

Depression and quality of life in women following elective hysterectomy in a tertiary care hospital in Sri Lanka

A 6-month follow-up study

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Introduction

Hysterectomy is a common gynaecological surgical procedure worldwide. It affects women’s physical health, psychological health and quality of life.

The relationship between hysterectomy and depression has been raised for several decades. Previous studies have reached contradictory evidence concerning the risk of depression and affect on the quality of life following hysterectomy.

The data regarding hysterectomy and its psychosocial outcome is scarce in the Sri Lankan context. This study aims to fill this knowledge gap.

Objectives of the study

General objective

- To study the rate of depression and quality of life and its correlates in women following elective hysterectomy in a tertiary-care hospital in Sri Lanka.

Specific objectives

- To estimate the rate of depression in women following hysterectomy
- To determine the quality of life in women following hysterectomy
- To determine the association between depression and quality of life in women following hysterectomy
- To identify significant clinical and/or demographic associations with depression and quality of life in women following hysterectomy

Methodology

Study design: Longitudinal observational study

Study setting: Gynecology out-patient and in-patient settings at Colombo North Teaching Hospital (CNTH), Ragama, Sri Lanka

Sample size: 81

Inclusion criteria: Consented patients of 18-65 years of age awaiting hysterectomy for a benign indication

Exclusion criteria: Malignant gynaecological condition, iatrogenic injuries to genitourinary and/or gastrointestinal tracts during the procedure, on antidepressants

Study period: August 2020 to April 2021

Study instruments:

- Beck Depression Inventory-II (BDI-II)
- World Health Organization Quality of Life-BREF (WHOQoL-BREF)
- Interviewer-administered data extraction sheet

Data collection: At three-time points; 2 weeks before the surgery, 3 and 6 months after the surgery

Ethics approval: Ethics Review Committee of the Faculty of Medicine, University of Kelaniya

Results

81 patients were recruited for the study; however 4 patents were removed as their histology report after hysterectomy came as malignancy. Among the 77 patients included in the study, 66 patients responded to 3 months questionnaire and 60 patients responded to both 3 and 6 months questionnaires.

Participant characteristics

Table 1: Socio-demographic characteristics at baseline (n=66)

Characteristic	Mean ± SD	Frequency n (%)
Age (years)	48.36 (7.48)	
Marital status		
Single		3 (4.5)
Married		63 (95.5)
Highest education		
Below O/L		
O/L or above		
Employment status		
Employed		44 (66.7)
Unemployed		22 (33.3)
BMI (kg/m ²)	26.03 (4.25)	
Time from first contact to deciding on surgery (weeks)	62.59 (157.66)	

The commonest presentation was heavy menstrual bleeding (62.1%) followed by a lump at the vulva (15.2%). Most participants were pre-menopausal (77.3%) and 54.5% were sexually active. 63.6% of patients had ongoing life stressors other than the disease condition itself.

Table 2: Clinical characteristics at baseline (n=66)

Characteristic	Frequency n (%)
Clinical presentation	
Heavy menstrual bleeding	41 (62.1)
Lump at vulva	10 (15.3)
Other	15 (22.7)
Menstrual status	
Pre-menopausal	51 (77.3)
Post-menopausal	15 (22.7)
Sexual intercourse (last 30days)	
Yes	36 (54.6)
No	30 (45.4)
At least one child	
Yes	60 (90.9)
No	6 (9.1)
Fears/concerns about surgery	
Yes	42 (63.6)
No	24 (36.4)

Most patients (57.6%) has underdone abdominal hysterectomy and bilateral salphino-oophorectomy. Immediate postoperative complications were minimal. 39.4% of patients has received a normal history report, followed by 34.5% of patients receiving Leiomyoma. Hormonal replacement therapy was initiated only in 7.84% of pre-menopausal women.

