Original article

Marital satisfaction and mental health status in patients with breast cancer

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BACKGROUND: Breast cancer is a common cancer in women that affects femininity and marital life because of side effect of cancer treatments on breast as a sexual organ. The aim of this study was to evaluate the marital satisfaction in patients with breast cancer compared to general population. **METHODS:** In a cross-sectional study we recruited 60 participants in three groups. The first group contained breast cancer women, the second one consisted of patients with other cancers and the third group was selected from general population. Marital satisfaction and mental health status of participants were measured by Enriching and Nurturing Relationship Issues, Communication and Happiness (ENRICH) questionnaire and 28-item General Health Questionnaire (GHQ-28), respectively. **RESULTS:** ANOVA test analysis did not determine any statistically significant differences between three groups in ENRICH score ($p = 0.55$) and GHQ-28 as mental health score ($p = 0.93$). In multivariate analysis after age adjustment, we could not find any statistically significant differences between the three groups in ENRICH score and GHQ-28 score. **CONCLUSIONS:** In this sample of breast cancer patients, there were not any significant differences in marital satisfaction comparing with general population.

KEYWORDS: Marital Satisfaction, Breast Cancer, Mental Health

BACKGROUND

Breast cancer (BC) is the most common cancer in female worldwide, which cause the highest death rate among female cancer patients. The incidence rate of BC varies from one point to another point of world.[1,2] BC not only involves many aspects of individual health and quality of life but also impresses family health and marital life.

Breast is an important symbol of beauty and sexuality in women. A negative impact of mastectomy on the couple relation may lead patients to fear of husband desert.[3] On the other hand, side effects of chemotherapy and radiation which change woman appearance, affect couple's life. In this situation, husbands of breast cancer patients experience severe stress and distress that is as high as the patients' or even higher.[4,5]

Coping and problem solving skill training are important strategies to help husband of breast cancer patient to manage the situation in the BC context. However, there is controversy regarding the BC patients' attitude to marital satisfaction. Some studies showed lack of marital satisfaction after BC.[4,6,7] In contrast, there are different investigations which reported that marital satisfaction was the same in BC patients and general population.[3,8,9] The aim of this study was to demonstrate the marital satisfaction in BC women in comparison to healthy subjects and other cancer patients.

METHODS

Process and Participant

In this cross-sectional study, we wanted to find whether BC was a risk factor for decrease in patients' satisfaction regarding marital status. We selected two control groups. The first group was selected among patients with other cancers and the second was recruited among healthy subjects. BC patients who met the following criteria were included:

- Women who had undergone modified radical mastectomy
- Women who had finished chemotherapy and radiotherapy for at least 6 months
- Women who were cancer free in latest follow-up
- Women who were married and had active social function

The cancerous control group was elected based on following inclusion criteria:

- Women who had any cancer except breast cancer and genitourinary tract cancers

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- Women who had finished chemotherapy and radiotherapy for at least 6 months
- Women who were cancer free in latest follow-up
- women who were married and had active social life

Patients were recruited from follow-up oncology clinics. The second control group as healthy subjects was selected from community with the same criteria of two aforementioned groups except cancer involvement. We also excluded women who had any acute or chronic non-communicable diseases based on past medical history and physical examination. We considered group matching based on age, education and marital duration to prevent selection bias. A total of 180 participants were eligible to be selected (sixty subjects in each group). All procedures were approved by research and ethical committee of Isfahan School of Medicine.

Measures

We used two questionnaires to assess participants. The Evaluation and Nurturing Relationship Issues, Communication and Happiness (ENRICH) questionnaire was used as marital satisfaction scale. The 46-item form of ENRICH questionnaire was employed. This form was used for the description of dynamism of marriage and provides a marital satisfaction score. Studies has shown that ENRICH scale has high validity and reliability.[10] This questionnaire were validated for Iranian population.[11] Mental health was assessed by 28-item General Health Questionnaire (GHQ-28). GHQ-28 is a valid tool for detecting mental health which was developed by Goldberg and co-workers to screen for somatic symptoms, anxiety, social dysfunction and depression.[12] This questionnaire was translated to Persian and its validity and reliability were tested by Noorbala and colleagues in Iranian population.[13] Socio-demographic characteristics were asked in separated data collection form. Every questionnaire was completed for participant by trained physician.

