RESEARCH ARTICLE

Effect of Perceived Social Support on Psychosocial Adjustment of Turkish Patients with Breast Cancer

Selda Rizalar[1], Ayfer Ozbas[2]*, Neriman Akyolcu[2], Bulent Gungor[3]

Abstract

Aims: To identify the psychosocial adjustment of Turkish patients with breast cancer and the effects of perceived social support on their adjustment. Materials and Methods: The sample comprised 100 volunteering patients diagnosed with breast cancer in the last six months reporting to the Outpatient Chemotherapy Unit at the Medical Faculty Hospital in northern Turkey. The data for the study were collected through the Descriptive Information Form, the Psychosocial Adjustment to Illness Scale-Self-reflection (PAIS-SR) and the Cancer-Specific Social Support Scale and analyzed via SPSS 16.0 for Windows. Descriptive statistics, Chi square test, ANOVA and correlation were used to evaluate data. Results: There was a negative significant correlation between mean scores in the sub-scales of the social support scale and the ones in the sub-scales of the psychosocial adjustment to illness scale ($p<0.05$). Similarly, there was a negative significant correlation between confidence support and health care orientation as well as adjustment to social environment. Likewise, emotional support was in a negative significant correlation with health care orientation, adjustment to domestic environment, extended family relationships and adjustment to social environment. Conclusions: It was concluded that social support for patients with breast cancer had an influence on their psychosocial adjustment to illness. Holistic care should be given to breast cancer patients by oncology nurses especially in the first six months of treatment. It could be concluded that patients should be accompanied by their family/relatives in treatment and care following their diagnosis with breast cancer, that their family should be made more aware of the fact that the patient should be physically and psychologically supported, that patients with breast cancer should be provided with domiciliary care, and that they should be encouraged to participate in social support groups.

Keywords: Social support - breast cancer - nursing care - support groups

Asian Pac J Cancer Prev, **15 (8)**, 3429-3434

Introduction

Breast cancer is currently rather common all around the world and brings about deaths. According to literature, worldwide breast cancer is the most common cancer with 1.383. 500 cases, and account for almost 30% of all cancer types amoung woman. It is also widespread among Turkish women and represents 28% of all cancers they have. With a frequency of 37.6 per one hundred thousand people, breast cancer ranks first among the top ten common types of cancer in Turkey (Karamanoglu and Ozer, 2008; Karayurt and Andic, 2011; Frie et al., 2013; Öztunç et al., 2013).

Cancer results in distress and disrupts patient adjustment from the pre-diagnosis period to the terminal period. Similarly, breast cancer has multiple negative consequences on women's health. Women with breast cancer suffer from problems caused by surgery, chemotherapy, radiotherapy and hormonal therapy, as well as other problems linked to family and business life, and they are uncertain about future, all of which have negative influences on their physical and psychosocial health (Ayaz et al., 2008; Karamanoglu and Özer, 2008). The degree of psychological reaction to breast cancer is closely intertwined with one's feelings about her breast. In Turkey, as in other countries throughout the world, breast stands for femininity, sexuality, good appearance, breastfeeding, love and motherhood. Therefore, breast cancer causes patients to have a disrupted image of their body, which results in decreased self-esteem, fear of losing femininity, sexual dysfunctions, anxiety, depression, desperateness, feelings of guilt and embarrassment, fear of relapse, isolation and fear of death (Gümüş, 2006; Aygin and Eti Aslan, 2008; Bostanci et al., 2011; Günüşen et al., 2013; Pan et al., 2013; Yusuf et al., 2013; Zainal et al., 2013).

