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Comparing intimacy, quality, and adjustment of married women with cancer undergoing mastectomy/lumpectomy versus normal women

Abstract

The present study aimed to compare the marital intimacy, quality, and adjustment of married patients undergoing mastectomy, lumpectomy, and normal women in Kermanshah City. The study population included all married women living in Kermanshah City in 2017. The sample size was 225 people (three groups of 75 people). They were selected using convenience sampling. Three questionnaires were used to collect data: (1) the marital intimacy scale, (2) the revised marital quality scale, and (3) the marital adjustment scale. An inferential statistical index of one-factor variance analysis was used to analyze the data. The results revealed a significant difference in marital intimacy, adjustment, and quality between married women with breast cancer who underwent mastectomy or lumpectomy. Accordingly, women with breast cancer who underwent mastectomy had the lowest levels of marital intimacy, marital adjustment, and marital quality. Women with breast cancer who underwent lumpectomy and normal women obtained the highest scores for marital intimacy, adjustment, and quality. According to these results, more psychological interventions and couple therapy should be used to cope with the effects of breast cancer on married life.

Keywords: *Marital intimacy, Marital adjustment, Marital quality, Breast cancer, Lumpectomy, and Mastectomy.*

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Introduction

Cancer is considered a disease common in today's world. The number of these patients is increasing every day (Boyle & Levin, 2008). Despite significant advances in medical science, cancer is still considered one of the most important diseases of the current century and the second cause of death after cardiovascular diseases (Khasi, Khasi, Fakhri Moradi Azam and Khademi, 2016). Due to its increasing growth in the last few decades and its harmful effects on all physical, emotional, spiritual, social, and economic dimensions of people, specialists have paid more attention to this disease and introduced cancer as a major health problem (Shamsi Khani, 2011). Breast cancer endangers the physical, mental, and social health of women. Physical changes may occur during breast cancer disease, especially during the treatment period. These changes may affect the marital intimacy, marital quality, and marital adjustment of the patient. Several physical effects of breast cancer can affect the psychological and social aspects of patient's lives, especially their marital lives (Yarbro, Frogge, & Goodman, 2005).

Women with breast cancer experience a wide range of physical symptoms, such as cancerous masses, changes in breast size and shape, nipple bleeding, skin involvement, enlarged lymph nodes, and pain during diagnosis and treatment of the disease. In addition to the observed physical symptoms, breast cancer can cause great fear, hopelessness, and psychological trauma, and challenge all aspects of the patient's life from the beginning of diagnosis (Weaver & Flannelly, 2004). In addition, based on the study conducted by Andersen, Carpenter, Yang, and Shapiro (2007), breast cancer has a destructive effect on sexual desire, body image, intimate relationships, and the quality of life of patients.

The present study aimed to investigate and compare the effects of breast cancer on marital relationships in the form of three variables: marital intimacy, marital quality, and marital adjustment in three groups of married women with cancer undergoing mastectomy, lumpectomy, and normal women. Intimacy is a feeling of closeness, belonging, and contact. It creates a kind of closeness, similarity, and romantic or emotional personal relationship between the parties, which requires deep knowledge and understanding of the other person. In his three-dimensional model of love, Sternberg (1986) considers intimacy a feeling of closeness to another person and argues that participation and empathy with the needs of the other party in family life cause intimacy (Patrick, Sells, Giordano, & Tollerud, 2007).

According to Hatfield (1988; quoted by Etemadi et al., 2014), intimacy is a process in which people try to get close to each other and discover their similarities and differences in feelings, thoughts, and behavior. Schnarch (1991; quoted by Etemadi et al., 2014) considers intimacy as the process of being in contact, self-understanding, and self-disclosure in the presence of the spouse (Patrick, Wood, Betrick, and Heller, 1992; cited by Etemadi et al., 2014). Family theorists emphasize the importance of intimate bonds between spouses. They consider it necessary to create a secure family identity and a key to having a successful marriage, and an important source of happiness, a sense of meaning, and marital satisfaction (Pielage, Luteijn, & Arrindell, 2005). Intimacy creates a special and positive dimension in married life, and ensures the mental health of family members. Therefore, it is a protective

and powerful factor against personal and social problems. Emphasizing intimate relationships between couples in the family helps to better understand problematic behaviors and change them (Larson, Hammond, & Harper, 1998).