Statistical analysis

Statistical Package for the Social Sciences (SPSS version 15**,** IBM-United States) was used for analyzing data. Chi-square test was used to compare nominal data between three groups. The groups were considered as independent variable and score of ENRICH and GHQ-28 were considered as independent variables**.** We used ANOVA test to compare mean of numerical variable between three groups. We used MANOVA model to assess impact of BC on ENRICH mean score as marital satisfaction issue and GHQ-28 mean score as mental health issue. Statistical significant was set at $p < 0.05$.

RESULTS

Table 1 shows demographic characteristics of participants in three groups. As shown, there were not any significant differences between 3 groups in demographics except for age. The mean age in BC group was higher than two other groups. The statistically significant age difference was only detected between BC and healthy group by Tukey's post hoc test ($p < 0.001$).

ANOVA analysis did not determine any significant differences between three groups in ENRICH score ($p = 0.55$) and GHQ-28 as mental health score ($p = 0.93$). Figure 1 showed the mean of these two scales in three groups.

Because of age differences between groups the MANOVA model was used to adjust associations for age effect on ENRICH and GHQ-28 score. Table 2 declares finding of this analysis. After age adjustment, no statistically significant differences were found between three groups regarding ENRICH score and GHQ-28 score.

Table 1. Demographic characteristics of 3 study groups

	Breast cancer	Other cancers	Healthy subjects	p
n	60	60	60	
Age (mean ± SD)	47.7 ± 8.2	44.4 ± 11.4	40.5 ± 10.6	0.001
Education (number)				
Illiterate	5	5	1	0.43
Junior	10	9	10	
Senior	35	31	40	
Graduated	10	15	9	
Occupation (number)				
Occupied	13	10	6	0.22
Non-occupied	47	50	54	
Child number (median)	l3	3	2	0.58
Marital duration (mean ± SD)	25.1 ± 9.7	23.2 ± 13.1	20.3 ± 11.9	0.08

