



FACTORS INFLUENCING THE LEVEL OF DEPRESSION IN POST-HYSTERECTOMY WOMEN

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ABSTRACT

Hysterectomy is one of the most commonly performed gynecological procedures to treat various conditions such as uterine fibroids, endometriosis, and malignancies. Although it can improve physical health, this procedure may lead to psychological impacts, particularly depression. So, hysterectomy can lead to depression influenced by biopsychosocial factors such as body image, social stigma, and family support, so analyzing factors associated with depression, particularly body image, among post-hysterectomy women at Sanjiwani General Hospital helps identify risks and improve psychological care for these patients. Based on this, this study aims to analyze factors associated with depression, particularly body image, among post-hysterectomy women at Sanjiwani General Hospital, Gianyar. This study used an analytical observational design with a cross-sectional approach. The sample consisted of 58 post-hysterectomy women selected using purposive sampling technique. Data were collected using the Multidimensional Body-Self Relations Questionnaire–Appearance Scales (MBSRQ-AS) to measure body image and the Depression Anxiety Stress Scale (DASS-21) to assess depression. Validity and reliability testing of these instruments were conducted prior to the study, showing that all items were valid ($r\text{-count} > r\text{-table}$) and reliable with a Cronbach's alpha value > 0.70 . Data analysis was performed descriptively, using the Chi-square test for bivariate analysis, and logistic regression for multivariate analysis with a significance level of 5%. Most respondents did not experience depression (67.2%), while 24.1% experienced mild depression and 8.6% experienced moderate depression. Bivariate analysis showed that body image ($p=0.001$), social stigma ($p=0.006$), and family support ($p=0.002$) were significantly associated with depression. Comorbidities were not significantly associated ($p=0.054$). Multivariate analysis showed that body image was the dominant factor influencing depression ($p=0.048$; OR=2.958; 95% CI: 1.011–8.658). Body image, social stigma, and family support are factors associated with depression among post-hysterectomy women, with body image being the most dominant factor.

Keywords: body image; depression; family support; hysterectomy; social stigma

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INTRODUCTION

Hysterectomy is one of the most commonly performed gynecological surgical procedures to treat various conditions such as uterine fibroids, endometriosis, abnormal uterine bleeding, and malignancies (Huang et al., 2020). This procedure is also associated with various risk factors and specific clinical indications (Rahman, 2022). It has been proven effective in improving physical conditions and enhancing patients' quality of life (Spaich et al., 2023). However, the impact of hysterectomy is not limited to physical aspects; it also includes psychological aspects that may lead to mental health disorders, particularly depression (Turan et al., 2024). Changes in quality of life and psychological conditions following hysterectomy have also been reported in various studies (Ferhi et al., 2024).

Depression is one of the most common mental health disorders and a leading cause of disability worldwide (Chand & Arif, 2025). Epidemiological trends indicate an increasing prevalence of depression in recent years (Walrave et al., 2022). This condition is characterized by persistent sadness, loss of interest in activities, and impairment in social functioning and daily activities (Falk

et al., 2023). The risk of depression in post-hysterectomy women increases due to biological, psychological, and social changes following the procedure (Saeed & Al-Dujaili, 2023). An increased incidence of depression has also been observed in groups with certain clinical characteristics (Brohi et al., 2023). Hormonal changes, especially in cases involving oophorectomy, play a role in affecting emotional regulation and increasing vulnerability to depression (Hassan et al., 2022). These changes are associated with impaired psychological functioning after surgery (Yang et al., 2023).

Body image is one of the psychological factors that plays an important role in mental health. It is defined as an individual's perception of their body shape and function (Mason et al., 2020). This concept is also considered an important determinant of psychological well-being from a global health perspective (Rodgers & Melioli, 2023). The removal of the uterus, which is closely associated with symbols of femininity and fertility, can lead to feelings of loss and decreased self-esteem (Gökçe & Karakaş, 2024). This condition is also associated with disturbances in body image and sexual quality of life (Abd el Gwad et al., 2020). These changes contribute to the development of depression in post-hysterectomy women.