The current century has been associated with significant changes in people's views on life. In this century, having a normal life is not merely desirable, but improving the quality of life is the basic effort of societies. Having a good quality of life, and thus a good marital quality, as one of the components of quality of life, has always been a human desire. Frisch (2005) argued that quality of life is the opposite of quantity. It refers to years of life that have been satisfied and enjoyable. One of the areas of quality of life is the quality of married life. Many terms, such as adjustment, satisfaction, happiness, integrity, and commitment, have been used to describe it.

Marital quality is a couple's subjective evaluation of the different aspects of their marital relationships (Gong, 2007). The present study aimed to examine this variable in three groups. Marital relationship quality is a multidimensional concept that includes various aspects of couples' relationships, including adjustment, satisfaction, happiness, cohesion, and commitment (Loy & Ketz, 2002; quoted by Azarnik & Aghaei, 2015). Many family researchers equate the quality of marital relationships with satisfaction. They use the terms marital satisfaction and quality of marital relationships synonymously, but there is a difference between these two terms (Nelson, 2006).

Researchers argue that the quality of a marital relationship is determined by the degree of marital conflict, satisfaction, closeness, and agreement in decision-making (Kurdek, 1994; quoted by Shah Siah et al., 2011). The quality of marital relationships and level of happiness depend on the couple's interaction and coping with stressful life situations (Bradbury et al., 2000; quoted by Yousefi, 2011). In addition, marital adjustment may change because of problems in marital relationships due to breast cancer. Given the importance of family institutions in today's society, marital adjustment and its relationship with quality of life and its impact on various aspects, such as physical and mental health, has been examined since the 1990s.

Marital adjustment is a status in which couples feel happiness and satisfaction most of the time. It occurs during the couple's life and requires the adaptation of tastes, recognition of personality traits, creation of behavioral rules, and the formation of communication patterns (Shakerian, Ebrahimi, Nazari, Fatemi, and Danaei, 2011). Reviewing marital adjustment studies from the 1920s to the 1970s, Spinner and Colie (1976; quoted by Afshari, 2014) found that it is a dynamic process that can be evaluated at any time on a continuum from fully complete adjustment to maladjustment. Accordingly, marital adjustment is a multidimensional concept with more objective characteristics than marital satisfaction. According to these studies, marital adjustment has four main components: dyadic satisfaction, agreement, cohesion, and expression of affection.

Couple agreement is the couples' level of agreement on important issues, such as managing family financial affairs and making important decisions. Couple cohesion refers to a couple's engagement in joint activities. The expression of affection indicates how often couples express love for each other. Couple satisfaction is the level of happiness in relationships and covers the frequency of conflicts experienced in the relationship (Houston & Males, 2004; quoted by Fetut, 2012). Breasts evoke the gender role of women as wives or mothers and are considered a sexual sign, and the loss or change in appearance or feelings about breasts has a significant impact on women's mental health and their role in marital life (Krychman, Kellogg Spadt & Finestone, 2010).

Investigations on breast cancer survivors after completing the treatment period suggest that incorrect coping methods in marital relationships, such as avoidance and self-blame, are the most important factors affecting body image and unfavorable sexual relationships in women with breast cancer (Fang, Lin, Chen, & Lin). Hence, the present study aimed to compare the intimacy, quality, and marital adjustment of married women with cancer undergoing mastectomy or lumpectomy, and normal women.

Methods

The present study is an applied analysis in terms of aim, and a causal-comparative and post hoc type in terms of implementation method. The study population included all married women living in Kermanshah City in 2017. According to Klein's (2011) recommendation, the sample size was estimated to be 182 people by applying a coefficient of 2.5 to the total number of items used in the tool. According to the specific criteria of the sample, and considering the possible illness and distorted questionnaire, 30 additional questionnaires (10 people in each group) were used. Thus, the sample size in this study was 225. The group of married women with cancer undergoing mastectomy included 75, the group of married women with cancer undergoing lumpectomy included 75, and the group of normal women comprised 75. Convenience sampling was used to select married women with cancer and normal women.

