

Original Research Article

Life Quality, Comfort and Anxiety Levels of Family Members Caring for the Cancer Patient

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ABSTRACT

Objective: This study aimed to assess the life quality, comfort and anxiety levels of family caregivers of cancer patients in Turkey.

Methods: The study population consisted of first degree relatives caring for cancer patients who went to the adult unit of a Oncology and Bone Marrow Transplantation Hospital in a University to receive ambulatory chemotherapy (n=85). The study data were collected by using the Individual Description Form, the Scale of Quality of Life-Family Version (QOL-FV), General Comfort Scale (GCQ) and Beck Anxiety Inventory (BAI).

Results: It was determined that the family members had an age average of 41.31 ± 12.60 (min-max: 19-64) and a caring duration of 13.17 ± 9.07 months. 54.1% were women, 44.7% workers and 70.6% married. Total score averages of family members caring for cancer patients were determined as follows; QOL-FV; 164.51 ± 56.32 , GCQ; 2.62 ± 0.44 , BAI; 16.49 ± 14.09 .

Conclusions: It was determined that family members caring for cancer patients have a moderate level of life quality, comfort and anxiety. Nurses should assess their caregiver's quality of life, comfort, anxiety levels before, during and after treatment periods and educate them about adverse effects of cancer treatments and needed care.

Key Words: anxiety, cancer patient, comfort, life quality.

INTRODUCTION

Being an important disease, cancer is the reason of a great majority of deaths in Turkey. Indeed, cancer is followed by circulatory diseases, which are among the most frequent causes of death in Turkey. As a result of a study that was conducted by the Ministry of Health of Turkey between 2000 and 2006, it has been established that there are 396,000 cancer patients. The estimations show that 150,000 people are diagnosed

with cancer and 140,000 people die because of cancer every year. ^[1]

People are affected by cancer either directly or indirectly. Cancer may worsen the caregiver's health, impair social life, increase stress, and cause depression. The diagnosis of cancer has a significant effect upon not only the patients, but also their caregivers in the family. Thus, cancer has a considerable impact on both patients and their families. ^[2]

Life quality is a multi-dimensional structure, which incorporates the physical, mental, psychological, social and spiritual functioning of the individual. [3] We generally use the term comfort in several contexts of the nursing practice as part of nurses' common language. Comfort is regarded by Kolcaba as a resulting state of nursing interventions to either alleviate or eliminate distress. It is a state, where basic needs related to the state of relief, ease and transcendence are satisfied. While relief is the state of having a specific need met and a necessity for the person to re-establish his/her usual functioning; ease is a state of calmness and contentment required for effective performance; and transcendence is a state in which each person feels they have skills or potentials to plan, control their destiny and solve their problems. We can also call this type of comfort a renewal. These three states of comfort develop into four contexts: the physical context relates to bodily sensations; the social context to interpersonal, family and social relationships; the psychospiritual context to internal awareness of self, including esteem, concept, sexuality and the meaning of one's life, which may also involve a relationship to a higher order or being; and the environmental context. [4]

The traditional Turkish culture attaches a great importance to family structure. This structure affects the caregivers, as well. Additionally, we see that the homecare system in our country is not as well-established as in developed countries, which results in making the informal care more widespread than formal care. The responsibility of caring for the cancer patient at home belongs to the patient's spouse, children, or relatives in general. [5,6] Since the Turkish society involves supportive family relations and strong relationships, other family members try to socially support the caregivers. The care is usually undertaken only by an additional person and the responsibility is not equally shared among the family members. It is possible that the QOL of the

family member, who undertakes the responsibility of care, will be affected negatively. [7] In addition to this, due to reasons such as the overprotective family structure of the Turkish society in our country, as well as the anxiety felt by the patients regarding finding out the diagnosis of their disease and the worries of health-care team about informing patients of their disease, the diagnoses are generally hidden from patients and are explained to their relatives; thus, the patient relatives also have the burden of hiding the diagnosis from the patient, yet they fail to hide their emotions while trying to assure the patient that everything is going fine. This situation causes the caregivers to encounter with difficulties in making a decision and feel a sense of guilt and similar negative emotions; and it also negatively affects their health, socio-economic and psychological domains which are the indicators of life quality. [8]

The former studies showed that family caregivers experience increased anxiety [9-17] and decreased life quality (QOL). [2,6,7,9,14,16,18-21] The literature involves no study on the comfort levels of family caregivers of cancer patients. However; examining the literature, it is not possible to find a single study aimed at determining the life quality, comfort and anxiety levels of family caregivers of cancer patients in our country.