Psychosocial adjustment to illness is affected by all factors associated with illness and treatment. In turn, psychosocial adjustment to illness has a positive or negative influence on the course of an illness. A review of literature suggests that the adjustment of patients with

[1]Surgical Nursing Department, Samsun Health School, [3]Department of General Surgery, Medical Faculty, Ondokuz Mayis University, Samsun, [2]Surgical Nursing Department, Florence Nightingale Nursing Faculty, Istanbul University, Istanbul, Turkey
**For correspondence: ayfer@istanbul.edu.tr*

breast cancer is influenced by self-esteem, social support, social stress, psychological support, emotional problems, stage of illness, type of operation, symptoms, physical fitness, perceptions of illness, coping methods and relations with health staff. Nurses, with their significant roles in the health care team, have important roles in helping cancer patients in their adjustment process (Cam et al., 2009; Öztunç et al., 2013). One of the factors in psychosocial adjustment to illness, social support is commonly regarded as help provided for someone under stress or in a difficult situation by people around. When they feel too incompetent or burnout to cope with things, individuals get support from their family or people they deem important. It is acknowledged that social support has a direct positive effect on one's physical and emotional health by satisfying basic social requirements such as love, affection, self-esteem and belonging to a group as well as proving to be significant help with coping with the facts of life. Much of the evidence for the protective effects of social support on cancer morbidity and mortality has derived from studies conducted in North America and Europe (Ayaz et al., 2008; Dedeli et al., 2008; Ikeda et al., 2013).

Social support and well-being was demonstrated as a significant prognostic factor for breast cancer outcomes (Huang et al., 2013). Social support particularly facilitates one's recovery, enhances his/her adjustment to medical treatment and overall life quality, and prolongs his/her life span. Identification and reinforcement of social support systems, along with counseling when necessary, will help women with breast cancer cope with their problems and maintain their welfare. Therefore, all health staff, especially nurses who are in more frequent interactions with patients, need to identify social support levels of patients with breast cancer, and to plan and use support initiatives accordingly,

The purpose of this study is to identify the psychosocial adjustment of patients with breast cancer and the effect of perceived social support on their adjustment.

Materials and Methods

Designed to be a descriptive one, the present study was conducted on patients with breast cancer admitted to the Outpatient Chemotherapy Unit at the Health Research and Application Hospital, Ondokuz Mayis University. A power analysis was carried out on the basis of the fact that there were 121 patients with breast cancer admitted to the unit in the last year. The maximum difference was accepted as four; the number of members in the sample was determined to be 99 with power being 80% and level of significance being 0.05. Ultimately, the sample was comprised of 100 volunteering patients diagnosed with breast cancer in the last six months. The participants were aged between 18 and 65 years old, did not suffer from a problem that would hinder their communication, and could understand the statements in the scale.

Purpose

1) To identify the psychosocial adjustment of patients with breast cancer and associated factors.

2) To identify the social support level of patients with breast cancer and associated factors.

3) To identify the effect of social support on the psychosocial adjustment of patients with breast cancer.

Data collection instruments

The data for the study were collected through the Descriptive Information Form, the Cancer Patient Social Support Scale and the Psychosocial Adjustment to Illness Scale. The question form and scales were filled out by the researchers who interviewed the patients in person.

The descriptive information form: composed by the researchers, the form consisted of descriptive questions as to the participants, including their age, gender, educational status, marital status, occupation, social security, diagnosis, time of diagnosis, stage of illness and treatments.

The Cancer-Specific Social Support Scale(C-SSSS): the social support levels of the participants were identified through the Cancer-Specific Social Support Scale, which was developed and tested for validity/reliability by Eylen (2002). The scale contains a total of 35 items, 13 of them being negative statements (items 4, 9, 13, 14, 21, 22, 26, 27, 29, 30, 31, 32 and 33) and the remaining 22 being positive statements. The rating is based on the 5-point Likert scale, in which points 5, 4, 3, 2 and 1 stand for "quite applicable to me", "applicable to me", "partly applicable to me", "not applicable to me" "not applicable to me at all" respectively. To calculate one's perceived support score, his/her score in the negative statements is reversed and then added to the total score in the positive statements (Eylen, 2002; Dedeli, 2008). The social support provided by families as perceived by cancer patients was measured with a five-point scale in which higher scores on the scale reflect higher levels of perceived social support (Eylen, 2002). The Cancer-Specific Social Support Scale was preferred because it was first developed in Turkey and therefore it was considered to reflect the values of Turkish society. In the present study, the groups were comparatively evaluated in accordance with their scores in the scale.