Research tools

Marital Intimacy Scale (MIS-17)

Thompson and Walker (1983) developed this scale. It included 17 questions used to measure couples' marital intimacy. The range of scores was between zero (Never) and 7 (always). A higher score indicates greater intimacy. The alpha coefficient of this scale has been reported at 0.91 to 0.97. Its internal consistency has also been reported to be good (Walker and

Thompson, 1983; Sanaei, 2000). The subject's score was obtained by summing the scores of the questions and dividing it by the number 17. This scale has been translated into Persian by Sanaei (2000). To determine the content and face validities of the questionnaire, 15 advisors and 15 couples, selected randomly in Isfahan City, examined its content and face validities and confirmed them. It was then implemented on 100 randomly selected couples in Isfahan. The reliability coefficient of the entire scale was 0.96, as determined by Cronbach's alpha, indicating the acceptable reliability of the questionnaire. Calculating the reliability coefficient by removing individual questions also revealed that removing none of the questions had a significant effect on the reliability coefficient (Esfahani, 2009).

Revised Dyadic Adjustment Scale (RDAS)

This scale was developed by Busby, Crane, Larson & Christensen (1995; quoted by Hollist and Miller (2005). It includes 14 questions. The original form of this scale, developed by Spinner and based on Levi and Spinner's theory of marital quality, has 32 questions. Bradbury, Fincham, and Beach (2000) also introduce a 14-question questionnaire as a suitable tool for evaluating marital quality after presenting their theory about marital quality. Confirmatory factor analysis confirmed the three-factor structure of the scale in the United States and its validity. The questionnaire validity in Holist and Miller's study ranged from 0.80 to 0.90 using Cronbach's alpha (Wieman, 1973; quoted by Isanjad, Ahmadi, and Etemadi, 2010).

The validity and reliability of this questionnaire were examined by Isanejad. The construct validity of the questionnaire was first examined and confirmed using confirmatory factor analysis. The reliability levels for the satisfaction, agreement, and cohesion factors were reported as 0.91, 0.89, and 0.86, respectively, according to Cronbach's alpha method. It was also reported at 0.92 for the whole questionnaire (Isanjad, Ahmadi, and Etamadi, 2010). This 14-question scale is scored on a 6-point scale from (1=always disagree) to 6 (always agree). Three subscales–agreement and agreement (1, 2, 3, 4, 5, and 6), satisfaction (7, 8, 9, and 10), and cohesion (11, 12, 13, and 14)–were developed to measure the quality of marital relationships. This scale is directly scored on a 6-point Likert scale from completely agree (6) to completely disagree (1). Higher scores indicate higher marital quality.

Dyadic Adjustment Scale

This scale consists of 32 questions that assess the quality of marital relationships. Adjusted and maladjusted couples, including those more likely to divorce, can be distinguished using this scale. Spinner (1976; quoted by Hasanabadi, Mojarad, and Soltanifar, 2013) observed differences between the scores of adjusted and maladjusted couples and used them to determine the original structure of the scale. The total score of this scale ranges from zero to 151, obtained by summing the scores of the questions. The questions were scored on a Likert scale. Some questions were designed positively and negatively to increase their reliability. According to Spinner, couples with a score of 101 or less are considered maladjusted.

The mean total score on this scale in his study was 114.8 for married people and 70.7 for divorced people. This tool can be used for interviews with changes (Sanaei, 2019). Although the desired construct has been used with different terms such as satisfaction, quality, adjustment, and marital satisfaction, researchers have generally used the overall assessment and satisfaction, believing that adjustment and satisfaction are synonymous (Gottman, 1991; Spinner, 1976; Sanaei, 2000). The reliability of the entire scale has been reported to be 96% using Cronbach's alpha, indicating good internal consistency. In a study conducted in Iran, the researchers obtained a high internal consistency (95%) for the questionnaire (Mollazadeh, Mansour, Ajeei, Kiamanesh, 2002). In addition, content validity was obtained at a good level using experts' judgments about the content of the scale. Given the 86% correlation between its results and the Locke and Wallace Marital Adjustment Scale, its concurrent validity was confirmed (Spinner, 1976; quoted by Sanaei, 2010).

