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Effect of Psychological Counseling on Depressive Symptoms and Marital Satisfaction among Women with Hysterectomy

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Abstract: Hysterectomy has significant negative impact on women physically, psychologically, and socially. **Purpose:** Evaluate the effect of psychological counseling on depressive symptoms and marital satisfaction among women with hysterectomy. **Design:** A Quazi experimental research design (study and control group pre/ posttest) was used to achieve the purpose of the study. **Setting**: This study was carried out at the Obstetrics& Gynecology Outpatient clinic and Surgical Outpatient Clinic in Menoufia University Hospital at Shebin El-kom, Menoufia Governorate, Egypt. **Sample**: A purposive sample of 100 women who had hysterectomy were divided into two equal groups; study and control group. **Instruments:** Three instruments were used; (1): A structured interviewing questionnaire: to assess socio- demographic and clinical characteristics (2): Patient Health Questionnaire Depression Scale. (3): Marital satisfaction scale. **Results:** There was no statistical significant difference between the study group and control group regarding levels of depressive symptoms pre-intervention while there was a significant reduction of the levels of depressive symptoms in the study group than the control group Post intervention. There was no statistical significant difference between the study group and control group regarding levels of marital satisfaction pre-intervention, while there was a statistically significant improvement in the levels of marital satisfaction among the study group than control group post intervention. There was a statistically significant negative correlation between total mean score of marital satisfaction and depressive symptoms at P value <0.001 pre and post intervention. **Conclusion**: The psychological counseling has a positive effect on reducing depressive symptoms and improving marital satisfaction among women with hysterectomy. **Recommendations:** Incorporating psychological counseling into current treatment guidelines as a psychosocial option for women with hysterectomy.

Keywords: *Depressive symptoms, Hysterectomy, Marital satisfaction, Psychological counseling.*

Introduction

A hysterectomy is a surgical procedure that removes the uterus, cervix, and, in some cases, the ovaries and fallopian tubes. Nowadays hysterectomy is the common procedure performed in the gynecological area, which aids in the reduction of many gynecological problems. The common indications for hysterectomy are uterine fibroid; uterine prolapse; dysfunctional uterine bleeding; and malignancies of uterus, ovary, and cervix. Approximately 300 out of 100,000 women will undergo hysterectomy (Rehan, 2022). Hysterectomy is most commonly performed on women between 40 years and 45 years of age, and by age 65 approximately 37–39% of women have undergone this procedure (Elgi & Viswanath, 2019).

Women after hysterectomy face a slew of physical, psychological, social, and sexual problems both before and after the operation. The main factors contributing to these problems are shortage of proper information, lack of support and counseling, fears and apprehensions caused by incorrect information. So, it is critical to assign qualified psychiatric nurses to interact with the women with hysterectomy and their families. The goal of such interaction should be helping the woman copes well with the hysterectomy and post-hysterectomy scenario by reducing the problems faced by the hysterectomy women (Hassan, et al., 2022).

The huge majority of women tolerate a vast psychological burden because they are concerned about the negative effects of hysterectomy on their marital satisfaction. Because the surgical trauma affects women's female characteristics and sexual function (Erdoğan, et al., 2020). Clinicians think that great deals of women who undergo hysterectomy have poor mental health and negative emotions (such as depressive symptoms, anxiety and posttraumatic stress) which adversely hinders their psychological rehabilitation and immune functions postoperative. Negative emotions have an impact on their health condition, cure, prognosis, quality of life and psychological rehabilitation. As a result, determining how to improve the postoperative psychological status and alleviate negative emotions is critical (Zhang, et al., 2018). Therefore, the purpose of this study was to evaluate the effect of psychological counseling on depressive symptoms and marital satisfaction among women with hysterectomy.

Significance of the Study

Hysterectomy affects 1 in every 9 females worldwide and is the most commonly performed non obstetric procedure in women. Countrywide, inpatient hysterectomies for non-obstetric reasons were performed on 62,364 adult women. In Egypt, hysterectomy incidence was estimated to be 165,107 per year across all governorates, divided between the Upper and Lower Egypt, implying that a significant number of women in the Egyptian community are affected by the proposed problem (Ibrahim & Mohammed, 2020).