The Psychosocial Adjustment to Illness Scale-Self-Report (PAIS-SR): a multi-dimensional scale designed to assess psychosocial adjustment to illness, the scale measures individuals' interaction with others and organizations that constitute their socio-cultural environment. Developed by Derogatis and Lopez in 1983, the scale contains a total of 46 items in seven domains, namely Health Care Orientation (8 items), Vocational Environment (6 items), Domestic Environment (8 items), Sexual Relationships (6 items), Extended Family Relationships (5 items), Social Environment (6 items) and Psychological Distress (7 items) (Derogatis, 1986; Cam, 2009; Cinar, 2009). Four descriptive statements for each item identify the level of adjustment. Items are assigned points ranging from 0 to 3 and responses are converted into numerical values. For each item in the scale, major negative changes from the time of illness are assigned 3 points whereas positive changes or lack of change is assigned 0 point. Lower scores stand for "better psychosocial adjustment" while higher scores

represent "poorer psychosocial adjustment". In the PAIS-SR, scores under 35, scores between 35 and 51, and those above 51 indicate "good psychosocial adjustment", "normal psychosocial adjustment" and "poor psychosocial adjustment" respectively. The scale was adapted to Turkish by Adaylar (1995), who also tested the adapted version for validity and reliability purposes. The author found that the adapted version had an internal consistency of 0.94 on a sample of patients with acute and chronic physical illnesses and 0.92 on individuals with chronic physical illnesses.

Data collection and ethics

The researchers were granted permission (Decree No: 2011/324) by the Medical Research Ethics Commission of Ondokuz Mayis University as well as informed consent from all participants. The participants were informed of the fact that they did not have to participate in the study, and that they could quit any time they would like to. The data were collected by the researchers through face-to-face interviews with patients in the Outpatient Chemotherapy Unit between August 12 and February 22, 2012. It took the participants half an hour to fill out the scales.

Statistical analysis

The data were analyzed via SPSS 16.0. The socio-demographics of the patients and their characteristics of breast cancer were assessed with percentage distribution while other analyzes included the Chi square test, ANOVA and coefficient of correlation. The level of significance was taken as $p<0.05$.

Results

The mean age of the participants was 52.60±10.52. It was found that 51% of them were primary school graduates, 74% of them were housewives, 94% of them were still unemployed, and 84% of them were married. All had social security. Approximately two-thirds of them (65%) considered their income status as "income offset by outcome". Nearly four-fifths of them (81%) were a member of a nuclear family, and more than half (54%) lived in city center. Whereas 62% of them had undergone total mastectomy, 31% of them had had breast-conserving surgery. While 89% of them received chemotherapy, 29% of them got radiotherapy (Table 1).

The participants' mean scores in the overall Cancer-Specific Social Support Scale and each sub-scale were as follows: 132.98±20.19 in the overall scale, 56.71±9.09 in confidence support, 44.8±9.52 in emotional support, and 31.44±5.05 in information support (Table 2).

The participants' scores in the PAIS-SR ranged from 28 to 90, with the mean being 56.15±14.02. A review of their total scores suggested that they had "poor", "normal" and "good" psychosocial adjustment to illness by 65%, 30% and 5% respectively. Their mean scores in the sub-scales were as follows: 7.43±3.49 in health care orientation, 9.00±2.49 in vocational environment, 11.17±3.36 in domestic environment, 10.14±4.39 in sexual relationships, 3.98±2.94 in extended family relationships, 8.96±4.11 in social environment, and 6.37±2.66 in psychological distress (Table 2).

