The Impact of BETTER Model-Based Counselling on Postpartum Women's Emotional Status Having Sexual Dysfunction

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Abstract

Background: After childbirth, sexual dysfunction is frequent in women and may be linked to stress, anxiety, and depression. Most of these issues are treatable in their early stages using various counselling techniques. **Aim**: to determine the impact of BETTER model-based counselling on postpartum women's emotional status having sexual dysfunction. **Design**: A quasi-experimental study design was used. **Setting**: The research was carried out in the outpatient clinic of the Obstetrics and Gynecology department in Sohag University Hospital, Egypt. Sampling: For the study, a purposive sample of 100 women with sexual dysfunction was involved and was divided equally into two groups (study and control) and each group included 50 women. **Tools**: three different tools were used to collect the data: Personal data assessment sheet, The Depression, Anxiety, and Stress Scale (DASS), and the female sexual function index (FSFI). **The results**: The study's findings revealed that there was a high statistically significant difference in mean scores of total Female sexual functions among study and control groups post BETTER model application (P < 0.001), there was a statistically significant difference between both groups in total mean score of Depression, Anxiety, and Stress after application of BETTER model (P ≤ 0.05) and (P < 0.001)) in addition, there was a statistical significant positive correlation between total female sexual function and total Depression, Anxiety, and Stress score among study group after application of BETTER model (P ≤ 0.05) and (P < 0.001). **Conclusion**: The application of the counseling-based BETTER model significantly reduces depression, anxiety, and stress among postpartum women having sexual dysfunction. **Recommendation**: A BETTER sexual counseling model should be established to reduce depression, anxiety, and stress among postpartum women having sexual dysfunction.

Keywords: BETTER Model, Counselling, Emotional status, Postpartum women, Sexual dysfunction

Introduction

Postpartum depression and sexual dysfunction are serious health issues. Several Eastern and Western nations have indicated a 0–60% postpartum depression prevalence (**Chang et al., 2018**). Women's risk of depression is known to increase after giving birth. It is reported that in Iran, the prevalence of postpartum depression is 25%. Anxiety following childbirth has been shown to affect 25–45% of women. Anxiety is a prevalent issue in the postpartum phase. After giving birth, stress is a really bad emotional state. Postpartum anxiety is common in women and is linked to a high rate of depression prevalence (**Latifnejad Roudsari et al., 2017**).

One of the risk factors for postnatal depression (PND) is marital difficulty. Women with PND have been reported to experience a decline in sexual activity three months postpartum and a loss of desire for sex after giving birth. **Elliott and Watson (1985)** reported that a correlation was found between postpartum depression (PND) and women's reduced sexual interest, enjoyment, frequency, and satisfaction

six months postpartum, which reached a substantial level by nine and twelve months postpartum.

One of the main causes of the loss of sexual desire in the latter stages of pregnancy and after delivery is fatigue and weakness. Depression in the first 24 months following childbirth is associated with sexual dysfunction. Between 14.9 and 66.7% of women report having sexual dysfunction for the full 24-month period following childbirth. Postpartum depression risk is a result of sexual dysfunction. The prevalence rate of sexual dysfunction in women is stated to be 31.5% in Iran but has been estimated to be between 30 and 50% worldwide (**Anbaran et al., 2018).**

According to **Chang et al. (2018**), there is a higher chance of depression for women who report having sexual dysfunction and experiencing lower levels of sexual satisfaction throughout the full 24-month period following childbirth. Sexual dysfunction can cause anxiety, which in turn can cause sadness, and vice versa, forming a vicious cycle that includes depression, anxiety, and sexual dysfunction (**Laurent SM, Simons, 2019**).

Counseling is very important for the systematic evaluation of individuals' sexual life, as well as the prevention of sexual dysfunction. About 80% of sexual problems can be solved if proper and adequate sexual health counseling is given. Although it is difficult to identify sexual problems, many models are used in the scope of sexual counseling, such as PLISSIT, ALARM, KAPLAN, and BETTER. Several studies have shown that interviews based on the BETTER model reduce stress and anxiety and also, increase sexual satisfaction, as well as have a therapeutic effect on sexual functions (**Demir and Aslan, 2019).**

The BETTER model is regarded as a useful tool that offers a practical framework for dealing with sexual issues that are connected to medical issues. The six stages of this model—bringing up, explaining, telling, timing, educating, and recording—improve sexual activity. In addition to helping healthcare professionals become more knowledgeable and skilled, the aforementioned model fosters a casual environment where people feel free to discuss sexual issues and express their desire for sex (**Mohammed and ElAnsary., 2022**). One of the most important things nurses can do to help patients with treatment and improve their sexual activity is to assess patients' sexual problems. According to some sources, there are communication gaps between nurses and women who are ill, which makes it evident that nurses are not appropriately providing this part of care. To facilitate women's communication and help them address issues related to their sexual health, nurses should incorporate relevant questions into their evaluation (**Shahin et al., 2021**).