Depressive symptoms are common psychological problems associated with hysterectomy especially when ovaries

removed. As this brings on immediate surgical menopause, which causes physical symptoms and emotional changes. Ovaries are removed in 55 to 80 percent of women undergoing hysterectomy (Weils, 2019). The study conducted by Ghotbizadeh, et al., (2021) found that mild to moderate depression was detected 57.3 percent of whom with hysterectomy. Several studies revealed that marital satisfaction and adjustment in women with hysterectomy is lower than those without hysterectomy. Lack of marital satisfaction is associated with poorer health, depressive symptoms, personality problems, inappropriate conduct, and low social status (Zarghan & Ahmadi, 2021).

Purpose of the study:

Evaluate the effect of psychological counseling on depressive symptoms and marital satisfaction among women with hysterectomy.

Research hypothesis:

Women who receive psychological counseling (study group) will have lower mean scores of depressive symptoms and higher score of marital satisfaction than women who don't receive psychological counseling (control group).

Methods

Research design:

A Quazi - experimental research design (study and control group pre/ posttest) were used to achieve the purpose of the study.

Research setting:

This study was conducted at the Obstetrics & Gynecology outpatient clinic and surgical outpatient clinic in Menoufia University Hospital, Shebin Elkom, Menoufia Governorate, Egypt.

Sampling technique:

A purposive sample of 100 women who had hysterectomy in the Obstetrics & gynecology or Surgical Outpatient Clinic in Menoufia University Hospital and they were divided into two groups (50 for the study group and 50 for the control group). The study group received psychological counseling, whereas the control group did not receive psychological counseling. The inclusion criteria were married women of age ranged from 18- 45 who had any type of hysterectomy 3 months later and the absence of a history of psychiatric disease.

Sample Size:

Number of women with hysterectomy attending Obstetrics & gynecology outpatient clinic and surgical outpatient clinic of Menoufia University Hospital were about 240 women per year. Sample was calculated by the following equation: "$[(Z\alpha/2 + Z\beta)\ 2 \times \{(p1\ (1-p1) + (p2\ (1-p2))\}]/\ (p1 - p2)2$". "At power 80% and confidence level 95%, where n = sample size required in each group, p1 = proportion of subject in group 1, p2 = proportion of subject in control group, p1-p2 = clinically significant difference $Z\alpha/2$: This depends on level of significance, for 5% this is 1.96, $Z\beta$: This depends on power for 80% this is 0.84 (Kasiulevicius, et al., 2006)."

Instruments:

Three instruments were used in this study

Instrument one: A structured interviewing questionnaire:

This questionnaire was developed by the researchers to assess social characteristics of the subjects as age, level of education of woman, occupation, income, level of education of husband, occupation of husband, age difference between husband and wife, duration of marriage, number of children and gender of children, clinical characteristics of women such as reason for hysterectomy, type of hysterectomy and duration after hysterectomy.

Instrument two: Patient Health Questionnaire Depression Scale (PHQ-9):

It was developed by Kroenke et al., (2001) and translated into Arabic by Abd El Aleem et al., (2020). It was valid and reliable, the reliability was (0, 82). It consists of nine items. It is a likert scale consisting of four alternatives(0,1,2,3) and modified by the researcher to three alternatives .Score ranging from 0 (not at all),1 (several days), 2 (nearly every day).Total scores ranged from 0 to 18. Mild depressive symptoms (1-4), moderate depressive symptoms (5-9), severe depressive symptoms (10-18).

