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Effectiveness of "Marital Skills training for mastectomy women" in improving marital satisfaction of husbands

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Abstract

One of the health issues related to patients suffering from cancer is paying attention to mental health of the patients and their families. This research was carried out to determine the effect of teaching marital life skills for mastectomy women in the increase of marital satisfaction of this group of patients as well as its direct effect on their spouses' satisfaction. This was a quasi-experimental research designed as pretest/posttest with random assignment and control group. 22 women suffering from breast cancer, undergoing mastectomy, treated by radiotherapy and having marital satisfaction lower than the moderate level based on the short form (40-question) of the ENRICH (evaluation and nurturing relationship issues, communication and happiness) questionnaire were selected via purposive sampling and divided into experimental and control groups using random assignment. The pretest was carried out on experimental and control groups and the husbands. The intervention was performed during 12 didactic sessions, two a week, for women of the experimental group in the absence of their husbands. Results indicated that the mean score of marital satisfaction in mastectomy women and their husbands in the experimental group was higher than that of the control group, and the difference was statistically significant. In conclusion, the combined intervention method used in this research was effective in increasing marital satisfaction of mastectomy women, and had also a positive effect on their husbands' marital satisfaction.

Keywords: Breast Cancer, Marital, Mastectomy, Satisfaction

Introduction

The diagnosis and treatment of breast cancer which can reduce the patients' quality of life by causing high levels of stress and long-term negative effects on their self-esteem, family function, and marital life is a critical issue [1]. Losing a breast following mastectomy (a treatment option for breast cancer) leads to major adverse effects [2] and disturbs women's adjustment [3]. Mastectomy can, in fact, damage patients' femininity, reduce their self-confidence, and increase the risk of emotional, economic, and family problems

[4]. Patients commonly develop distorted self- and body image due to hair loss and mastectomy and experience disturbances in their sexual, spousal, and maternal roles [5], which are all critical determinants of marital satisfaction [6]. According to Hags, cancer diagnosis and its surgical treatment can cause intimacy issues in couples [7]. Women's greatest fear after mastectomy is their thoughts of losing their husbands following the loss of their breast. Meanwhile, since mastectomy increases the risk of anxiety and grief in patients' spouses [1,8], this mutual grief hampers the situation and destroys their marital relationships [8]. Moreover, reduced frequency and pleasure of sexual activities are usually reported after cancer diagnosis and treatment [7].

Marriage is a reciprocal relation in which couples mutually attempt to gain marital satisfaction. Above all the other things, women's emotional bond with their spouses (along with its type and strength) provides them with the required energy and motivation to fight breast cancer [8]. Emotional support is generally received through relationships [9] and involves a patient's perception of her husband's expression of apprehension and affection, as well as the quality of his care [10]. Likewise, cancer patients' emotional support for their husbands can play a crucial role in their adjustment [1]. Therefore, women with breast cancer not only need to receive the effective emotional support from their spouses, but also, they must be appropriately trained to be able to provide the required emotional support for their husbands.

Previous studies have confirmed the efficacy of interventions aiming at the empowerment of spouses in improving marital satisfaction among normal, healthy couples. In a case-control study, Grifling and Apostle reported significantly higher levels of functional self-differentiation in individuals attending a relationship improvement program [11]. Russell et al. compared two programs to improve marital life and teach marital life skills. While both groups resulted in short-term improvements, the researchers highlighted the need for further studies to determine their long-term effects [12]. In a study conducted in Iran, Nazari found both solution-focused counseling and relationship improvement programs can significantly increase the marital satisfaction among dual-career couples [11]. According to Shahsiah et al., sex education, designed to prevent sexual disorders and diseases, had enhanced the couples' emotional relations and marital satisfaction [13].

Research has also evaluated the effects of intervention methods on resolving marital issues among patients with chronic diseases such as cancer. Although effective, these interventions are limited in number. Moreover, despite the proved dissatisfaction of cancer patients with their marital relations, the existing interventions have not devoted enough attention to all aspects of marital life and relations of couples. Therefore, therapists and counselors who are involved in the psychological treatment of cancer patients need to pay more attention to this critical issue [14].