Significance of the study:

In total, 35% to 40% of women experience depressive symptoms after childbirth. The American Nurses Association claims that as sexuality is a critical element of nursing care, it is a part of the nurse's job to identify and address patients' sexual needs and concerns. By improving their patients' sexual well-being, nurses play a crucial role in detecting these needs and boosting marital happiness. Additionally, nurses have a vital role in assisting cancer patients with their needs for psychological support and care and helping the patient develop the resilience to deal with the disease and its side effects (**Chang et al., 2018**).

Most women experience discomfort when discussing sexual issues with healthcare providers hence, healthcare professionals must understand the sexual activity of infertile women to recognize any changes in sexual function and provide appropriate comprehensive care related to women's needs. Sexual counseling utilizing the BETTER model and dissemination of scientific information about sexuality have a positive effect on sexual activity (**Shahin et al., 2021**). Some studies mentioned that using the BETTER model for addressing sexual problems was beneficial. Therefore, the purpose of this study was to determine the impact of BETTER Model Based Counselling on Postpartum Women's emotional status having Sexual Dysfunction

Operational definition:

BETTER model for counseling: is a comprehensive sexual counseling approach that focuses on addressing the sexual problems among infertile women. This model is comprised of six distinct stages, bringing up, explaining, telling, timing, educating, and recording.

Aim of the study:

This study aimed to determine the impact of BETTER model-based counselling on postpartum women's emotional status having sexual dysfunction

Research hypothesis:

Postpartum women having sexual dysfunction who will apply BETTER model-based counselling will experience decreases in depression, anxiety, and stress levels than those who do not.

Subjects and Methods:

Research design:

A quasi-experimental research design was used to carry out this study.

Setting:

The research was carried out in the outpatient clinic of the Obstetrics and Gynecology department in Sohag University Hospital, Egypt. This setting was selected due to the high prevalence of patients in the selected setting, and it serves the biggest region of the population.

Sample:

For the study, a purposive sample of 100 women with sexual dysfunction was involved and was divided equally into two groups (study and control) and each group included 50 women. The study group applied BETTER model-based counselling, and the control group received routine care from the department. The women included in this study were selected according to the following criteria:

The inclusion criteria were:

The study's inclusion criteria included being married and falling between the ages of 18 and 45.
- Scoring a 28 on the Female Sexual Function Index (FSFI) or below
- Possessing the ability to read and discuss sexual issues
- Consent to take part in the research

The exclusion criteria were:

These included:
- A refusal to participate
- Attending sex education courses while the study was underway;
- Taking drugs that affected their ability to function sexually
- Women whose husbands had problems with their prostates, schizophrenia, or other sexual disorders in their spouses
- Women with any medical condition that interferes with their ability to have sexual relations, such as diabetes, heart disease, or hypertension; and - Women with mental health issues.

Sample size calculation:

The sample size was calculated based on considering the level of significance of power analysis of 0.95(β=1-0.95=0.5) at alpha .05 (one-sided) with a large effect size (0.5) as the significance, and 0.001 was used as the high significance.

Tools of data collection:

Tool (I): Personal data assessment sheet: It was designed and developed by the researchers based on current national and international literature it included personal data of the women such as age, residence, level of education, and occupation.

Tool (II): The Depression, Anxiety, and Stress Scale (DASS):

The Likert scale, which has four points, ranges from 0 (not applied to me at all) to 3 (applied to me very much or most of the time) for the DASS-21 items. More frequent symptomatology is indicated by higher scores. Each of the three measures—which include stress, anxiety, and depression—consists of seven items (**Osman et al., 2012**). The scale was examined by **Antony et al. (1998)** in a different

study. According to the above study's findings, these three factors accounted for 68% of the total scale variance. The study's stressors, depression, and anxiety factors had respective special values of 9.07, 89.2, and 23.1. The corresponding Cronbach's alpha coefficients for these three factors were 0.97, 0.92, and 0.95. The internal consistency of the DASS-21 was determined in a study by **Sahebi et al. (2005)** using Cronbach's alpha coefficient, which was found at 0.77, 0.79, and 0.7 for the stress, anxiety, and depression scales, respectively. A structural narrative study carried out in Iran by **Sahebi et al**., (**2005**) has confirmed the validity of this form. In the previously mentioned study, a Cronbach's alpha coefficient of 0.80 was used to assess the DASS-21 questionnaire's reliability throughout.