Instrument three: Marital satisfaction scale:

It was an Arabic scale developed by Al-Talaa & al-Sharif, (2011) self-report questionnaire. It consists of 47 items that measure marital satisfaction. It contains six domains; economic satisfaction (8 items), sexual satisfaction (8 items), family problems (7 items), time spent (8 items), affective communication (8 items), tasks and roles (8 items). Women responded to each item according to a likert scale consisting of two alternatives: (No, Yes), (0, 1) It was modified by the researcher into No, Sometimes, Yes. Scores were 0, 1, and 2 respectively. The scoring system of all items of the scale; Low marital satisfaction 1 – 23, Moderate marital satisfaction24 – 47, High marital satisfaction 48 – 94.

Reliability of the study instruments:

The internal consistency of the questionnaire was calculated using Cronbach's alpha coefficients. The reliability of the instruments was done using test - retest reliability and proved to be strongly reliable at 0, 82 for tool two, at 0.72 for tool three.

Validity of the study instruments:

The study instruments were tested for validity by a jury of five experts in the field specialty of psychiatric mental health nursing, psychiatric medicine, community nursing, and psychologist to ascertain relevance, coverage and clarity of the content. The tools were approved to be valid following the judgment of the experts.

Ethical considerations:

An approval of the ethical and research committee of the faculty of Nursing, Menoufia University was obtained. Informed consent for participation from the participants was taken after explaining the purpose of the study and assures maintaining anonymity and confidentiality of the subject's data, the

participants were informed that involvement in this study was voluntary; they have the right to participate in the study and they have the right to withdraw from the study at any time

Pilot study:

A pilot study was carried out with 10% (n=10) of the total sample to test the clarity of the instruments. They were excluded from the main study sample.

Procedure:

An official permission was obtained from the head of the outpatient clinic of Menoufia University Hospital, Shebin Elkom after explanation of the purpose of the study. Data collection for this study was carried out in the period from the beginning of April 2022 to the end of August 2022. The researcher collected the data during the morning shift two days/ week (9 AM to 12 PM). The current study was carried out in three phases; assessment phase, implementation, and evaluation phases.

- **Assessment phase:**

Assessment was done using structured interviewing questionnaire, patient health questionnaire depression scale and marital satisfaction scale on 100 women. Then they were randomly assigned to two equal groups' one control group and the other was the study group using coin tossing. The control group (50) who don't receive psychological counseling and the study group (50) who receive psychological counseling.

- **The implementation phase:**

The study group (50 women with hysterectomy) were divided into five large groups each group contain 10 women with hysterectomy. The researcher meet two groups in one day from 9 AM to 11 AM and in the second day meet 3 groups from 9 AM to 12 PM. Each woman in the study group received eight sessions. Session (1): knowledge about hysterectomy. Session (2): deep breathing exercise, meditation and progressive muscle relaxation. Session (3): rational-emotive treatment (identifying and changing negative and irrational thoughts). Session (4): the rational emotional imagination method. Session (5): self-compassion and self-awareness. Session (6): self-confidence and assertive behavior. Session (7): scientific method of problem solving and effective communication skills. Session (8): vigilance, insomnia, and religious psychological counseling. Several teaching methods were used such as lecture, discussions, brain storming, and demonstration, re-demonstration, modeling & giving examples. Data show, video, pictures and booklet were used as media to facilitate explanation and to be a reference for them. In the beginning of each session, the researcher welcomed all participants and thanked them for their attendance, discussed with them their application of the strategies and methods that were learned in the previous session and asked the participants to summarize the content of previous session. At the end of each session, summary, feedback, further clarifications were done for vague items and the researcher asked the participants to apply the learned skills, methods or strategies at home.

- **Evaluation phase:**

The post- test was given one week following the program (Patient Health Questionnaire Depression Scale and marital satisfaction scale) to them immediately after the end of the program sessions to assess the effectiveness of psychological counseling on depressive symptoms and marital satisfaction among women with hysterectomy.

Statistical methodology:

Data was entered and analyzed using Statistical Package of Social Science (SPSS) version 20. Quantitative data were presented in the form of mean ($\overline{X}$), standard deviation (SD), and qualitative data were presented in the form numbers and percentages. Chi squared test ($\chi 2$), independent t-test, Paired t test, ANOVA (F) test and Pearson's correlation (r) were used to analyze the data.