Table 1. Descriptive Characteristics of the Breast Cancer Patients (N=100)

Descriptive characteristics		No	%
Marital status	Married	84	84
	Single	16	16
Education level	Literate	27	27
	Primary education	51	51
	High school	18	18
	University	4	4
Occupation	Housewife	74	74
	Civil servant	10	10
	Self employed	5	5
	Retired	11	11
Family type	Nuclear family	81	81
	Extended family	17	17
	Split family	2	2
Place of recidence	Village	24	24
	Town	22	22
	City	54	54
Income level	Income <expenditure	26	26
	Income =expenditure	65	65
	Income >expenditure	9	9
Cancer stage	Stage I	15	15
	Stage II	37	37
	Stage III	35	35
	Stage IV	13	13
Surgical treatment type	Breast-conserving surgery	31	31
	Mastectomy	62	62
	Received no surgery	7	7
Total		100	100

Table 2. Psychosocial Adjustment to Illness Scale-self Report Score, Cancer-specific Social Support Scale Score and Their Domain Scores (N=100)

Variables	No. of items	Mean±SD	(Min- Max)
PAIS-SR score	46	56.15±14.02	(28-90)
Health care orientation	8	7.43±3.49	(1-18)
Vocational environment	6	9.00±2.4	(2-15)
Domestic environment	8	11.17±3.36	(1-18)
Sexual relationships	6	10.14±4.39	(1-18)
Extended family relationships	5	3.98±2.94	(1-11)
Social environment	6	8.96±4.11	(1-18)
Psychological distress	7	6.37±2.66	(1-15)
C-SSSS Score	35	132.98±20.19	(88-169)
Confidence support	13	56.71±9.08	(26-69)
Emotional support	12	44.80±9.52	(22-61)
Information support	10	31.44±5.05	(14-43)

A comparison of their scores in the Cancer-Specific Social Support Scale with the ones in the Psychosocial Adjustment to Illness Scale suggested a significant correlation between the two (Table 3, $x^2=0.015$ $p<0.05$).

The correlation between their social support scores and psychosocial adjustment to illness scores is presented in Table 4. There was a negative significant correlation between their mean scores in the sub-scales of the social support scale and the ones in the sub-scales of the psychosocial adjustment to illness scale (Lower health care orientation scores indicate higher levels of adjustment). Similarly, there was a negative significant correlation between confidence support and health care orientation as well as adjustment to social environment. Likewise, emotional support was in a negative significant correlation with health care orientation, adjustment to domestic environment, extended family relationships and adjustment to social environment.

Table 3. Psychosocial Adjustment Degrees of the Breast Cancer Patients with Respect to the Average of C-SSSS Score

C-SSSS Scores	Psychosocial Adjustment to Illness					
	Poor		Good*		Total	
	n	%	n	%	n	%
Below Average	33	33	9	9	42	42
Above Average	32	32	26	26	58	58
Total	65	65	35	35	100	100

*Good" includes both the"good" and "normal" due to the insufficient number of "good"s; **x^2=0.015, p<0.05

Table 4. Correlation (Spearman) between the Perceived Social Support Scala Scores and Psychosocial Adjustment to Illness Scala Scores for the Breast Cancer Patients (n=100)

PAIS-SR score	C-SSSS Scala					
	Confidence support		Emotional support		Information	
	r	p	r	p	r	p
Health care orientation	-0.379*	0.0001	-0.291*	0.003	-0.164	0.103
Vocational environment	-0.083	0.41	-0.176	0.080	-0.059	0.562
Domestic environment	-0.167	0.096	-0.210*	0.036	-0.165	0.102
Sexual relationships	-0.161	0.109	-0.114	0.26	-0.143	0.157
Extended family relationships	-0.159	0.113	-0.328*	0.001	-0.136	0.178
Social environment	-0.406*	0.0001	-0.398*	0.0001	-0.15	0.137
Psychological distress	-0.106	0.295	-0.076	0.453	-0.043	0.674

*p<0.05 two tailed

There was a significant difference between the descriptive characteristics of the participants and their total scores in the psychosocial adjustment to illness scale in terms of educational status (x^2=23.284, p<0.05), occupation (x^2=11.825, p<0.05), place of residence, number of children (x^2=18.635, p<0.05), income level (F=7.866, p=0.001) and type of operation. Furthermore, a significant difference existed between their descriptive characteristics and their total scores in the social support scale in terms of educational status (x^2=34.319, p=0.00), place of residence (x^2=8.458, p=0.005) and stage of illness (x^2=13.053, p=0.005).