Tool (III): Female sexual function index (FSFI).

A multidimensional self-report questionnaire was used as the primary measuring instrument for the FSFI in this study, which was adopted from **Rosen et al. (2000**). It consists of six subscales: sexual desire (1 and 2), sexual stimulation (3, 4, 5, and 6), sexual lubrication (7, 8, 9, and 10), orgasm (11, 12, and 13), pain (14, 15, and 16), and sexual satisfaction (17, 18, and 19). All 19 items are rated on a 5-point Likert scale. The scores range from 0 to 5 (0 = no sexual activity, 1 = rarely or never, 2 = a few times, 3 = sometimes, 4 = most of the time, and 5 = almost always or always). A score of 0 indicates no sexual activity over the previous four weeks. Each subscale has a maximum score of six, and the overall scale has a maximum score of 36. The lowest possible score is 1.2 for the domain of sexual desire; 0 for the domains of sexual stimulation, lubrication, orgasm, and pain; 0.8 for the domain of satisfaction; and 2 for the overall scale. A higher score corresponds to a higher level of sexual function. **Mohammadi et al. (2008**) verified the subscales of the index, confirming its reliability and yielding a Cronbach's alpha coefficient of 0.7. The reliability of the provided questionnaire was assessed in the current study using Cronbach's alpha coefficient.

Scoring System:

Each item yields a score based on 5 points on the Likert scale that ranges from 1 to 5 for (the desire domain and items 15-16 in the satisfaction domain) and the score ranges from 0 to 5 for the domains (arousal, lubrication, orgasm, pain) and item 14 in satisfaction domain. The overall score was calculated by adding the scores of each of the six domains. The total score of the female sexual function index ranged from 4-95 with the higher score indicating better sexual function and the lower score indicating poor sexual function. Normal female sexual function was determined when the total score was more than 25 and female sexual dysfunction was determined when the total score was less than 25. Distribution of the six domains of the female sexual function index, the corresponding items, and score range. *- Range for item 14 = 0–5; range for items 15 and 16 = 1–5.

Tools validity

Content validity was done to ensure that the utilized tools measured what it was supposed to measure. Tools developed by the researchers were examined by a panel of three experts in the obstetrics and gynecology nursing specialty and two experts in the psychiatric nursing specialty to ascertain the relevance and completeness of the tools. Opinions of experts on the tools' consistency, accuracy, and relevancy were obtained with no suggestive modifications.

Reliability

The internal consistency of the tools was tested by administering the same tools to the same subjects under similar conditions on two or more occasions and scores from repeated testing have been compared. The Cronbach alpha coefficient for internal consistency of FSFI was 0.82 and the DAAS Scale was 0. 80, hence the questionnaires were found to be highly reliable.

Ethical considerations:

An official approval was taken from the Scientific Research Ethical Committee of the Faculty of Nursing, Sohag University. An informed consent was obtained from the women to take part in the study after the aim of the study was clearly stated to them. During the study,

strict confidentiality was maintained. The women received guarantees that the information would only be utilized for study. All women's rights have been guaranteed; the study is free from physical, social, and psychological risks to the women. It was made clear that they could withdraw from the study at any moment. A summary of the intervention was provided to each woman before volunteered to take part in the study. At the end of the study, corporate counseling was also provided to the control group to help them deal with their sexual issues.

Administrative approval

After receiving approval from Sohag University's Faculty of Nursing Ethical Committee, this study was carried out. After outlining the goal, study sample, and duration of the investigation, the directors of the aforementioned setting at Sohag University Hospital were officially granted permission to conduct the study.

Pilot Study

Before data collection, a pilot study was carried out on 10 women, or 10% of the total sample, to evaluate the tools' feasibility, objectivity, application, and clarity. Also to project how long the data collection process will take. Since there were no changes made, the women from the pilot study were also included in the main study population.

