

Coping Strategies of Women after Mastectomy

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Abstract: Background: Coping strategies can influence treatment outcomes and survival rates of women after mastectomy. **Purpose:** was to assess the coping strategies of women after mastectomy. **Methods:** A descriptive (cross-sectional) design was utilized. A purposive sample of 100 women after mastectomy was chosen. The study was conducted at the Female Surgical Department, Oncology Clinics of Menoufia University Hospital, Shebin El-Kom Teaching Hospital, and Oncology Hospital in Menoufia Governorate. A structured interviewing questionnaire, an observational checklist, and an adaptive coping strategies questionnaire were used. **Results:** The majority of the studied women (82.0%) had a low coping level after mastectomy. **Conclusion:** The majority of the studied women had a low coping strategy after mastectomy. **Recommendations:** Women after mastectomy are advised to receive coping strategies toward managing or dealing with a stressor. Future studies are needed to focus on the adaptive coping strategies that optimize the health of women with breast cancer living with one breast after a mastectomy.

Keywords: *Coping strategies, women after mastectomy.*

Introduction

In case of breast cancer, the surgical removal of the breast (mastectomy) is a common and unfortunate outcome. Having a breast removed is a major surgical procedure that can have lasting psychological and emotional effects on the patient. Women often avoid sexual contact with their husbands out of fear of being judged as unattractive by their peers and because they feel pressure to conform to society's standards of female sexual attractiveness (Guex, 2021). Having a breast removed can affect a woman in many ways; some of these include: denial of the disease process; intense

and prominent fear of death; the belief that, in addition to the threat to their physical integrity, there have been changes in their family and conjugal relationships; and guilt for feeling these ways (Arroyo and Lopez, 2016). Loss of fertility, adjusting to new societal responsibilities, concerns about body image and sexuality, and altered romantic relationships are all potential sources of post-mastectomy distress for women in Egypt and other developing countries (Visser and Herbert, 2019). All elements of a woman's and her family's everyday lives are affected by a mastectomy, as

it is a life-changing procedure. Moreover, when their economic situation worsens, women tend to lose interest. Furthermore, their sexual adjustment may deteriorate. Eventually, the effects of these issues will impact their coping methods and the quality of their lives (Johnson, 2020).

According to Hanoch (2018), mastectomy-treated breast cancer survivors generally use a combination of cognitive and behavioral coping mechanisms to deal with the wide range of stressful situations they report facing. Some examples of coping strategies include constructive problem-solving, avoiding or escaping stressful situations, and reaching out to others for help (Rosberger et al., 2020). Supportive care is essential for women with breast cancer, as it helps to reduce emotional discomfort and facilitates adaptation. Care that is supportive of others and the individual's physical and mental well-being is called a "caring attitude" (Classen et al., 2018).

Stressful situations can lead to a variety of negative outcomes, including mental health issues and physical ailments, but coping is a critical link in this chain. There are two primary purposes of coping: solving the issue that's causing one's distress (problem-focused coping) and controlling one's negative emotional reactions to that issue (emotion-focused coping) (Folkman et al., 2018). It is crucial to quickly identify patients who are unlikely to successfully adhere to treatment and manage their discomfort. Recognizing and diagnosing common psychiatric problems, like anxiety and depression, that might arise and impact coping styles is also crucial. A cancer patient may benefit from seeing a psychologist or psychiatrist experienced in working with people who have been diagnosed with the disease (Fredette, 2015).

Maternity nurses are crucial in aiding oncology patients with adjusting to new environments and developing healthy routines, as well as preventing postoperative complications, providing expert care, and fostering emotional, psychological, and physical well-being. It's beneficial for the patient's prognosis and the quality of their connections with friends and family as well. The nurse needs to be conversant with the recommendations for preventative screening services for women post-mastectomy (Çol & Kılıç, 2019). That's why we set out to conduct this research to gauge how women post-mastectomy deal with their emotions.

Significance of the Study:

Numerous studies have revealed the difficulties of adjusting to life following a mastectomy, as reported by Da Silva et al. (2020). The emotional shock, the uncertainty of the prognosis, the anxiety of pain, the fear of life after marriage, the fear of feminists, and the chance of meeting death are only a few of the negative emotions that are unleashed following a mastectomy. American women have a higher rate of mastectomy (70–74%) than women in Oman (65%), Syria (88%), Tunisia (82.4%), or Egypt (79.99%). Only a small number of studies have looked at women's coping mechanisms following a mastectomy, and those that have been conducted have found mixed results. To remedy this informational gap, the researchers conducted their investigation.

