

Effect of Educational Guidelines about Coping Strategies on Anxiety and Depression among Women Post-Hysterectomy

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Abstract

Background: Women with hysterectomy suffer from many psychological and emotional problems. the psychological state and coping strategies of post-hysterectomy women are unclear and need to be identified. So, **the Aim of the current study was:** To determine the effect of educational guidelines about coping strategies on anxiety and depression among women post-hysterectomy. **Design:** A quasi-experimental research design was used to fulfill the aim of this study (one group pre-test-post-test design). **Setting:** The study was conducted in the obstetric and gynecologic department at Mansoura University Hospital. **Subjects:** Based on the non-probability purposive sampling technique, a sample of fifty women with hysterectomy was selected. The following criteria were used to choose the women post-hysterectomy who participated in this study. **Tools: Tool (I):- A structured interview questionnaire, Tool (II):** The Zung Self-rating Anxiety Scale, **Tool (III):-** The Zung Self-rating Depression Scale, **and Tool (IV):-** The Brief COPE Scale **Results:** Findings revealed that there was a highly statistically significant reduction in the anxiety and depression among women post-hysterectomy after educational guidelines about coping strategies implementation than before implementation. **Conclusion:** The result was concluded that implementation of the educational guidelines about coping strategies had a positive effect on reducing anxiety and depression among women post-hysterectomy after implementation compared to before. **Recommendations:** Generalization of educational guidelines about coping strategies for all women post- hysterectomy to alleviate their reduced anxiety and depression. establishing emotional support groups to help women go through their feelings and worries about undergoing a hysterectomy and supplying accurate information about hysterectomy that covers both medical and mental health care

Keywords: Anxiety, Coping strategies, Depression, Educational guidelines, Women post-hysterectomy

Introduction

The most frequent type of cancer in women's reproductive systems is uterine cancer. It is a cancerous growth that originates from uterine cells. When anything is malignant, it can encroach upon, expand into, and destroy surrounding tissue. Additionally, it may metastasize, or spread, to other bodily organs. Uterine cells can occasionally alter such that they stop growing or acting properly. Endometriosis and other benign or non-cancerous disorders could result from these changes. Additionally, they may result in non-cancerous tumors like uterine fibroids. Accordingly, the aberrant cells may develop into cancer if treatment is not received, although they are not now cancerous. Atypical

endometrial hyperplasia is the most prevalent precancerous condition affecting the uterus. Changes to uterine cells can occasionally result in cancer (**American Society of Clinical Oncology, 2020**).

According to data on the obstetric gynecological net, hysterectomy is the most prevalent gynecological operation (**interview with Professor Liu 2022**). Because the uterus is, for most women, a symbolic organ and the center of their femininity, having a hysterectomy can be distressing. After a hysterectomy, women frequently endure severe psychological and physical stress, which includes anxiety over how the procedure will affect their ability to have sexual relationships and maintain their femininity and attractiveness.

Furthermore, because of the impact of traditional culture (Dennerstein & Wood 2018)

Women who have had hysterectomy are frequently affected emotionally and psychologically by depression, especially if the ovaries, which are the primary source of estrogen in the female body, were removed during the procedure. Between 55 and 80 percent of women who have a hysterectomy have their ovaries removed (Weils, 2019). Hysterectomy patients who experience depression may exhibit a variety of symptoms, such as poor mood that might impact one's ideas, actions, emotions, and general sense of well-being; sadness; anxiety; feeling empty, hopeless; helplessness; feeling guilty; being angry, humiliated; or restless. Individuals may become disinterested in formerly enjoyable activities, lose their appetite or overeat, struggle to focus, remember specifics, or make decisions (American Psychiatric Association, 2019).

Even their ability to procreate and the happiness of their families worry women. While concerns about anxiety, melancholy, exhaustion, and sexual dysfunction following a hysterectomy have been studied extensively, psychological distress has not been quantified before discharge (Kim & Lee, 2021). Though the preoperative physiologic discomforts, like heavy bleeding, uterine cramps, and dysmenorrhea, have subsided, the time leading up to discharge may be a crucial transitional phase for women who have had a hysterectomy. At this point, however, psychological distress may begin to manifest (Kain et al. 2020).

A hysterectomy has a significant impact on a woman's sexuality since, in addition to being viewed as a sexual organ, women also view the uterus as the source of youth, vitality, and activity as well as the controller and regulator of key physiological processes in the body and a representation of the ability to carry children. It is necessary to determine the psychological status and coping mechanisms of post-hysterectomy women due to the lack of access to healthcare. Patients typically stay in the hospital for 5-7 days following a hysterectomy, which is an important amount of time for them to adjust to the physical and psychological changes brought on by the procedure. Therefore, nurses must investigate women's psychological well-being and coping strategies before discharge following a

hysterectomy (Wang, 2021).

Significance of the study

Because there is a lack of community health care, it is vital to ascertain the psychological status and coping mechanisms of post-hysterectomy women.

Patients typically stay in the hospital for 5-7 days following a hysterectomy, which is an important amount of time for them to adjust to the physical and psychological changes brought on by the procedure. Nurses must investigate the psychological well-being and coping mechanisms of women who have had hysterectomies before releasing them from the hospital. In many nations today, hysterectomy ranks among the most common gynecological operations performed. In 2020, many reports stated that the United States performed over 600,000 hysterectomies annually, and approximately 27% of Indian women had suffered a hysterectomy by the time they were 50 years old (Sarah et al., 2021).