Results

The results revealed that the highest frequency of age was 41–50 years (normal women:62.7%, women with cancer undergoing lumpectomy:57.3%, and women with cancer undergoing mastectomy: 58.7%) and the lowest frequency was 30 years (normal women: 6.7%, women with cancer undergoing lumpectomy: 3.5%, and women with cancer undergoing mastectomy: 3.5%). The highest frequency of education was diploma (58.8%), women with cancer undergoing lumpectomy (54.7%), and women with cancer undergoing mastectomy (53.3%). Additionally, the lowest frequency of education was higher than a bachelor's degree (normal women, 3.5%; women with cancer undergoing lumpectomy, 2.7%; and women with cancer undergoing mastectomy, 1.3%). The highest frequency in normal women was for women with more than 12 years of common life (44%), and the lowest frequency was for women with 1 to 4 years of common life (5.3%). The highest frequency in women with cancer undergoing lumpectomy was 8–12 years of common life (42.7%), and the lowest frequency was 1–4 years and more than 12 years of common life (8%). The highest frequency in women with cancer undergoing mastectomy was more than 12 years of common life (41.3%), and the lowest frequency was 1–4 years of common life (8%). The highest frequency in women with cancer undergoing lumpectomy was for women who had been aware of cancer for 4 to 6 years (61.3%), and the lowest frequency was for women who were aware of cancer

for less than 3 years (4%). The highest frequency in women with cancer undergoing mastectomy was for women who had been aware of cancer for more than 9 years (42.66%), and the lowest frequency was for women who were aware of cancer for less than 3 years (9.33%).

The results in table (4-6) show no significant differences between the variances in the factor levels. Therefore, the assumption of the homogeneity of variances is fully fulfilled. The F ratio obtained from this analysis was 1.409 for marital intimacy at the sig <0.246 level, 2.168 for marital quality at the sig <0.106 level, and 1.387 for marital adjustment at 0.352 sig, which was not statistically significant.

Table (4-6): Investigating the homogeneity of variance scores of intimacy, marital quality, and marital adjustment of married women with cancer undergoing mastectomy, lumpectomy, and normal women based on Levene's test

	Dependent variable	The first degree of freedom	The second degree of freedom	F	Sig
homogeneity of variance	Marital intimacy	2	222	1.409	0.246
	Marital quality	2	222	2.168	0.106
	Marital adjustment	2	222	1.387	0.352

Table (7-4) shows the results of the one-factor variance analysis of marital intimacy, marital quality, and marital adjustment scores in married women with cancer undergoing mastectomy, lumpectomy, and normal women.

Table (4-7): Summary of the results of one-factor variance analysis of the differences in marital intimacy, marital quality, and marital adjustment scores of married women with cancer undergoing mastectomy, lumpectomy, and normal women.

Source of variation	Dependent variable	Sum of squares	Degree of freedom	Mean of squares	F	Sig
Intergroup	Marital intimacy	07.6703	2	53.3351	45.143	0.001
	Marital quality	78.1265	2	89.632	72.52	0.001
	Marital adjustment	67.7502	2	33.3751	79.112	0.001

The analysis of variance results indicated that there was a significant difference between the scores of marital intimacy (SIG=0.001 and F1-225=143.45), marital quality (SIG=0.001 and F=1-225=52.72), and marital adjustment (SIG=0.001 and F=1-225=112.79) in married women with cancer undergoing mastectomy, lumpectomy, and normal women. Tukey's post hoc test was used to explain this difference.

Table (4-8): Summary of Tukey's post hoc test results for the differences in marital intimacy, marital quality, and marital adjustment scores of married women with cancer undergoing mastectomy, lumpectomy, and normal women.

Variable	Group 1	Group 2	Mean difference	Standard error	Sig.
Marital intimacy	normal	lumpectomy	86.9	0.789	0.001
		mastectomy	74.12	0.789	0.001
	lumpectomy	mastectomy	88.2	0.789	0.001
Marital quality	normal	lumpectomy	98.3	0.566	0.001
		mastectomy	65.5	0.566	0.001
	lumpectomy	mastectomy	66.1	0.566	0.001
Marital adjustment	normal	lumpectomy	2.10	0.941	0.001
		mastectomy	58.13	0.941	0.001
	lumpectomy	mastectomy	38.3	0.941	0.001

Tukey's post hoc test showed that the mean marital intimacy of normal women was 9.86 units higher than that of women with cancer undergoing lumpectomy and 12.74 units higher than that of women with cancer undergoing mastectomy. The mean marital intimacy in women with cancer undergoing lumpectomy was 2.88 units higher than in women with cancer undergoing mastectomy. All of these differences were significant at the 0.001 level. It was also found that the mean marital quality of normal women was 3.98 units higher than that of women with cancer undergoing a lumpectomy and 5.65 units higher than that of women with cancer undergoing a mastectomy.