Purpose:

The purpose of the study was to assess the coping strategies of women after mastectomy.

Research Questions:

1. What is the knowledge score of women after mastectomy regarding breast cancer and mastectomy?
2. What is the practice score of women after mastectomy toward breast self-examination?
3. What are the coping strategies of women after mastectomy?

Research Design:

A descriptive (cross-sectional) design was used to carry out the present study.

Research Settings:

The study was conducted at the Female Surgical Department and Oncology Clinics of Menoufia University Hospital, Shebin El-Kom Teaching Hospital, and Oncology Hospital in Menoufia Governorate.

Sampling

A purposive sample was used. The female patients after mastectomy who fulfilled the following criteria were selected:

Inclusion criteria for the sample:

- Women should be over 25 years.
- Women should have mastectomy.
- Women should be able to communicate.

Sample Size:

Based on the previous studies that examined the same outcomes and found significant differences, the female patients after mastectomy who fulfilled the previous criteria achieved 80% power to detect this difference with a significant level of 5%. So, a purposive sample of 100 women was recruited for the study.

The formula to calculate the sample size was:

- $SS = Z^2 * P * (1 - P) / M^2$
- $SS = (z\text{-score})^2 * P * (1 - P) / (\text{margin of error})^2$

- SS = Sample size for an infinite population.
 - $Z = Z\text{-value} = 1.96$ for 95 % confidence level).
 - P = Population proportion (in decimal form) (assumed to be 0.5(50%)
 - M = Margin of error at 5% (0.05)
- $SS_{\text{adjusted}} = (SS) / (1 + (SS - 1) / \text{population})$ (Cochran, 1977), sampling technique (3rd ed., New York: John Wiley & Sons).

Instruments for Data Collection:

Throughout the present study, data was collected using these instruments. These instruments were as follows:

Instrument one: A structured interviewing questionnaire

This instrument was used by the researchers to obtain complete data concerning breast cancer and mastectomy. This instrument was developed by the researcher based on the review of currently related literature (Yamani et al., 2020). The instrument consisted of three parts:

- **Part one:** Patients' socio-demographic data. It included age, educational level, occupation, residence, marital status, etc.
- **Part two:** It was concerned with obstetrical, gynecological, medical, and surgical history. It included menstruation, age at menarche and menopause, pregnancy, abortion, use of contraception, relatives with breast cancer, date of the operation, disease discovery, and type of surgical intervention.
- **Part three:** It was concerned with an assessment of women's level of knowledge regarding breast cancer and mastectomy. It covers breast cancer definition, causes, signs and symptoms, early detection methods, and side effects after mastectomy. These questions were used to assess the women's level of knowledge

regarding breast cancer and mastectomy.

The scoring system of knowledge:

Each item of the level of knowledge was given a score; complete answer was scored (2), incomplete answer was scored (1), whereas incorrect or don't know answer was scored (0). The total knowledge score was calculated by the summation of the scores for the "known items." The scores were converted into percentages. The higher scores reflected higher levels of knowledge regarding breast cancer and mastectomy. The total knowledge score was indicated as the following: Good: >75% of the total knowledge score, average of 75 % - > 50% of total knowledge score; poor if less than 50%.

Total knowledge score = (0-14), divided into the following categories:

- Good > 75% (11-14).
- Average from 50 - 75% (7 -10).
- Poor < 50 % (0-6)

Instrument two: An observational checklist of 10 items.

It was adopted from Long et al. (1993) to assess the women's practice of breast self-examination (BSE) to detect any lymph nodes in other breasts.

Scoring system: A score for each item is as follows:

- Not done =0, incorrectly done =1, or correctly done =2.
- The total score of breast self-examination is 20. It is considered satisfactory > 60% (>12) and unsatisfactory < 60% (<12).

Instrument three: Adaptive Coping Strategies Questionnaire:

It was adapted from Büsing et al. (2012). The adaptive coping strategies questionnaire is an instrument for measuring the adaptive coping styles

of patients with chronic diseases. The questionnaire was presented in English and was translated into Arabic. This questionnaire was modified by the researcher and submitted to a jury of experts in Psychiatric Mental Health Nursing and Maternal and Newborn Health Nursing for validity and reliability. The adaptive coping strategies questionnaire consists of 31 items, including (Conscious way of Living; Positive attitudes; Reappraisal; Trust in medical help; God's help; Search for alternative help). All items were scored on a 3-point scale from (0 = Never), (1 = Sometimes) and (2= Often).