Surgical and Immediate postoperative characteristics

Table 3: Surgical and immediate postoperative characteristics (n=66)

Characteristic	Mean ± SD	Frequency n (%)
Type of Surgery		
Abdominal Hysterectomy		17 (25.8)
Abdominal Hysterectomy and BO		38 (57.6)
Vaginal Hysterectomy		11 (16.7)
Duration of the Surgery (minutes)	80.45 (26.67)	
Histology report		
Leiomyoma		23 (34.8)
Adenomyosis		9 (13.6)
Other		8 (12.1)
Normal		26 (39.4)
Commencement of HRT		
Yes		4 (10.6)
No		34 (89.4)

Depression

At the baseline, before the hysterectomy, 28.8% of patients had clinical depression (BDI-II score > 16), while the corresponding figure at 3 months and six months follow-up was 27.3%.

Effects of hysterectomy on depression

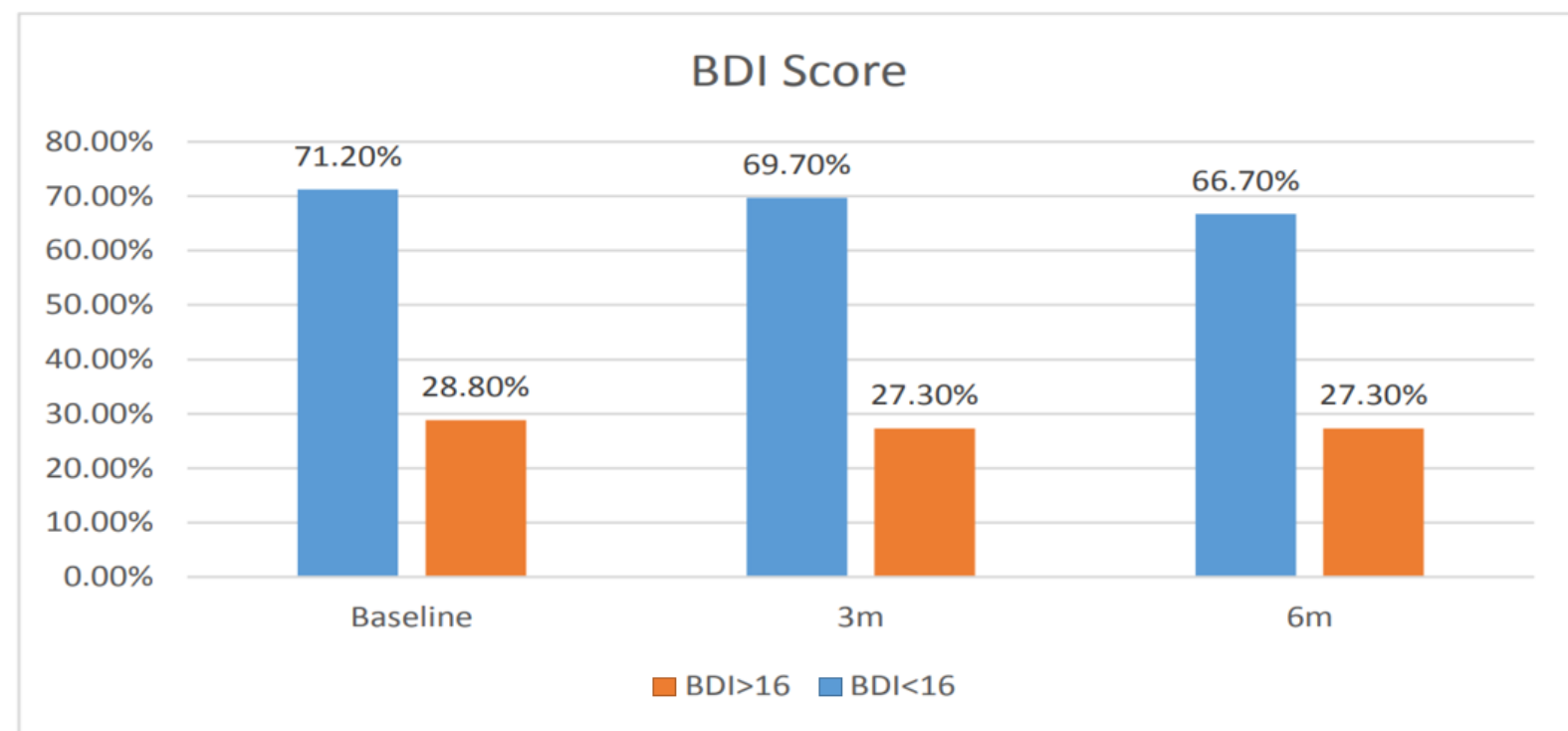


Figure 1: BDI-II score at baseline, three months, and six months (n=66)

Quality of life

At the baseline, before hysterectomy, 87.9% of patients had a good quality of life (a total WHOQoL-BREF score ≥ 60), while at three months and six months, a decreasing trend of the quality of life was seen as 80.3% and 75.8%, respectively.