Fieldwork

This study was carried out over twelve months, from the beginning of April 2023 to July 2023. Until the estimated sample size of women was reached, the researchers visited the previously mentioned setting three days a week from 9:00 am to 12:00 pm. In the study setting, the researchers started by introducing themselves to medical and nursing staff in the setting described above. The nature as well as the aim of the study was explained clearly. The implementation of the study passed through five phases (preparatory phase, assessment phase, planning phase, implementation phase which included the application of BETTER model-based

counselling and evaluation phase).

Preparatory Phase

Research design, as well as tools of data collection, were prepared according to reviewing past and current, local and international related literature by using magazines, books, periodicals, journals, and internet searching to develop tools of the current study. Also, the researchers prepared the counseling program based on the BETTER model for postpartum women having sexual dysfunction.

Assessment phase:

The researchers interviewed each woman separately for the study and control groups after receiving formal approvals to carry out the investigation. At the beginning of the interview, the researchers greeted each woman, introduced themselves, explained the purpose and procedures of the study, and scheduled times and frequency of counseling sessions for all selected women to ensure adherence to selected interventions.

After obtaining oral consent to participate in the study, the women were interviewed to assess their general characteristics, by using a personal data sheet. Then, the female sexual function index was completed by each woman and then calculated by the researchers to identify women whose sexual function scores ≤ 28 and involved them in the study as the maximum score for each domain is 6 and the total index is 36 and the appropriate cut- off point for the diagnosis of sexual dysfunction was identified as ≤ 28. After that, anxiety, stress, and depression were assessed using the DASS scale.

The study group was separated from the control group of eligible women. To prevent information from being contaminated between the two groups, the control group was evaluated before the study group. An average of 25 to 35 minutes was needed to finish the interview.

Planning Phase

The researchers determined teaching methods, designed sexual counselling materials based on the BETTER model, and produced

educational media (an Arabic brochure) with the following main goals in mind. These were all based on data from the pretest assessment phase and a review of relevant literature. Enhance postpartum women's emotional state following the use of counselling based on the BETTER model. At this phase the contents and framework of the counseling sessions were prepared by the researchers using the general principles of the BETTER model (Bring up, Explain, Tell, Time, Educate, and Record) Appropriate teaching strategies were determined such as discussion, demonstration, re demonstration and roleplaying with the use of Arabic language in a simple manner. In addition to the Arabic brochure, educational media such as laptops, images, and videos were also prepared to provide information and promote discussion.

The implementation phase

For the control group, women were assigned to receive regular hospital care for sexual dysfunction as well as counselling related to the dysfunction. The study's brochure was given to the women at its conclusion.

Study group: In addition to regular care, the women in this group received counselling based on the BETTER model. Counseling sessions were conducted by the researchers in a study environment. Women received individual counselling during this phase to prevent any feelings of embarrassment. The meeting environment was quiet and comfortable, thanks to the researchers' efforts. Four counselling sessions, lasting approximately 25 to 30 minutes each, were held by the stages of the BETTER model based on counselling.

In the first session, the women were given an introduction to the BETTER model, the researchers were introduced, and the goals and contents of the counselling sessions were discussed. Subsequently, the researchers spoke with women about their sexual concerns and encouraged them to openly discuss and voice their issues (Stage 1 Bring up). In addition, the researchers engaged the women in open dialogue and helped them feel less ashamed by emphasising the importance

of sexual activity in their lives. They also taught the women that having problems with their sex can negatively affect their psychological health (Stage 2 Explain).

In the second session, the women were first informed about all the resources available to them in the event that the intervention was unsuccessful in resolving their primary concern, including referrals to other professionals for further assistance. The subject was also asked to discuss her sexual issues once more and the outcome of her actions regarding the solutions offered in the previous session (Stage 3 Tell). Next, the researchers confirmed that the counselling sessions' scheduled time was appropriate for women; if not, they were rescheduled for a later time (stage 4 Time).

In the third session, the women were instructed by the researchers on the following subjects based on the needs that were determined during the assessment phase (Stage 5 Educate).

The components of the sexual response cycle and the female reproductive system.

The anatomy and physiology of the genitalia, postpartum modifications, and sexual function.

Sexual dysfunction and its associated issues

The researcher asked the women to prioritize setting the baby's sleeping hours to spend more time with the spouse, increasing the time for more vaginal lubrication, and developing sexual imagination in case of decreased libido (i.e., Specific Suggestions). therapies for sexual dysfunction and how they affect sex

The value of walking or other regular exercise

Nutrition therapy or a healthy diet

Using techniques to improve sexual activity, such as Kegel exercises, sensation focus exercises, and various technical positions during sex.