Discussion

Involving coping and compromise, adjustment is defined as the power to accept internal and external changes and to exhibit appropriate attitudes and behaviors. The process of adjustment requires interplay between the mind and body. It is studied in different interdependent categories such as biological, developmental, psychological, sociocultural, spiritual and technological. Emotional adjustment involves the use of defense mechanisms, previous experiences and emotion-focused coping mechanisms. On the other hand, sociocultural adjustment contains relationships with family, friends and society, environmental changes and fast-growing technology as well as the norms, traditions, customs and pressures of the society one lives in. One needs to have accurate knowledge so that he/she can cope with things and understand behaviors. Psychosocial adjustment to illness is influenced by all factors associated with illness and treatment. It has been reported that the psychosocial adjustment of patients with breast cancer is affected by such factors as self-esteem, social stress, social support, psychological support, sense of control, emotional problems, stage of illness, type of operation, symptoms, physical fitness, perceptions of illness, coping methods, relationships with health staff and cooperation (Irwine et al., 1991; Falagac et al., 2007; Cam et al., 2009).

Cinar et al. (2009) maintains that social support is useful for patients with cancer and emotional support from family members is positively correlated with physical and psychological adjustment to cancer. Kocaman et al. (2007) had found that social support for patients with physical illnesses was effective in psychosocial adjustment to illness.

In the present study, the participants' mean scores in the sub-scales of the social support scale were highest in confidence support, emotional support and information support in descending order. Similarly, 64 cancer patients in a study by Dedeli et al. (2008) had the following mean scores in the social support scale and its-sub scales: 142.4±14.2 in the overall scale, 57.7±5.8 in confidence support, 37.02±6.1 in emotional support and 35.5±5.2 in information support. Both the present study and the one by Dedeli et al. (2008) reported similar findings in social support scores, which is likely to result from the fact that both studies were conducted on individuals living in the same society with the same cultural and social values.

In the present study, the participants' scores in the PAIS-SR ranged from 28 to 90, with the mean being 56.15±14.02. In the study by Cinar et al. (2009), the hemodialysis patients had a mean score of 68.94±14.77. In another study by Swain (1996), the patients with breast cancer had a mean score of 51.46±9.97 .The mean scores revealed by the present study are in parallel with those of similar studies, which might be attributed to the idea that human beings, who are bio-psycho-social creatures, produce similar reactions to illness across cultures.

However, total scores in the present study suggest that most of the patients had poor psychosocial adjustment to illness, a finding discordant with those of Cam et al. (2009) and Butler et al. (2006). Cam et al. (2009) found that patients with breast cancer had normal psychosocial adjustment. On the other hand, Butler et al. (2006) reported that most patients with breast cancer enjoyed good psychosocial adjustment. In comparison to those of Cam et al. (2009) and Butler et al. (2006) the findings in the present study suggest that the participants had poor psychosocial adjustment. This might have been caused by individual, regional, socio-economic and cultural differences.

In the present study, the participants had normal mean scores in the sub-scales of the PAIS-SR, namely health care orientation, vocational environment, domestic environment, sexual relationships, extended family relationships, social environment and psychological distress (Table 2). However, Goodwin et al. (2004)

reported lower adjustment scores on the part of patients with breast cancer. In other words, the patients included in our sample had poorer psychosocial adjustment than those in that of Goodwin, a difference that can be attributed to cultural factors.