In Egypt in 2020, there were 473 reported deaths and 966 new cases (National Cancer Institute, 2020). The prevalence and distribution of post-traumatic experiences vary significantly around the world, according to global mental health surveys. For instance, a lifetime post-traumatic event prevalence rate of 73.8% was recorded by the South African Stress and Health Survey; this rate was greater than the range of 54–64% observed by previous surveys (Ferry et al., 2020).

Aim of the study

This study aimed to determine the effect of educational guidelines about coping strategies on anxiety and depression among women post -hysterectomy.

Research hypothesis:

Women with hysterectomy who implemented educational guidelines regarding coping strategies post -hysterectomy would experience an improvement in anxiety and depression levels post-implementation than pre-implementation.

Subjects and Method

Research design:

To fulfill the aim of this study a quasi-experimental research design was used.

Setting:

The study was conducted in the obstetric and

gynecologic unit at Mansoura University Hospital.

Sample:

Based on the non-probability purposive sampling technique, a sample of women post-hysterectomy was selected. The following criteria were used to choose the Women post Hysterectomy who participated in this study:

The inclusion criteria were:

- Women had hysterectomy surgery.
- 18-65 years old.
- Accepted to participate in the study.

Exclusion criteria:

- Women who've had additional obstetric procedures.
- Women who have experienced neurological illnesses or psychotic symptoms in the past.
- Women with hearing and vision impairments.

Sample size calculation:

The same outcome and found significant differences, sample size has been calculated using the following equation: $n = (z^2 \times p \times q) / D^2$ at power 80% and CI 95%, so the sample of the study was a purposive sample of (50) women post hysterectomy who are hospitalized at the above-mentioned settings.

Tools of data collection:

Four tools were used in this study as follows:

Tool (I):- A structured interview

questionnaire: This document has two components that were created by the researcher based on relevant literature (Kim & Lee, 2021, Sarah et al., 2021; Kain et al. 2020).

Part I: It was used to gather information on the demographics of women post-hysterectomy and included the following 4 items: age, educational attainment, occupation, and place of residence.

Part II: It was used to gather information about obstetric history and had three items: duration of illness, causes of hysterectomy, and hospital admission before.

Tool (II): The Zung Self-rating Anxiety Scale

The SAS is a 20-item self-report assessment device built to measure anxiety levels, based on scoring in 4 groups of manifestations: cognitive,

autonomic, motor, and central nervous system symptoms. Answering the statements a person should indicate how much each statement applies to him or her within a period of one or two weeks before taking the test. Each question is scored on a Likert-type scale of 1–4 (based on these replies: "a little of the time", "some of the time", "good part of the time", "most of the time"). Some questions are negatively worded to avoid the problem of set response. Overall assessment is done by total score (Zung, 1971).

Scoring system:

The total raw scores range from 20 to 80. The raw score then needs to be converted to an "Anxiety Index" score using the chart on the paper version of the test that can be found on the link below. The "Anxiety Index" score can then be used on this scale below to determine the clinical interpretation of one's level of anxiety:

20–44 Normal Range

45–59 Mild to Moderate Anxiety Levels

60–74 Marked to Severe Anxiety Levels

75 and above Extreme Anxiety Levels

Tool (III):- The Zung Self-rating Depression Scale

The Zung Self-Rating Depression Scale was designed by W.W. Zung to assess the level of depression for patients diagnosed with depressive disorder. The Zung Self-Rating Depression Scale is a short self-administered survey to quantify the depressed status of a patient. There are 20 items on the scale that rate the four common characteristics of depression: the pervasive effect, the physiological equivalents, other disturbances, and psychomotor activities. There are ten positively worded and ten negatively worded questions (Zung, 1965).

Scoring system:

Each question is scored on a scale of 1-4 (a little of the time, some of the time, a good part of the time, most of the time). The scores range from 25-100. • 25-49 Normal Range • 50-59 Mildly Depressed • 60-69 Moderately

Depressed • 70 and above Severely Depressed

Tool (IV):- The Brief COPE Scale

A self-report instrument consisting of 28 items, the Brief COPE Scale (BCS) (Carver, 1997) assesses both maladaptive and adaptive coping strategies. It can be used to evaluate state coping, which measures how people handle stressful situations, and trait coping, which measures how people handle stress in daily life. The COPE Inventory has been shortened for this purpose. The fourteen domains/sub-scales that comprise two items each are self-distraction, active coping, denial, substance use, use of emotional support, use of instrumental support, behavioral disengagement, venting, positive reframing, planning, humor, acceptance, religion, and self-blame. The BCS's Cronbach's alpha in this investigation was determined to be 0.79.

Scoring system:

Participants answer on a four-point Likert scale (1 = I have not been doing this at all; 4 = I have been doing this a lot) for each question, indicating how frequently they employ each stratagem.

Methods:

Fieldwork:

The study's data collection took place between the middle of December 2023 and the end of March 2024. Six groups of eight to nine women each were formed from the subjects.

A pilot study

To assess the clarity and feasibility of the data collection tools, a pilot study was conducted on 10% of women post-hysterectomy of the total sample, to produce the final form of the tools and to assess the applicability, feasibility, clarity, and objectivity of the tool. No modifications were made. These women were included later in the actual study sample.

