Original Article

Frequency of Depression Among Females Underwent Hysterectomy in a Tertiary Care Hospital

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ABSTRACT

Objective: The objective of this study is to assess the frequency of depression among females underwent hysterectomy in a tertiary care hospital.

Study Design: Cross sectional study

Place and Duration of Study: This study was conducted at the Department of Obstetrics & Gynecology, Saidu Teaching Hospital, Swat from 01/Jan/2023 to 30/June/2023.

Methods: Through non-probability consecutive sampling, 180 women aged 20-70 years, any parity presented during follow-up period after hysterectomy within 1 year were included in the present study.

Results: The mean Beck Depression Inventory (BDI) score among participants was 10.6 ± 2.1, with 108 participants categorized as depressed and 72 as not depressed. Age stratification showed a highly significant association with depression ($p<0.0001$). Parity stratification also showed a significant association with depression ($p<0.0001$).

Conclusion: This study shows that depression is an issue that is common among women who undergo hysterectomy, most especially the young women and those with low number of children.

Key Words: Depression, Parity, Hysterectomy, Young Women

Citation of article: Akbar N, Shah S. Frequency of Depression Among Females Underwent Hysterectomy in a Tertiary Care Hospital. Med Forum 2024;35(12):94-97. doi:10.60110/medforum.351220.

INTRODUCTION

Hysterectomy is a common gynecologic surgery where the uterus is removed surgically and is recommended in cases such as fibroids, endometriosis, uterine prolapse and chronic pelvic pain[1]. Although the procedure helps in physical disorders, the side effects on the psychological and the emotional aspects of the person include depression[2]. There are so many contributing factors towards post-hysterectomy depression such as hormonal changes, loss of fertility, issues of body image and even previous mental disorder[3]. Hysterectomy rates differ all over the world, from 3.6 per 1000 women in some European nations to 5.4 per 1000 in the United States[4]. Different authors pointed out that the rates of women with abnormal levels of depressive symptoms after hysterectomy are between 20 and 30% depending on the sample and tools used for the assessment[5].

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Received: January, 2024
Reviewed: February, 2024
Accepted: November, 2024

Researcher found out that women who had anxiety before surgery and the young population experience high likelihood of developing depression after surgery. In the same way, researcher[6] identified in a meta-analysis that women who underwent hysterectomy for non-malignant disease had increased risk by 15% for development of depressive symptoms in comparison to women who did not undergo hysterectomy. Depression in women is more frequent in Pakistan, set between 29 % to 66%, which primary stems from sociocultural and economic issues[7]. Studying post-hysterectomy depression particularly in local contexts still a lesser explored field. However, one study carried out in a tertiary care hospital in Lahore revealed that 4.4% of women were having significant depression after hysterectomy, so the studies better be localized and focused[8]. The present study proposes the use of the Beck Depression Inventory (BDI), as a means of measuring depressive symptoms in women aged between 20 and 70 years, more specifically women who should have undergone hysterectomy in the previous one year. In this way, the current study seeks to inform decision-makers and clinicians and advanced mental health practitioners of risk indicators that include age, parity, or type of surgery and encourage prompt screening and intervention for at-risk groups. The proposed interventions can enhance quality of life and the psychosocial benefits of women who will have to go through the procedure.

METHODS

After the ethical approval from the institutional review board, this crossectional study was conducted at Department of Obstetrics & Gynecology, Saidu Teaching Hospital, Swat from 01/Jan/2023 to 30/June/2023. Through non-probability consecutive sampling, 180 women aged 20-70 years, any parity presented during follow-up period after hysterectomy within 1 year were included in the present study. Patients with past history of psychiatric illness, with severe medical disorder (rather than that leads to hysterectomy) or substance abuse and having hysterectomy for malignant causes were excluded from the present study. Informed consent and demographic profile (name, age, parity and contact) was noted. Then females were asked for depression symptoms by using Beck depression inventory (BDI). If the score of patients ≥10, then depression was labelled. All this information was recorded on proforma. Data was be entered and analyzed through SPSS version 20. Mean and standard deviation was calculated for the quantitative variables like age and BDI score. Frequency and percentage was calculated for the qualitative variables like parity and depression. Categories of depression was also be calculated as frequency and percentage. Data was stratified for age (18-30, 31-40), hysterectomy (abdominal or vaginal) and parity (nulliparous, 1-2, 3-5). Chi-square test was used to compare the maternal complications in stratified groups. P-value < 0.05 was considered as significant.

RESULTS

The clinical and demographic characteristics of the study population are summarized as follows (table 1). The mean age of participants was 44 ± 11.5 years. Parity distribution revealed that 20% (n=36) of the participants were nulliparous, 25% (n=45) had one parity, 40% (n=72) had two parities, and 15% (n=27) had three or more parities. Regarding the type of hysterectomy, 60% (n=108) underwent abdominal hysterectomy, while 40% (n=72) underwent vaginal hysterectomy. The mean Beck Depression Inventory (BDI) score among participants was 10.6 ± 2.1, with 108 participants categorized as depressed and 72 as not depressed (Figure 1).

Stratification of depression by age, parity, and hysterectomy type revealed significant patterns (Table 3). Age stratification showed a highly significant association with depression (p<0.0001). Participants aged 18-30 years and 31-40 years had a 100% prevalence of depression (n=36 each), while none in these age groups were classified as not depressed. In contrast, in the age group of 41-50 years, all participants (n=36) were not depressed. For the age group of 51-60 years, an equal distribution of depression and non-depression was observed, with 36 participants in each category.

