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Original Article

Effect of Psycho-educational Program on Emotional Distress, Body Image and Quality of Sexual Life among Women with Breast Cancer

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ABSTRACT

Background: Worldwide, breast cancer continues to be one of the most common cancers to strike women, with significant physical, psychological, and social implications. **Aim:** Evaluate the effect of a structured psycho-educational program on emotional distress, body image, and sexual quality of life among women with breast cancer. **Subject and methods:** A purposive sample of 161 women with a diagnosis with breast cancer participated in a quasi-experimental **design** at the Benha Insurance Hospital's Oncology Outpatient Clinic. Data collection **instruments** were used: Tool (I): Structured interviewing questionnaire sheet- gathered socio-demographic and clinical data, Tool (II): Perceived Emotional Distress Inventory (PEDI), Tool (III): Body Image Scale (BIS), and Tool (IV): The Sexual Quality of Life-Female (SQOL-F). The study group **showed** a significant reduction in emotional distress scores and significant improvements in body image and sexual well-being post-intervention compared to the control group ($p < 0.05$). The study **concluded** that the psycho-educational program demonstrated a significant positive impact on reducing emotional distress and enhancing both body image and sexual quality of life among women with breast cancer. Therefore, this study **recommended** that healthcare providers should integrate psycho-educational support into standard oncology services to ensure more comprehensive, patient-centered care.

Key words: *Body image*, *Breast Cancer, Emotional Distress, Psycho-educational Program, Quality of Sexual Life.*

Introduction

Globally, breast cancer is the most prevalent cancer that poses a threat to women's health. According to the Global Statistics Report on Cancer (Sung et al., 2021) and women's second leading cause of death (Giaquinto et al., 2022). Years may pass before symptoms show up in this pathologic process, which starts with a genetic alteration in a single cell. Numerous treatment options are available to the patient and doctor, including hormone therapy, radiation, chemotherapy, surgery, and combinations of therapies (Mutebi et al., 2020).

The diagnosis and following therapies frequently result in significant changes in a woman's emotional well-being, body image, and sexual life. Emotional discomfort, which includes anxiety, depression, and stress, is a frequent experience among breast cancer patients, with prevalence rates of anxiety and depression recorded among Egyptian women as high as 78.1% and 68.6%, respectively (Alagizy et al., 2020).

In more than 30% of instances, physical, psychological, and social problems that peak at diagnosis and continue after therapy cause misery for individuals with breast cancer. This anguish, which can be mental, emotional, social, or spiritual, makes it harder to cope, makes it harder to follow treatment plans, makes it harder to make decisions, and diminishes quality of life. Distress is the sixth important sign in cancer care and needs to be closely watched and controlled since it predicts death (Park et al., 2024). Additionally, medications used to treat breast cancer result in ovarian insufficiency, decreased testosterone and estrogen, vaginal atrophy, decreased vaginal moistening, vasoconstriction, and decreased sexual desire, all of which lead to sexual dysfunction and a drop in the SQL (Momeni et al., 2023).

The way people attempt to manage their disease and the effects of treatment have a significant influence on the path of psychological distress and adjustment that enhances quality of life and lessens suffering in patients with breast cancer. The course of illness and immunological function are two physiological factors that can be changed by emotional stress, which can also make it more difficult to adjust. Coping strategies for the illness and its treatment have a major impact on the ongoing process of adjustment. These ongoing process of adjustment (Muzzatti et al., 2020) interconnected domains—emotional distress, body image, and SQOL significantly influence the overall quality of life and long-term adjustment of women with breast cancer.

Psychoeducation for cancer patients and their families has emerged as a common supplemental psychosocial intervention in cancer therapy. Techniques including exchanging and receiving knowledge, discussing concerns, resolving issues, practicing coping strategies, expressing emotions, and obtaining social support are all part of psychoeducation (Setyowibowo et al., 2022).

Psycho-educational programs have emerged as a promising intervention to address these multifaceted challenges. These programs typically combine educational components—such as information about the disease and its treatments—with psychological support, including coping strategies, emotional expression, and skill-building exercises. Research suggests that psycho-educational interventions can reduce psychological distress and improve quality of life by enhancing patients' understanding of their condition and fostering adaptive coping mechanisms (Ghanbari et al., 2021).

For women with BC symptoms or diagnoses, psychoeducation may be beneficial. Following BC recovery, it may also assist women follow medical protocols that allow for prompt diagnosis and treatment (Setyowibowo et al., 2020). As a result, psychoeducation is expected to assist patients in adhering more closely to medical procedures during the BC treatment course. Where these programs typically combine educational components—such as information about the disease and its treatments—with psychological support, including coping strategies, emotional expression, and skill-building exercises. Additionally, it could improve their quality of life, relieve anxiety and depression symptoms, and assist patients in overcoming a number of challenges throughout the BC treatment period and fostering adaptive coping mechanisms (Ghanbari et al., 2021).