Ethical considerations:

Before beginning the study, the researchers met with the directors of the

selected setting to explain the study's aim and gain their cooperation. Ethical approval by the institutional review board of the Faculty of Nursing, Mansoura University was obtained. To gain the cooperation of women post-hysterectomy, informal consent was gained. Both the study's objective and its anticipated results were stated. The women post-hysterectomy was informed of the study's objectives. The study's chosen participants were advised that their participation was completely voluntary and that they might leave the study at any moment, for any reason. Additionally, they were informed that their data would be protected and solely utilized for research purposes.

Tools Validity and Reliability:

Content validity of tools was carried out by a Jury of 5 experts in obstetric and gynecological nursing and psychiatric mental health nursing and medical field. Since no changes were made, each expert was asked to evaluate the tools' overall appearance, length, format, and coverage of content. Using the test-retest method, the instrument's dependability was examined and its value was determined using the Pearson Product Correlation Coefficient, Test re-test reliability was done, $r = 0.91$ for tool I, 0.93 for tool II and 0.90 for tool III, and Cronbach's alpha of the BCS was found to be 0.79.

Procedures:

The actual study was composed of three phases:

Phase I: Preparatory phase:

To create the guidelines and the procedures for collecting data, a thorough review of previous and current literature covering many aspects of the problem was undertaken. Textbooks and journals were used for this, periodicals, and internet searches. Once the research directors were made aware of the investigation's objectives, formal approval was obtained for data collection. Everyone who took part in the study was granted consent. A survey of the literature on the various aspects of the concerns from the past and the present, both locally and globally, was conducted using books, essays, periodicals, and magazines. Guidelines were prepared in the Arabic language to cover many parts of the study topic created to reduce anxiety and depression through the application of Coping

Strategies among Women post-hysterectomy. The researcher introduces herself to start a conversation and explain the goals of the study during the first interview. Each participant in the study completed a pre-and post-test as A Structured Interviewing Questionnaire sheet, the Zung Self-rating Anxiety Scale, the Zung Self-rating Depression Scale, and the Brief COPE Scale.

Phase II: Implementation phase:

The planned teaching guidelines were developed and implemented throughout (6) sessions\ two days \ a week. Each session lasted from 50 to 60 minutes. The studied women were classified into five groups: each group consisted of 8-9 women. The educational guidelines have a general objective and every session has its specific contents and objectives, this was achieved through several teaching methods such as brainstorming, lectures, group discussions, and an intervention booklet using the following media laptop, PowerPoint, video, and pictures. At the end of each session, feedback was taken and also time was devoted to answering any questions.

The guidelines included simple and clear information about Hysterectomies. It also included the preparation of educational materials such as Photos, videos, and PowerPoint presentations. Arabic brochure designed by the researchers; including educational guidelines regarding Hysterectomy was introduced to women at the end of the sessions. After every session, questions were answered and feedback was solicited. The sessions on educational guidelines covered the following topics:

First session: Overview of the goals, purposes, and subject matter.

Second session: Overview of the theory behind hysterectomy surgery (including definition, types, causes, high-risk factors, surgical methods, high-risk diseases after hysterectomy, indications, contraindications, and complications).

The third session focused on depression and hysterectomy (including its description, causes, symptoms, and complications).

The fourth session involved applying various depression coping mechanisms, such as gradual muscle relaxation and deep breathing exercises.

The fifth session covered anxiety related to hysterectomy (definition, causes, symptoms, and signals of depression consequence).

The sixth session involved applying various anxiety coping mechanisms, such as guided imagery, visualization, book reading, prayer, and therapeutic touch.

Phase III: Evaluation phase:

The post-test was done post one month to assess the effect of educational guidelines about coping strategies on anxiety and depression among women post-hysterectomy using the same pretest data collection tools.

Statistical analysis

Using the statistical package for social science (SPSS), version (20), the gathered data were coded, arranged, entered into a computer, and examined. The means, standard deviation, mean, and percentage distribution were used to analyze the data. Comparing qualitative variables was done using the Chi-square test while comparing quantitative variables was done using the Pearson correlation coefficient (r) for continuous parametric variables. P 0.05 and P 0.001 indicate a statistically significant difference, while P > 0.05 indicates a statistically insignificant difference. These findings were considered to be indicative of the significance of the data.

Results:

According to Table 1, the study's sample of hysterectomy patients had an average age of 48.54 ± 7.33 years, 66% were from cities, 62% had completed preparatory education, and 76% were housewives.

Table (2) Reflects that Three-fifths of them (60%) had previously been admitted to the hospital, and over half (54%) said they had felt exhausted a year prior to the hysterectomy. In accordance with hysterectomy guidelines, 76% of the study's participant women who underwent hysterectomy had done so due to fibroids; 88% of the women were post-total hysterectomies, with 86% of those procedures being carried out via the abdomen.

Table (3) Demonstrates that The mean anxiety score for women following a hysterectomy differed significantly between before and after the use of educational

instructions, showing a decline at ($P < 0.001$).

According to **Figure 1**, there was an observed improvement regarding anxiety total level of the studied women post-hysterectomy and post-educational guidelines applying, where 38% of them had extreme total anxiety level pre-educational guidelines applying that decreased to 2% post-educational guidelines.

Table (4) Demonstrates that there was a significant difference in the mean depression score for women post-hysterectomy pre and post educational guidelines applying, with a significant reduction at ($P < 0.001$).

Figure (2) reveals that there was an improvement regarding depression total level of the studied women post-hysterectomy and post educational guidelines applying, where 4% of them had severe total depression level pre educational guidelines applying compared to 38% post educational guidelines applying.

Figure (3) Demonstrates that the majority of the studied women post hysterectomy (80%) were used religion as a way of disease coping.