In the present study, there was a significant correlation between the participants' mean scores in the Cancer-Specific Social Support Scale and the Psychosocial Adjustment to Illness Scale. Therefore, social support can be argued to have a positive influence on adjustment., Cinar et al. (2009) found perceived social support to be influential in adjustment. In a compila-tion study on the results of 31 studies, Salonen et al. (2014) found that provided new knowledge about QOL and social support in significant others of breast cancer patients. Fala-gac et al. (2007) demonstrated that the consequences of breast cancer on patients were signifi-cantly correlated with at least one of the psychosocial variables, and that social support was one of the parameters significantly affecting the extent to which one's cancer prognosis was good or bad. In accordance with the findings in the literature, it was an expected finding that there was a positive correlation between social support scores and psychosocial adjustment scores in the present study.

The present study has found that the correlation between the participants' social support scores and psychosocial adjustment to illness scores was negative. There was a negative cor-relation between their mean scores in the sub-scales of the social support scale and the ones in the sub-scales of the psychosocial adjustment to illness scale (Lower health care orientation scores indicate higher levels of adjustment). Similarly, there was a negative significant corre-lation between confidence support and health care orientation as well as adjustment to social environment. Likewise, emotional support was in a negative significant correlation with health care orientation, adjustment to domestic environment, extended family relationships and adjustment to social environment. It is reported that the social support provided by the family affects the adaptation process and longevity positively. Some studies indicate that patients and their relatives drift apart in the cancer process. However, because of the traditio-nal family structure in Turkey, the participants of the present study were found to receive their social support mostly through their families. Thus, the participants seem to be hopeful due to the high social support they have (Gümüş et al., 2011; Öztunç et al., 2013). Cinar et al. (2009) reported a correlation between social support and health care orientation as well as extended family relationships, social environment and psychological state. Mc Donough et al. (2014), in found that general social support would positively predict changes in subjective well-being, whereas general stress would be a negative predictor of changes in well-being.

It is a known fact that emotional support is psychosocially useful for women with breast cancer; nevertheless, it may be the case that women observe an inconsistency between the type of support they expect and the type of support they actually receive from their personal supporters. A study conducted on 79 women with breast cancer to identify the role of different types of support a patient would find desirable and undesirable for her psychosocial adjustment suggested that desirable models of support were not associated with better or poorer adjustment, but disagreement between the provider and receiver of support could affect adjustment significantly and undesirable support might be linked to psychosocial inadaptability (Reynolds and Perring, 2004). In that case, adjustment will be facilitated when the provider does as the receiver wants, that is when he/she chooses and uses clinical support initiatives in accordance with the patient's individual preferences.

There was a significant difference between the descriptive characteristics of the participants and their total scores in the psychosocial adjustment to illness scale in terms of educational status, occupation, place of residence, number of children, income level and type of operation. In the present study, the time of diagnosis was not influential in adjustment. Ayaz et al.,(2008) observed that those who were high school graduates and employed with a decent economic status had higher social support scores.

In conclusion, the current study has found that social support for patients with breast cancer is effective in psychosocial adjustment to illness. Also, it has found that psychosocial adjustment is influenced by educational status, occupation, place of residence, number of children, income level and type of operation, that higher confidence support scores signal better health care orientation and adjustment to social environment, and that higher emotional support scores lead to better health care orientation, adjustment to domestic environment, extended family relationships and adjustment to social environment.

It could be concluded from the findings that patients should be accompanied by their family/relatives in treatment and care following their diagnosis with breast cancer, that their family/relatives should be made more aware of the fact that the patient should be physically and psychologically supported, that patients with breast cancer should be provided with domiciliary care, and that they should be encouraged to participate in social support groups. Further studies could work with a higher number of patients with breast cancer and investigate adjustment problems caused by variables other than social support.

The sample was confined to one single oncology center. However, the center included patients from the entire Black Sea region. Therefore, the present study serves as a model for the cultural characteristics of women from the entire Black Sea region. Nevertheless, the findings cannot be generalized to all Turkish women. Another limitation is that the data were not collected in a social environment but at a hospital.

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