Similarly, studies have shown that such interventions can positively influence body image perceptions and sexual functioning by addressing the emotional and cognitive aspects of these experiences (Abedini et al., 2020). However, the effectiveness of psycho-educational programs specifically targeting the triad of emotional distress, body image, and sexual quality of life remains underexplored, particularly in diverse cultural and clinical contexts.

The rationale for investigating psycho-educational interventions lies in their potential to mitigate the long-term psychosocial consequences of breast cancer. As survival rates improve due to advances in medical care, the focus has shifted toward enhancing survivorship and addressing unmet needs in psychological and sexual health. Despite the growing body of evidence supporting psycho-educational approaches, gaps persist in understanding their comprehensive impact across these domains, especially in terms of sustained effects post-intervention.

Aim of the study

This study aimed to evaluate the effect of a structured psycho-educational program on emotional distress, body image, and quality of sexual life among breast cancer women. ***This was achieved through*** assessing levels of emotional distress, body image and quality of sexual life, designing and implementing psycho-educational program, and evaluating effect of the program on emotional distress, body image and quality of sexual life among women with breast cancer.

Research hypothesis:

H1: Women with breast cancer who participate in a psycho-educational program will experience a significant reduction in emotional distress compared to those who do not participate.

H2: After the implementation of psycho-educational program, the study group's mean scores for body image and sexual quality of life will be significantly higher than those of the control group.

Subject and methods:

Research design: A quasi-experimental design was implemented.

Research Setting:

This research was carried out at the Oncology Outpatient Clinic at Benha Insurance Hospital. Its primary goal is to offer complete oncology care, primarily to residents of Qalyubia Governorate who have tumors of any kind. Medical outpatient clinics located on the 3rd floor of the outpatient clinics department, there are two rooms, one for examining breast cancer patients and the other for follow-up cases.

Research subject:

Type: Purposive sample of women with breast cancer.

Size: The women's sample size was determined by analyzing the data from the follow-up census conducted the year prior in the Oncology Outpatient Clinic from the 2023 Benha Health Insurance Hospital Census. Yamane (1967) calculated the sample size using the formula below:

$n= N/ (1+ N (e)^2 = 161$

Where:

n= sample size

N= target population (270)

e=Margin error of 0.05

The current study enrolled a total of 161 women with breast cancer. They were separated into two groups: Study (80 patients) and control (81 patients).

Sampling technique: In the beginning, control group-related assessments were carried out during the first half of the data collection period. This strategy was used to reduce and avert bias during the selection procedure. The psycho-educational program and study group assessments took place during the second half of the data collection period.

Inclusion criteria: women diagnosed with breast cancer from at least six months, their age ranged from 20 years old and more, they married prior to breast cancer and still married after breast cancer. While excluded women who have another any chronic disease that impact sexual function, and who were not willing to participate in the research.

Tools of Data Collection

To acquire data, four instruments were used.

Instrument (I): Structured interviewing questionnaire sheet: it was developed by the researchers, and was divided into two parts:

Part 1: Socio-demographic characteristics of the study subjects including age, marital status, level of education, occupation, and residence.

Part 2: Clinical characteristics such as duration of disease, stage of the disease, types of treatment, type of surgical operations and family history with breast cancer.

Instrument (II): Perceived Emotional Distress Inventory (PEDI): It is a 15-item adapted from (Moscoso, Lengacher and Reheiser, 2012). In order to represent the degree of emotional suffering and overall mood illness. When a cancer patient receives a diagnosis or begins treatment, this straightforward and trustworthy tool is used to identify those who are most likely to experience emotional distress. It evaluates melancholy, hopelessness, anxiety, and rage while drawing distinctions between the expression and repression of anger. In the previous month, "including today," women state the degree to which they have had each symptom associated with emotional distress, by rating themselves on a 4-point scale ranging from 0 to 3: Not at all (0); Sometimes (1); Often (2); Very much so (3). In this study, the scores of all the elements that make up the PEDI were added up to create a Global Severity Index (GSI). The inventory's overall score might be anywhere between 0 to 45 points. Perceived emotional anguish increases with higher scores.