MATERIALS AND METHODS

Setting & Sample

While the study population consisted of first degree relatives (partners, parents, siblings and children) caring for cancer patients who went to the Adult unit of Tulay Aktas Oncology and Bone Marrow Transplantation Hospital in a university to receive ambulatory chemotherapy between January-April 2013; the sample consisted of 85 individuals among these individuals who compiled the study limitations and accepted to participate in the study.

Instrument and Data Collection

The study data were collected with the face-to-face interview technique by

using the Individual Description Form, the Scale of Quality of Life-Family Version (QOL-FV), General Comfort Scale (GCQ) and Beck Anxiety Inventory (BAI). Each interview lasted for approximately 15-20 minutes.

Individual Description Form

Being prepared by the researcher, the form involved 11 questions about the sociodemographic features and personality traits of the relatives of cancer patients.

The Scale of Quality of Life-Family Version (QOL-FV)

The scale that was developed by Ferrell and Grant for assessing the quality of life of cancer patients was reviewed to evaluate the life quality of family members and was re-adapted. The scale, whose validity and reliability study was conducted by Okcin and Karadakovan (2012) in our country, had a Cronbach's α value of 0.90. Involving a total of 37 items, the scale consists of four lower dimensions as Physical health condition, Psychological health condition, Social Anxieties and Spiritual wellbeing. The scale is interpreted on the basis of the total score and lower dimension scores and the high score signifies the highness of life quality. [22]

General Comfort Scale (GCQ)

Being developed by Kolcaba (1992) and tested by Kuşoğlu and Karabacak (2008) in our country in terms of validity and reliability, the General Comfort Scale involves 48 items. While the highest total score to be obtained from the scale is 192, the lowest score is 48. While the low score shows that the comfort is bad, the high score shows that it is good. [23]

Beck Anxiety Inventory (BAI)

The Beck Anxiety Inventory (BAI), created by Beck et al., is a 21-question multiple-choice self-report inventory that is used for measuring the severity of an individual's anxiety. The validity and reliability study of Turkish version of the scale was conducted by Ulusoy et al. (1998). The BAI consists of twenty-one questions about how the subject has been feeling in the last week, expressed as

common symptoms of anxiety (such as numbness and tingling, sweating not due to heat, and fear of the worst happening). The distribution of points is as follows: 0-7 minimal-level anxiety symptoms, 8-15 low-level anxiety symptoms, 16-25 moderate-level anxiety symptoms and 26-63 points high level anxiety symptom. [24]

Statistical analysis

Data were analyzed by using the Statistical Package for Social Sciences (SPSS) for Windows version 15.0. [25] Descriptive statistics were used to describe the demographics. For data evaluation; number, percentage, mean, standard deviation, Mann Whitney U, Kruskal Wallis methods and Pearson correlation analysis were used. A p value of <0.05 was considered statistically significant.

Ethical considerations

The research was performed according to the guidelines delineated by the Declaration of Helsinki. Participants in this study were voluntary.

RESULTS

It was determined that the family members who participated in the study had an age average of 41.31±12.60 (min-max: 19-64) and a caring duration of 13.17±9.07 months. 54.1% were women, 47.1% high school graduates, 44.7% workers, 70.6% married and 80% were individuals with children.

Total score averages of family members caring for cancer patients were determined as follows; QOL-FV; 164.51±56.32 (min-max: 42-289), GCQ; 2.62±0.44 (min-max: 0.23-3.44), BAI; 16.49±14.09 (min-max: 0-55) (Table 1).

Table 1. Life Quality, GCQ and BAI Score Averages of Family Members Caring for the Cancer Patient

Scales	Score Averages of Scales
Physical Health Condition	27.90±12.66
Psychological Health Condition	59.00±26.76
Social Anxieties Condition	36.32±16.85
Spiritual Health Condition	41.28±12.70
QOL-FV	164.51±56.32
GCQ	2.62±0.44
BAI	16.49±14.09

BAI: Beck Anxiety Inventory, GCQ: General Comfort Scale, QOL-FV: The Scale of Quality of Life-Family Version

Table 2 shows the relationship between the age, caring duration, disease duration of family members caring for cancer patients, and the total score averages of QOL-FV, GCQ, BAI. A negatively weak relationship was determined between the caring duration of caregiver family members and the total score averages of

QOL-FV; and a positively weak relationship was determined between the total score averages of BAI. A positively moderate relationship was determined between the total score averages of QOL-FV and GCQ and a negatively weak relationship was determined between the total score averages of QOL-FV and BAI (Table 2).