It was also found that the mean marital quality of women with cancer undergoing lumpectomy was 1.66 units higher than that of women with cancer undergoing mastectomy. All these differences were significant at the 0.001 level. It was also found that the mean marital adjustment of normal women was 10.2 units higher than that of women with cancer undergoing a lumpectomy and 13.58 units higher than that of women with cancer undergoing mastectomy. Finally, the mean marital adjustment of women with cancer undergoing lumpectomy and 3.38 units of women with cancer undergoing mastectomy was found. All these differences were significant at the 0.001 level.

Conclusion

The results of the one-factor analysis of variance showed a significant difference between the scores of marital intimacy, marital quality, and marital adjustment of married women with cancer undergoing mastectomy, lumpectomy, and normal women. Tukey's post-hoc test showed that the mean marital intimacy of normal women was higher than that of women with cancer undergoing lumpectomy and mastectomy. Additionally, the mean marital intimacy of women with cancer undergoing lumpectomy was higher than that of women with cancer undergoing mastectomy. It was also found that the mean marital quality of normal women is higher than women with cancer undergoing lumpectomy and mastectomy. The mean marital quality of women with cancer who underwent lumpectomy was higher than that of women with cancer who underwent mastectomy. Finally, the mean marital adjustment of normal women was higher than that of women with cancer undergoing lumpectomy and mastectomy, and the mean marital adjustment of women with cancer undergoing lumpectomy was higher than that of women with cancer undergoing mastectomy.

The results of the present study are consistent with the results of studies conducted by Kiaei, Ferdowsi, Moradi, Chalungar, Ahmadzadeh and Bahman Ziari (2016), Esfandiari-Dulabi, Julaei, and Asliazad (2015), Bahmani, Naghiaei, Ghanbari Motlagh, Khorasani, Dehkhoda and Alimohammadi (2014), Froozi (2010), Avci & Kumcagiz (2011), Traun-Vogt & Herdina (2010), Avci, Okanli, Karabulutlu, & Bilgili (2009), (Andersen et al. (2007), and Walsh, Manuel, & Avis (2005). In explaining the results of this study, it can be stated that marital intimacy, quality, adjustment, and in general, marital life satisfaction are created, strengthened, and stabilized in common life.

However, this process may be damaged in some couples due to various incidents and events, including communication problems and mental and physical diseases such as breast cancer, which sometimes cause serious problems in establishing the satisfaction of common life in different dimensions. One of the determining factors in the process of life satisfaction in couples is satisfaction with sexual relations, which is one of the main signs of life satisfaction in couples. One of the most important factors affecting people's satisfaction with sexual relationships is their physical and sexual attraction to one another. Thus, increasing the couple's physical and sexual attraction to each other increases their satisfaction with their sexual relationships.

Satisfaction with sexual relationships and other influential psychological and emotional components results in satisfaction with a common life for couples. The physical attraction schema of women with breast cancer changes for themselves (also in some cases for their spouses), so they no longer see themselves as physically and sexually attractive because of the changed body image. This causes problems with marital intimacy, quality, and adjustment. The results of this hypothesis confirm this issue in the present study sample. The present study has some limitations. It was limited to Kermanshah City and some hospital officials did not cooperate properly. A similar study should be conducted in other cities as well. In addition, healthcare personnel can play a key role in controlling the disease and treatment, and consequently improve the quality of life of these patients in clinical settings and recovery after treatment by having positive relationships, using psychological techniques and psychosocial support (individual counseling, support groups, relaxation and stress control, and improving adaptive skills), and establishing communication with mutual understanding and respect for patients.

Conflicts of Interest

The authors declare no conflict of interest.

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