The scoring system will be as follows:

- High coping: Scores from 41 to 62.
- Moderate coping: Scores from 21 to 40.
- Low coping: Scores from 0 to 20.

Validity of the instrument:

The validity of the instrument was ascertained by five qualified experts (two professors in Maternal and Newborn Health Nursing at the faculty of nursing, and three professors from the Psychiatric Health Nursing at the faculty of nursing) who reviewed the instruments for content accuracy and internal validity. They were asked to judge the items for completeness and clarity (content validity) and to check the relevance, coverage of the content, and clarity of the questions. The required modifications were carried out accordingly.

Reliability of the instrument according to Velikova et al. (2012):

The researchers applied test-retest reliability for testing the internal consistency of the instruments. It was

done through the administration of the same instruments to the same participants under similar conditions on two or more occasions. Scores from repeated testing were compared to test the consistency of the results over time. It has reasonable internal reliability, good test-retest reliability, and good concurrent validity. Its reliability has been verified with Cronbach's alpha, which revealed that all the coefficients were desirable and satisfactory. The instrument was found to be reliable as the reliability coefficient was $r = 0.75$ to 0.90 for instrument I, 0.85 for instrument II and ranging from 0.70 to 0.97 for instrument III. Internal reliability is an indication of how well the items within a scale are associated with each other or their homogeneity.

Ethical Considerations:

An approval from the Committee of Ethics and Research, Faculty of Nursing, Menoufia University was obtained on 8/6/2020. The researchers introduced themselves to the participating women and explained the purpose of the study and its nature to obtain their agreement to enroll in the study as well as their cooperation. Also, approaches to ensure the ethical issues were considered in the study regarding confidentiality and informed consent. Confidentiality was achieved by the use of locked sheets with the names of the women with mastectomy replaced by numbers. All women were informed that the information they provided during the study would be kept confidential and used only for statistical purposes. After finishing the study, the findings were presented as group data with no personal women's information remaining. Each woman was informed that participation in the study was voluntary, and they could withdraw from the study whenever they decided to do so. Also, each

woman was allowed to ask any question about the study details

Pilot study:

A pilot study was conducted to test the feasibility, applicability, and understandability of the instruments. It was conducted on 10 % of the total sample (10 women after mastectomy) according to the selection criteria. All women participating in the pilot study were included in the study sample.

Study procedure:

An official letter was sent from the Dean, Faculty of Nursing, and Menoufia University to the directors of the Female Surgical Department and Oncology Clinics of Menoufia University Hospital and Shebin El-Kom Teaching Hospital and Oncology Hospital to carry out the study. Official permission was obtained to carry out the study from the directors of the above-mentioned settings.

Data collection was started on July 2021 to the end of January 2022. The researchers introduced themselves to the convenient participants and provided verbal explanation of the purpose of the study. Informed consent was obtained verbally from all the participants (Appendix II). Each participant was informed that participation in the study was voluntary and that she can withdraw from the study whenever she decided to do so.

The researchers went to the Female Surgical Department and Oncology Clinics of Menoufia University Hospital, Shebin El-Kom Teaching Hospital, and Oncology Hospital in Menoufia Governorate. It took four days per week (Saturday, Sunday, Wednesday and Thursday) from 9.30 a.m. to 2 p.m, Menoufia University Hospital 2 days weekly (Sunday and Wednesday) and Shebin El-Kom

Teaching Hospital for other 2 days in the same week (Saturday, and Thursday) during the morning shift including all women who have done mastectomy with the previous inclusion criteria through using the previous study instruments. The researchers interviewed 3-4 women a day.

Each woman was individually interviewed in the waiting area of the outpatient clinic to collect the data related to her sociodemographic status, previous obstetric, gynecological, medical, and surgical history, and women's knowledge regarding breast cancer and mastectomy using instrument one. Meanwhile, the researchers assessed the women's practice of breast self-examination (BSE) using instrument two. Also, the researchers assessed the women's coping strategies using instrument III. The interviews took around 15-20 minutes to be completed for each woman. The researchers approached the women and asked them questions in Arabic, then recorded their responses in the specially designed instrument. The telephone numbers of the studied women and their addresses were taken to facilitate communication.

Statistical analysis

Data were collected, tabulated, and statistically analyzed using an IBM personal computer with Statistical Package of Social Science (SPSS) version 22 (SPSS, Inc, Chicago, Illinois, USA). Chi-square test, and student t-test were used.