Social factors such as stigma also influence patients' mental conditions. Stigma toward women who have undergone hysterectomy can lead to feelings of shame and social isolation (Alemu et al., 2023). This condition is associated with decreased self-confidence and barriers in social interaction (Prizeman et al., 2024). Family support plays an important protective role in maintaining mental health. Emotional and social support has been shown to improve patients' ability to adapt to post-surgical conditions (Yang et al., 2025).

Various studies have shown an association between hysterectomy and an increased risk of depression (Alshawish et al., 2020). Most studies still focus on clinical and biological aspects. Studies on the distribution and risk factors of depression in Indonesia indicate variations influenced by social and environmental factors (Agustin et al., 2025). This study aims to analyze the relationship between body image, social stigma, and family support with the level of depression among post-hysterectomy women at Sanjiwani General Hospital, Gianyar.

METHOD

Research Design

This study employed an analytical observational design with a cross-sectional approach. The purpose of this design was to analyze the relationship between biopsychosocial factors—namely body image, social stigma, and family support—and the level of depression among post-hysterectomy women. All variables were measured at a single point in time.

Population and Sample

The population of this study consisted of all women who had undergone hysterectomy at Sanjiwani General Hospital, Gianyar. The sample included 58 respondents selected using a purposive sampling technique based on predetermined criteria. Inclusion criteria were post-hysterectomy women who were willing to participate, able to communicate effectively, and in a conscious condition. Exclusion criteria included respondents with severe mental disorders, critical conditions, or inability to complete the questionnaire independently.

Variables of the Study

The independent variables in this study were body image, social stigma, and family support. The dependent variable was the level of depression among post-hysterectomy women.

Data Collection Instruments

Data were collected using standardized questionnaires. Body image was measured using the Multidimensional Body-Self Relations Questionnaire–Appearance Scales (MBSRQ-AS), developed by Thomas F. Cash, which has been widely used in body image research and has demonstrated good validity and reliability (Cash, 2000). Depression levels were measured using the Depression Anxiety Stress Scale (DASS-21), developed by Sydney Lovibond and Peter Lovibond. This instrument is a standardized tool that has been internationally validated to assess depression, anxiety, and stress, with high reliability (Lovibond & Lovibond, 1995). Social stigma and family support variables were measured using questionnaires developed based on relevant theoretical indicators. Validity and reliability testing of these instruments were conducted prior to the study, showing that all items were valid ($r\text{-count} > r\text{-table}$) and reliable with a Cronbach’s alpha value > 0.70 .

Data Collection Procedure

Data were collected directly from respondents after obtaining informed consent. Respondents were given an explanation regarding the purpose of the study as well as instructions on how to complete the questionnaire. All data were collected within the predetermined study period.

Data Analysis

Data analysis was conducted in several stages. Univariate analysis was used to describe the frequency distribution of respondent characteristics and study variables. Bivariate analysis was performed using the Chi-square test to determine the relationship between independent and dependent variables. Multivariate analysis using logistic regression was conducted to identify the dominant factors influencing depression, with a significance level of $p < 0.05$.

Ethical Consideration

This research has been declared ethically appropriate by the Research Ethics Commission of the Faculty of Medicine, Udayana University with Number: 0154/UN14.2.2.VII.14/LT/2026, Protocol Number: 2025.02.1.1412, which was established in Denpasar on January 13, 2026.

RESULT

The results of this study are presented in the form of univariate, bivariate, and multivariate analyses to describe the level of depression and the factors associated with depression among post-hysterectomy women. Univariate analysis was used to determine the distribution of respondents’ depression levels, while bivariate analysis was conducted to examine the relationship between independent variables and depression levels using the Chi-square test. Furthermore, multivariate analysis using logistic regression was performed to identify the most dominant factor associated with depression.

Table 1.
Distribution of Respondents’ Depression Levels (n=58)

Depression Level	f	%
No depression	39	67.2
Mild depression	14	24.1
Moderate depression	5	8.6

Table 1, this study involved 58 post-hysterectomy women. The distribution of depression levels shows that the majority of respondents did not experience depression, totaling 39 respondents (67.2%). Meanwhile, 14 respondents (24.1%) experienced mild depression and 5 respondents (8.6%) experienced moderate depression.