Relaxation methods, such as breathing exercises, recreation, and imagination, lessen stress and anxiety associated with sexual dysfunction or its treatment.

- **Figure (2).** Mick, J., Hughes, M. & Cohen, M. (2004). Using the BETTER model to assesssexuality. Clinical Journal of Oncology Nursing, 8(1), 84–86

The fourth session marked the end of the counselling process. Recordings of all previous sessions' notes and any interventions provided to women who participated are necessary (Stage 6: Record). It should be mentioned that the women were informed about the contents of the training sessions through an Arabic brochure.

The evaluation phase:

The women were contacted again by phone or in-person interview after one month of the BETTER model intervention, and they were assessed using the same instruments as before (the DASS scale and the female sexual function index, or FSFI) and the second and third tools.

Statistical Analysis

The Data were analyzed using the Statistical Package for Social Sciences (SPSS) version 21 and then the data were explored. To test the research hypotheses, descriptive statistics, and correlation coefficients were used. Descriptive statistics (frequency, percentage, arithmetic mean, and standard deviation) were used to describe the characteristics of the studied women. A paired (t) test was used to compare between mean differences before and after the intervention. The p-value is the degree of

significance. A statistically significant difference was considered at p-value ≤ 0.05 and a highly significant difference was considered at p-value ≤ 0.001. To compare quantitative data before and after the intervention, the Chi-square test (2) and Fisher's Exact Test were used. The significance level was set at p = 0.0.

Results:

Table (1) shows that the mean age of the studied postpartum women having sexual dysfunction in the study and control groups were 31.44 ± 2.33 and 31.65 ± 2.46 years respectively. Concerning residence, 56 % and 52% of the study and control groups respectively live in urban places. As regards level of education, 52% of the study group and 54% of the control group had secondary education. Moreover, 60% of the study group and 54% of the control group were employees. Also, there was no statistically significant difference among both groups concerning general characteristics (p > 0.05).

Table (2) shows a comparison of levels of depression, anxiety, and stress among postpartum women having sexual dysfunction in both study and control groups pre and post-application of the BETTER Model. There were statistically significant differences and improvements between pre and post - and post-application of the BETTER Model for postpartum women having sexual dysfunction in the study regarding levels of depression, anxiety, and stress (p=0.000**).

Table (3) shows mean score differences of depression, anxiety, and stress among postpartum women having sexual dysfunction in both study and control groups at pre and post-application of the BETTER Model. There were statistically significant differences and reductions in mean scores between pre and post - and post-application of the BETTER Model for postpartum women having sexual dysfunction in the study regarding levels of depression, anxiety, and stress (p=0.000**).

Table (4) reveals that no statistically significant difference was found in the mean scores of Female sexual functions among study and control groups before the application of the BETTER model (P > 0.05). However, after the

application of the BETTER model, there was a statistically significant difference in the mean scores of total arousal and total pain also, a high statistically significant difference was found in the mean scores of the total Female sexual functions among the two groups post BETTER model application (P < 0.001).

Figure (1) illustrates that 32% of the postpartum women in the study group had a good level of sexual function pre-application of the BETTER model while 70% of them had a good level of sexual function post-application of the BETTER model. In

contrast, 38% of the control group had a good level of sexual function pre-application of the BETTER model and 40% had a good level of sexual function post-application of the BETTER model (p=0.001**).

Table (5) shows that there was no statistically significant correlation between total female sexual function and total DASS Scale between study and control groups pre-intervention. Moreover, a high statistically significant positive correlation was found between total female sexual function and total DASS Scale score among the study group post-intervention (P < 0.001).

Table (1): Personal data distribution of studied postpartum women having sexual dysfunction in both study and control groups (n=100).

Personal data	Study group (n=50)		Control group (n=50)		X^2	P-value
	No	%	No	%		
Age (years)						
• less than 30	22	44.0	15	30.0		
• 30 < 35	18	36.0	24	48.0		
• 35 < 40	10	20.0	11	22.0	1.45	0.531
Mean ±SD	31.44±2.33		31.65±2.46			
Residence						
• Rural	22	44.0	24	48.0	0.414	0.526
• Urban	28	56.0	26	52.0		
level of education						
• Primary education	7	14.0	4	8.0		
• Secondary education	26	52.0	27	54.0	1.054	0.576
• University education	17	34.0	19	38.0		
Occupation						
• Housewife	20	40.0	23	46.0	1.833	0.166
• Employee	30	60.0	27	54.0		