Results

Table 1:- Illustrates characteristics of the studied women (study and control groups) pre intervention. This table shows that the study and control groups are matched as regards to all items of socio-demographic characteristics.

Table 2:- Illustrates clinical characteristics of the studied women (study and control groups) pre intervention. This table shows that there is no significant difference between the study group and control group regarding clinical characteristics' data.

Fig 1: Illustrates depressive symptoms levels among the study and control groups pre and post intervention. This figure shows that there is no significant difference between the study group and control group regarding levels of depressive symptoms pre-intervention while there is a significant reduction of the levels of depressive symptoms in the study group than the control group Post intervention. There is decrease in severe level of depressive symptoms among the study group from 68% to 14% post intervention.

Fig 2:- Illustrates marital satisfaction levels among the study and control groups pre and post intervention. This figure shows that there is no significant difference between the study group and control group regarding levels of marital satisfaction pre-intervention while there is a statistically significant improvement in the levels of marital satisfaction among the study group than control group post intervention. The moderate level of marital satisfaction increases from 66% to 100% among study group post intervention.

Table3:- Illustrates correlation between total mean score of marital satisfaction and depressive symptoms among the study group pre and post Intervention. This table shows that there is a statistically significant negative correlation between total mean score of marital satisfaction and depressive symptoms at P value <0.001 pre and post intervention.

Table 1: Characteristics of the studied women (Study and Control Groups) pre Intervention.

Socio demographic characteristics		Study group (n=50)		Control group (n=50)		Test of significance	p-value
		No	%	No	%		
Income:	Sufficient Not sufficient	36 14	72.0 28.0	35 15	70.0 30.0	χ^2=0.05	0.826
Level of education:	High school graduate or diploma Bachelor's degree Master or doctorate degree	17 26 7	34.0 52.0 14.0	21 26 3	42.0 52.0 6.0	χ^2=2.02	0.364
Occupation:	Employed Unemployed	28 22	56.0 44.0	34 16	68.0 32	χ^2=1.53	0.216
The husband's occupation:	Employed Unemployed	46 4	92.0 8.0	47 3	94.0 6.0	χ^2=0.15	0.695
The husband's educational level:	Illiterate Read and write High school graduate, diploma Bachelor's degree Master or doctorate degree	1 5 17 25 2	2.0 10.0 34.0 50.0 4.0	0 4 23 20 3	8.0 46.0 40.0 6.0	χ^2=2.77	0.598
Gender of children:	No Males only Females only Males and females	7 8 9 26	14.0 16.0 18.0 52.0	7 8 11 24	14.0 16.0 22.0 48.0	χ^2=0.28	0.964
Age of wife (years)	[Mean ±SD]	38.42±5.53		38.26±6.71		U =0.13	0.897
Duration of marriage (years)	[Mean ±SD]	15.08±6.79		14.86±7.84		U=0.15	0.881
Age difference between husband and wife (years)	[Mean ±SD]	6.90±6.1		5.53±4.79		U=1.25	0.214
Number of children	[Mean ±SD]	2.52±1.60		2.46±1.74		U=0.18	0.858

χ2: Chi-squared test; U: Mann–Whitney test

Table 2: Clinical Characteristics of the Studied Women (Study and Control Groups) pre Intervention.

Clinical characteristics		Study group (n=50)		Controls group (n=50)		Test of significance	p-value
		No	%	No	%		
Duration after hysterectomy (months)	[Mean±SD]	11.98±12.50		12.74±12.40		U=0.29	0.773
Type of hysterectomy	▪ Total hysterectomy ▪ Resection of part of the uterus ▪ Hysterectomy with removal of the ovaries and fallopian tubes ▪ Hysterectomy with removal of the ovaries, fallopian tubes and lymph nodes	32 3 11 4	46.0 6.0 22.0 8.0	31 3 12 4	62.0 6.0 24.0 8.0	χ^2=0.06	0.995
Reasons for hysterectomy	▪ Fibroids ▪ Uterine prolapse ▪ Continuous bleeding ▪ Chronic endometriosis ▪ Polyps in the uterus ▪ Uterine rupture during labor ▪ Bleeding during or after labor ▪ Cancer of the uterus, cervix or ovaries ▪ Endometriosis	13 1 9 2 1 1 13 6 4	26.0 2.0 18.0 4.0 2.0 2.0 26.0 12.0 8.0.	11 0 7 1 1 1 10 8 11	22.0 0.0 14.0 2.0 2.0 2.0 20.0 16.0 22.0	χ^2=5.69	0.681