Instrument (III): Body Image Scale (BIS): It was developed by (Hopwood et al., 2001) and adapted from (Dahl, Reinertsen, Nesvold, Fossa, and Dahl, 2010) to assess changes in cancer patients' body image. Five BIS items address general body image issues: feeling self-conscious, unsatisfied when dressed, difficulties seeing at yourself naked, avoiding others based on looks, and dissatisfaction with physique. The last five BIS questions address body image regarding the cancer experience. Less physically attractive, less feminine, less sexually appealing, body less entire, and displeased with the scar. The BIS covers the last week. Each item is rated using a 4-point Likert scale as follows: 0, not at all; 1, a little; 2, quite a little; and 3, extremely lot. Higher ratings indicate lower BI. Each BIS item score was additionally classified as "unsatisfied" (scoring 2-3) or satisfied (score 0-1). The BIS's internal consistency was Cronbach α =0.93.

Instrument (IV): The Sexual Quality of Life-Female (SQOL-F): It was adapted from Sim-Sim et al. (2018) to evaluate how female sexual dysfunction (FSD) affects a woman's sexual quality of life. It consists of 18 items, each graded on a six-point scale. The response categories might be scored from 1 to 6, (1 = I completely agree, 2 = I mostly agree, 3 = I partially agree, 4 = I partially do not agree, 5 = I mostly disagree, 6 = I completely disagree). Items that are formulated in a positive manner (items 1, 5, 9, 13, 16, and 18) are reversed, and the simple sum of the items yields the overall score.

The overall result might have a range of 18 to 108 points. A better female SQOL was indicated by higher ratings. A total score of more than 75% indicated good SQOL; a total score between 60 and 75% was regarded as average SQOL; and a total score of less than 60% indicated poor SQOL. The questionnaire has a Cronbach's alpha coefficient of 0.73, while the subscales had values ranging from 0.70 to 0.75.

Validity of the tools:

Prior to the onset of data collection, the researchers translated all of the tools into Arabic, then retranslated them into English and checked for accuracy. In addition, five professionals with specialized knowledge in psychiatric and mental health nursing and community health nursing evaluated the instruments to ensure that the questions were relevant, clear, complete, and applicable. The jury's suggestions led to the necessary changes being made, and the final form was developed.

Pilot study:

The study was conducted on 16 women, or 10% of the overall sample, who were excluded from the study. In order to assess the tools' dependability and feasibility. Internal consistency was found to be (r = 0.869 and 0.958, respectively) for the structured interviewing questionnaire. Regarding Cronbach alpha value for Perceived Emotional Distress Inventory (PEDI) was 0.859, and Body Image Scale (BIS), was: 0.976 for the entire scale. Furthermore, the Cronbach alpha for SQOL-F was 0.795.

Ethical considerations:

The Ethics Committee of the Faculty of Nursing at Benha University (code REC.PSYN.P5) provided primary approval for the study's conduct. An official permit was then acquired from the head of the Outpatient Clinics at Benha Insurance Hospital. Participants were given an explanation of the research goal and were informed that they might withdraw from the study at any time prior to its completion. Participants were asked to give oral a permission to take part in the study. Furthermore, participants were promised that the information they gave would be kept strictly confidential and utilized only for the purposes of the study.

Field of work:

Data were collected in the following order: after an explanation of the study's purpose, formal permission to perform the study was acquired from the appropriate authorities. After that, structured interviews were held with study-eligible women who satisfied the inclusion and exclusion requirements. Data collecting took place across eight months, from the start of June 2024 to the conclusion of January 2025.

Procedures:

The Psycho-Educational Program comprised the following phases:

A- Assessment Phase:

Prior to implementing a psycho-educational program, baseline data on women with breast cancer were acquired utilizing all research tools via group interviews. The interview lasted roughly 30 to 40 minutes.

B- Planning phase:

To help breast cancer women understand the disease, researchers created an educational booklet containing information on the following: definition-causes-symptoms-treatment methods, coping strategies with side effects of treatment and emotional distress to improve body image and the sexual quality of life. The booklet is filled with a variety of pictures and clear Arabic language. The researcher designed it after conducting a review of the available literature. The researchers also communicated with them to decide on the most suitable day and time for them to return to the hospital according to the next follow up schedule and get of their phone number. The program uses behavior therapy techniques include Mindfulness-Based Stress Reduction (MBSR), which involves deep breathing and meditation, and Relaxation Training, which involves deep breathing. These are precise and useful in helping women with breast cancer feel less emotionally distressed, have a better body image, and have better sexual experiences. Furthermore, Cognitive Behavior Therapy (CBT) is highly effective for addressing cognitive distortions related to emotional distress (e.g., anxiety, depression), body image concerns (e.g., negative self-perception post-mastectomy), and sexual dysfunction fears. It helps women reframe maladaptive thoughts, improving coping and emotional regulation. Moreover, the program's focus on sexual health education, communication techniques, and coping methods that address common issues like low libido, vaginal dryness, and intimacy phobias may be the reason for the research group's reported improved quality of sexual life.

