

Do the Unmet Needs Affect the Quality of Life in Breast Cancer Patients?

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ABSTRACT

Objective: Breast cancer is an important disease and one where healthcare services have the potential to improve the quality of life. The aim of this study was to assess the relationship between unmet needs and the quality of life (QoL) of breast cancer patients.

Subjects and Methods: This study comprised one hundred breast cancer patients who attended the Oncology Outpatient Clinic in Cukurova University between April and June 2001. Three questionnaires were used: questionnaires for demographic details, unmet needs and Functional Assessment of Cancer Therapy-General Questionnaire QoL.

Results: There was significant correlation between QoL score and unmet needs score ($r = 0.263$, $p = 0.008$) and between QoL score and Napier logarithm (monthly income) ($r = 0.257$, $p = 0.011$). There was a significant difference in QoL score by occupation ($p = 0.007$).

Conclusion: It is important to assess patients psychologically so as to make interventions about their psychosocial needs which affect QoL. This will require the re-evaluation of doctor-patient communication and interventions for improvement of this relationship.

¿Afectan las Necesidades no Satisfechas la Calidad de Vida de las Pacientes con Cáncer de Mama?

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RESUMEN

Objetivo: El cáncer de mama es una enfermedad importante en la que los servicios de atención a la salud tienen la posibilidad de mejorar la calidad de vida. El objetivo de este estudio es evaluar la relación entre las necesidades no satisfechas y la calidad de vida (CdV) de los pacientes con cáncer de mama.

Sujetos y Métodos: Este estudio comprende cien pacientes con cáncer de mama, quienes asistían a la Clínica Externa de Oncología en la Universidad de Cukurova entre abril y junio de 2001. Se utilizaron tres tipos de cuestionarios: un formulario para los detalles demográficos, uno para las necesidades no satisfechas, y finalmente el Cuestionario General de CdV para la Evaluación Funcional de Terapia del Cáncer.

Resultados: Hubo una correlación significativa entre la puntuación de la CdV y la puntuación de las necesidades no satisfechas ($r = 0.263$, $p = 0.008$), y entre la puntuación de la CdV y el logaritmo de Napier (ingreso mensual) ($r = 0.257$, $p = 0.011$). Hubo una diferencia significativa en la puntuación de CdV por ocupación ($p = 0.007$).

Conclusión: Es importante evaluar a los pacientes psicológicamente a fin de realizar intervenciones en torno a las necesidades psicosociales que afectan su CdV. Esto requerirá la re-evaluación de la comunicación doctor-paciente y las intervenciones para el mejoramiento de esta relación.

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INTRODUCTION

Breast cancer is the most commonly diagnosed invasive cancer among women and is the second leading cause of cancer deaths. It has an incidence rate of 135 women per 100 000

per year in the United States of America (USA) (1–3). Given the sizeable number of women who are now living with breast cancer (2), it is critical that efforts be directed towards reducing cancer-related morbidity and improving the quality of patient care. It is well known that breast cancer patients report a temporary decline in their quality of life following diagnosis. There is evidence that psychosocial care of women with breast cancer is lacking (4–6). General quality of life (QoL) concerns of breast cancer patients include pain,

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fatigue, sexual dysfunction and disruption of daily activities. Psychosocial concerns including anxiety, depression and fear of recurrence may also be present (7). Quality of life (QoL) can be assessed in an accurate, valid and reliable way by means of standardized QoL questionnaires and is an important endpoint in clinical trials today (8). Optimal care involves not only the technical or disease management aspects but also meeting the needs of the patient in the psychosocial, supportive care and informational domains (9–11). In an Australian study, by far the highest unmet need was in the domain of health information, with over 60% of ambulatory patients with cancer expressing this need (12). Needs and quality of life issues tend to vary substantially according to the characteristics of the person such as personality, cognitive function and psychological adaptation to illness (13, 14). Research has shown that women express higher levels of unmet needs than men (15, 16). Needs also show change over the course of the disease (17–19). In comparison with others, people with advanced disease report higher levels of unmet needs in most domains but especially in the psychological and physical and daily living domains (16, 20, 21). Persons with advanced cancer experience unrelieved physical symptoms, especially pain, fatigue, dyspnoea and reduced appetite (22–24) and high levels of psychological distress, particularly for people who also reported pain (22, 23). Self-care, mobility, physical activity, appetite and sleep were the quality of life issues ranked as highly important by women with advanced breast cancer (25). Previous research on the unmet needs of people with cancer has revealed that in general, persons with cancer experience the highest levels of unmet needs in the areas of health information, especially in relation to the disease investigatory tests and treatments, psychological/social support concerns and physical and daily living needs (15, 16, 20, 26–30).