Effects of hysterectomy on quality of life

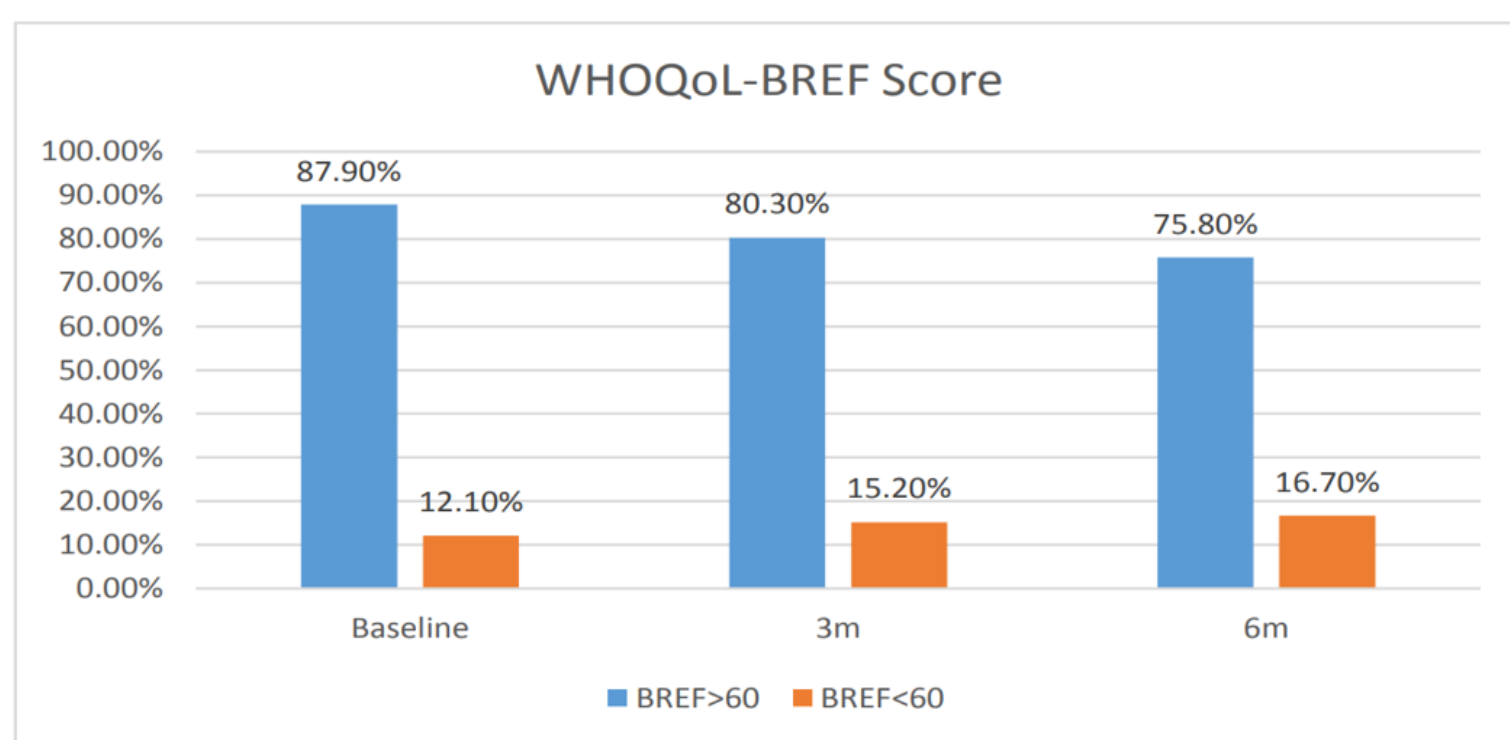


Figure 2: BREF score at baseline, three months, and six months (n=66)

The percentage of women who engaged in sexual intercourse had increased from 33.3% to 53% from 3 months to 6 months postoperatively. The percentage of women who reported no effect of surgery on their subjective perception of femininity had increased from 81.1% at 3 months to 92.4% at six months.

