

Post-operative anxiety, depression and psychiatric support in patients undergoing hysterectomy: A cross sectional survey

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Abstract

Hysterectomy is a frequently performed gynaecological procedure in Pakistan. This surgical procedure is a very stressful event for Pakistani women suffering from severe gynecological diseases and complications. It is also associated with a high incidence of anxiety and depression. Several studies in the West have reported an improvement in symptoms of depression and anxiety in patients undergoing hysterectomy. But this situation might be different in low resource countries like Pakistan where it is usually associated with myths, life threatening complications and obstetric abnormalities. Psychiatric support for these women is almost non-existent in general surgical settings.

Keywords: Hysterectomy, Depression, Anxiety

Introduction

In recent years, much has been published on psychological outcomes of hysterectomy in Western populations but it is still understudied in South Asia. In contrast to developed countries, surgical practice of hysterectomy is very frequent in Pakistan where it is associated with post-operative complications, high morbidity and mortality. Shaikh et al. have attributed these complications to unique sociocultural setting of Pakistan; high parity, inadequate maternity and family planning services, lack of proper referral system, unbooked status, mismanaged labour, illiteracy of the patient, family and Dais (untrained midwives).¹

Several studies have shown a significant association between hysterectomies and depression.² This psychological comorbidity is associated with perceptions of low body image and loss of motherhood.³ Keskin and Gumus reported that Turkish women undergoing hysterectomy experienced several sexual problems such as vaginismus, low frequency and avoidance of sexual intercourse and poor relationship with their spouse.⁴ In contrast, a meta-analysis published in 2014 reported an

improvement in scores of anxiety, depression and quality of life inventories in women undergoing hysterectomy.⁵ However, only 2 out of 22 studies included in this meta-analysis were from developing countries namely, Egypt and Nigeria. These studies conducted in Egypt and Nigeria reported an increase in post-hysterectomy anxiety symptoms in Nigerian women⁶ and an increase in both anxiety and depressive symptoms in Egyptian women.⁷ Most of the included studies in this systematic review (20/22) originated from Western countries. Therefore, these results, although generalizable to Western countries, may be biased if their applicability in unique Pakistani sociocultural setting is considered. The nature of psychological morbidity in patients undergoing hysterectomy might differ in Pakistan. In her study, Farooqi reported a significant increase in scores on Depression scale and Anxiety checklist in patients at one week post-hysterectomy.⁸ Whereas, Shah et al. reported a high incidence of anxiety (87, 69.6%) and depression (18, 14.4%) but a decreasing trend in anxiety and depression scale scores at 24 weeks post-hysterectomy.⁹ Therefore, the evidence for relationship between post-operative depressive symptoms and procedure of hysterectomy is rather confusing and lacking in Pakistan. And further research is needed to explore in more detail the risk factors and association of psychiatric morbidity in patients who have undergone hysterectomy.

There is an acute shortage of psychiatrists in our low resourced health care setups and thus, it cannot ensure psychiatric support in general medical settings. Therefore, it is advised that physicians and surgeons should be trained to conduct regular screening tests. And those who are at high risk of developing psychiatric illnesses should be referred for psychiatric care. There is also an overwhelming evidence that effective information sharing between the doctor and patient undergoing hysterectomy, results in reduction of post-operative psychiatric morbidity. According to Lee, an effective pre-hysterectomy educational intervention consisting of several modules on causes, prognosis, diet, cervical self-examination and exercise after hysterectomy can significantly decrease post-hysterectomy depressive

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symptoms in women.¹⁰

Risk factors for symptoms of depression in women have been reported in several studies. Abnormal menstrual history is associated with depressive symptoms and emotional problems in women. This is evident in the study of Stice et al. who found a significant association between early menarche and symptoms of depression and substance abuse among adolescent girls.¹¹ According to a systematic review, older women are at a higher risk of depression suggesting a role of psychosocial factors such as social support, life events and coping styles.¹² Elevated depression scores in women have also been associated with several other factors such as comorbid anxiety and increased number of children.¹³ In their sample of older people, Schoevers et al. found that older women are twice more likely to suffer from comorbid anxiety-depression than older men.¹⁴

The paucity of knowledge about psychological comorbidity after hysterectomy in Pakistani society warranted this study, which is designed with two aims: 1) to assess the frequency of anxiety and depression in patients undergoing hysterectomy 2) to determine the association of anxiety and depression subscale scores with education status, marital status, reason for hysterectomy, menstrual history, age of subject and age at menarche.