Results

Table (1) represents the socio-demographic characteristics, gynecologic and surgical history of the studied women. Almost 48 % of the studied women was between 50-60

years. According to the level of education, less than one-half of the studied women (36%) had secondary education. Regarding marital status, about three-fourths of the studied women (70%) was married. Also, 72 % of the studied women had menarche at the age of 12 years. According to regularity of menstruation, almost 70 % of the studied women had irregular cycles. According to age of menopause, almost 50 % of them had menopause at fifty-five years old. According to types of contraception, almost 60 % of the studied women had used OCPs and 40 % of them used for two years old. Meanwhile, most of the studied women had relatives with breast cancer (70%). Regarding the disease discovery, more than one-half of the studied women discovered the disease by accident (66%). Regarding the surgical intervention, more than three-fourths of the studied women (94%) had a total mastectomy two months ago (50%).

Figure (1): This figure clarifies the total knowledge score of the studied women with mastectomy about breast cancer. The figure illustrates that there were poor knowledge scores of the studied women (58.0%).

Figure (2): This figure shows the total practice score of the studied women regarding breast self-examination. The figure shows that the majority of the studied women had unsatisfactory practice regarding most items of breast self-examination (98%).

Table (2) shows the studied women's adaptive coping strategies after mastectomy (Conscious way of Living and Positive attitudes). It revealed that there was no statistically significant difference between the studied women regarding the conscious way of living and positive attitudes (p-value >0.05).

Table (3) shows the studied women's adaptive coping strategies after mastectomy (reappraisal and search for

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alternative help). It revealed that there was no statistically significant difference between the studied women regarding all items of adaptive coping strategies (reappraisal and search for alternative help) (p-value >0.05).

Table (4) shows the studied women's adaptive coping strategies after mastectomy (trust in medical help and God's help). It revealed that there was no statistically significant difference

between the studied women regarding all items of adaptive coping strategies (trust in medical help and God's help) before the intervention (p-value >0.05).

Figure (3): This figure shows the grand total coping strategies scores of the studied women. The figure shows that there was a low coping level of the studied women (82.0%).

Table (1): Socio-demographic characteristics, gynecologic and surgical history of the studied women (N=100).

Variables	Studied Women N=100	
	NO.	%
Age (years)		
– > 25 - < 30	6	6
– 30 - < 40	18	18
– 40 - <50	28	28
– 50- 60	48	48
Mean ± SD	56.1 ± 2.7	
Educational Level		
– Illiterate	34	34
– Basic	10	20
– Secondary	18	36
– University	5	10
Age of menarche:		
– 12 years	72	72
– 14 years	10	10
– 16 years	18	18
Regularity of menstruation		
– Regular cycle	10	10
– Irregular cycle	70	70
– Interrupted cycle	20	20
Age of menopause:		
– 35 years	16	16
– 40 years	34	34
– > 55 years	50	50
Types of contraception:	60	60
– OCPs	14	14
– Injection / month	16	16
– Injection / 3 months	10	10
– IUDs		
Duration of its use:		
– 1 year	30	30
– 2 years	40	40
– ≥ 3 years	22	22
Relatives with breast cancer:		
– Mother	36	36
– Sister	20	20
– Aunt	8	8
– Grandmother	6	6
– No body	30	30

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How discovered the disease		
– By accident	66	66
– After breast pain	8	8
– Change of the breast or the nipple	10	10
– After physical examination	16	16
Date of the operation:		
– One month ago.	42	42
– Two months ago.	50	50
– Three months ago.	8	8

Figure (1): Total Knowledge Score of the Studied Women with Mastectomy about Breast cancer (N=100)