Parity stratification also showed a significant association with depression (p<0.0001). All nulliparous participants (n=36) were depressed. Among those with one or two parities, 72 were depressed, and 45 were not depressed. Conversely, none of the participants with three or more parities were classified as depressed, with all 27 participants falling into the non-depressed category.

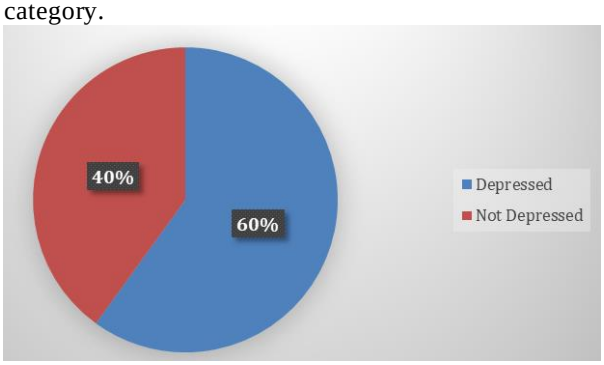

Figure No.1: Frequency of Depression Among Females Underwent Hysterectomy

Table No.1: clinical and Demographic variables

Variables	Mean and Frequency (n=180)
Age (years)	44±11.5
Parity	
0	36 (20%)
1	45 (25%)
2	72 (40%)
3	27 (15%)
Hysterectomy Type	
Abdominal	108 (60%)
Vaginal	72 (40%)
BDI Score	10.6±2.1

Table No.2: Stratification of depression with respect to age, parity and hysterectomy category

Variables	Depression		P value
	Yes	No	
Age			
18-30	36	0	<0.0001
31-40	36	0	
41-50	0	36	
51-60	36	36	
Parity			
Nulliparous	36	0	<0.0001
1-2	72	45	
3-5	0	27	
Hysterectomy			
Abdominal	72	36	0.25
Vaginal	36	36	

Regarding hysterectomy type, 66.7% (n=72) of participants who underwent abdominal hysterectomy were depressed compared to 33.3% (n=36) who were

not depressed. In the vaginal hysterectomy group, an equal distribution of depressed and non-depressed participants was observed (n=36 each). However, the association between hysterectomy type and depression was not statistically significant (p=0.25).

DISCUSSION

The results of this study showed a small but highly significant relationship between depression and age and parity among women who have undergone hysterectomy operation, and the type of hysterectomy operation did not have a significant effect. The findings of the present study are consistent with, and build upon, prior research in the area of mental health following hysterectomy, offering specific insights into the feared symptoms and related quality of life impairments.

Sex-wise and age-wise distribution disclosed that young women (18–40 years) showed higher levels of depressive symptoms; in fact, all the participants in these groups reported depressive symptoms. This is in line with the established literatures that have stated that younger females are at a higher risk of developing depression after hysterectomy, attributed to factors such as loss of fertility and change of body structure and shape[9]. Furthermore, meta-analysis highlighted that, the psychological distress is worse in young female patients after the surgery, since they may attribute the surgery as a loss of female physiology and fertility too early in life[10,15].

Parity too posed a high risk of depression where nulliparous woman had a 100 % chance of being depressed. The low parity (1-2) mother's also reported higher level of depression and the high parity[3-5] mother were not depressed at all. This recent result provides credence to the proposed notion that lower parity may increase the psychological vulnerability resulting from hysterectomy; especially in cultures that attach so much importance on motherhood. Research by Kappi et al (2022)[11] also discusses on cultural expectations of women to be child bearers and their effect on women psychological wellbeing[12,13].

Surprisingly, there was no statistically significant correlation found between the type of hysterectomy (abdominal or vaginal) and depression (p=0.25) With equal number of depressive and none depressive patients in the group who underwent vaginal hysterectomy. The present study's results are inconsistent with other works, for instance, those conducted by Lin et al., (2020) who indicated that vaginal hysterectomy might cause reduced rate of getting depressed since its recovery periods and intervention procedures are relatively minimal[12]. However, the difference was not statistically significant in this study might have been due to limited sample size and other interfering factors.[14]

In conclusion, these results further support the utility of psychological screening and efforts to provide appropriate psychological therapy to young and nulliparous women who are candidates for hysterectomy. Future research should employ longer follow-up, bigger samples, and randomised trials to elaborate the Links between cultural, demographic, and surgical factors and post-hysterectomy depression.[15]

CONCLUSION

This study shows that depression is an issue that is common among women who undergo hysterectomy, most especially the young women and those with low number of children. Surprisingly, the type of hysterectomy provided no indication for a difference in the rates of depression, and thus the treatment of psychological aspects in the post-operative phase needs to be stressed. Hence, the urge for early phases detection and unique susceptibility intervention measures for treatment of such patients enhances their general health.

Author's Contribution:

Concept & Design or acquisition of analysis or interpretation of data:	Neelam Akbar, Safia Shah
Drafting or Revising Critically:	Neelam Akbar, Safia Shah
Final Approval of version:	All the above authors
Agreement to accountable for all aspects of work:	All the above authors

Conflict of Interest: The study has no conflict of interest to declare by any author.

Source of Funding: None
Ethical Approval: No.85-ERB/022
Date 27.10.2022

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