Christenson showed that a four-session intervention, comprising mental training, discussions about body image and spouses' understanding of patients' body image, and behavioral practices, could efficiently reduce couples' levels of anxiety, emotional issues, and depression and increase their sexual satisfaction [15]. Scott et al. implemented three therapeutic approaches, i.e. presentation of therapeutic information, adjustment training for the patients, and adjustment training for both the patients and their spouses, in three groups of participants. They reported all interventions to cause significant improvements in couples' adjustability, sexual performance (e.g. reduced sexual problems, enhanced sexual schema, spouses' better adoption, and increased libido), and levels of psychological distress. Similar results were also seen at 6- and 12-mounth follow-up [16]. In a study on patients dealing with cancer-related issues, Kuijer et al. designed a short-term intervention to provide social support, increase spouses' adjustability

with new conditions, and ultimately promote couples' living conditions by reconstructing egalitarianism in spousal roles. Comparisons between the intervention and control groups after the training course revealed a significant improvement in the experimental's perceptions of egalitarianism in spousal roles and quality of relations [17]. Kaiser performed a couple-based interventional program on women with breast cancer and their husbands. The results suggested higher adjustability and overall recovery in patients who had attended the adjustability improvement program with their spouses compared to the other group [18].

The few interventions targeting marital issues such as quality of sexual life and sexual health have sought to determine the effects of group counseling on patients with breast cancer who had undergone mastectomy and chemotherapy [19]. The findings of such research have indicated the efficacy of group counseling in improving sexual quality of life and sexual health (body image, sexual function, and sexual pleasure) of the patients. However, these studies have not evaluated the effects of group counseling on patients' spouses or on the concept of marital satisfaction. Despite the undeniable role of the mentioned issues in marital satisfaction among women with breast cancer and their husbands, some other dimensions of marital satisfaction (spouses' attitudes and expectations and couples' mutual relationship, conversation, problem-solving, and marital conflict resolution skills), which have been considered in interventions on healthy couples, have been mainly neglected in research on cancer patients. In fact, a more efficient intervention needs to simultaneously address all the aforesaid needs. Therefore, by focusing on all aspects of a marital life and attending to the shortcomings and issues experienced by cancer patients and their spouses, we attempted to design an integrated intervention which can fulfill the main psychosocial needs of women with breast cancer after mastectomy. This integrated intervention was derived from the preparation/enrichment intervention proposed by Olson and Olson [20] on healthy couples and Kaiser and Scott's marital adjustment intervention on breast cancer patients and their husbands [8]. In other words, our integrated intervention, called "marital skills training for mastectomy patients", adopted various issues related to adjustment to cancer and loss of a breast, dealing with the stress and anxiety caused by the disease, couples' support for each other, and couples' efforts to improve the quality of their sexual relations while bearing breast loss in mind and focusing on other attractions of women in sexual relations from the intervention proposed by Kaiser and Scott [1]. It also used issues related to helping couples identify the strengths of their relationship, determine troublesome issues in their reciprocal relations, properly converse with each other, and develop problem solving and conflict resolution skills (which contribute to couples' participation in the enhancement of adjustment and marital satisfaction) as suggested by Olson and Olson [20]. Research hypotheses included:

1) The intervention, i.e. "marital skills training for mastectomy patients", can positively affect patients' marital satisfaction.

2) The intervention, i.e. "marital skills training for mastectomy patients", can positively affect marital satisfaction among the spouses of the patients.

Method

This randomized controlled quasi-experimental study adopted a pretest-posttest design and enrolled 30-60-year-old women with breast cancer who had referred to the oncology department of Imam Hussein hospital (Tehran, Iran) in 2013. Married women living with their husbands were included if they had undergone mastectomy, were receiving radiotherapy (with only 25 sessions left) at the time of sampling, and were not experiencing disease relapses or any other serious illnesses (except breast cancer) and severe psychological disorders. Other inclusion criteria were verbal communication skills, living in Tehran during the study, and willingness to participate.