C- Implementation phase

The generated educational information was given to the investigated women in groups (ranging from 4-5 women) while they were in an Oncology Outpatient Clinic. It was done in five sessions while they were there for follow-up. The initial session took place during the assessment phase, involved (overview about breast cancer program including definition-causes and symptoms), the second session involved treatment methods and experienced side effect after treatment), the third session included (information about emotional distress (depression –anxiety), discussion about breast cancer consequences of emotional and physical status and relaxation technique (the definition of relaxation, the benefits of relaxation, apply the relaxation technique (deep breathing – muscle relaxation exercises and meditation) to deal with anxiety and depression while the fourth involved (the ways to improve self-image). Also, the fifth session included (the ways to improve sexual quality of life). Each session lasted between thirty and forty minutes. Each woman in the study got an instructional booklet to help her review and promote her teaching at her house; the educational resources used in these sessions included brainstorming, lectures, group discussions, and examples to share experiences and coping strategies, provide counseling on sexual health and intimacy post-treatment and offer strategies to manage physical discomfort during sexual activity. Each session ended with five to ten minutes to review the content and ask for feedback from the women. Each session includes a title and objectives that are determined by the topic. The teaching strategies of offering reinforcement and feedback were suitable for the needs of women in order to make sure they understood. For the control group, the researcher didn’t advise them, no psycho educational program—but gave them a booklet only for their benefit. Make an interview with them to collect the pre-intervention scale; after that, call them to decide the next suitable time with them to collect the post-intervention scale.

D- Evaluation phase

Following implementation of the psycho-educational program, each woman in the study was evaluated using previous instruments (PEDI, BIS and SQOL-F).

Data Analysis:

The SPSS program (version 25) was used to analyze the data. Data analysis used descriptive and inferential statistics to compare the study and control groups before and after the intervention. Chi-square tests and independent t-tests assessed differences, with significance set at $p < 0.05$. Results, shown in bar charts, highlight improvements in emotional distress, body image, and sexual quality of life after the program.

Results:

Table 1 shows the distribution of socio-demographic among women with breast cancer in both the study and control groups. The two groups were statistically comparable across all examined variables, as none of the chi-square tests yielded a statistically significant difference ($p > 0.05$). The majority of participants’ age among control group fell into the 30–<40 years old, while age among study group are more than 40 years old (54.3% vs. 42.5% respectively) with secondary education level in both groups. More than half of participants were unemployed (59.3% vs. 56.2%) and resided in urban areas (58% vs. 56.2%).

Table (2) outlines the clinical characteristics of breast cancer patients in both the control and study groups, showing no significant differences between them **(**p > 0.05**).** The highest proportion of participants were diagnosed within 4-6 years **(**46.9% vs. 38.7%**)** and were most commonly at Stage II **(**54.3% vs. 48.8%, respectively**).** Radiotherapy was the most frequently received treatment **(**46.9% vs. 46.3%**),** followed by hormonal therapy and chemotherapy. Regarding surgical procedures, the modified radical mastectomy was the most performed surgery **(**48.1% vs. 51.2%**).** Additionally, sexual complaints were reported by over 60% of participants, while psychological complaints were slightly higher in the study group **(**58.8% vs. 49.4%**).** These findings indicate that both groups share **a** clinically similar profile**,** ensuring comparability for further analysis.

Table (3) illustrates the effect of the intervention program on emotional distress, body image, and sexual quality of life among breast cancer women. Before the program, there were no significant differences between the study and control groups (p > 0.05). However, after the program, the study group showed a substantial reduction in emotional distress (15.81±7.88 vs. 31.75±9.35, p = 0.000), and a notable improvement in body image (10.90±4.16 vs. 23.72±5.53, p = 0.000) and sexual quality of life (78.92±7.46 vs. 58.74±11.20, p = 0.000). These findings indicate that the intervention was highly effective in enhancing psychological well-being and overall quality of life in breast cancer patients.

Figure (1) paints the distribution of emotional distress levels among breast cancer women in both the control and study groups' pre/post program. During pre-program, the majority of participants in both groups experienced high emotional distress (71.6% vs. 75.0%), with no participants reporting low distress. While, in post-program, a significant improvement was observed in the study group, where 56.3% reported low emotional distress, compared to only 9.9% in the control group. Additionally, the proportion of participants experiencing high emotional distress decreased substantially in the study group (from 75.0% to 3.8%).

Figure (2) presented the distribution of body image satisfaction among breast cancer women in the control and study groups' pre/post program. During pre-program, the majority of participants in both groups reported unsatisfactory body image (91.4% vs. 87.5%), with only a small percentage expressing satisfaction. Inversely, post-program the control group showed minimal improvement (85.2% still reported unsatisfactory body image), the study group demonstrated a significant shift, with 65.0% achieving satisfactory body image perception.