Methods and Results

This cross sectional study was carried out in Combined Military Hospital, Lahore Cantt. and Lady Willingdon hospital, Lahore during August 2014-October 2014. It was approved by Ethical Review Committee of CMH Lahore Medical College and Institute of Dentistry, Lahore. Those participants who had undergone hysterectomy and presented in outpatient departments of these hospitals for follow-up care were included. The data were sampled conveniently due to lack of resources by two 4th year, female medical students. These students were trained by an experienced clinical psychologist to conduct a questionnaire guided interview. Informed consent was taken and the participants were briefed about the objectives and anonymous nature of this study.

The questionnaire consisted of two sections: Demographics and Hospital Anxiety and Depression Scale (HADS). The participants were asked about age, education, marital status, age of menarche, menstrual history, preoperative psychiatric symptoms like feeling anxious, sleeplessness and forgetfulness and reason for undergoing hysterectomy. Participants were asked if they had been offered any psychological counselling following hysterectomy by a dichotomous (yes/no) questionnaire.

Hospital anxiety and depression scale (HADS) is a widely used psychometric instrument for screening of anxiety and depression and it has been rigorously evaluated in Pakistan for its validity and reliability.¹⁵ It consists of two subscales assessing anxiety and depression separately. Each subscale yields a score ranging from 0 to 21. These scores are divided into three categories: normal (0-7), borderline abnormal (8-10) and abnormal (11-21).

The data were analyzed in SPSS v.20. Descriptive statistics were used for demographic variables, reasons for hysterectomy and categories of anxiety and depression subscales. Normality was assessed by plotting histograms. Pearson and Spearman correlation was employed to check association between continuous variables. Independent sample T-test and One-Way ANOVA and post hoc LSD test were employed to analyze associations between categorical variables and scores of anxiety and depression subscales.

A total of 100 women participated in this survey. Mean age was 48.39 ± 11.59 years. Reasons stated for undergoing hysterectomy were fibroids 46 (46%), uterine prolapse 27 (27%), heavy bleeding 17 (17%), ectopic pregnancy 5 (5%), cancer 4 (4%) and placenta previa 1 (1%). Of all, 75 (75%) of the women were married and 25 (25%) were either divorced or widowed. Mean age of Menarche was 12.85 ± 1.15 years and mean number of children per woman were 4.2 ± 2.33 . Regular menstrual history was reported by 42 (42%), irregular 16 (16%) and menopause 42 (42%). Preoperative psychiatric symptoms were reported by 51 (51%) respondents. Frequency of anxiety and depressions in participants was as follows: Anxious 62 (62%), borderline anxious 29 (29%), depressed 36 (36%) and borderline depressed 46 (46%). None of the participants (0%) were receiving any psychiatric care by a psychologist or a psychiatrist.

Higher scores on depression subscale were significantly associated with more number of children ($r = 0.24$, $p = 0.016$) and higher anxiety scores ($r = 0.20$, $p = 0.043$). Independent sample T test revealed significant association between pre-operative psychiatric symptoms and post-operative depression in participants ($p < 0.001$). One way ANOVA revealed no significant association between education ($p = 0.103$), marital status ($p = 0.829$), reason for hysterectomy ($p = 0.993$) and depression subscale scores. Similar trends were observed in anxiety subscale scores. One way ANOVA revealed no significant association between education ($p = 0.602$), marital status ($p = 0.536$), menstrual history ($p = 0.745$), reason for hysterectomy ($p = 0.864$) and anxiety subscale scores. However, One way ANOVA revealed a significant association between depression subscale scores and

menstrual history ($p= 0.019$). Further, post hocLSD test revealed that menopausal women scored significantly higher on depression subscale than women with a regular menstrual history (mean difference = 1.595, $p= 0.005$). Higher scores on depression subscale were significantly associated with increasing age of subject (Spearman's rho = 0.213, $p <0.05$) and decreasing age at menarche (Spearman's rho = -0.21, $p <0.05$).

Conclusion

Although our study revealed a very high frequency of anxiety and depression in our sample of patients who had undergone hysterectomy yet none of them were receiving any kind of psychiatric support. Age of the respondent, age at menarche, pre-operative psychiatric symptoms, number of children and higher anxiety scores were significantly associated with scores on depression subscale. While level of education, marital status and reason for hysterectomy had no significant association with scores on depression and anxiety subscale. Small sample size and convenience sampling in this study limit its generalizability to whole Pakistani population. HADS is a screening instrument for depression and it is not completely transposable to ICD-10 criteria for diagnosis of depression. Therefore, more research is encouraged to explore the risk factors, pattern and causal nature of psychiatric morbidity after hysterectomy in unique sociocultural setting of Pakistan.

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