Since a group size of 5 to 15 participants is

generally acceptable in quasi-experiments, 22 participants were selected through convenience sampling and randomly allocated to the intervention and control groups (n= 11 for each of the groups). Before the intervention, pretest was conducted on both groups and their husbands. The experimental then attended a 12-session intervention, named "marital skills training for mastectomy patients". The sessions were 90-120 minutes long and were held twice weekly. During the same period, the control group was put on a waiting list and did not receive any organized intervention. Four subjects from the experimental were excluded during the course of the study (two individuals returned to their towns due to changes in their radiotherapy program and not having proper accommodation in Tehran, one patient's physical conditions worsened unexpectedly, and one was not willing to participate for an unclear reason). Three controls were also excluded because of a change in their treatment plan and finishing radiotherapy sooner than the expected time (n=1) and not participating in posttest for unclear reasons. Therefore, the pretest and posttest results from eight cases and nine controls were finally analyzed. Descriptive statistics (mean and standard deviation of experimental and control groups) were used to describe the results. Inferential statistics, including analysis of covariance (ANCOVA) and analysis of variance (ANOVA), were also used to analyze the results. All analyses were performed in SPSS 18 (SPSS Inc., Chicago, IL, USA). In order to observe ethical considerations (since the intervention was found effective), the control group was invited to participate in a similar program after the posttest.

The brief 40-item ENRICH (evaluation and nurturing relationship issues, communication and happiness) marital inventory (a questionnaire of evaluation and enrichment of marital communication, interaction, and satisfaction) was administered to assess marital satisfaction. The original 115-item ENRICH inventory was first shortened to 47 items by Bahmani et al [21]. Soleimanian [22] then re-evaluated the psychometric indices of the 47-item inventory and further briefed it to 40 items. This tool assesses marital satisfaction in six subscales including overall marital satisfaction, matching in religious orientation, matching in sexual relationship, matching in parenting, implied conflicts, and conceit and poor interpersonal relations. The results of confirmatory factor analysis proved the goodness of fit of the six-factor model, i.e. the six factors could well evaluate the target latent trait (marital satisfaction). Reliability coefficients were 0.91 for the whole scale and 0.83, 0.70, 0.72, 0.70, 0.76, and 0.66 for its subscales. Spearman-Brown and Guttman split-half correlations were also 0.89 and 0.88, respectively. Since Olson and Olson used ENRICH inventory in the design of their intervention [20], we also used the same tool. Table 1 summarizes the intervention procedure.

Table 1 *Aims and phases of an integrated intervention called "marital skills training for mastectomy patients"*

Session's Title
Introduction of the members and explanation of the logic and aims of educational sessions (one session)
Introduction to breast cancer (one session)
Cognitive responses to breast cancer and appropriate strategies to cope with the stress caused by Cancer (one session)
Fear of breast cancer relapses and correct coping strategies (one session)
Training on intimacy and establishing an emotional bond (one session)
Proper conversation skills (one session)
Training on conflict resolution skills (one session)
Training on sexual relation skills (four sessions)
Providing a summary of all presented materials, asking the participants to complete the questionnaire, and ceasing the session (one session)

Results

Tables 2 and 3 present the descriptive characteristics of all groups based on the ENRICH marital inventory and its subscales in pretest and posttest phases, respectively. The mean scores of the groups in pretest were compared using one-way ANOVA.

Table 2 *Mean scores (± standard deviation) of marital satisfaction and its subscales in pretest*

Variables	Case group		Control group		Case group's spouses		Control group's spouses	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Marital satisfaction	107.12	3.09	106.33	5.14	103.25	5.39	106.55	3.57
Overall satisfaction	35.12	3.22	33.55	3.67	33.62	5.23	33.77	3.15
Implied conflicts	21.50	1.77	22.33	1.93	18.37	5.04	21.77	2.63
Sexual adjustment	10.75	2.31	10.22	1.78	11.87	2.79	10.33	1.32
Matching in parenting	14.25	1.66	13.44	2	12.62	2.32	14.33	1.80
Conceit and poor interpersonal relations	14	2.97	15	1.58	14.50	3.54	14.33	2.33
Matching in religious orientation	11.50	1.60	11.77	1.71	12.25	1.83	12	1

*<0.05 , **<0.01

According to one-way ANOVA, the two groups were matched in terms of pretest scores. Since ANCOVA can eliminate the effects of pretest on posttest results, this analytical method was used to examine the research hypotheses.