Table (5) demonstrates that, between the

pre- and post-educational guidelines applying at p-value $< 0.001^{**}$, there was a very statistically significant positive link between the total levels of anxiety, depression, and coping methods. Among the women in the study, both before and after their hysterectomy, there is a highly statistically significant negative link between their overall coping techniques and their overall levels of anxiety and despair at p-value $< 0.001^{**}$.

Table (6) demonstrates the strong statistically significant relationships found between the demographics of women, their anxiety and depression, and their coping mechanisms. Among the coping methods mentioned were active coping, positive reframing, planning, using emotional support, and venting. Behavioral disengagement and substance misuse were the least favored coping mechanisms utilized.

Table (1): Demographic data among women post-hysterectomy distribution (N=50).

Demographic data	No.	%
Age (years)		
20-29... yrs	1	2.0
30-39... yrs	4	8.0
40-49... yrs	34	68.0
More than 50 yrs	11	22.0
Mean = 48.54 ± 7.33		
Educational level		
Preparatory	31	62.0
Secondary	15	30.0
High education	4	8.0
Occupation		
Works	12	24.0
Housewife	38	76.0
Residence		
Urban	33	66.0
Rural	17	34.0

Table (2):- Clinical data among the studied women post-hysterectomy

Clinical Data items	(n=50)	
	N	%
Onset of the disease		
One year	27	54.0
two years	16	32.0
Three years and more	7	14.0
Previous Admission to hospital		
Yes	30	60.0
No	20	40.0
Hysterectomy indications:		
Fibroids	38	76.0
Prolapse	7	14.0
Endometriosis	1	2.0
peripartum hysterectomy	5	10.0
Types of hysterectomy:		
Total hysterectomy	44	88.0
Subtotal hysterectomy	6	12.0
Techniques of hysterectomy:		
Abdominal	43	86.0
Vaginal	7	14.0

Table (3): Differences among the studied women's post-hysterectomy anxiety mean scores pre/post- educational guidelines applying

Item	Pre- educational guidelines applying	Post- educational guidelines applying	T-test	p-value
Anxiety mean scores	45.37 ± 7.55	26.97 ± 5.06	19.69	<0.001**

t: paired sample t-test P: **: Highly statistically significant at p<0.001

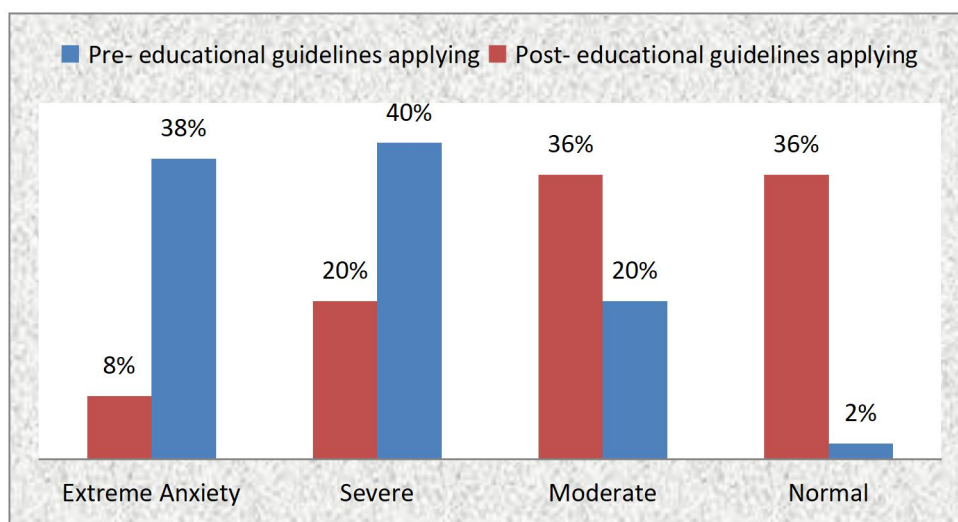


Figure (1): Total anxiety level among the studied women post hysterectomy pre and post educational guidelines applying (n=50).

Table (4): Differences among the studied women's post-hysterectomy depression mean scores pre/post- educational guidelines applying

Item	Pre- educational guidelines applying	Post- educational guidelines applying	T-test	p-value
Depression scores mean	46.45 ± 6.77	28.76 ± 5.17	18.79	<0.001**

