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Effect of Preoperative Counseling on Anxiety and Satisfaction among Women Undergoing Hysterectomy

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Abstract: This study aimed to investigate the effect of preoperative counseling on anxiety and satisfaction among women undergoing hysterectomy. Design: A quasi-experimental design was used. Sample type: Purposive sampling was applied. Setting: The study was conducted at the Gynecological department in Mansoura University Hospital, Egypt. Subjects: One hundred women undergoing laparoscopic hysterectomy and fulfilled the criteria, they randomly assigned into intervention group: Consist of 50 women who were given preoperative counseling and control group: Consist of 50 women who were given routine hospital care. Tools: An interviewing questionnaire schedule, Beck Anxiety Inventory, Satisfaction Likert scale. Results: The present study findings revealed that, mean of anxious score among studied groups before and after intervention was nearly the same before intervention, while there was highly statistically significantly different between studied groups after intervention (16.14 ± 9.75) in the intervention group compared to (30.82 ± 7.96) in the control group . Also, there was a significant decrease in average anxious score after intervention (P= 0.001), while it is not a significant decrease in the control group (P= 0.176). About 74.0% of women were satisfied by pre-operation counseling. Conclusion: It was evident from the present study findings that women undergoing laparoscopic hysterectomy who received preoperative counseling demonstrated lower anxiety levels of statistical significance and higher satisfaction postoperative when compared with women who received only the routine hospital care.Therefore, it is recommended that nurses should receive training so as to integrate preoperative counseling into the routine hospital care.

Keywords: Anxiety, Hysterectomy, Preoperative counseling, Satisfaction.

INTRODUCTION

Hysterectomy is one of the most commonly performed major gynecological procedures required for the treatment of a number of gynecological disorders (Kotb et al., 2013). Among many gynecological procedures, hysterectomy has shown a significant decrease in the previous three decades all over the world, but it still remains one of the most frequently performed operation procedures (Darwish et al., 2014). Hysterectomy involves one of two surgical approaches, traditional abdominal laparotomy and minimally invasive hysterectomy: the latter could be one of two approaches, vaginal or laparoscopic hysterectomy (Andryjowicz and Wray, 2011).

Vandy et al., (2011) stated that hysterectomy is most often performed during the premenopausal period. Approximately 10 to 30% of women in the industrialized world undergo hysterectomy by the age of 65 and around 20% of women in the unindustrialized world undergo hysterectomy by the age 55 (Domingo and Pellicer 2009).

Epidemiological studies (Andryjowicz andWray, 2011) have reported that over 90% of hysterectomies are performed for benign surgical indications. For instance, preimenopusal women undergo hysterectomy to alleviate bothersome gynecological symptoms, including dysfunctional uterine bleeding, endometriosis and uterine fibroids, whereas postmenopausal women undergo hysterectomy to repair a prolapsed uterus or any other pelvic organ (Chen et al., 2014, Hetal, 2015).

Hysterectomy causes psychological morbidity typically includes depression, anxiety and stress related symptoms (Vandyk et al., 2011). Psychological co-morbidity associated with hysterectomy could be triggered by the negative perception about body image, femininity, youth as well as loss of child bearing capacity (Gibson et al., 2012).

Anxiety is a man or woman experience and its far an idea this is hard to describe with phrases. Regardless of how principal or minor an operation is, it tends to raise a specific stage of tension in every patient (Taskin, 2008). Hospitalization for any surgery may be skilled as a risk or stressor in patients. All of those are crucial bad life occasions that cause the revel in of tremendous anxiety in patients (Nigussie, et al., 2014).

Moreover, anxiety is a standout amongst the most continuous and extensive psychosocial issues seen especially in gynecologic malignancies. Surgery is a major factor of life changes that cause anxiety. Furthermore hospitalization, despite the fact that of disorder, is thought to incite anxiety in the patient conceded for surgical operation. On the off chance that unrecognized, prolonged anxiety produces stress, which might also finally damage the affected person and defer recuperation (Yilmaz et al., 2011).