No statistically significant difference (p > 0 .05)

Table (2): Levels of depression, anxiety, and stress among postpartum women having sexual dysfunction in both study and control groups at pre and post-BETTER model application (N=100)

Items	Groups	Depression				Anxiety				Stress			
		Pretest		Post		Pretest		post		Pretest		post	
		No	%	No	%	No	%	No	%	No	%	No	%
Normal	Control	3	6.0	5	10.0	5	10.0	6	12.0	3	6.0	4	8.0
	Study	4	8.0	30	60.0	4	8.0	39	78.0	4	8.0	45	90.0
Mild	Control	5	10.0	7	14.0	15	30.0	18	32.0	1	2.0	1	2.0
	Study	6	12.0	13	26.0	14	28.0	2	4.0	1	2.0	1	2.0
Moderate	Control	14	28.0	13	26.0	14	18.0	8	16.0	17	34.0	18	36.0
	Study	12	24.0	5	10.0	10	20.0	9	18.0	19	38.0	3	6.0
Severe	Control	18	36.0	15	30.0	5	10.0	14	28.0	18	36.0	19	38.0
	Study	17	34.0	2	4.0	4	8.0	0	0.0	17	34.0	1	2.0
Extremely severe	Control	10	20.0	10	20.0	16	32.0	6	12.0	11	22.0	8	16.0
	Study	11	22.0	0	0.0	18	36.0	0	0.0	9	18.0	0	0.0
P. value		0.000**				0.000**				0.000**			

Chi-square test   ** Highly statistically significant difference (p<0.01)

Table (3): Mean score differences in depression, anxiety, and stress among postpartum women having sexual dysfunction in both study and control groups at pre and post-BETTER model application (N=100)

Items	Groups	Depression		Anxiety		Stress	
		Pretest	Post	Pretest	post	Pretest	post
Mean±SD	Control	10.96±3.93	9.33±3.93	7.89±4.72	7.60±1.99	13.24±3.77	12.44±2.83
	Study	11.50 ±2.55	4.24±2.83	7.56 ±4.88	2.44±1.67	13.56±3.39	5.42±2.73
P. value		0.000**		0.000**		0.000**	

Table (4): Differences between the studied postpartum women having sexual dysfunction in the study and control groups regarding mean score of Female sexual functions scores pre and post-phases of BETTER model application (n=100).

Dimension	Group	Pre-intervention		Post-intervention	
		Mean	±SD	Mean	±SD
Total desire	Control	2.67	0.52	3.52	1.33
	Study	2.64	0.55	3.46	0.79
t test/p-value		0.415/0.679		0.389/0.687	
Total arousal	Control	7.68	1.22	8.31	1.42
	Study	7.62	1.23	9.65	2.65
t test/p-value		1.256/0.325		3.178/0.003*	
Total lubrication	Control	9.20	2.23	9.70	1.53
	Study	8.60	1.79	10.60	3.12
t test/p-value		1.456/0.134		1.876/0.044	
Total orgasm	Control	5.13	1.33	6.34	1.78
	Study	5.72	1.40	6.69	2.11
t test/p-value		2.245/.036		1.187/0.265	
Total satisfaction	Control	5.80	1.55	6.67	1.56

	Study	5.73	1.69	6.59	2.38
t test/p-value		0.078/0.957		0.345/0.756	
Total pain	Control	5.68	1.93	6.58	1.33
	Study	5.18	1.59	5.17	1.43
t test/p-value		1.347/0.223		5.211/0.000**	
Total female sexual functions	Control	35.82	5.37	41.56	5.64
	Study	34.89	5.82	42.77	10.13
t test/p-value		0.78/0.634		0.937/0.523	