Figure (3) presents the distribution of sexual quality of life among breast cancer women in the control and study groups' pre and post program. Pre-program, the majority of participants in both groups reported low sexual quality of life (84.0% & 88.8% respectively), with no participants experiencing a high quality of life. But post-program the control group showed only slight improvement (72.8% still reported low sexual quality of life), the study group exhibited a significant positive shift, with 53.8% achieving an average sexual quality of life and 43.8% reporting a high sexual quality of life.

Table (1): Distribution of socio-demographic characteristic of the studied breast cancer women

Variables	Control group 81		Study group 80		Chi square	p-value
	No	%	No	%		
Age in years					4.83	0.089 ^{NS}
20-<30	10	12.3%	16	20.0%		
30-<40	44	54.3%	30	37.5%		
≥ 40 years old	27	33.4%	34	42.5%		
Mean ±SD	59.47±6.69		60.89±6.87			
Educational Qualification					2.87	0.237 ^{NS}
Read and write	5	6.2%	11	13.8%		
Secondary education	44	54.3%	43	53.7%		
University education	32	39.5%	26	32.5%		
Occupation.					0.149	0.751 ^{NS}
Working	33	40.7%	35	43.8%		
Not working	48	59.3%	45	56.2%		
Residence					0.052	0.473 ^{NS}
Rural	34	42.0%	35	43.8%		
Urban	47	58.0%	45	56.2%		

NS—Non Significant

Table (2): Frequency distribution of studied women according to their clinical characteristics

Variables	Control group 81		Study group 80		Chi square	p-value
	No	%	No	%		
Onset of breast cancer diagnosis					1.15	0.562 ^{NS}
1-3	23	28.4%	25	31.3%		
4-6	38	46.9%	31	38.7%		
>6	20	24.7%	24	30.0%		
Stage of breast cancer					0.571	0.752 ^{NS}
Stage I	27	33.3%	31	38.8%		
Stage II	44	54.3%	39	48.8%		
Stage III	10	12.4%	10	12.4%		
Treatment					3.76	0.289 ^{NS}
Chemotherapy	17	21.0%	12	15.0%		
Radiotherapy	38	46.9%	37	46.3%		
Hormonal therapy	26	32.1%	31	38.7%		
Surgical operations (Mastectomy)					0.404	0.817 ^{NS}
Radical mastectomy	14	17.3%	11	13.8%		
Modified radical mastectomy	39	48.1%	41	51.2%		
Total mastectomy	28	34.6%	28	35.0%		
Sexual complains					0.086	0.460 ^{NS}
Yes	49	60.5%	50	62.5%		
No	32	39.5%	30	37.5%		
Psychological complains					1.42	0.150 ^{NS}
Yes	40	49.4%	47	58.8%		
No	41	50.6%	33	41.2%		

NS—Non Significant

Table (3). Effect of an Intervention Program on Emotional Distress, Body Image, and Sexual Quality of Life among Breast Cancer women

Variables	Pre-program				Post program			
	Control group	Study group	Independent t test	P value	Control group	Study group	Independent t test	P value
Total emotional distress	34.81±5.93	35.78±6.72	0.691	0.338 ^{NS}	31.75±9.345	15.81±7.88	11.70	0.000 ^{S}
Total body image	22.75±5.73	22.18±4.12	0.736	0.463 ^{NS}	23.72±5.53	10.90±4.16	16.63	0.000 ^{S}
Total sexual quality of life	53.40±9.44	53.18±8.80	0.162	0.872 ^{NS}	58.74±11.20	78.92±7.46	11.28	0.000 ^{S}