Despite the fact not all patients realize in go forward that they are going to be dealt with an operation, they cannot assist feeling involved, hectic, and anxious about the approaching surgical remedy. The patients recognized with

gynecological most cancers often reply with the resource of trying the whole lot feasible completed to get rid of the cancer. Tension is one of the maximum common and significant physical or physiological and mental stressors impose extra stress and are indicators of anxiety (Bagheri et al., 2016).

Particularly hysterectomy is a surgical operation that fundamentally influences the quality where in the operated individual perspectives herself, lowers self-esteem and brings about changes in the exceptional of existence even as a postmenopausal woman, who has finished her conceptive life, may additionally view a hysterectomy as the elimination of an organ that has & turned terrible,a young woman might also have a completely distinctive perspective (Pinar et al., 2011) they want health care provider can give practical advice on several issues as giving details about the operative process, and the strategy of self-practicesand also can take benefit of the opportunity to offer some valuable and beneficial fitness wellbeing training guidance, recommendation and advancement(Chen, 2013).

Frequently, the data supplied does not now cover the vital restorative of the patient's treatment so one can assist them once they must face the issues and explain them appropriately. Giving systematic recommendation and facts may be very unusual. Truly, the health care providers have to counsel patients with information related tothe operative procedures before they take anesthesia (Pinar et al., 2011). The patients who are given the deliberate direction will acquire proper and sufficient information, and build up an inspirational state of mind. They'll additionally be inclined to follow the therapeutic practices. At the point that anxiety lessens, the negative psychological and passionate feeling, which includes irritation, aggression, lack of awareness and despair may even lessen. It is able to assist patients to recuperate all the more quickly and reduce the duration of time of sanatorium live considering that supplied them with suitable information could make them exchange their beliefs and behaviors (Ozdemir andPasinlioglu, 2009) There is also overwhelming evidence that effective information sharing between the doctor and patient undergoing hysterectomy, results in reduction of postoperative psychiatric morbidity. According to (Lee, 2014) a powerful pre hysterectomy instructional intervention consisting of numerous modules on cause, analysis, food plan, practice /workout after hysterectomy can considerably decrease post- hysterectomy depressive signs and symptoms in women.

SIGNIFICANT OF THE STUDY

During the last year the incidence of hysterectomy increased among gynecological operation at hospitals reach to 300 case according to (annual statistical of Mansoura University Hospital), this increase put an overload on nurses, so it leads to low or absent of counseling and guidance. Numerous psychological and physical problems associating hysterectomy inclusive of depression, anxiety, hemorrhage, deep Venus thrombosis, wound infection, bowel problems, and these complications have negative impact on the women functional status and consequently quality of life. This is because of in adequate giving information. Accordingly, the minimizing of these complications represents a great challenge for the nurses (Clarke, 2012). So the researcher is interested to conduct the study.

AIM OF THE STUDY

This study aimed to investigate the effect of preoperative counseling on anxiety and satisfaction among women undergoing hysterectomy

RESEARCH HYPOTHESIS

Women who will receive counseling before hysterectomy will show reducing anxiety level and more satisfy after operation those who do not.

Operational definition:

Anxiety:Is any worry is a combined with one or more of the following symptoms: Irritability, restlessness, easily tired, difficulty concentrating and/or sleepdisturbance
Satisfactions: Is something that makes a woman happy, less anxious to operation.

Subjects and Method:

Study design: Quasi- experimental design was used.
Study setting: This study was conducted at Gynecological department in Mansoura University Hospital, Egypt.
Study Subjects: One hundred women were chosen by purposive sampling according to the following criteria

Inclusion criteria:

- Elective laparoscopic hysterectomy.
- Age above 30 years.
- With benign surgical indications as dysfunctional uterine bleeding, uterine fibroids, repair prolapsed uterus or any others pelvic organ.