No statistical significant difference (P > 0 .05)   *A statistical significant difference (P ≤ 0.05)
** **A high statistically significant difference (P ≤ 0.001)**
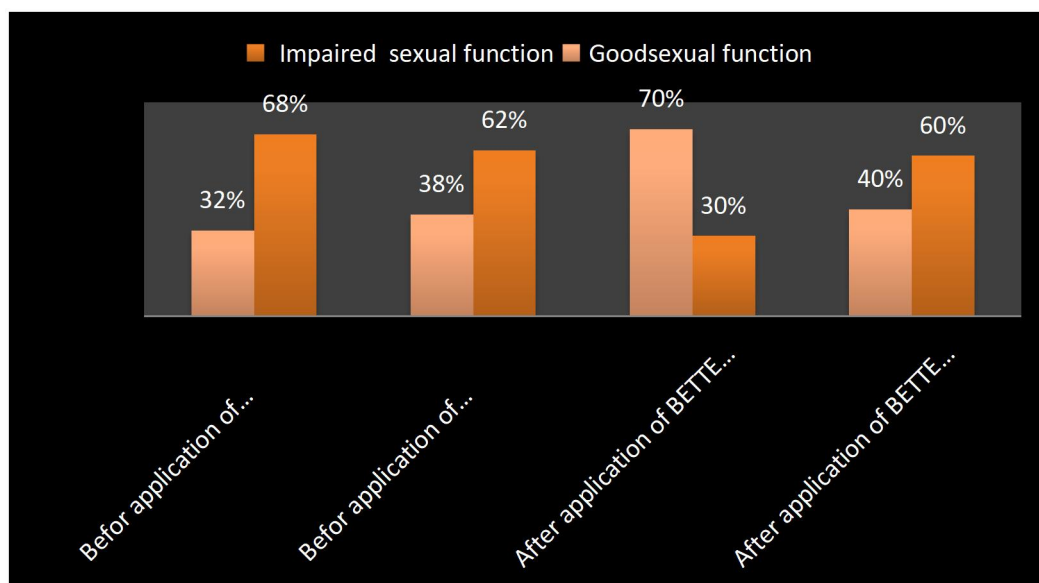

Figure (1): Studied postpartum women distribution in both study and control groups regarding their sexual function levels pre and post-phases of BETTER model application (n=100).

Table (5): Correlation between total female sexual function and total DASS Scale among studied postpartum women (study and control groups) through program phases (n=100)

Items	Groups	Total female sexual function			
		Pre-intervention		Post-intervention	
		R	p-value	R	p-value
Total DASS Scale	Control	0.238	0.872	0.205	0.186
	Study	0.256	0.097	0.763	0.000**

No statistical significant difference (P > 0 .05)   *A statistical significant difference (P ≤ 0.05)
** **A high statistically significant difference (P ≤ 0.001)**

Discussion

Healthcare professionals can use the BETTER model as a framework to help them diagnose and treat sexual health issues, thus this study aimed to determine the impact of BETTER model-based counselling on postpartum women's emotional status having sexual dysfunction.

As regards the personal data of the studied women, current research illustrated that the mean age of the studied postpartum women having sexual dysfunction in the study and control groups were 31.44±2.33 and 31.65±2.46 years respectively. Concerning residence, more than half of the women in the study and control groups respectively live in urban places. As regards level of education, more than half of the women in the study group and control group had secondary education. Moreover, three-fifths of the study group and more than half of the women in the control group were employees. Also, there was no statistically significant difference among both groups concerning general characteristics that indicate the homogeneity of both groups

The results of this current demonstrated that there were statistically significant differences, reductions, and improvements between pre and post - and post-application of the BETTER Model for postpartum women having sexual dysfunction in the study regarding levels of depression, anxiety, and stress. From the researchers' point of view, it confirmed the positive effects of the application of the BETTER Model.

The findings of a study by **Zamani et al. (2017)** titled "Effect of sexual counseling on stress, anxiety, and depression in women during postpartum period" are consistent with the outcome of this study in the anxiety domain. Based on the women's postpartum sexual health program model, Zamani concluded that women's stress scores eight weeks after counselling could improve sexual dysfunction and, as a result, lower levels of anxiety, stress, and postpartum depression.
Because the measured interval was between three months and a year after delivery and because there was a difference in the sexual consult method, the results of the current study in the domains of depression and stress differ from those of the previous study (**Latifnejad Roudsari et al., 2017**). Postpartum depression can occur up to six months after giving birth, but it usually starts in the first trimester (**Tannous et al. 2018**). In

a **Gamble et al. (2019)** study titled "A review of the literature on debriefing or nondirective counseling to prevent postpartum emotional distress," it was noted that during the three months following delivery, the intervention group's stress level was lower than the control group. This result is consistent with the current study's findings and demonstrates that the midwives' use of an intervention to provide counseling also decreased stress and depression.