Table 2.
Relationship Between Factors and Depression Levels (Chi-Square Test)

Variable	p-value	Description
Body image	0.001	Significant
Social stigma	0.006	Significant
Family support	0.002	Significant
Comorbidities	0.054	Not significant

Table 2, the results of the bivariate analysis using the Chi-square test show a significant relationship between body image and depression levels ($p=0.001$). Respondents with a negative body image had a higher proportion of depression compared to those with a positive body image. Social stigma also showed a significant relationship with depression levels ($p=0.006$). Respondents experiencing social stigma tended to have higher levels of depression compared to those who did not experience stigma. Family support was also significantly associated with depression levels ($p=0.002$). Respondents with poor family support were more likely to experience depression compared to those with good family support. In contrast, comorbidities did not show a significant relationship with depression levels ($p=0.054$).

Table 3.
Multivariate Analysis (Logistic Regression)

Variable	p-value	OR	95% CI	Description
Body image	0.048	2.958	1.011 – 8.658	Dominant factor

Table 3, the results of multivariate analysis using logistic regression indicate that body image is the dominant factor associated with depression among post-hysterectomy women ($p=0.048$; $OR=2.958$; $95\% CI: 1.011-8.658$). This finding suggests that respondents with a negative body image have nearly three times higher risk of experiencing depression compared to those with a positive body image.

DISCUSSION

Depression among post-hysterectomy women is a condition influenced by the interaction of biological, psychological, and social factors. The proportion of respondents who did not experience depression was higher than those who did. However, the presence of mild to moderate depression still indicates psychological vulnerability that requires attention in healthcare services. Hysterectomy does not directly cause depression but acts as a risk factor influenced by individual and environmental conditions (Hassan et al., 2022).

Body image was found to have a significant relationship with depression levels. Physical changes and perceptions of the body after hysterectomy may lead to self-dissatisfaction, decreased self-esteem, and disturbances in female identity. These conditions increase vulnerability to depression. Body image is an important determinant of women’s mental health (Mason et al., 2020). Other studies have also shown that body image disturbances are strongly correlated with an increased risk of depression among women after gynecological procedures (Gökçe & Karakaş, 2024).

Multivariate analysis showed that body image is the dominant factor influencing depression. The odds ratio indicates that respondents with a negative body image have nearly three times higher risk of experiencing depression compared to those with a positive body image. Individual perception of the body becomes a key aspect in determining psychological condition. Interventions focused on improving self-acceptance and promoting positive body image are essential in preventing depression.

Social stigma was also significantly associated with depression levels. Negative perceptions from the surrounding environment toward women who have undergone hysterectomy can lead to feelings of shame, social isolation, and decreased self-confidence. These conditions contribute to emotional disturbances that may result in depression (Alemu et al., 2023). A non-supportive social environment further worsens the patient’s psychological adaptation process.

Family support plays a protective role against depression. Emotional, informational, and instrumental support from family members helps patients cope with physical and psychological changes after hysterectomy. Individuals with good family support demonstrate better adaptive abilities, thereby reducing the risk of depression (Yang et al., 2023). Comorbidities did not show a significant relationship with depression. This finding indicates that psychosocial factors have a greater contribution than medical factors in determining depressive conditions. This is consistent with the biopsychosocial approach, which states that mental health is the result of a complex interaction between biological, psychological, and social factors (Roache, 2020).

The implications of this study suggest that healthcare services should be delivered comprehensively by integrating physical, psychological, and social aspects. Nursing interventions that include education regarding bodily changes, psychological counseling, and family involvement in care have the potential to reduce the risk of depression and improve the quality of life of post-hysterectomy women.

CONCLUSION

This study shows that body image, social stigma, and family support have a significant relationship with the level of depression among post-hysterectomy women. Body image is the dominant factor influencing depression, where women with a negative body image have a higher risk of experiencing depression compared to those with a positive body image. These findings highlight the importance of applying a biopsychosocial approach in healthcare services, particularly for post-hysterectomy patients. Interventions focusing on improving body image, reducing social stigma, and strengthening family support are necessary to reduce the risk of depression and improve patients' quality of life.

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