Exclusion Criteria:

- Women who had a major operation within the last 3 years.
- Women with chronic health problems such as diabetes or cardiovascular disease.
- Women with a history of psychiatric disorders.
- Women having the operation for a malignant condition.

The sample was divided into two groups. Intervention group: Consisted of 50 women who were received preoperative counseling. Control group: Consisted of 50 women who received routine hospital care.

Sample Size:

Sample size was calculated using DSS research.com software program, where pre-operative average STAI score was 63.43±4.81 and its average postoperatively was 66.83±4.80 (Pinar et al., 2011) and at 99.0% significance level (∞ error 1.0%) and 90.0% power of the study (β error 10.0%); the calculated sample size was 85, we add 15.0% for drop out. So the real sample was 100 patients.

Tools of data collection:

Data were collected through
Tool I: A Structured Interviewing Questionnaire Schedule: It was designed by the researchers after reviewing related literatures; to be filled from each woman.It consisted of two parts.

Part one: This part covers the data related to general characteristics such as (age, marital condition, education, occupation residence, number of children and any medical history.

Part two: This part includes assessment of preoperative anxiety factors as fear from complications, waiting of operation, need for blood transfusion and so on.

Tool II. Beck Anxiety Inventory: It was adopted from Beck et al. (1988). It was used to assess the degree of anxiety. It consists of 21 items as numbness or tingling, feeling hot, unable to relax, nervous, fear of losing control, difficulty in breathing and so on.

Scoring system: Each item take score, Not At All = 0, mildly = 1, moderately = 2, severely = 3. The total score ranges from 0–63. Scores between 0 – 21 indicates very low anxiety; sum between 22 – 35 indicates moderate anxiety, sum that exceeds 36 is a severe anxiety.

Tool III: Satisfaction likert scale: It was used to assess satisfaction of women after given preoperative counseling .It was scored as the following: unsatisfied (0), Satisfied to some extent (1) satisfied (2).

Validity of the Tools: Tools were reviewed by three jury from experts in maternity nursing field to test the content validity. According to expert's suggestions the tools were modified.

Reliability: Reliability of tools was tested for 10 women during pilot study by using Cronbachα (alpha) are 0.90 for Beck Anxiety and 0.94 for satisfaction.

Ethical Considerations:

Written consent was obtained from the women who participated in the sample. They were reassured about the confidentiality of the information. They were informed about their rights to refuse participation or withdraw at any time. The study maneuvers couldn't entail any harm to participants.

Pilot Study:

A pilot study was conducted on 10 women in order to test the applicability and relevance of the study tools and to test clarity of the designed questionnaire as well as to estimate the time needed to answer them and then the necessary modifications were done, these women were excluded from the study sample.

METHOD

- The actual fieldwork of the research occurred for six months period beginning on September 2016 until February 2017.
- Prior to data collection, study approval was obtained from the head of obstetrics and gynecology department of Mansoura University Hospital.
- Women admitted for laparoscopic hysterectomy at gynecological department in Mansoura University Hospital and fulfilled the criteria were recruited
- First, the researchers listed the names of the women admitted at the gynecology word and the intervention and control group were assigned; as the odd numbers were recruited as intervention group and the even numbers are recruited as control group.
- Then the researcher taken general characteristics of women, assess preoperative anxiety factors and assess the degree of anxiety by Beck Anxiety Inventory, all were applied through face-to- face interview method before the procedure and after explaining the purpose of the study to women who accepted to participate in the study and obtaining their written approvals.
- On the1st day after admission the intervention group received preoperative counseling. It included bedside meeting with the women, taking history, explaining them about the surgical procedure, types, causes of hysterectomy and preparations before surgery, pre, during and after operative care, the type of anesthesia, assurance regarding the competence of doctors, health instruction about warning signs after operation. Also involved active listening to the questions of the women as the postoperative care, duration of hospital stay, complications following surgery and the expected activities after surgery.
- The entire preoperative counseling for the 50 women in the intervention group were conducted by one single person, (the researcher).The preoperative counseling took about an hour.
- Control group received routine hospital care
- On 2nd day after surgery the level of anxiety were measured again in intervention and control group by same tool
- On the day of discharge the intervention group were assess for satisfaction regard preoperative counseling.