Post-operative follow up: 3 & 6 months

Table 4: Post-operative follow up: 3 months and 6 months (n=66)

Characteristic	3 months (%)	6 months (%)
Sexual intercourse in last 30d	22 (33.3)	35 (53)
Complications		
Pain	36 (54.5)	21 (31.8)
Vasomotor symptoms	24 (36.4)	24 (36.4)
Vaginal dryness	18 (27.3)	22 (33.3)
Urinary symptoms	9 (13.6)	6 (9.1)
Bowel symptoms	12 (18.2)	6 (9.1)
Sexual problems	12 (18.2)	11 (16.7)
Effect on the perception of feminity		
No effect	54 (81.8)	61 (92.4)
At least some effect	12 (15.2)	5 (4.5)
Perception about the hysterectomy		
It was a relief	56 (84.8)	57 (86.4)
It was a loss	8 (12.1)	8 (12.1)
Neutral	2 (3)	1 (1.5)

Repeated measures ANOVA test showed that total BDI-II and BREF scores didn’t significantly affect three different time points (baseline, three months, and six months), meaning that time assessment has no meaningful impact on the overall quality of life and depression in the present study population. However, the physical health domain of the BREF score showed a significant effect across the three time points.

Table 4. Repeated measures ANOVA test for BDI-II and BREF scores n=60.

Questionnaire	Timing	Mean Score and SD (n=60)	ANOVA		
			Mauchly's Test of Sphericity	Greenhouse-Geisser Test	Multivariate Test
BDI	Baseline	12.12(10.96)	P < 0.001	P = 0.170	P = 0.336
	3 months	10.93(9.99)			
	6 months	10.92(9.82)			
WHOQoL - BREF	Total Score	Baseline 72.90(9.31)	P < 0.001	P = 0.641	P = 0.336
		3 months 73.36(9.22)			
		6 months 72.87(9.81)			
Physical health	Baseline	69.24(6.74)	P < 0.001	P = 0.025	P = 0.003
	3 months	67.86(7.54)			
	6 months	66.67(8.61)			
Psychological health	Baseline	72.67(11.26)	P < 0.001	P = 0.382	P = 0.589
	3 months	73.94(10.41)			
	6 months	74.11(11.27)			
Social relationships	Baseline	74.44(17.62)	P < 0.001	P = 0.436	P = 0.494
	3 months	73.56(16.74)			
	6 months	72.78(15.92)			
Environmental	Baseline	75.04(13.44)	P < 0.001	P = 0.201	P = 0.224
	3 months	76.96(13.31)			
	6 months	76.50(13.34)			

Discussion

- Majority of patients presenting with heavy menstrual bleeding.
- Nearly one third of patients were having depression at the baseline.
- Having depression at baseline can lead to reduced satisfaction following the surgery, poor compliance and poor quality of life.
- The mean duration from first contact to surgery is more than a year. This time window can be utilized to objectively screen and treat depression
- No significant difference in the prevalence of depression at 3 months and 6 months following hysterectomy was noted.
- No improvement in quality of life even after surgical intervention.
- No socio-demographic, clinical, or surgical characteristics explained the pattern of depression and Quality of Life.

Conclusions

- Nearly one-third of women had depression at the baseline before undergoing hysterectomy
- Rate of depression did not change significantly following hysterectomy
- No significant improvement of quality of life following hysterectomy
- Depression correlated with poor quality of life at all three-time points

Recommendations

- Highlight the importance of pre-operative evaluations to identify patients with depression and to give them a better quality of life by treating depression along with gynecological treatment
- Encourage post-operative monitoring psychological morbidity