NS—Non Significant S— Significant

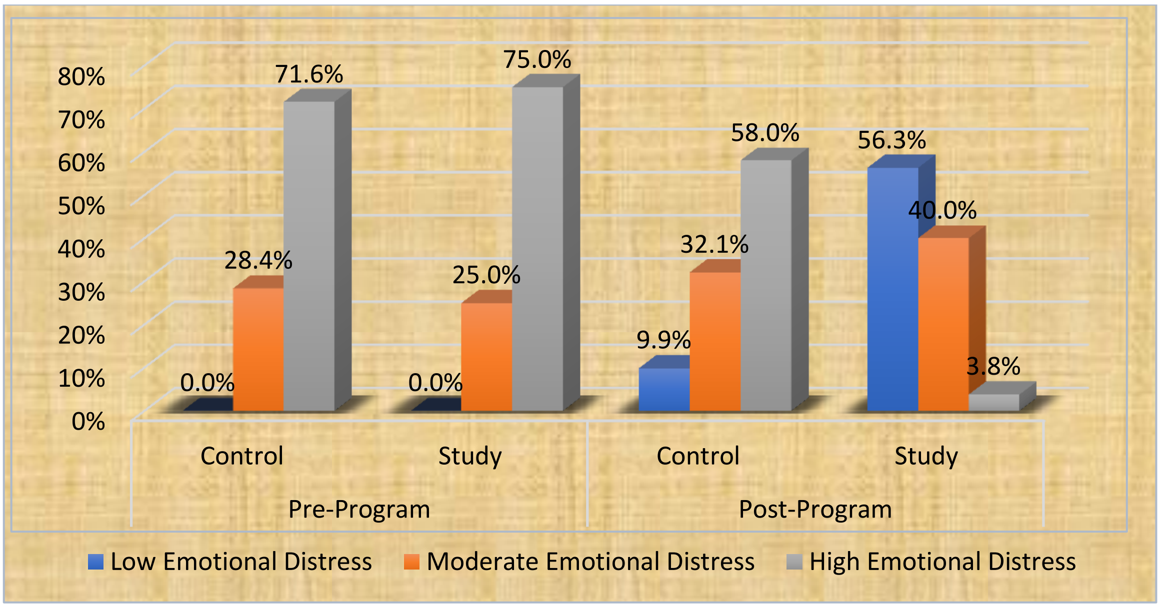

Figure (1): Percentage distribution of total emotional distress among the studied women at both control and study groups at pre and post program.

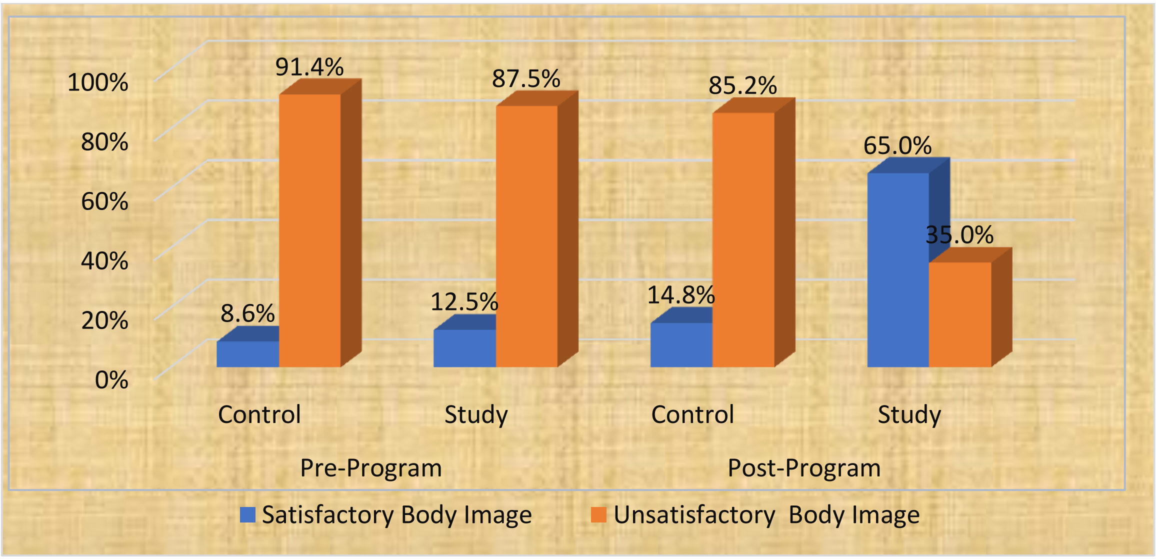

Figure (2): Percentage distribution of total body image scale among the studied women at both control, and study groups at pre and post program.