Statistical Analysis:

Data were collected, coded, computed and statistically analyzed using SPSS software program version 20. The qualitative categorical variables were presented in tables as frequency and compared using chi square test (x^2). The qualitative variables were presented as mean± sd and comparison by one way Anova (F), t test. The significance difference is considered at $p \leq 0.05$.

RESULTS

Table (1): Frequency distribution of studied groups according to their general characteristics

Characteristics	Intervention Group (50)		Control Group (50)		Significance test
	No	%	%	%	
Age					
20-	10	20.0	9	18.0	X^2=0.167,P=0.920
40-	29	58.0	31	62.0	
60+	11	22.0	10	20.0	
Mean ±SD	49.0±10.4		48.5±10.1		T=0.283 P=0.778
Marital status					
Married	37	74.0	35	70.0	
Single	2	4.0	2	4.0	X^2=0.437 P,=0.882
Widow	10	20.0	11	22.0	
Divorced	1	2.0	2	4.0	
Education					
Illiterate	15	30.0	13	26.0	X^2=0.662, P = 0.882
Basic	13	26.0	15	30.0	
Secondary	12	24.0	14	28.0	
University	10	20.0	8	16.0	
Occupation					
Working	20	40.0	27	54.0	X^2=1.967, P = 0.161
Not working	30	60.0	33	46.0	
Residence					
Rural	21	42.0	18	36.0	X^2=0.378, P = 0.582
Urban	29	58.0	32	64.0	
Number of children					
Non	3	6.0	2	4.0	
1 – 2	15	30.0	14	28.0	X^2=0.434,P = 0.933
3 -4	23	46.0	23	46.0	
>4	9	18.0	11	22.0	
Disease history					
Yes	17	34.0	20	40.0	
No	33	66.0	30	60.0	X^2= 0.386 , P =0.534

Table (1) shows that the intervention and control groups were matched as regard age, marital status, and education level, occupation, residence and disease history. There was no statistical significant difference of these items in both groups.

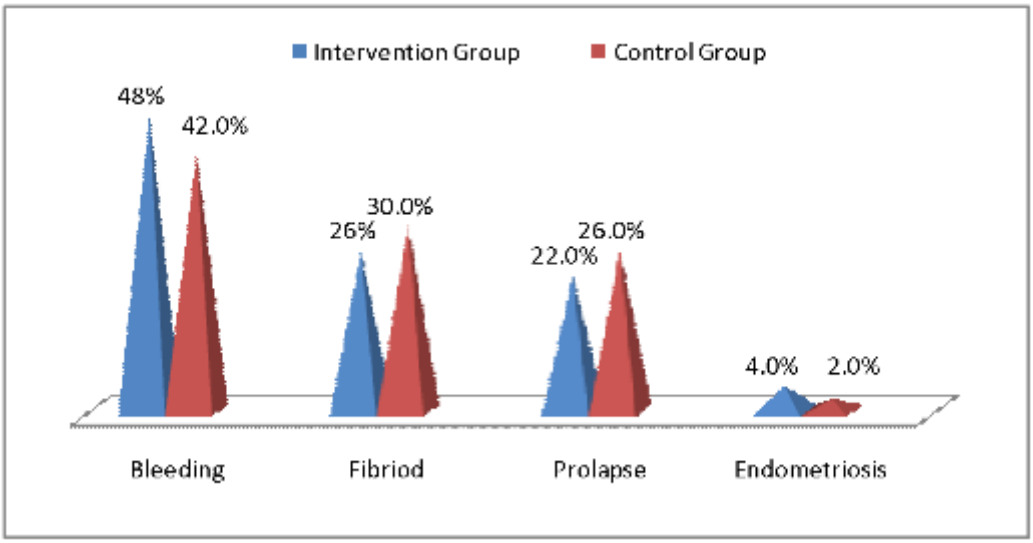

Figure (1): Frequency distribution of the studied groups according to causes of hysterectomy

Figure (1) shows that the bleeding was the most common causes of hysterectomy followed by fibroid, prolapsed then endometriosis.