Not much is known in Turkey about QoL of patients with breast cancer and its relationship with unmet needs. The hypothesis in this study was that as identifying level of needs improves, the level of QoL of cancer patients improves. The aim of this study were to identify the relationship between unmet needs of urban breast cancer patients and their demographic and disease characteristics with QoL.

SUBJECTS AND METHODS

Patients

Eligibility criteria for inclusion in the trial included women with breast cancer with no recurrence and/or metastasis, not in the terminal stages of disease and having cancer for at least one month and at most ten years. Data on unmet needs and QoL were obtained for 100 patients with breast cancer attending the Oncology Outpatient Clinic in Cukurova University Faculty of Medicine between April and June 2001. They were recruited to complete questionnaires on Demographic Data Collection, the Functional Assessment of Cancer Therapy-General (FACT-G) and a questionnaire for unmet needs. Informed consent was obtained from each sub-

ject, after approval of the study protocol by the Ethics Committee of Cukurova University Faculty of Medicine.

Demographic and medical information

Demographic and medical information was collected from participants by their self-report at the time of enrolment in the study. Medical information related to a woman's cancer diagnosis and treatment was confirmed by reviewing her medical record. Medical records were accessed with the participant's signed permission. Demographic Data Questionnaire was used to collect demographic information such as age, occupation, marital, educational and mean monthly income.

Health-related quality of life

The Functional Assessment of Cancer Therapy-General Questionnaire (FACT-G) was used to assess the QoL. FACT-G is a QoL instrument developed by Cella *et al* (31) in 1993. It comprises 27 questions that assess four primary dimensions of QoL: physical well-being (PWB; 7 items), social and family well-being (SFWB; 7 items), emotional well-being (EWB; 6 items) and functional well-being (FWB; 7 items). It uses 5-point Likert-type response categories ranging from 0 = 'not at all' to 4 = 'very much'. The total FACT-G score is the summation of the four subscale scores and ranges from 0 to 108. It has high internal reliability ($\alpha = 0.90$) and evidence supports its convergent, divergent and known groups' validity (32, 33). Higher FACT-G scores reflect greater well-being. The Turkish version 4 of the questionnaire was used (34).

Unmet needs were assessed using the questionnaire developed by Haddad *et al* (35). It comprises 22 items under three subscales consisting of doctor's interpersonal aspects of care, technical aspects of care and outcomes of care. A 5-point Likert scale was used for the response format, with the possibility of expressing the following opinions: "negative", "somewhat negative", "neither negative nor positive", "somewhat positive" or "positive".

Analyses

Statistical Package for the Social Sciences (SPSS) 14 for Windows was used to perform statistical analyses. The associations between quality of life scores, unmet needs scores and demographic details were analyzed by correlation analysis and multivariate regression analysis as appropriate. Data collected on occupation was dichotomized into housewife and working-out categories. Differences in QoL score and unmet needs score by occupation were determined by independent t-test. The distribution of monthly income was normalized by Napier logarithm transformation. This transformed variable was used in subsequent analysis.