t: paired sample t-test P: **: Highly statistically significant at p<0.001

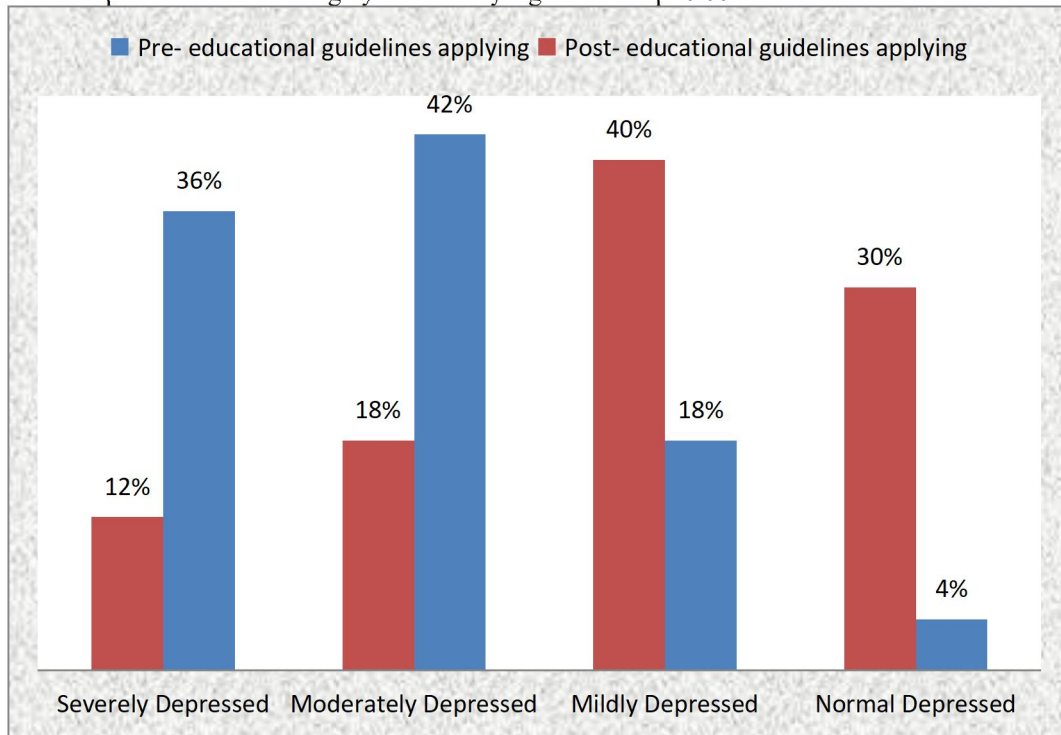


Figure (2): Total depression level among the studied women post-hysterectomy pre and post educational guidelines applying (n=50).

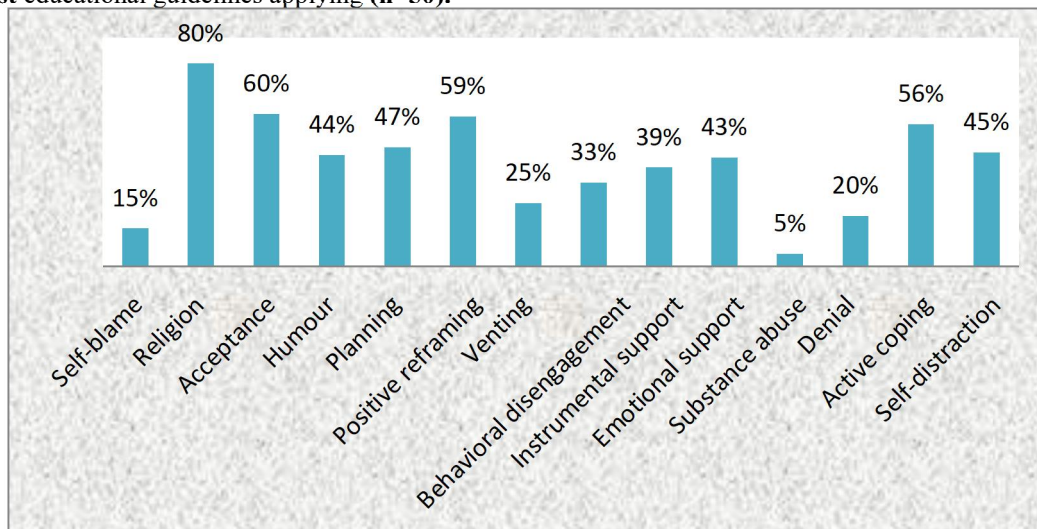


Figure (3):- Coping strategies used among the studied women post-hysterectomy

Table (5): Correlation between total levels of anxiety, depression, and coping strategies among the studied women post-hysterectomy pre and post educational guidelines applying (n=50)

Items	Pre educational guidelines applying				Post educational guidelines applying			
	Total levels of anxiety		Total levels of depression		Total levels of anxiety		Total levels of depression	
	R	P-value	R	P-value	R	P-value	R	P-value
Total levels of anxiety	-		0.368	<0.001**	-		.276	.000**
Total levels of depression	0.369	<0.001**	-		.285	<0.001**	-	
Coping strategies	-0.437	<0.001**	-.959	.000**	-.165	<0.001**	-.987	.000**

Table (6): Correlations among women post-hysterectomy demographic data, anxiety, depression and coping strategies (n = 50)