Table (2): Frequency distribution of the studied groups according to factors of anxious before hysterectomy

Factors	Intervention Group (50)		Control Group (50)		Significance test
	No	%	%	%	
Concern about family	35	70.0	35	70.0	
Fear of complications	40	80.0	39	78.0	X^2=0.060, P= 0.806
Results of operation	34	68.0	35	70.0	X^2=0.047, P= 0.829
Postoperative pain	41	82.0	43	86.0	X^2=0.298, P= 0.585
Fear of physical disability	10	20.0	10	20.0	
Financial loss	16	32.0	15	30.0	X^2=0.047, P= 0.829
Waiting for operation	43	86.0	43	86.0	
Harm from doctor/ nurse mistake	18	36.0	18	36.0	
Change of environment	10	20.0	9	18.0	X^2=0.065, P= 0.799
Nil per mouth	14	28.0	16	32.0	X^2=0.196, P= 0.663
Needing blood transfusion	28	56.0	28	56.0	
Fear of unknown	24	48.0	23	46.0	X^2=0.040, P= 0.841
Fear of stuck with needle	17	34.0	18	36.0	X^2=0.044, P= 0.834

Table (2) shows the factors of anxious before hysterectomy. Both groups had no significant difference. The most common factors for anxious were waiting for an operation (86.0%), postoperative pain (82.0%- 86.0%), fear of complications (78.0%- 80.0%) in the intervention and control group respectively.

Table (3): Mean and standard deviation of anxious score among studied groups before and after intervention

Anxious score	Intervention group (50)	Control group (50)	Significance test
	Mean ± SD	Mean ± SD	
Before Intervention	31.88 ± 12.15	32.12 ± 11.53	t = 0.423, P= 0.602
After Intervention	16.14 ± 9.75	30.82 ± 7.96	t = 8.680, P= 0.001
Paired t test	t=11.732, P= 0.001	t=1.604, P= 0.176	

Table (3) shows that mean anxious score was nearly the same before intervention in both groups, while there was highly statistically significantly difference between studied groups after intervention (16.14 ± 9.75) in intervention group compare to (30.82 ± 7.96) in control group. Also there was significant decrease in average anxious score after intervention (P= 0.001), while it was not significant decrease in the control group (P= 0.176)

Table (4): Anxious degree among studied groups before and after intervention

Anxious Degree	Category	Intervention group (50)		Control group (50)		Significance test
		No	%	%	%	
Before Intervention	Mild	10	20.0	9	18.0	X^2= 1.075,
	Moderate	23	46.0	19	38.0	P= 0.584
	Severe	17	34.0	22	44.0	
After Intervention	Mild	39	78.0	9	18.0	X^2=36.722,
	Moderate	8	16.0	23	46.0	P= 0.00
	Severe	3	6.0	18	36.0	
Significance test		X^2= 34.220, P= 0.001		X^2= 0.780, p= 0.677		

Table (4) shows that the degree of anxiety was significantly changed in intervention group as the sever level significantly decrease after intervention (P 0.001). While among the control group did not significantly changed (P 0.677).

Figure (2): Evaluation of women's satisfaction as regard to counseling in intervention group

Figure(2) illustrate the woman's satisfaction regard counseling , 74.0% were satisfied, 68.0% satisfied by clear of information , 78.0% satisfied that it help to decrease anxious and 52.0% satisfied that it decrease stress.