χ2: Chi-squared test; U: Mann–Whitney test

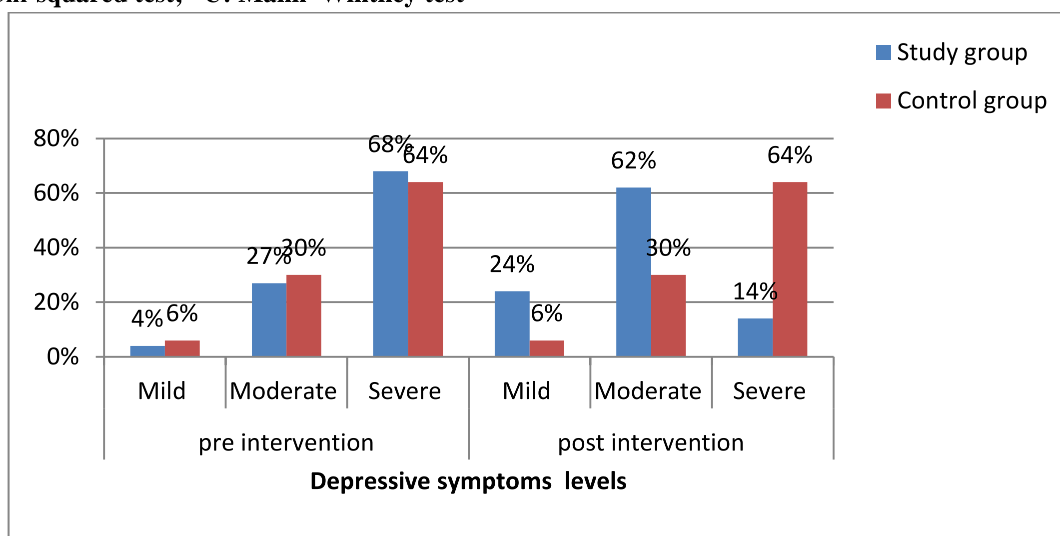

Fig 1: Depressive Symptoms Levels among the Study and Control Groups Pre and Post Intervention.