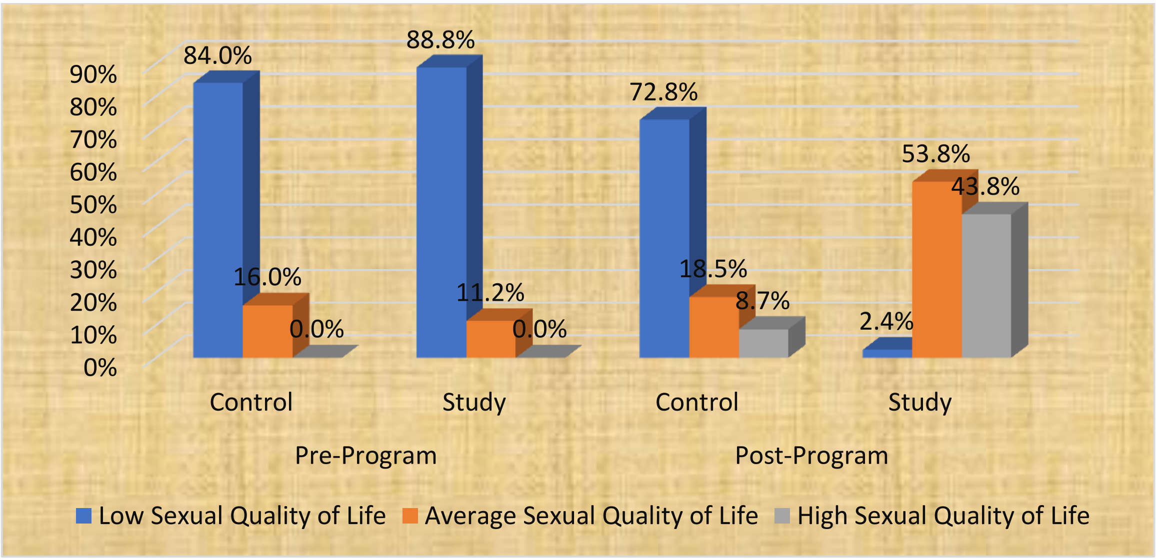

Figure (3): Percentage distribution of total sexual quality of life scale among the studied women at both control, and study groups at pre and post program.

Discussion

The present study aimed to evaluate the effect of a psycho-educational program on emotional distress, body image, and sexual quality of life among women with breast cancer. The findings demonstrated significant improvements across all measured domains among the study group post-intervention, while the control group showed no meaningful changes. These outcomes underscore the efficacy of psycho-educational interventions in supporting the psychological and sexual well-being of breast cancer patients.

The current study's findings show that no statistically significant differences between the study and control groups regarding socio-demographic variables, including age, education level, occupation, and residence ($p > 0.05$), indicating a balanced baseline for the intervention assessment. The majority of participants in both groups were aged more than 30 years old; from the researcher point of view age is a critical factor in psychosocial adaptation and treatment perception. This similarity between groups ensures that improvements observed post-intervention are not age-biased. The majority of participants in both groups with secondary education this is may be due to education level significantly influences how well patients understand their medical condition and how effectively they respond to educational interventions. When both groups share similar education levels, it helps ensure that they are equally receptive to the psycho-educational content being presented.

Moreover, the majority of participants in both groups were unemployed from the researcher point of view unemployment among breast cancer survivors is often not a voluntary choice but a consequence of the multifaceted impact of cancer and its treatment, and finally resided in urban areas this is may be due to urban versus rural residence might relate to healthcare accessibility and exposure to health education.. This homogeneity minimizes the risk of confounding variables affecting the outcomes of the psycho-educational intervention. This result was in agreement with the study performed by (Abedini et al., 2020;

Ghanbari et al., 2021) who reported that ensuring comparability across these factors is crucial, as socio-demographic characteristics can influence patients' psychological responses, coping strategies, and receptivity to educational interventions

The current study finding explained that clinical characteristics of women with breast cancer in both the study and control groups, showing no statistically significant differences across variables such as time since diagnosis, stage of disease, type of treatment, type of surgery, and reported psychological and sexual complaints ($p > 0.05$). The most common duration since diagnosis was 4–6 years, and Stage II was the most frequently reported cancer stage in both groups, aligning with global trends where early to mid-stage breast cancer remains predominant at diagnosis due to increased awareness and screening. Similarly, (Sung et al., 2021). Found that radiotherapy was the most common treatment modality, followed by hormonal therapy and chemotherapy, while the modified radical mastectomy was the most frequent surgical intervention in both groups. Over 60% of participants in both groups reported sexual complaints, and nearly half to over half reported psychological complaints—consistent with prior research indicating that breast cancer survivors frequently experience sexual dysfunction and emotional distress due to treatment side effects and body image disturbances (Alagizy et al., 2020).

The results of this study indicate that the psycho-educational intervention significantly decreased emotional distress. This may result from the efficacy of a structured psychoeducational program in meeting the diverse needs of breast cancer patients. The observed reduction in emotional distress may be attributed to the program's integration of cognitive-behavioral strategies, emotional expression, and relaxation training, which are acknowledged for their effectiveness in enhancing emotional regulation and alleviating psychological symptoms such as anxiety and depression. The current study findings corresponds with the findings of a previous study by Carreira et al. (2018), which indicated that emotional support interventions alleviate anxiety and depression among cancer survivors. Additionally, the results of the study among Cameroonian cancer patients indicate that their quality of life is perceived as fair, with a significant correlation identified between quality of life and psychosocial and emotional discomfort (Ebob-Anya & Bassah, 2022). Recent findings by Riba et al. (2023) indicate that recent studies emphasize the necessity of integrated psychosocial support in oncology care, highlighting that structured psycho-educational approaches enhance emotional functioning and improve coping mechanisms among cancer patients. Emotional distress correlates with reduced treatment adherence and lower quality of life, thus its mitigation is essential in survivorship care (Abdelhadi, 2023).