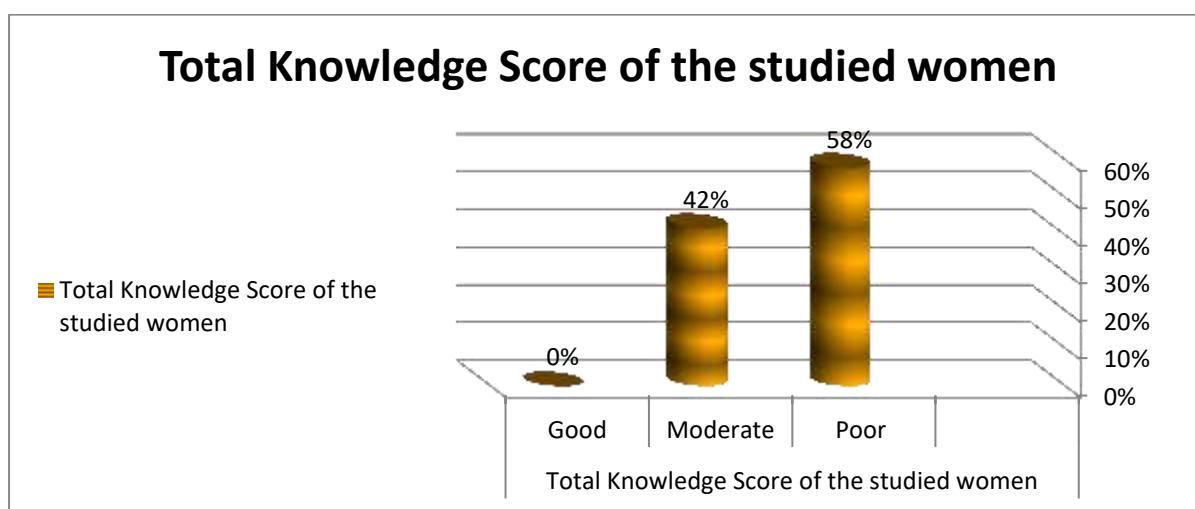
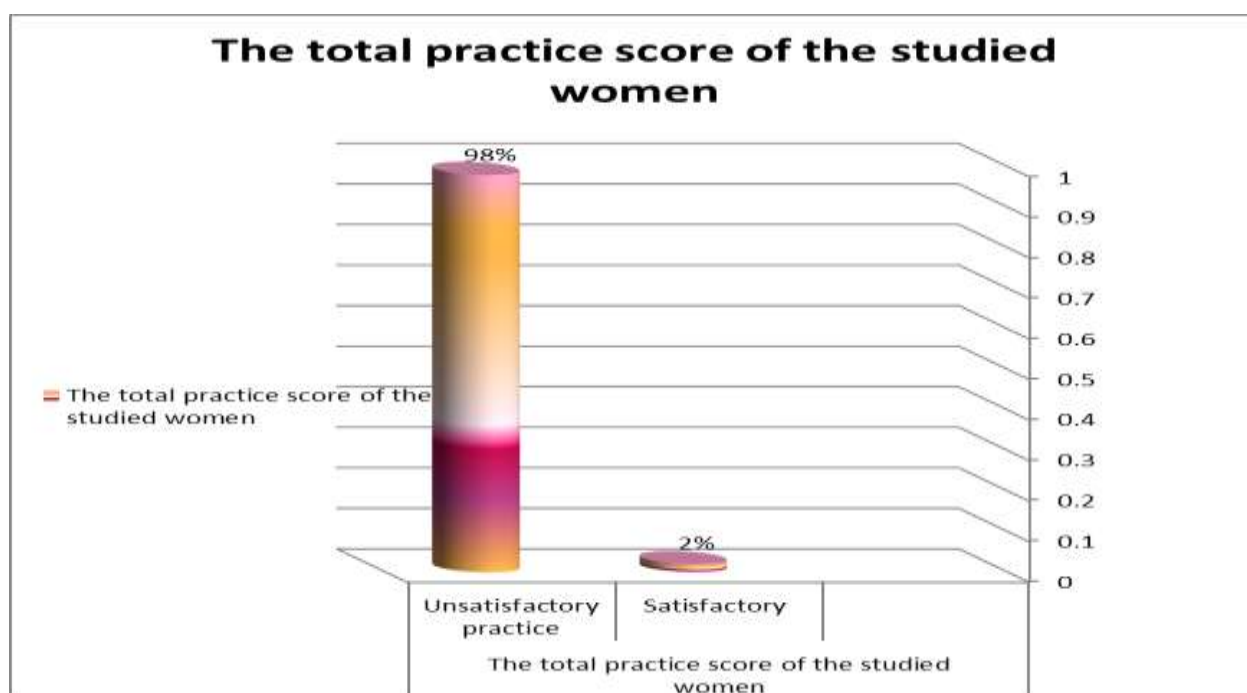


Figure (2): Total Practice Score of the Studied Women with Mastectomy Regarding Breast Self-Examination (N=100).



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Table (2): The studied women's adaptive coping strategies after mastectomy (Conscious way of Living and Positive attitudes (Section I &II (N=100)).