The mean scores of marital satisfaction were higher in patients and their spouses in the experimental than in the control group (125.50 vs. 104.77 and 118.87 vs. 102.11, respectively). Such a difference is also evident in some subscales of marital satisfaction, e.g. overall satisfaction and sexual adjustment.

Table 3 *Analysis of covariance of posttest scores of the case and control groups with their pretest covariate scores in patients and their spouses*

Variables		Patients				Spouses		
		df	SS+	MS++	F	SS	MS	F
Marital Satisfaction	Pretest	1	1752.91	1752.91	58.39**	998.97	998.97	30.97**
	Group	1	1853.94	926.97	38.87**	1192.5	596.25	18.48**
Subscales: Overall satisfaction	Pretest	1	508.418	508.418	84.17**	211.54	211.54	22.97**
	Group	1	590.38	295.19	48.87**	383.55	191.77	20.82**
Implied disputes and conflicts	Pretest	1	35.66	35.66	8.24*	3.16	3.16	0.71
	Group	1	41.33	20.66	4.77*	8.14	4.07	0.91
Sexual adjustment	Pretest	1	92.78	92.78	28.23**	105.41	105.41	39.89**
	Group	1	102.93	51.46	15.66**	147.94	73.97	27.99**
Matching in parenting	Pretest	1	1.31	1.31	0.42	4.17	4.17	5.58*
	Group	1	2.14	1.07	0.35	15.97	7.98	2.91
Conceit and poor interpersonal relations	Pretest	1	4.08	4.08	3.07	11.20	11.20	3.63
	Group	1	4.89	2.44	1.84	32.74	16.37	5.31**
Matching in religious orientation	Pretest	1	8.79	8.79	4.32*	13.27	13.27	3.59
	Group	1	33.42	16.71	8.22**	13.27	6.63	1.79

*p<0.05; **p<0.01

+Total intragroup squares; ++Total intergroup squares

As can be seen in Table 4, the results of ANCOVA (to determine the effects of the intervention) suggested significant differences in the mean scores of marital satisfaction for mastectomy patients and their spouses between the case and control groups. The variable's pre-test effect based on the pretest score was also statistically significant. In the posttest, improvements in patients' scores related to the overall satisfaction, implied disputes and conflicts, and sexual adjustment were significantly higher in the experimental than in the control group. Moreover, significantly higher increases in the scores of overall satisfaction, sexual adjustment, and conceit and poor interpersonal relations were detected among the experimental's husbands compared to the spouses of the control group.

Discussion

Findings generally confirmed both hypotheses of this research; therefore, the proposed intervention called "marital skills training for mastectomy patients" could have

increased women's and their husbands overall marital satisfaction even if their spouses did not have participated in the program. This confirmation means the content of intervention program fits the social and mental needs of mastectomy patients. Furthermore, it confirms that researchers' expectations based on the interactive and systematic nature of family relations especially between spouses can be met as behavioral changes occurred in women who participated in the training program.

These findings are in line with the findings of the following studies: Kaiser and Scott's program [1] for increasing women's and their spouses' sexual adjustments following women's suffering from breast cancer consequences, couple-based study by Christenson [15], couple-based study by Scott, Halford and Ward [16], Kiser's couple intervention program [18], a research performed by Kuijer et al. [17], and finally two different works conducted in Iran by Heravi et al [14,19]. Meanwhile, the part of the current study pertaining to intervention program's content which emphasizes on enriching skills of relations, solving conflicts as well as sexual intercourse's quality inspired by Elson and Elson's proposed method [20] is also compatible with studies by Grifling and Apostal [11], Nazari [11], Russell et al. [12] and Shahsiah et al. [13].