A significant difference was observed in the reduction of stress, anxiety, and depression three months after delivery in the study "The effect of counseling on anxiety after a traumatic childbirth in nulliparous women: A single-blind randomized clinical trial" by **Azizi et al. (2020)**. This discovery aligns with the findings of the current investigation conducted by **Denis et al. (2014)** in the field of depression. Examining preventive interventions for postpartum depression revealed that there isn't a robust and clear approach to clinical performance. Therefore, providing a strategy for preventing depression after childbirth is crucial, as the roles of two factors—sexual dysfunction and sexual counseling in postpartum depression were overlooked. According to findings from a different study by **Hulk et al. (2016)**, cultural differences may exist in the variability of the relationship between depression, postpartum depression, and sexual function. That being said, there is a strong correlation between depression following childbirth and a bad marriage.

The results of this study showed that, following the application of the BETTER model, there was a statistically significant difference in the mean scores of overall pain and arousal. Additionally, there was a highly significant difference in the mean scores of all female sexual functions between the two groups after the application of the BETTER model. According to the researcher, the BETTER model's ability to provide women with targeted and targeted advice regarding their sexuality, problems, and concerns is what led to this outcome. Also, The results demonstrated the beneficial effects of counselling sessions based on the BETTER model in enhancing women's sexual function, which is regarded as a critical issue for the health, development, and strength of families. Women view this topic as crucial because many of them avoid discussing sexual issues for a variety of

reasons, including embarrassment, morality, shame, religious convictions, and discomfort.

All aspects of sexual functions, except orgasm and pain, significantly improved following a sexual health education program, according to the findings of a study done in **2019 by Behboodi Moghadam et al**. Additionally, **Smith et al. (2018)** showed that taking part in a group sexuality appointment raised the average scores related to sexual function. However, given the constraints of time, money, and human resources, it appears that using the BETTER model education approach could be more economical. The fact that their programs included sociocultural elements may be the reason why their findings and those of the current study are comparable.

The outcome is consistent with the findings of **Mohammadzadeh et al. (2021)**, who reported that all domains of the female sexual function index—aside from pain—had a significant increase following intervention and that women's sexuality may be enhanced by sexual counselling. Furthermore, this outcome is consistent with that of **Salim et al. (2023)**, who demonstrated a statistically significant increase in the average score for each item on the female sexual function index after program implementation as compared to before the program.

In addition, **Zamani et al. (2020)** showed that education and partner counselling using the BETTER model improved the sexual satisfaction of grade 1 diabetic women and that this effect persisted for three months following the intervention. Regarding the sexual assertiveness of women who experienced sexual problems after giving birth, **Karimi et al. (2021)** also make a distinction between the BETTER and PLISSIT counseling models. They show that the BETTER model was more effective than the PLISSIT model in boosting women's sexual assurance, and their findings were consistent with our results.

Regarding the relationship between women's levels of stress, anxiety, and depression before and after the BETTER

model was applied, there was a significant relationship found between the female sexual function score and these indicators of depression and stress. This was in line with the findings of (**Hassanin et al., 2020**), who studied sexual dysfunction in female psoriasis patients compared to a healthy group in Beni-surf, Egypt, to assess anxiety and depressive features. They discovered that anxiety and depression were associated with sexual dysfunction in psoriasis patients, but not with depression.

This was not the case for **Harding and Ueda (2022)**, who carried out a study in Japan to investigate the relationship between female sexual function and anxiety or depression. Their findings indicated that there was no significant correlation, as measured by a correlation coefficient, between female sexual function and anxiety or depression in any of the participants. This discrepancy might be related to racial and ethnic differences in the research population.

The present study's findings ultimately demonstrated that postpartum women who received counselling based on the BETTER model experienced improvements in their psychological and sexual well-being following the intervention. The information, support, and direction received through counselling based on the BETTER counselling model may be the cause of this improvement in sexual function and psychological state.

Conclusion:

Based on the results and hypotheses of thepresent study, the study findings concluded that the results support the research hypothesis that the application of the counseling-based BETTER model significantly reduces depression, anxiety, and stress among postpartum women having sexual dysfunction**.**

Recommendation:

The following recommendations were made in light of the study's findings:
- To reduce stress, anxiety, and depression in postpartum women experiencing sexual dysfunction, a BETTER model of sexual counselling should be developed.

Sexual function-focused in-service training programs ought to be developed to assist women in acquiring and embracing new concepts as well as enhancing their knowledge, behaviors, and attitudes.

Health professionals are being trained to use the BETTER model to improve couples' quality of life regarding sexual activity.

- Sexual counseling clinics with trained nurses, psychiatrists, social workers, and sex therapists on staff should be established in medical facilities to assist with sexual counseling.

*To make the study's conclusions more broadly applicable, more research with a larger sample size and in different environments is required.

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