Variables	The studied women N=100		χ^2	P value
	No	%		
Section I - Conscious way of Living				
I actively care for healthy diet				
- Never	80	80	5.1	0.47
- Sometimes	12	12		
- Often	8	8		
I try to be physically fit				
- Never	74	74	0.38	0.53
- Sometimes	24	24		
- Often	2	2		
I try to think positive				
- Never	86	86	0.35	0.55
- Sometimes	10	10		
- Often	4	4		
I try to keep away harmful influences				
- Never	90	90	2.1	0.14
- Sometimes	6	6		
- Often	4	4		
When I am ill, I try to change my lifestyle to get well				
- Never	58	58	2.1	0.14
- Sometimes	26	26		
- Often	16	16		
Section II: Positive attitudes				
Now I have decided to do all what pleases me				
- Never	80	80	0.12	.72
- Sometimes	12	12		
- Often	8	8		
I try to resolve cumbering situations of my past				
- Never	76	76	0.29	0.58
- Sometimes	18	18		
- Often	6	6		
Now I try to realize shelved dreams and wishes				
- Never	70	70	0.50	0.4
- Sometimes	26	26		
- Often	4	4		
I try to keep away harmful influences				
- Never	70	70	0.11	0.73
- Sometimes	26	26		
- Often	4	4		
I have to decide to take my life in my own hands				
- Never	80	80	0.12	.72
- Sometimes	12	12		
- Often	8	8		

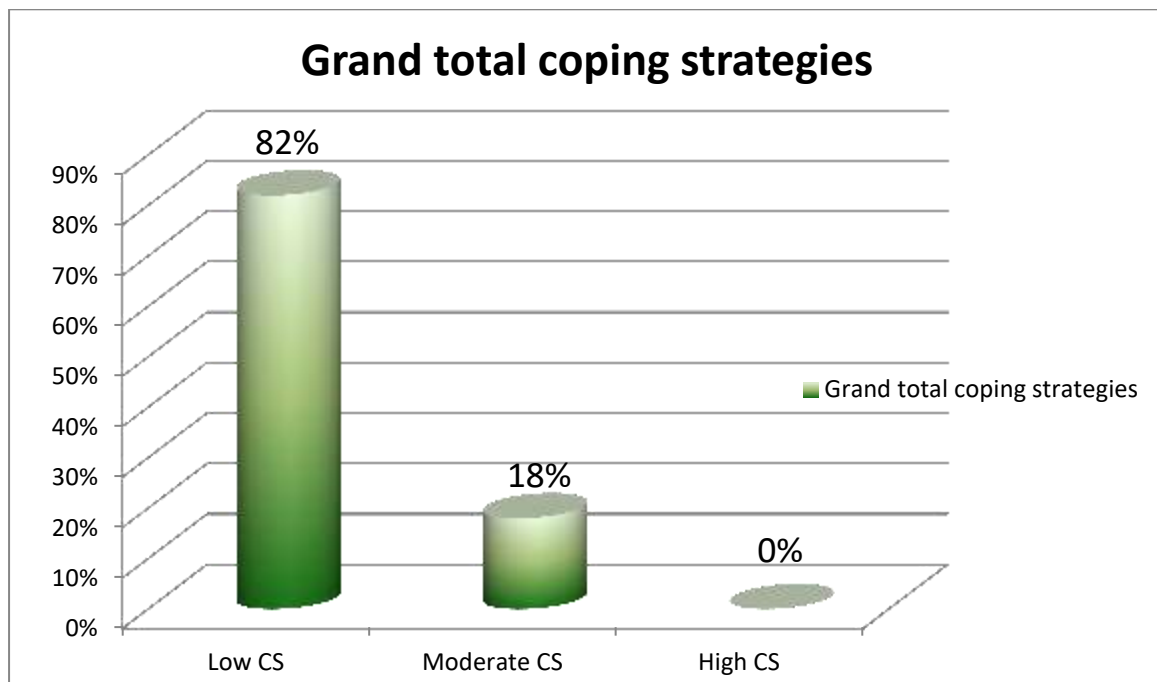
Table (3): The studied women's coping strategies after mastectomy (Reappraisal and Search for Alternative Help (Section III) (N=100).