Variables	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17	X18	X19	X20
Demographic data																				
Age (X1)	1.000	-0.137	0.226*	0.405**	0.069	-0.029	0.227*	0.063	0.168	-0.096	-0.087	-0.125	-0.029	0.006	0.036	0.152	-0.008	-0.018	0.228*	0.171
Education (X2)	1.000		-0.227*	0.023	-0.226*	-0.163	-0.028	0.086	-0.079	0.073	-0.087	0.207*	-0.145	-0.056	0.046	0.286**	-0.027	0.167	-0.263**	-0.179
No. of children (X3)		1.000		0.241*	0.066	0.083	0.245*	0.007	0.280**	0.013	-0.074	0.027	0.057	0.157	-0.066	0.103	0.057	-0.176	0.173	0.152
Physical condition (X4)			1.000		0.120	0.087	0.182*	0.164	0.364**	0.120	-0.048	0.039	-0.041	0.054	-0.051	0.119	0.165	0.037	-0.020	0.027
Anxiety (X5)				1.000		0.533**	-0.080	-0.081	0.019	-0.038	-0.105	-0.107	0.113	-0.241*	-0.071	-0.197	0.012	-0.101	0.024	0.327**
Depression (X6)					1.000		0.033	-0.052	0.142	0.050	-0.058	-0.050	0.185*	-0.147	0.041	-0.137	0.071	-0.038	0.017	0.374**
Ways of coping																				
Self-distraction (X7)						1.000	0.235*	0.215*	0.226*	0.045	0.038	0.173	0.106	0.285**	0.183*	0.300**	0.114	0.169	0.067	
Active coping (X8)							1.000	0.128	0.122	0.204*	0.053	-0.152	0.326**	0.329**	0.437**	0.083	0.475**	0.018	0.067	
Denial (X9)								1.000	0.224*	-0.021	-0.239**	0.150	0.063	-0.064	0.006	0.227*	-0.070	0.087	0.188	
Substance abuse (X10)									1.000	-0.015	0.177	0.185*	0.242*	0.027	0.122	0.257**	0.123	0.037	0.275**	
Emotional support (X11)										1.000	0.214*	-0.042	0.424**	0.184*	0.065	0.135	0.183*	0.065	-0.072	
Instrumental support (X12)											1.000	-0.078	0.045	0.105	0.275**	0.280**	-0.053	0.215*	0.137	
Behavioral disengagement (X13)												1.000	0.004	-0.016	-0.177	0.073	-0.168	0.260*	0.191	
Venting (X14)													1.000	0.258**	0.315**	0.086	0.305**	0.160	0.145	
Positive reframing (X15)														1.000	0.470**	0.174	0.282**	0.224*	0.145	
Planning (X16)															1.000	0.203*	0.327**	0.128	0.138	
Humour (X17)																1.000	-0.143	0.362**	0.057	
Acceptance (X18)																	1.000	-0.116	0.176	
Religion (X19)																		1.000	0.248*	
Self-blame (X20)																			1.000	

Discussion:

By the age of 65, about 37–39% of women have undergone a hysterectomy, with this age group having the highest frequency. Women who have a good attitude about hysterectomy can only avoid numerous issues if they are thoroughly informed about the procedure's causes and repercussions (Bahri et al., 2021). Hysterectomies have increased in frequency lately for a number of reasons. Depending on the procedure and anesthetic, issues could occur. Numerous patients were ignorant of hysterectomy, according to the clinical experience. 66% of the female participants in the survey said they would like additional information regarding the consequences of having a hysterectomy (Graw

& Beyond, 2018).

Conversely, the connection between hysterectomies and psychological issues has been brought up. These issues include anxiety, depression, a loss of femininity, impaired sexuality, poor body image, and a subsequently low quality of life because women frequently view the uterus as a sexual organ, the controller and regulator of vital physiological functions in the body, the source of youth, energy, and activity, and a symbol of the ability to bear children (Wang, 2020).

The study's results showed that the mean age of most women after a hysterectomy was 48.54 ± 7.33 years. The researchers state

that these characteristics are predicted in the group because they are often associated with symptoms that may indicate a hysterectomy is necessary. In line with this finding, a study by **Kjlhede et al. (2019)** to evaluate the impact of stress on women's recovery following abdominal hysterectomy found that the average age of those undergoing hysterectomies was 44.5 years. The study's conclusion is that this age is typically when menopause and the hormone changes that accompany it begin. Consistent with **Yu & Zeng's (2020)** findings, the outcomes are similar.

These findings are consistent with those of **Larki et al. (2019)**, who noted that most of the participants in their study were older than 45. However, his findings did not agree with those of **Ewalds et al. (2019)**, who showed that about half of the sample he surveyed was between the ages of 26 and 35.

According to the current study's findings, the majority of them were housewives, more than three-fifths had preparatory education, and most of them resided in cities. These findings were consistent with those of **Stang et al. (2019)**, who noted that most of the people in his study group had just completed their basic schooling. Furthermore, this result aligned with the findings of **Persson, et al., (2019)** discovered that the average age of the women under investigation was 44.48 years, and proposed that this could be related to the high frequency of uterine fibroids, the main cause of the hysterectomy, among women in the 40–49 age range.

The present study's results are in opposition to those of **Ali et al., (2018)**, who investigated the effect Hospital's Nursing Care Protocol on decreasing Post-Hysterectomy Problems" and found that over 50% of the women's educational background involved reading and writing.

According to **Kvist et al. (2018)**, two thirds of the sample he analyzed had no job, which was in line with these findings. Nevertheless, these findings disagreed with the research by **Leithner et al. (2020)**, which found that working women made up the bulk of his sample.

When the study's participants were

asked about their past hysterectomy experiences, it became clear that most of the women had had fibroids removed from their bodies, which had resulted in pelvic pain and vaginal bleeding. The results of this investigation corroborated those of a study by **Katon et al., (2017)** on "Trends in hysterectomy rates among women veterans" in the United States, which was published in Washington. The current study's findings regarding prior patient admissions showed that over half of the women under investigation were hospitalized due to ongoing vaginal bleeding. These may be supported by the numerous studies that have shown that the most prevalent sign that a hysterectomy is necessary is recurrent vaginal bleeding. This result was consistent with a research by **Shah et al. (2021)**, which noted that the bulk of the group they analyzed had many hospital admissions.

The researchers hypothesized that the reason why most women in the study who underwent hysterectomies had total abdominal approaches was that these procedures were performed to remove fibroid tumors, which cannot be removed vaginally. In addition, the women's age at the time of the procedure was a significant predictor of selecting the first type due to the high risk of developing ovarian cancer in the future and the fact (physical, psychological and sexual). She can become more anxious and be unable to swiftly return to her regular life.

