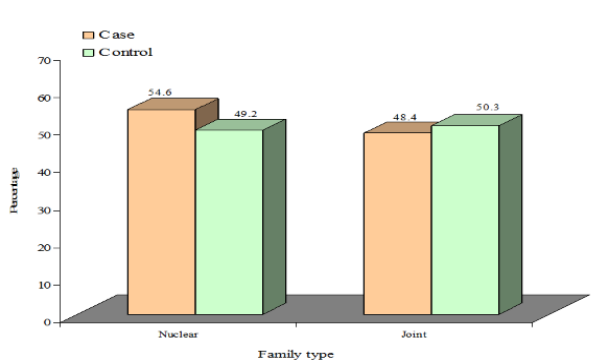

Fig. 3. Family status of the study subjects

DISCUSSION

The present study revealed that most of the hysterectomized women were in their late adulthood. The age of the subjects were ranged from 35-48 years with the mean of 41.48±3.79 years. 180 (49.5%) were between 35-40 years age group. On this regards Centers for Disease Control (CDC, 1997) reported that women living in South USA experience highest rate of hysterectomy with a mean age of 41.64 years.[13] Habib et al., (2002) showed a mean age of hysterectomized women was 45.05±9.03 years. Okunlola et al., (2009) showed that the majority (93.3%) of the women was aged 40 years and above.[10,14] Bhatia et al., (1990) shows that majority of cases (44%) belonged to 35 to 44 years.[15] The present study finding is consistent with the findings of Habib, Okunlola and Bhatia et al.[10,14]

Regarding the parity, current study showed that 360 (98.6%) respondents of the hysterectomized group were multiparous. In this regards, Habib et al., (2002) conducted a study in Rajshahi, Bangladesh showed that 86.96% respondents were multiparous.[10] This finding was consistent with research done in other cultures like, Okunlola et al., (2009) in Nigeria 93.3% and Bhatia et al., (1990) in India 74%.[14,15] This preponderance of multiparity could be due to the fact that before completion the family (at least two children) it is hardly tried by the Gynaecologist to manage the adverse gynaecological condition conservatively. Consequently patient and her family member may also unwill to give consent before completion her family.

The present study showed that 339 (92.9%) respondents were housewife followed by 20 (5.5%) were service holder and 6 (1.6%) had their own business. In the study of Khanam et al., (2000) study conducted in Bangladesh 65.4% respondents were house wife followed by 21.8% service holder and 12.8% self employed.[11] In another study by Bhatia et al., (1990) the majority of women (78%) were housewives.[15] All these studies are consistent with the present study regarding occupations of the hysterectomized women.

In this study the majority of the respondents were illiterate 230 (63.1%) followed by 93 (25.4%) were passed primary, 36 (9.8%) completed secondary, 5 (1.4%) in higher secondary and 01 (0.3%) was graduate. In another study Khanam et al., (2000) shows that the educational level of the respondents were illiterate in 53% followed by primary in 2.6%, secondary in 5.1%, SSC in 5.1%, HSC in 3.8%, graduate in 3.8% and postgraduate in 2.6%[11]. Helmy et al., (2008) study conducted on Egypt found 42.9% respondents were illiterate followed by 28.6% were completed primary, 17.1% completed secondary and 11.3% were graduate, Bhatia et al. (1990) in India also support this result that majority of the respondents (62%) were illiterate or low literate (up to primary level).[15,16] All these studies are consistent with present study regarding occupations of the hysterectomized women.

In this study 205 (56.3%) respondents were from lower socio-economic class followed by 159 (43.4%) respondents were from middle socio-economical class and 01 (0.3%) respondent was from higher socio-economical class. This result was supported by Khanom et al., (2000) that 64.2% of hysterectomized women come from lower socio-economical class.[11] This study was done in a Govt. Medical College Hospital situated in a Divisional head quarter. Moreover treatment is done free of cost. Communication with other city is well enough that people from rural areas can reach the hospital easily. So the people belonging lower economical class takes the facilities more. This might be the cause of maximum respondents were from lower socio-economical class.

Regarding the psychiatric disorder the current study revealed that co-morbid psychiatric disorder was present in 38.3% of hysterectomized women while in control group it was 28.1%. The common psychiatric disorder in hysterectomized women was Major Depressive Disorder (26.5%) followed by Panic Disorder (5.2%), Obsessive Compulsive Disorder (3.8%) and Conversion Disorder (2.7%). Presence of more psychiatric morbidity in the hysterectomized group than the control group might be due to the removal of organ that predispose psychiatric disorder in the same way as any loss. Hysterectomy may also predispose the belief of reduced feminity and inability of bearing child may lead to psychiatric disorder

also. To diagnose a patient for Generalized Anxiety Disorder according to DSM-IV the duration of symptoms must present for at least 6 months, In this study women before three months and after six months following hysterectomy were excluded during sampling, this might be the cause of absence of Generalized Anxiety Disorder in hysterectomized group though this is the second most common disorder found in control group. Khanam et al., (2000) showed that the prevalence of psychiatric diagnosis was 57% for any disorder.[11] Habib et al., (2002) reported that 38.8% of cases having a psychiatric illness.[10]

The present study result that psychiatric disorders are more frequent in hysterectomized women. Regarding the psychiatric co-morbidity the study shows a highly significant difference in hysterectomized women as compared to control group ($p<0.0001$). Thus the hypothesis of the study is established.

CONCLUSION

The psychiatric co-morbidity may delay the full recovery of the patients and may cause burden for the patients and also health delivery system. This emphasizes to develop a rich referral system and to establish a liaison service between the Department of Psychiatry and Department Of Gynecology and Obstetrics to ensure better management of hysterectomized women.

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