Regarding the review of literature on boosting adjustment in spouses of women suffering from breast cancer, as mentioned before, available studies were conducted using intervention program that patients and their spouses were present in sessions at the same time (in contrast, men did not attend training sessions in our study) just for adjustment to cancer not for increasing the marital satisfaction [15-18], or even if the intervention was performed on patients in the absence of their husbands, results were not studied on their husbands [14,19]; and in all of these interventions, not all dimensions needed for marital satisfaction focused by the present research were studied. Some studies which tried to improve marital satisfaction were conducted on healthy couples or healthy women [11-13,23,24]. However, the findings about effectiveness of training inspired by Elson and Elson's method [20] on marital satisfaction can be a support for the effectiveness of that part of the intervention's content used in the present research to increase marital satisfaction in some aspects such as communication skills, solving problems, and sexual intercourse.

Although findings prove the effectiveness of the intervention on increasing marital satisfaction of mastectomy women, this overall confirmation cannot provide enough information for answering this question: Does intervention of "marital skills training for mastectomy patients" have similar effects on all aspects of marital satisfaction? To find the answer, comparing marital subscales presents good information.

In the subscales of "overall satisfaction", "implied disputes and conflicts", "matching in sexual intercourse" and "matching in religious orientation", a significant increase occurred in mean data; but in subscales of "matching in parenting" and "conceit and poor interpersonal relations", differences were not significant.

In explaining findings pertaining to sexual adjustment and implied disputes and conflicts subscales, since the intervention in this research focused on improving sexual intercourse during illness in which considering lack of a breast, subjects were directly taught a skill to solve the conflict properly via different solutions, it can be considered as a proof for suitability of the program's contents for patients' sexual demands and a manner to cope with occasional disagreements and conflicts.

To explain insignificance of "matching in parenting", it is necessary to consider that according to patients' and their husbands' mean age that was higher than 35 and considering that the obtained scores in this subscale were relatively high in pretest (Table 2), it seems that the study couples had more stable mutual agreement about issues related to training children even before entering the intervention program. About "conceit and

poor interpersonal relations", it seems that in critical family situations such as wife's or husband's suffering a terminal disease, another partner breaks one of the habits such as conceit in making decisions, for the sake of empathy with patient. In such conditions, an optimal and minimum level of 'not self-centered' interaction is formed in relations between spouses.

Finally, since this subscale tries to evaluate the focused field via scrutinizing each individual's point of view about the way of his/her spouse in financial fields and co-decisions, it seems that a change in its results is subject to change in spouse's behavior in the mentioned fields.

As observed, the second assumption of this research was also confirmed. This finding means indirect effect of women's presence in intervention's program on increase of satisfaction in husbands who have not been present in training program directly. This finding can also confirm total matching of intervention program's content with main fields of sample group's needs. At the same time, it also confirms the basic assumption of this research in seeing the family as a dynamic system.

The systematic nature of family and marital intercourses requires seeing family as a human system, the behavioral phenomena of which is so difficult and sometimes impossible without using rules dominant on systems. One of the most important rules is mutual feedback's origin of members present in human systems. Based on this origin, individuals' behaviors have been influenced and oriented by effects that they had on others [25]. In other words, changes in behavior of one of the interaction's sides can lead to indication of a new behavior in another person; and this behavior may cause a special type of reaction for the starter of interaction. Therefore, in systematic look frame for family, changes due to women's presence in intervention program were expected to encourage the spouses to use suitable feedbacks, and in all, via improving their mutual interaction's system cause increase of marital satisfaction in both. As Kaiser and Scott [1] believe that husbands who are emotionally supported by their patient spouses experience less negative excitements and more psychological health (such as enjoying conversations with others, finding a job, and other motivating issues with feelings of being needed and helpful), therefore during intervention sessions, the therapist tried to present domestic tasks to ease positive relations of women with husbands. It can briefly be said that women's positive changes in daily interactions had caused decrease of relation conflicts followed by solving problems related to marital issues and increase of husbands' positive attentions to spousal feelings. After presence in training sessions, women had found both motivation and more efficient capability to answer these feedbacks of husbands. This process tends to continue via operating a feedback cycle of self- rewarding; and obviously, entering such a mutual feedback system, will be a factor of increasing marital satisfaction in husbands who have not directly participated in training sessions.