Table (5): Relationship between total anxiety score and general characteristics of intervention group

General characteristics	Categories	No	Total anxiety score Mean ± SD	Significance Test
Age	20- 40- 60+	10 29 11	38.5 ± 12.83 31.27 ± 11.75 27.45 ± 11.08	F = 2.375 P=0.104
Education	Illiterate Basic Secondary University	15 13 12 10	30.00 ± 10.38 32.07 ± 13.03 34.50 ± 16.67 30.50 ± 7.21	F = 0.353 P=0.984
Occupation	Working Not working	20 30	29.00 ± 10.07 33.80 ± 13.17	t =1.381 P=0.174
Residence	Rural Urban	21 29	28.86 ± 12.90 34.65 ± 11.30	t = 1.516 P=0.136

Table (5) shows that there was no statistical significant difference between total anxiety score and general characteristics of intervention group

DISCUSSION

This study aimed to investigate the effect of preoperative counseling on anxiety and satisfaction among women undergoing hysterectomy. The findings of the present study achieved the research hypothesis because the present study findings revealed that there is highly statistically significantly difference between both groups after intervention, the degree of anxiety is significantly changed in the intervention group as the sever level significantly decrease after intervention, while among the control group the degrees of anxiety did not significantly changed. These results may be due to clear, simple language used during the counseling and the suitable strategy of counseling. Also, the women were having curiosity regarding information given, this consequently reflected upon their anxiety level after intervention.

Firstly, there is no significant difference between both groups regarding general characteristics, this means nearby of both group and homogenous of the study sample and have the same culture. The current study results were in agreement with Pinar et al., (2011) in their study about the efficacy of preoperative instruction on reducing anxiety following gynecological surgery in the province of Ankara and found that there was no statistical significant difference between study and control group regard age, education and marital condition. Furthermore, the study results were harmonious with Wang et al., (2014) who study integrated interventions for improving negative emotions and stress reactions of young women receiving total hysterectomy and reported that no statistically significant difference between both groups in relation to their general characteristics.

Regarding causes of hysterectomy, the current study results showed that the most common causes of hysterectomy were bleeding followed by fibroid, prolapse and endometriosis. The present study findings were in agreement with Yan et al.,(2011) who studied twelve-year experience with laparoscopic radical hysterectomy and pelvic lymphadenectomy in cervical cancer and reported that most common causes of hysterectomy is menorrhagia, uterine fibroids , genital and uterine prolapse. Likewise the current study results were in the same line with Al-Hendy and Salama (2006) who studied racial differences between African-American and Caucasian women who have a

hysterectomy for benign conditions and state that premenopausal women undergo hysterectomy were dysfunctional uterine bleeding and uterine fibroids. The agreements of the study results with other studies may be due to the necessary cause for hysterectomy are the same all over the world. As regards to the factors of anxious before hysterectomy. The current study results showed that the most common factors for anxious were waiting for an operation, postoperative pain, fear of complications, concern about family, then results of operation. This may be due to the nature of Egyptian people who fear from hospitalization and operation. The present study results were in the same line with Akinsulore et al., (2015) who assessed preoperative and postoperative anxiety among elective major surgery patients in Nigeria and reported that the most common cause of preoperative anxiety among their patient's was concern about family fear of complications, result of operation and postoperative pain. In addition, the study findings were consistent with EbirimandTobin (2010) who studied the factors responsible for pre-operative anxiety in elective surgical patients at a university teaching hospital and reported that the most come factor was fear of harmful mistakes being made during the surgical procedure.

While the present study findings were in disagreement with Jafar andKhan (2009) who study the frequency of preoperative anxiety in Pakistani surgical patients and found that most of their respondents had the fear of not waking up after surgery. Also the current study results were in contrast with Olatosi et al.(2008) who study postoperative nausea and vomiting in adult Nigerians and showed that fear of 'death on the operating table' was the most common cause of pre-operative anxiety. The difference in results may be due to differing cultures and personality.