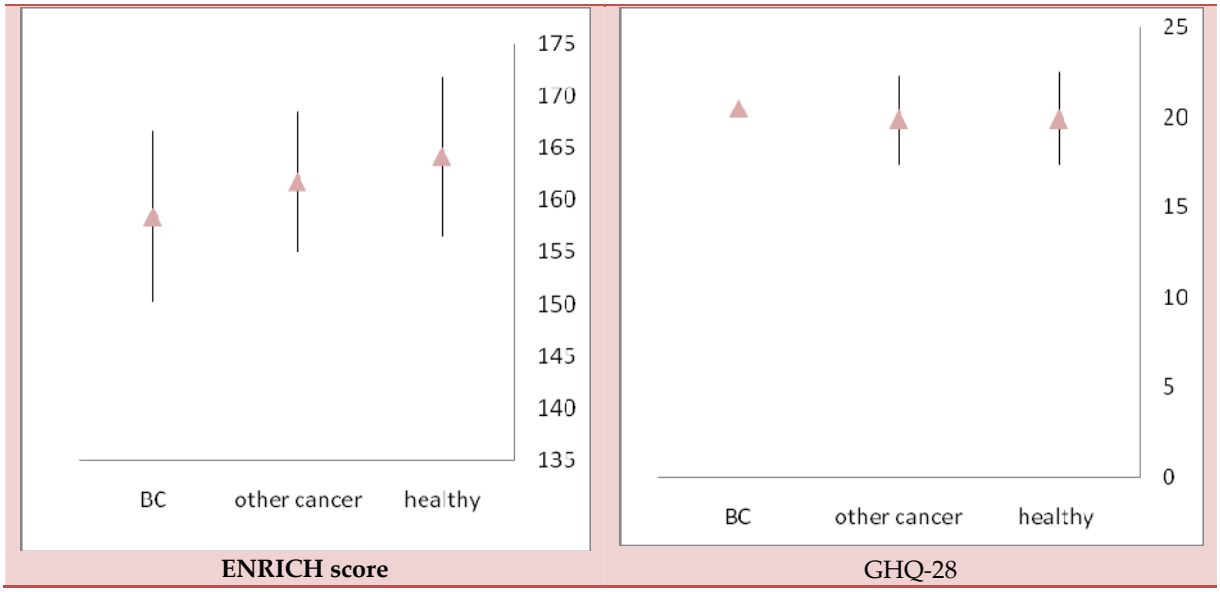

Figure 1. The mean (SD) score of ENRICH and GHQ-28 in 3 study groups (BC: Breast Cancer)

Table 2. MANOVA model: age adjusted differences in ENRICH and GHQ-28 scores between 3 study groups

	Breast cancer (95% CI)	Other cancers (95% CI)	Healthy subjects (95% CI)	p
ENRICH	161.3 (153.6-168.8)	161.8 (154.6-168.9)	163.2 (155.9-170.6)	0.65
GHQ-28	21 (18.3-23.5)	20 (17.4-22.3)	19.2 (16.7-21.8)	

DISCUSSION

We determined marital satisfaction status in BC patients. Our findings showed marital satisfaction in BC was as similar as other cancer patients and even healthy population.

Some investigators believe that facing any type of cancer can decrease relationship satisfaction as a stressful event. Moreover, breast cancer patients who have undergone radical mastectomy and chemo-radiotherapy experience more psychosocial distress. Furthermore, studies has shown mastectomy and loosing an organ which is symbol of sexuality and femininity causes changes in patients self-view and body image and consequently disturbs women psychological well-being.[14-17] This negative impression lead women to believe that many husbands leave their wives as a result of BC.[4]

In contrast, further studies the same as ours have determined that not only there are not any significant differences in marital satisfaction but also in mental health status.[6,8,18,19] In the new longitudinal study by Kraemer and co-workers it was approved that marital satisfaction did not change after BC incidence. However, the psychosocial intervention for BC patients and their couples can improve copying and adjustment strategies and partners communication skills.[18]

According to previous studies, BC diagnosis impacts psychosocial aspects of patients' life in two ways: 1) Psychiatric problems like anxiety, depression, somatization and anger. 2) Changes in family and social life patterns like marital and sexual dissatisfaction or disruption. The factors for psychosocial support are previous emotional stability and interpersonal family support.[20]

It seems Iranian family support for a BC patient is satisfactory. Our study confirmed that husbands assist their wives emotionally after BC occurrence. Family concepts in Iran introduce core family model, thus family members are intimate to each other. When encountering emotionally traumatic events like BC, they psychologically support each other. It may be one of the reasons which demonstrate insignificant differences between BC patients and general population. However, the same finding as ours has been presented in other countries. For example, Dorval and colleagues

did not find any statistical difference in the marital breakdown rate between BC patients and general population during the 8 years cohort study.[8]

Marital satisfaction is a subjective well being aspect of health, thus chronic disease like BC can change patients' attitude and belief. They may change life style and their schemas toward marital life and decrease expectations, needs and request. This may be another reason of similarity in our finding.

One of the best advantages of our study was to select two control groups for BC for the first time. The first control group was healthy subjects and the other was different types of cancers except BC. However, there were some limitations in our study. The first one was the time limitation for interviewing with subjects. Some women were ashamed to talk about their private life. We could not use further questionnaire to declare another aspects of marital life for example sexual behaviors and sexual satisfaction. It was better to assess their husbands' satisfaction that we did not have access to them. We recommend husband evaluation for further investigations in Iran. Of course, there are many studies regarding husband satisfaction level all over the world.

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