Variables	The studied women N=100		χ^2	P value
	No	%		
Section III Reappraisal and Search for alternative help				
I fear what my illness will bring				
- Never	10	10	0.09	0.76
- Sometimes	16	16		
- Often	74	74		
I would like to run away from my illness				
- Never	10	10	0.03	0.96
- Sometimes	14	14		
- Often	76	76		
When I wake up, I do not know how to face my day				
- Never	8	8	0.09	0.76
- Sometimes	22	22		
- Often	70	70		
I have informed myself about my disease				
- Never	60	60	2.5	0.11
- Sometimes	32	32		
- Often	8	8		
I have informed myself how to face my illness				
- Never	74	74	1.6	0.19
- Sometimes	18	18		
- Often	8	8		
I get information how I will be healthy again				
- Never	80	80	1.6	0.19
- Sometimes	16	16		
- Often	4	4		
I try to find people who can help me				
- Never	68	68	0.08	0.77
- Sometimes	20	20		
- Often	12	12		
I actively search for alternative ways of healing				
- Never	50	50	2.3	0.12
- Sometimes	30	30		
- Often	20	20		
I am convinced that my illness has a meaning				
- Never	46	46	0.07	0.78
- Sometimes	40	40		
- Often	14	14		
Because of my illness, I reflect on essential issues in my life				
- Never	46	46	0.07	0.78
- Sometimes	40	40		
- Often	14	14		
My illness is a chance for my own development				
- Never	72	72	3.2	0.07
- Sometimes	16	16		
- Often	12	12		
Without my illness I would not have valued my life				
- Never	48	48	2.1	0.10
- Sometimes	28	28		
- Often	24	24		

**Table (4): The studied women's adaptive coping strategies after mastectomy
(Trust in Medical Help and God's Help (Section VI) before and after the
Intervention (N=100).**

Variables	The studied women N=100		χ^2	P value
	No	%		
Section IV Trust in medical help and God's help:				
I trust therapeutic potentials of modern medicine				
- Never	80	80	0.12	.72
- Sometimes	14	14		
- Often	6	6		
I take my prescribed medications regularly				
- Never	70	70	0.11	0.73
- Sometimes	20	20		
- Often	10	10		
I follow the advices of my doctor and therapists				
- Never	86	86	2.0	0.11
- Sometimes	10	10		
- Often	4	4		
I have confidence in my doctors and therapists				
- Never	74	74	1.6	0.19
- Sometimes	20	20		
- Often	6	6		
I trust in my higher endurance strength				
- Never	80	80	0.11	.70
- Sometimes	10	10		
- Often	10	10		
I have strong believed that God will help me				
- Never	60	60	0.35	0.55
- Sometimes	30	30		
- Often	10	10		
My faith is a strong hold even in hard times				
- Never	78	78	3.30	0.06
- Sometimes	14	14		
- Often	8	8		
I pray to become healthy again				
- Never	50	50	0.25	0.61
- Sometimes	30	30		
- Often	20	20		
I try to live with my religious convictions				
- Never	54	54	0.01	1.0
- Sometimes	28	28		
- Often	18	18		

Figure (3): The Grand Total Coping Strategies Scores of the Studied Women (N=100).



Discussion

In relation to overall studied women's knowledge, the results of the current study reported that there was poor knowledge about (the definition, risk factors, symptoms, prevention, treatment, and side effects of mastectomy). This goes in the same line as Abd El Aziz et al. (2019), whose study "Impact of a health education intervention program about breast cancer among women in a semi-urban area in Alexandria, Egypt", and Taha et al. (2020), who studied "Educational intervention to improve breast health knowledge among women in Jordan". They found that overall women have limited knowledge about breast cancer. According to the opinion of the researcher, the level of knowledge was insufficient due to the unavailability of training programs, and lack of continuous education and most healthcare providers did not routinely counsel women or provide them with

written information about breast cancer.

These findings are in accordance with Hashem et al. (2020), and Kisuya et al. (2015) conducted a study in western Kenya entitled "Impact of an educational intervention on breast cancer knowledge". Also, these findings are in accordance with Wang et al. (2022), who studied "The effects of an educational program on knowledge and intention of breast cancer screening in Taiwan". They clarified that the majority of women in their study had poor knowledge. This was contradicted by Thompson et al. (2018) study entitled "Evaluation of the current knowledge limitations in breast cancer research: a gap analysis" in the United Kingdom. They reported that most of the participants had moderate knowledge scores regarding breast cancer. This may be because the participants are from developing countries and had already read or heard about breast cancer in the mass media.