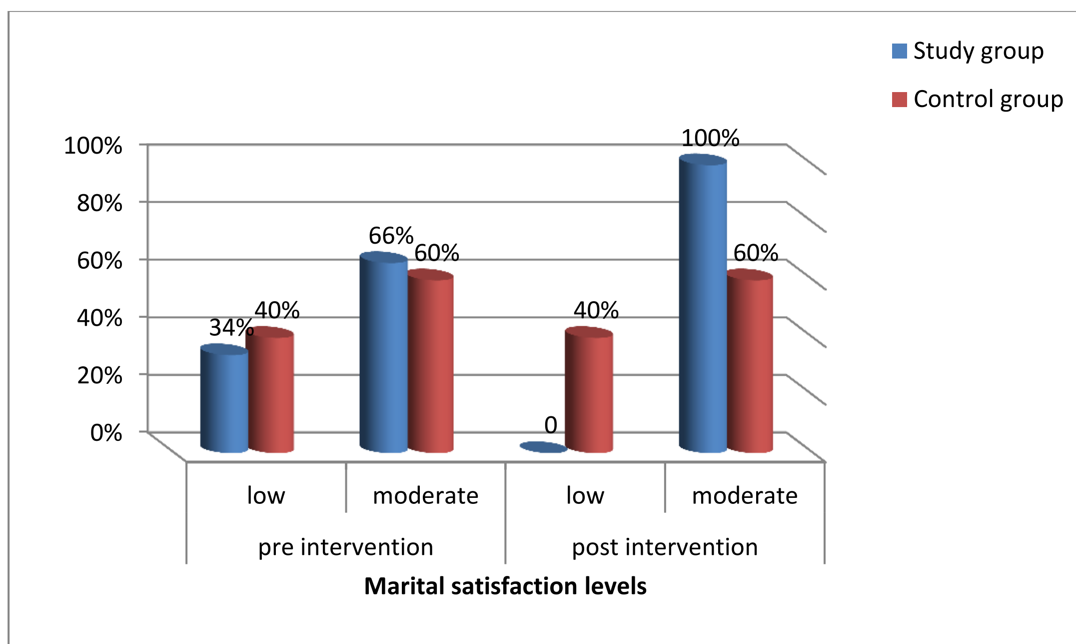

Fig 2: Marital Satisfaction Levels among the Study and Control Groups Pre and Post Intervention.

Table 3: Correlation between Total Mean score of Marital Satisfaction and Depressive Symptoms among the Study Group Pre and Post Intervention.

Studied variable	Total marital satisfaction			
	Pre intervention		Post intervention	
	R	P value	r	P value
Total depressive symptoms	-0.602	<0.001	-0.461	<0.001

rho: Spearman's correlation coefficient

Discussion

Hysterectomy ranks as the most common gynecological operation in the globe, following caesarian section. Women undergoing hysterectomy confront a multiple of psychosocial problems prior to and following the surgery. Women post hysterectomy may require counseling to successfully adjust to developmental stages of life. Therefore, the purpose of this study was to evaluate the effect of psychological counseling on depressive symptoms and marital satisfaction among women with hysterectomy.

For the effect of psychological counseling on depressive symptoms and marital satisfaction, the present study revealed that there was no significant difference between the study group and control group regarding mean score of depressive symptoms pre-intervention, but there was a significant reduction of the mean score of depressive symptoms in the study group than the control group post-intervention. This could be due to the impact of techniques and skills used in psychological counseling as the emotional rational imagery method refute irrational thoughts and replace a negative thought with a positive one and religious counseling. Self-criticism can range from attacking one's body image to instilling feelings of shame, guilt, or inferiority when compared oneself to others. Self-compassion can be an effective way to deal with this pattern of negative self-criticism directly. Self-compassion assisted participants in being kind to themselves and in balancing their emotion regulation systems. This result was congruent with Asadzadeh, et al., (2020), who showed the two groups were not differ in terms of depression, and anxiety symptoms prior to intervention, the intervention group improved significantly more than the control group post-intervention in terms of depression and anxiety symptoms. Also, it was in the same context with a study which done by Kartol, (2019). They revealed that no significant difference between the depression scores of the experimental and control groups prior to psychological counseling program but the depression and anxiety scores of the subjects in the experimental group significantly reduced after the group psychological counseling program. The study done by Kalhori, et al., (2020) was incongruent with the present study in the first part of the result as they reported that the control group had a slightly lower depressive symptom score than the intervention group prior the intervention. But it was in the same line with the present study in the second part of the result as they reported that the depressive symptom score in the intervention group decreased significantly following the intervention. In contrast, following the intervention, the depressed symptom score among control women was greater than before.

In the present study, there was statistical significant reduction in depressive symptoms mean score in the study group post-intervention than pre-intervention. This could be due to the effect of stress management techniques and skills taught to women through psychological counseling. Furthermore receiving psychological counseling in a group gave the studied women feeling that they were not alone and that others might be experiencing similar problems which help to alleviate depressive symptoms such as withdrawal from people, desire to be

alone, and unwillingness to communicate with others. Listening and paying attention to the feelings and thoughts of the depressed women who mostly feel worthless and inadequate during this time span without criticism or comparison, sharing the events that come together in the group with peers on regular basis, giving feedback and providing mental relaxation all played an important role in reducing one's sense of worthlessness. This result was congruent with Mahmoud, et al., (2022) who revealed that following program, there was a highly statistically significant decrease in the severity of overall level of depressive symptoms compared to previously. In the same line, study performed by Erdogan, et al., (2020) who published that psychological care decreased anxiety and depressive symptoms among women after hysterectomy. Also, the current study was consistent with Xie, et al., (2022), who showed that anxiety and depression scores significantly reduced in the study group and were lesser than that in the control group, indicating that psychological intervention could successfully improve the psychological status of women after hysterectomy.