The results align with the research conducted by **Banovcinova and Jandurova (2019)**, who looked at 70 women who underwent hysterectomies and found that almost half of them had abdominal hysterectomies. It was also found by **Nalini Devi K et al. (2019)** that over two thirds of the women in the experimental group had had abdominal hysterectomies.

According to the current study's findings, women who had hysterectomy had significantly lower mean anxiety scores before and after using educational instructions. As far as the researchers are concerned, this proves how successful instructional principles work. This emphasized how critical it is to recognize that the purpose of the nursing guidelines that are being applied is to lessen hysterectomy-

related anxiety. This demonstrated the effectiveness and worth of implementing instructional principles.

This might be the case because, as knowledge has increased, people have ceased engaging in risky behaviors and have begun to heed advice that promotes improved health and, consequently, fewer problems. That meant the application of the instructional guidelines was successful hysterectomy education guidelines was important.

According to the current study's findings, the overall anxiety level of the women under study had improved both before and after their hysterectomy, with the amount of worry decreasing afterward. This demonstrates how well the instructional guidelines' content and sessions served the needs and interests of the women under study, teaching them various stress-reduction techniques like deep breathing exercises, muscle relaxation techniques, prayer, and exercise, and how effective they were in helping them cope with anxiety.

. These findings were in line with research by **Bahri et al. (2021)**, **Cohen & Halling (2020)**, and **Hashim (2018)**, which discovered that anxiety and stress were highly prevalent in the population they investigated and that the severity of these conditions significantly decreased following the introduction of a psycho-educational program.

The results of the present study showed a significant reduction in the depression mean score among women who had hysterectomy after using educational guidelines as compared to before. According to Carlson et al. (2020), 8% of respondents expressed anxiety and depression following a hysterectomy, making depressed mood one of the issues they had. Nonetheless, **Kim & Lee (2021)** conducted a number of prospective investigations and proposed that, although hysterectomies performed for benign illnesses may have reduced distressing symptoms, they did not promote anxiety or depression.

Less than 10% of the studied women had severe Total depression levels prior to educational guidelines being applied, compared to slightly less than 25% after educational

guidelines were applied. These study findings showed that the total depression levels of the studied women had improved following hysterectomy. According to the researchers, it demonstrated the effectiveness of implementing instructional instructions

According to the current study's findings, 80% of the women who had hysterectomies used religion as a coping strategy for their condition. The most common coping strategy in this study was religion, which is regarded as an adaptive coping ability. According to these results, the majority of participants saw their hysterectomy as a stressful and potentially dangerous experience, and they made an effort to learn useful coping mechanisms in order to preserve their mental health. This provides more evidence supporting the normal range mean scores for anxiety and depression. According to **Fortune et al. (2018)**, earlier studies have also indicated that active coping, positive reframing, using religion or spirituality, seeking emotional support, and accepting oneself are all linked to less suffering.

According to the current study's findings, there was a strong positive association between coping mechanisms, overall levels of anxiety, and depression before and after the use of educational instructions. It was shown by this research that anxiety increases in tandem with depression. Most likely as a result of their despair, dread of losing a critical organ like the uterus, and incapacity to deal with the situation, many women who had hysterectomy also acquired anxiety and melancholy. These all had a negative impact on women's conceptions of their bodies, their self-worth, and their ability to enjoy daily activities and a normal life. In the end, this had an adverse effect on all facets of women's lives, including their social, financial, sexual, and familial lives, in addition to their health of the women were adversely affected.

The results of the current study showed that the total levels of anxiety, depression, and coping methods before and after the application of educational guidelines had a highly statistically significant positive link. According to this research, anxiety grows along with depression. This was most likely brought on by

the fact that many women who had hysterectomy suffered from anxiety and melancholy as a result of their grief, dread of losing an important organ like their uterus, and incapacity to deal with their new circumstances. These all led to women having distorted ideas about their bodies, low self-esteem, and increased anxiety and depression, which made it difficult for them to go about their daily lives and enjoy their normalcy. This had a detrimental effect on all facets of women's lives, including their social, financial, sexual, and familial lives, in addition to their health. This may be the result of the investigated women's anxiety of losing such an important organ at middle age, as well as their inability to bear further children or find a mate. In addition, the study's women experienced higher levels of post-traumatic stress due to a lack of knowledge about their illness and challenges accessing healthcare, particularly in rural areas.

As their education increases, they will have access to more tools and resources that will help them deal with difficult situations and lower their anxiety levels. This result is in line with other studies. **Karanci and Dirik (2023)** discovered a negative correlation between an individual's years of schooling and post-operative anxiety, since the former is better able to understand their medical condition and the surgery they underwent. Nonetheless, **Wang (2021)** research showed that highly educated women have more anxiety because they push themselves to succeed and expect a better quality of life.

They are recognized for their religious beliefs and frequent temple attendance, which may indicate that they choose to use a coping mechanism based on their faith. In contrast, the writers believe that frequent temple visits and prayer are unusual behaviors for younger women. Furthermore, when religion is employed as a coping mechanism, it mirrors the response and mindset that people display about stress and grounds one's hope in a fanciful notion when feeling powerless and unable to locate the means to resolve the issue. Put another way, when faced with a stressful circumstance, highly educated women might be more aware of the situation's reality and less likely to rely on a deceptive image or religion.