In relation to the overall studied women's practice regarding breast self-examination, the findings of the current study reported that there was unsatisfactory practice regarding breast self-examination. This goes in the same line with Nichols (2017) study "The nurse's role in self-breast examination education" in British, and Shin et al. (2022), who studied "Practice of breast self-examination and knowledge of breast cancer among female university students in Korea". Also, this goes in the same line with Alwan et al. (2012) study, entitled "Knowledge, attitude, and practice regarding breast cancer and breast self-examination among a sample of the educated population in Iraq". They found that the total women had unsatisfactory BSE practice. According to the opinion of the researcher, the level of women's unsatisfactory practices scores because of the unavailability of training programs, lack of continuous education, and a deficiency in the role of healthcare providers as health educators.

These findings are in accordance with Hashem et al. (2020), and Carelli et al. (2018) in a study entitled "Knowledge, attitude, and practice of breast self-examination in a female population of metropolitan Sao Paulo". Meanwhile, these findings are in accordance with Moustafa et al. (2015), and Karayurt et al. (2019), who investigated "Effects of peer and group education on knowledge, beliefs, and breast self-examination practice among university students in Turkey". Furthermore, these findings are in accordance with Gupta et al. (2019), who investigated the "Impact of a health education intervention program regarding breast self-examination by women in a semi-urban area of Madhya Pradesh, India". They clarified that the majority of

women in their study had unsatisfactory practice regarding BSE. The findings of the present study illustrated that there was a low total adaptive coping strategies scores (conscious way of living, positive attitudes, reappraisal, search for alternative help, trust in medical help, and God's help). This can be explained by stating that the body change that occurs as a consequence of the disease process will affect the body image, sexual relationship, and marital dysfunction. In addition to fear associated with lack of knowledge about the disease and its treatment, anxiety regarding the intervention procedures, the knowledge that patients gather from various sources, and finally the thought regarding the outcome of the treatment or surgery leads to distress or may be due to poor coping skills of the patient. Women also have a great deal of responsibility regarding home concerns, care of children, and other family concerns that put a great deal of stress on women who have breast cancer and mastectomy.

This was in accordance with Lundberg & Phoosuan (2022), who conducted a study entitled "Life situations of Swedish women after mastectomy due to breast cancer: A qualitative study" in Sewed, and Younis et al. (2021), who conducted a study entitled "Effectiveness of psycho-education intervention program on coping strategies among Jordanian women post-mastectomy" in Jordan. Moreover, this was in accordance with Hussain et al. (2019) who investigated "Exploring lived experiences of married Pakistani women post-mastectomy" in Pakistan, and Davies et al. (2017) who conducted a study in the United States entitled "Exploring the lived experience of women immediately following mastectomy: a phenomenological study,"

They stated that the women's body image limits their daily lives, and psychological distress reminds them of their disease, which would promote worse coping in that group of patients. Also, the women after mastectomy experienced high levels of related stress, uncertainty, anxiety, fear, and mood disturbance that finally led to using maladaptive coping strategies in posttraumatic stress disorder, depression, anxiety, or both in the year after diagnosis and poor coping skills. This was contradicted by a study conducted in the United Kingdom by Tomczyk et al. (2021), entitled "A grateful disposition promotes the well-being of women with breast cancer through adaptive coping". They reported that for women who have had a mastectomy for breast cancer, increasing dispositional gratitude may increase adaptive coping, which in turn will increase their well-being. This was also contradicted by a study conducted by Ali et al. (2017), entitled "The Effect of Psycho-Educational Nursing Program on Coping and Quality of Life of Patients Undergoing Chemotherapy" in Egypt, Yamani Ardakani et al. (2020) entitled "Body image and its relationship with coping strategies: The views of Iranian breast cancer women following surgery". They stated the majority of coping strategies used by Iranian women to cope with breast cancer surgery were positive on religious faith regarding trust in medical and God's help only as adaptive coping strategies. This contradiction is due to early diagnosis and management of any psychiatric disturbance, especially depression, which would promote better coping in that group of patients.

Conclusion

According to the findings of the present study, it can be concluded that there was limited level of knowledge

and practices in relation to women breast self-exam breast cancer and mastectomy. Also, women had low level of coping after mastectomy.

Recommendations

Based on the findings of the current study, the following recommendations are proposed:

- Women after mastectomy are advised to receive knowledge appropriate care practices after mastectomy.
- Hospital-based support groups that include psychologists and consultants for women after mastectomy are needed to improve their coping strategies.
- Future studies are needed to focus on the adaptive coping strategies that optimize the health of women with breast cancer living with one breast after a mastectomy.

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