In addition, cancer patients who receive cognitive behavioral therapy (CBT) report feeling more in control of their lives, which enhances their emotional equilibrium and general wellbeing. Put differently, a cognitive behavioral therapy (CBT) can stop future BI disruptions because it is based on a time-limited, goal-oriented strategy that focuses on altering thought and behavior patterns (Sebri & Pravettoni, 2023). Last but not least, the improved sexual quality of life witnessed in the clinical trial study between the groups that received the intervention immediately and one month later bolsters the data provided by Bokaie et al. (2023), which highlights that focused online solution counseling enhances women's sexual quality of life and lessens the sexual issues brought on by this illness and its treatment.

The present study demonstrates a significant improvement in body image among women in the study group following the psycho-educational intervention. The critical role of psycho-educational support in addressing body image concerns is significant for breast cancer survivors, who often experience these issues due to surgical alterations, scarring, and physical changes resulting from treatment. Additionally, the psycho-educational component designed to normalize bodily changes, challenge negative self-perceptions, and promote body acceptance is associated with the participants' enhanced body image. This finding is supported by a randomized controlled experiment that assessed the impact of a brief self-compassion intervention on body image, anxiety, sadness, and maladaptive perfectionism and indicated that even short interventions can lead to significant improvements in emotional health and body image (Woodfin et al., 2021).

Sexual health is a critical aspect of overall quality of life; however, it is frequently overlooked in cancer care due to societal stigma, insufficient communication, and inadequate training among healthcare professionals. The study found that the majority of intervention and control group participants initially reported low subjective quality of life. Post-intervention, many participants in the psycho-educational study group had high SQOLs compared to the control group. The study group's increased quality of sexual life may be due to the program's focus on sexual health education, communication, and coping skills for low libido, vaginal dryness, and intimacy fears. Moreover, psycho-educational intervention may help fill the gap in sexual health difficulties by giving patients the knowledge and tools to handle them. In alignment with Wilson et al. (2017), this systematic review included studies on psychoeducational therapies, revealing that structured programs significantly improved the SQOL of breast cancer survivors compared to control groups that did not receive any intervention. A recent randomized trial by Khoei et al. (2020) compared PLISSIT-based individual counseling with group-based sexuality education, providing evidence of significant improvements in sexual desire, satisfaction, and emotional well-being among Iranian breast cancer survivors receiving counseling.

Furthermore, the incorporation of relaxation training and self-image exercises into the existing psycho-educational program likely contributed significantly to the improvement of participants' sexual quality of life. The integration of these strategies with peer support and realistic education regarding bodily changes offers a holistic approach to assist women in restoring self-esteem and enhancing sexual health following treatment. This finding supported by Casuso-Holgado et al. (2024) concluded that resistance training and supervised exercise are effective methods for enhancing self-esteem in women with breast cancer. Exercise therapies do not demonstrate a significant correlation with enhancements in body image, and the evidence concerning self-efficacy remains contentious. The findings align with those of Abdel-Naby et al. (2022), who indicated that psycho-educational strategies focusing on peer support and realistic body expectations can assist women in reconstructing a positive body image post-treatment.

Lastly, this psycho-educational programs offer valuable support to women with breast cancer, addressing critical aspects of their psychological and sexual health. The program's activities were incorporated into a pertinent framework with appropriate time between sessions, and its sessions were spaced out based on the participants' ability levels. Additionally, the application allows for in-person interaction so that the researchers may record the participants' input. Moreover, the structured interviews enhance accuracy and reliability, reduce data gaps, and allow for a better understanding of questions, making them ideal for research that requires precise comparison between groups. This study possesses specific limitations that must be considered when interpreting our findings, akin to any other research. The research assess outcomes immediately post-intervention, lacking long-term follow-up to determine the sustainability of benefits.

Conclusion

The findings of this study demonstrate that the implementation of a structured psycho-educational program significantly improved emotional distress, body image, and sexual quality of life among women with breast cancer. The intervention provided participants with essential knowledge, emotional support, and coping strategies that helped them manage the psychological and physical challenges associated with their diagnosis and treatment. The study group exhibited substantial reductions in emotional distress levels, enhanced satisfaction with body image, and marked improvements in sexual well-being compared to the control group.

Recommendations

In light of these findings, it is suggested that

- Healthcare providers integrate psycho-educational support into standard oncology services to ensure more comprehensive, patient-centered care.
- Encourage Family and Partner Involvement: Involving spouses or family members in psycho-educational sessions can enhance communication, emotional bonding, and shared coping.
- Promote Further Research: More longitudinal and multi-center studies are needed to evaluate the long-term impact of psycho-educational programs across diverse populations and healthcare settings.

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