About sub-scales of marital satisfaction in husbands of women suffering from breast cancer, results of analyzing data (Table 3) showed that subscales of "total satisfaction", "conceit and poor interpersonal relations" and "matching in sexual intercourses' after teaching marital life's skills had significantly increased; but increase of subscales: "parenting", "religious orientation" and "occasional differences and conflicts" was not statistically significant. In the case of "matching in parenting" and "matching in religious orientation" subscales the confirmation that was explained about confirming findings related to subscales similar to women's marital satisfaction is also right.

About "occasional differences and conflicts" subscale, it must be considered that this sub scale was increased in patients after presenting intervention; but this was not happened for their spouses. To confirm this finding, we must pay a more accurate theoretical attention to the scale's questions. Studying questions related to this sub scale (Sometimes my spouse is so stubborn and

we have strict disputes about slight matters, Sometimes my spouse is so opinionated, Sometimes it is difficult for me to believe my spouse's words, Sometimes I think that conflicts continue between me and my spouse and never end, Sometimes I am afraid of asking my spouse for my needs, and I wish my spouse was more eager to share her feelings with me) shows that studied fields pay more attention to that part of marital satisfaction's conflicts which reflects toleration capacity, getting along and taking easy in mutual relations of spouses. It seems that in difficult situations, looking after patients who are resisting against a terminal disease, individuals generally tend to prevent letting patients down and to tranquilize surroundings. At the same time, patients also probably decide to ignore pursuing their own needs, proceeding disagreements. Interactional phenomena considered in answering questions that are considered for occasional conflicts' subscale, show themselves quickly.

In determining significance of subscale differences of "matching in sexual intercourse" in post-test and pre-test, it can be said that this relation is considered as a norm; since it is generally disturbed for problems formed in mastectomy patients because of treatments' side-effects as well as couples' wrong and nonsense thoughts, and because these patients' husbands also tend to consider their wives' situation, avoid asking or starting this relation [1] and in most cases, this lack of intention to have sexual intercourse in most couples having a patient suffering from breast cancer [1] spontaneously leads to a reduction of sexual behavior especially in the first phases of diagnosing and treating breast cancer. It seems that by correcting wrong points of view, planning and reducing nonsense fears and learning new skills, women could have created new opportunities for having emotional interactions with their husbands, and via this, correct sexual interactions between themselves and their spouses; a change which has shown itself quickly in increasing spouses' satisfaction.

To confirm significance of sub-scale difference "conceit and poor interpersonal relations" it also seems that one can point to each partner's obligation to observe another one's rules and then each one's expectations getting lower. In this sub scale, men explain their own sub scales about observing and avoiding humiliation or forcing spouse. Clearly in conditions of strict diseases, the patient tries to ignore some of her demands or expectations for the sake of providing more satisfaction of the caregiver to keep them. If so, the first effect of it reveals as increase of caregiver's satisfaction; and at the same time, care givers try to change their points of view for a more observation of the patient's benefits. This also causes a reduction of expectations and increase of satisfaction with spouse.

About the present research's limitations, it must be pointed that because of lacking comparative groups to be individually exposed to one of the mentioned methods, this research could not answer this question: Has the used combined method in this research been able to create more relative effectiveness compared to Kaiser and Scott's method or that of Elson? Also, generalizing the results of this research is affected by relatively less sample size, limitation of intervention's operation to a state hospital that most of its clients have been from lower economic and social classes of society and also lack of data resulted from evaluating study's plan's pursuing.

Conclusion

As findings show, intervention method of "marital skills training for mastectomy patients" increases marital satisfaction in women suffering from breast cancer and in their husbands after mastectomy surgery. According to the research's findings, one can maintain that necessary education for mastectomy women improves turmoil conditions in marital field; therefore, hospitals are suggested to provide necessary facilities for continuous formation of these courses that in addition to body improvement, patients can receive necessary

attention in the case of psychological supports (in critical conditions). Besides, according to the mentioned limitation, it is suggested that future researches pay attention to comparing other marital treatments to determine the specific advantages of intervention for patients suffering from breast cancer in the increase of marital satisfaction.

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Contribution

Study design: BB, MB, AGh
Data collection and analysis: MB, AI
Manuscript preparation: AI, NGh

Conflict of Interest

The authors declare that they have no competing interests.

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