Self-distraction and denial were found to be substantial positive correlations with the physical condition of the participants, suggesting that post-hysterectomy patients in lower health were better able to adjust to surgery by employing these coping mechanisms. The post-hysterectomy patients might have felt more powerless and less able to employ more adaptive coping mechanisms because their health was worse. Because of this, many avoided the stressors because they thought it will go away eventually.

Anxiety, depression, and self-blame were found to have significant positive connections. Furthermore, it was discovered that one of the most indicators of anxiety and depression was self-blame. These relationships suggest that people who used self-blame as a coping mechanism had greater anxiety and despair. According to **Muller and Spitz (2018)**, self-blame is viewed as a negative assessment of oneself and a maladaptive coping mechanism associated with low self-esteem, a high perceived stress level, and psychological suffering.

Hood et al. (2017) have recognized that self-blame and wishful thinking are common coping strategies and are associated with greater levels of mother depressive symptoms. According to **Fortune et al. (2018)**, there is a correlation between increased psychological discomfort and the coping style of self-blame, which has been found to be related to psychotic perceptions, coping strategies, appraisals, and distress in relatives of patients with schizophrenia.

Reduced anxiety is linked to more emotional distress venting, as seen by the strong negative correlation between anxiety and venting (the release or discharge of emotional distress or sentiment). This result contradicts other research, since earlier research has shown a strong positive correlation between emotional venting and unfavorable outcomes like distress, impairment, and symptoms related to physical health (**Burker et al 2019**), for example). This study's findings about the impact of venting as a coping strategy on anxiety levels differ from those of other research, which could be attributed to cultural variations in the ways that women from different backgrounds express or

vent their emotional pain.

In relation to the setting in which they vented. This kind of assistance might have been helpful in handling the issue that was being expressed. Venting in public was advantageous because it allowed one to let go of negative emotions while simultaneously eliciting a helpful reaction from others. This research suggests that nurses should offer opportunity for women undergoing hysterectomy to express their negative emotions, feelings, and complaints while also listening to them attentively. Therefore, nurses must receive more training on how to perform acceptable psychological assessments and how to respond to patients experiencing emotional distress with appropriate professional attitudes and understanding.

It was discovered that behavioral disengagement and depression were positively connected. This result aligns with previous studies. Behavioral disengagement, akin to denial, is deemed a maladaptive coping strategy in theory. It is exhibited when an individual abandons an endeavor or copes with an arduous circumstance, feeling hopeless or powerless over the circumstances. According to **Burker et al. (2019)**, wives of heart transplant candidates who employed coping mechanisms that raised their depression levels also showed a positive correlation with their behavioral disengagement.

Given that anxiety and depression are both indicators of psychological suffering, the positive link between the two conditions was predicted. Mixed anxiety-depression is a potentially one of the most prevalent psychiatric presentations, with anxiety symptoms occurring roughly 70% of the time alongside depression, according to **Goldberg's (2018)** study. Approximately 5% of people worldwide are said to suffer from anxiety and depression (**Varcarolis 2022**).

It was shown that instrumental support and denial had a negative correlation. The idea that instrumental support is an adaptive coping strategy and denial is a maladaptive coping strategy is reinforced by this study. "An attempt to reject the reality of the stressful event" is the usage of denial. But "seeking

assistance, information, or advice" (**Burker et al. 2019**) to resolve a stressful situation based on a realistic assessment of the situation is what is meant to be understood as instrumental support. Therefore, the opposite of employing instrumental support, which also entails confronting the situation's truth, is when someone employs denial as a coping mechanism. Denial involves avoiding confrontation with the situation's reality.

It was discovered that the best indicators of anxiety were self-blame, venting, and medical payment methods. Higher levels of anxiety were also reported by individuals who employed more self-blame and less venting while carrying a greater burden of medical expenses, as opposed to those who did the opposite and experienced less stress from medical bills. Despite the introduction of a medical insurance system, certain women, especially those with precarious employment or lower salaries, are still entirely responsible for covering their own medical expenses.

According to this research, the women's depression levels were correlated with how much they blamed themselves for their unemployment as a coping mechanism. Being unemployed makes it difficult to manage the stress of a recent surgical trauma and the embarrassment of not being able to pay. Furthermore, this can result in a negative self-evaluation due to self-blame for needing a hysterectomy and being unemployed. The women's degree of depression thus seems to have increased as a result of this high degree of psychological anguish.

Previous research findings support this conclusion. A longitudinal study was carried out by **Kjerulff et al., (2020)** on 1299 women, from whom data was obtained both before and 24 months following a hysterectomy. During the course of the two-year follow-up, there was a significant improvement observed in each of the three elements of health status: quality of life, psychological function, and symptoms. But for women with lesser salaries, a hysterectomy typically did not improve their symptoms. **Leo (2018)** found a correlation between higher hospital use costs and depression.

Conclusion:

Based on the results of the current study, the result was concluded that implementation of the educational guidelines about coping strategies had a positive effect on reducing anxiety and depression among women post-hysterectomy after implementation compared to before.

Recommendations:

The following recommendations are put forth in light of the findings and analysis of the current study:

- Broadening the scope of educational instructions regarding coping mechanisms to help all women who have had a hysterectomy manage their anxiety and sadness.
- Forming emotional support groups to delve into women's thoughts and worries over hysterectomy procedures.
- Offering post-hysterectomy emotional support to women to assist them in adjusting to their new circumstances.
- Giving precise information on hysterectomy that covers medical and psychological treatment.
- Replicating the current study with a larger sample of women in different settings is necessary to generalize the results.

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