The current study displayed that there was no significant difference between the study group and control group regarding marital satisfaction subscales and total mean score pre-intervention, while there was statistical significant improvement in the mean scores of affective satisfaction, sexual satisfaction, family problems subscales and total marital satisfaction score among the study group than control group post-intervention. This could be due to the techniques and abilities employed in psychological counseling that were tailored to the wants and preferences of women. As coping mechanisms, social and communication skills, methods of self-assertion, and aptitudes for overcoming problems. These skills helped women to clearly define their problems, weigh all possible solutions, and select the most effective one to handle their everyday issues. These abilities lessened interpersonal tension and improved marital satisfaction. A balanced blend of aggression and assertiveness helped women gain self-assurance, an understanding of and empathy for their spouses and other family members. By adopting coping mechanisms, women who used active listening skills were able to deal with social challenges, psychological and physical problems, and interpersonal conflicts. Also, the psychosexual therapy provided had a hugely positive effect. This was consistent with study done by Malakouti, et al., (2020) who revealed that there was no statistically significant difference between the two groups in marital satisfaction prior to the intervention, but it increased meaningfully in the intervention group in contract to control group after intervention this could be due to the effect of counseling on reduction of depressive symptoms and post-traumatic stress symptoms which had negative correlation with marital satisfaction.

The existing study showed that there was a statistically significant improvement in the total mean score of marital satisfaction among the study group post-intervention than pre-intervention. There was a statistically significant improvement in the mean score all subscales of marital satisfaction (except economic satisfaction and time spending) among the study group

post-intervention than pre-intervention. This may be due to the economic and living conditions experienced in recent years that require working longer hours to provide the needs of the family. This was consistent with Shahin, et al., (2021), who reflected that nursing counseling had substantial influence on enhancing breast cancer women's sexuality, marital satisfaction and psychological condition. Also, this finding was supported by study done by EidFarrag, et al., (2018), they reflected that martial relations (marital intimacy and adjustment), sexuality and spousal support were improved at three and six months following intervention with statistically significant differences.

For the correlation between depressive symptoms and marital satisfaction among the study group pre and post intervention, there was a significant negative correlation between total mean score of depressive symptoms and marital satisfaction. This might be due to depressive symptoms such as lack of energy, indifference in social life, and irritability weakened positive relationship processes and/or aggravated negative relationship processes between partners, including disturbed communication in the family and decreased intimacy and lowered the perception of the relationship between spouses which in turn reduced couple relationship satisfaction. This result was consistent with Alipour, et al., (2020); they revealed that there was a strong negative relationship between the marital satisfaction and anxiety and depression scores prior, second and third months following the program. Also was identical with the outcomes of a study done by Çömez İkican, et al., (2020) which revealed that the general health status of women was disrupted and their depression risk increased, their marital adjustment decreased and they tended to have problems with sexual functions.

Conclusion

Based on the results of this study, it was concluded that:

The current study findings succeeded in testing research hypothesis; the women who receive psychological counseling after hysterectomy had lower mean scores of posttraumatic stress disorder and higher score of marital satisfaction than women who didn't receive psychological counseling. There was a statistically significant negative correlation between total mean score of depressive symptoms and marital satisfaction among the study group pre and post intervention.

Recommendations

Based on the findings of the current study, it could be recommended that;

- Incorporating psychological counseling into current treatment guidelines as a psychosocial option for women with hysterectomy, establishment of an educational program for women with hysterectomy to help them cope effectively to prevent developing of psychosocial problems.

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