The present study findings showed that the degree of anxiety is significantly changed in the intervention group as the sever level significantly decrease after intervention while between the control group no significant change occur. The reason why the anxiety levels have decreased points to the effectiveness of the pre-operative counseling given to the patients in a systematic manner and the explanation of the vague issues related to hysterectomy which it's not clear to all women undergoing hysterectomy. All of these can affect positively psychological state.

The current study findings were consistent with Akinsulore et al., (2015) who reported that psychological preparation and provision of correct information may help in reducing preoperative anxiety. As well, the present study results were supported by Priya et al. (2014) who assessed whether planned pre-operative counseling decreases anxiety in patients undergoing surgery and reported that planned pre-operative counseling significantly reduces anxiety.

Likewise the study findings were consistent with Wang et al., (2014) who study integrated interventions for improving negative emotions and stress reactions of young women receiving total hysterectomy and showed that preoperative included intervention based on mental wellbeing training can enhance preoperative negative feelings and psychological stress in young patients experiencing hysterectomy. Also, the current study results were in agreement with PriyaandRoach (2013) who studied the effect of pre-operative instruction on anxiety among women undergoing abdominal hysterectomy and reported that significant reduction in anxiety of women in the experimental group who received pre-operative instruction.

In addition, the study findings were consistent with OzdemirandPasinlioglu (2009) who studied the effects of training and progressive relaxation exercises on anxiety level after hysterectomy and found that the mean state anxiety score was lower in the intervention group to compare to control group.

As regards the relationship between total anxiety score and general characteristics of the intervention group. The present study findings showed that there is no statistical significant difference between total anxiety score and general characteristics of the intervention group. The present study results were in agreement with Reis et al. (2008) who studied beliefs and attitudes of women experience abdominal hysterectomy in Turkey and highlighting that there was no significant relationship between the educational status and level of anxiety, while the present study results were in disagreement with Digel et al. (2011) who studied depressive symptoms before and after elective hysterectomy, and found that young women who exhibit high levels of anxiety and pain and who require a hysterectomy are at risk of experiencing psychological distress prior to and following their surgery.

Increasing patient satisfaction and perceived quality of information provided play a role in changing and reducing levels of anxiety. The present study findings illustrate that more than three quarter of women were satisfied by information given by counseling, which helped them to decrease anxious and stress. This may be due to the effectiveness of the counseling, which has taken into account the basic principles of effective communication, and which involved bedside meeting with the patient, active listening and systematic delivery of information with an empathetic attitude.

The current study findings were in agreement with Priya et al., (2014) who reported that planned pre-operative instruction significantly improves satisfaction. Also the present study results were supported by Papanastassiou et al. (2011) who studied the effects of preoperative education on spinal surgery patients and reported that pre- education program has had a positive impact on patient satisfaction. In addition, the current study, findings were in the same line with Shehmar andGupta (2010) who studied the influence of psychological factors on recovery from hysterectomy and reported that the patients receiving information plus cognitive interventions reported a significantly higher level of post-operative satisfaction.

CONCLUSION

It was evident from the present study findings that preoperative counseling among women undergoing hysterectomy would decrease anxiety level and increase postoperative satisfaction. It pointed out, our attention that preoperative counseling was a viable, efficient, and

inexpensive intervention in women undergoing hysterectomy.

RECOMMENDATIONS

-Nurses should receive training so as to integrate preoperative counseling into the routine nursing care.
-Implementing preoperative counseling for different obstetrical and gynecological operations.
-Integrate preoperative counseling in maternity nursing curriculum.

Further study:

- Conduct a number of studies in different setting so that we can conclusively establish the fact that pre-operative counseling is beneficial to the patients.

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CONFLICTS OF INTEREST DISCLOSURE

The authors declare that there is no conflict of interest.

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