RESULTS

Baseline demographic and medical details are presented in Table 1. The mean age was 48.64 (SD 10.6) years (range:

Table 1: Demographic and medical details of the patients in the study (n = 100)

		%
Demographic and medical details	26-35	7
	36-45	27
	46-55	30
	56-65	25
	66-69	11
Age groups (years)	Married	78
	Widowed	13
	Single	9
	Illiterate	22
Marital status	Primary school	32
	Secondary school	28
	High school – university	18
Educational status	Housewife	70
	Working out	30
Monthly income	High (more than US\$550)	11
	Intermediate (US\$251-550)	66
	Low (less than \$US250)	23
Time since diagnosis	1-6 months	35
	7-12 months	20
	1-5 years	38
	6-10 years	7
Stage of cancer	I	49
	II	51

26-69), most were married; 60% had eight years of education and 70% were housewives. All women had health insurance. Most women assessed their monthly income as “intermediate”. Thirty-five per cent had had cancer for 1-6 months and 38% for 1-5 years. The mean time since primary diagnosis was 22.6 ± 24.3 months (range 1 month – 10 years), 49% of patients were stage I and 51% were stage II. The pathology reports of all patients revealed infiltrative ductal cancer. After having modified radical mastectomy, 59% of the sample were receiving chemotherapy; 10% were receiving radiotherapy and 31% both. For the FACT-G scales, the mean \pm standard deviation values were as follows: physical well-being, 22.86 ± 4.58 ; social and family well-being, 19.78 ± 4.40 ; emotional well-being, 16.88 ± 4.89 ; functional well-being, 16.99 ± 4.89 and for the total score: 76.12 ± 14.85 . There was significant correlation between QoL score by unmet needs score ($r = 0.263, p = 0.008$) and between QoL score and monthly income ($r = 0.257, p = 0.011$). There was a significant difference for QoL score by occupation ($p = 0.009$). The mean score for housewives was 73.33 ± 14.10 whereas it was 81.75 ± 15.20 for the patients working out. The difference between unmet needs score and occupation was not significant ($p > 0.05$) (Table 2). There were no sig-

Table 2: Mean scores for quality of life (QoL) and unmet needs by occupation

	Housewife	Working out	P*
Quality of life	73.33 ± 14.10	81.75 ± 15.20	0.009
Unmet needs	12.20 ± 1.56	12.14 ± 2.03	0.900

*t-test

nificant relationships between QoL score by age, educational status, marital status, time since diagnosis and stage ($p > 0.05$). Similarly, there were no significant relationships between unmet needs score and age, educational status, marital status, ln (time since diagnosis), ln (monthly income), occupation and stage of cancer ($p > 0.05$).

Multivariate regression analysis results for QoL score by age, marital status, educational status, ln (time since diagnosis), ln (monthly income) and occupation showed that there were only two significant variables for prediction of QoL score which were, unmet needs and occupation ($p = 0.005, p = 0.007$, respectively). This prediction model can be formulated as $QoL = 35.5 + 2.40 \times \text{Unmet Needs} + 8.6 \times \text{Occupation}$. These two variables explain 14% of the variability in QoL score. The scatter-plot for quality of life score and unmet needs score by occupation is given in Figure 1.

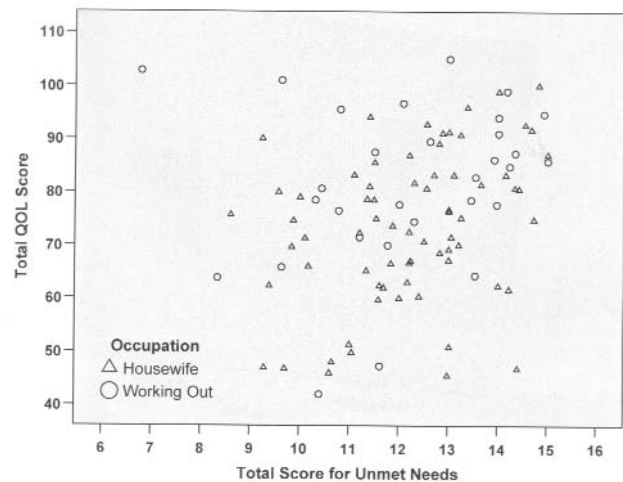


Fig. 1: Scatter-plot for quality of life score and unmet needs score by occupation.

The box-plot for quality of life score and occupation is presented in Figure 2.

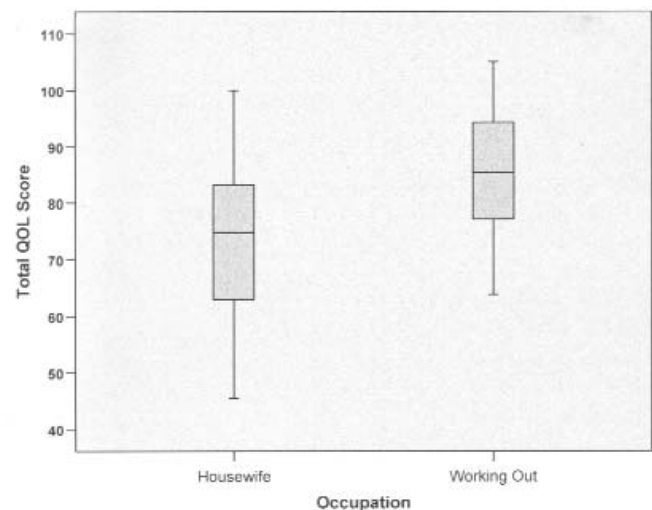


Fig. 2: Box-plot for quality of life score by occupation.

DISCUSSION

This paper reports a descriptive study of the QoL and unmet needs in breast cancer patients in a southern urban city of Turkey. It was found that being diagnosed with breast cancer had a significant impact on most dimensions of QoL and unmet needs. Consistent with other reports, changes to physical components of QoL appeared to be more pronounced than changes to emotional aspects of QoL in this sample of women (36). The data in the present study suggest that being diagnosed with breast cancer is associated with significant worsening in some domains of QoL. Although there is information about the significant relationship between age and QoL and marital status and QoL in breast cancer patients, we could not find such a relationship (37). The study found that QoL of patients who were working out was better than that of patients who were housewives. The possible reasons may be better economic and psychological conditions of women who were working out than women who were housewives. However, not all full-time workers had a better QoL. Quality of life for teachers and nurses was worse than that of other professionals. This may be due to several possible reasons such as higher levels of expectations, awareness and disappointment. Some women in this sample reported difficulties with their emotional and physical functioning. Interestingly, there were almost no differences detected in unmet needs in terms of demographic and disease characteristics of the women. Women relied heavily on their physicians for support and so enhanced doctor-patient communication may improve emotional health outcomes in these women (38). With intense support, women generally report better well-being and lower distress (39), although some studies have not been able to demonstrate this effect (40). Use of open-ended questions, active listening, responding with empathy and clarifying perceptions of woman's concerns, agenda-setting, empathic statements, summarizing, checking, understanding, endorsing question-asking and warmth are all strategies that have been shown to increase the identification of patients' concerns (41) and successful negotiation with an active patient to share control of the consultation (42–44). Psychooncologically trained teams of physicians would best relate to the patients' unmet needs and contribute significantly to adaptation of patients to their cancer diagnosis leading to better QoL (45–50).

The study adds knowledge to the quality of life of breast cancer patients in Adana, southern Turkey. It emphasizes the importance of physician-patient communication. It gives the opportunity to use an international scale in Turkey. The limitations of this study include a small sample size, the cross-sectional study design, the absence of a control group and absence of the psychiatric details. There may be both demographic and disease-related confounding factors. Individual reactions to the diagnosis may vary considerably, and some women may be more psychologically devastated than others by the change in their health status. The sample was drawn from a large urban Turkish university hospital. The

needs of rural women are not represented in these findings and may well be different from those of urban women. It would be better if the validity and reliability of subscales were assessed in Turkey prior to their use in this descriptive study as socio-cultural factors may affect the results.

It is important to assess patients psychologically so as to make interventions about their psychosocial needs which impact on their level of QoL. This will require the re-evaluation of doctor-patient communication and interventions for improvement of this relationship. Healthcare professionals must recognize and take into consideration the importance of psychosocial variables and share this understanding with their patients. Future research aimed at uncovering medical, de-mographic and psychosocial predictors of QoL may improve the ability to identify patients at highest risk for poor outcome and develop interventions to meet their needs.

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