Table 2. Total age, caring duration, disease duration, QOL-FV, GCQ, BAI score averages of family members caring for the cancer patient and their comparison

		AGE	CARING DURATION	DISEASE DURATION	QOL-FV	GCQ	BAI
AGE	r	1	0.02	0.15	-0.03	-0.42	0.04
	p		0.79	0.15	0.76	0.70	0.68
CARING DURATION (AVE)	r		1	-0.05	-0.22	-0.49	0.27
	p			0.65	0.04	0.65	0.01
DISEASE DURATION	r			1	0.04	-0.06	0.17
	p				0.71	0.56	0.11
QOL-FV	r				1	0.52	-0.25
	p					0.00	0.01
GCQ	r					1	-0.20
	p						0.06
BAI	r						1
	p						

BAI: Beck Anxiety Inventory, GCQ: General Comfort Scale, QOL-FV: The Scale of Quality of Life-Family Version

It was determined that there was no significant difference between the lower dimensions of QOL-FV and the total score averages of QOL-FV, GCQ and BAI according to the genders of family members caring for cancer patients ($p > .05$). Regarding the women, the total score averages were determined as follows; QOL-FV: 166.86 ± 50.00 , GCQ: 2.67 ± 0.29 and BAI: 18.10 ± 14.02 (Table 3).

It was determined that there was no significant difference between the primary, high school and university graduates in terms of the lower dimensions of QOL-FV and the total score averages of QOL-FV, GCQ and BAI ($p > .05$) (Table 3).

Regarding the working family members caring for cancer patients in the study, the total score averages were determined as follows; QOL-FV: 166.94 ± 50.38 , GCQ: 2.66 ± 0.53 and BAI: 14.10 ± 10.79 . It was determined that there was no significant difference between the working, housewife and retired individuals in terms of the lower dimensions of QOL-FV and the total score averages of QOL-FV,

GCQ and BAI according to their working conditions ($p > .05$) (Table 3).

Regarding the married family members caring for cancer patients in the study, the total score averages were determined as follows; QOL-FV: 162.90 ± 58.93 , GCQ: 2.59 ± 0.48 BAI: 18.35 ± 15.50 . There was no significant difference between the single, divorced, widow and married individuals in terms of the lower dimensions of QOL-FV and the total score averages of QOL-FV, GCQ and BAI according to their marital status ($p > .05$) (Table 3).

Regarding the individuals with children, the total score averages were determined as follows; QOL-FV: 165.60 ± 54.74 , GCQ: 2.62 ± 0.44 and BAI: 17.20 ± 14.87 . There was no significant difference between individuals with and without children in terms of the lower dimensions of QOL-FV and the total score averages of QOL-FV, GCQ and BAI according to the states of having children ($p > .05$) (Table 3).

Table 3: Sociodemographic features of family members caring for the cancer patient

	n	%	Physical Health Condition	Psychological Health Condition	Social Anxieties Condition	Spiritual Health Condition	QOL-FV	GCQ	BAI
GENDER									
Female	46	54.1	27.41±12.03	58.76±26.19	37.93±15.26	42.76±10.66	166.86±50.00	2.67±0.29	18.10±14.02
Male	39	45.9	28.48±13.49	59.28±27.75	34.43±18.58	39.53±14.70	161.74±63.54	2.57±0.56	14.58±14.12
			t=-0.38 p=.69	t=0.08 p=.92	t=0.95 p=.34	t=1.16 p=.24	t=0.41 p=.67	t=1.09 p=.27	t=1.14 p=.25
EDUCATION									
Primary Education	31	36.5	25.09±13.28	55.35±26.29	32.32±13.98	39.16±13.72	151.93±53.02	2.58±0.38	19.54±16.32
High School	40	47.1	29.27±12.63	59.90±28.67	36.45±18.58	41.90±11.20	167.52±60.29	2.62±0.50	17.35±13.97
University and above	14	16.5	30.21±10.92	64.50±22.33	44.85±15.20	44.21±14.49	183.78±47.97	2.73±0.38	13.82±11.94
			KW=2.63 p=.26	KW=2.54 p=.28	KW=4.93 p=.08	KW=1.17 p=.55	KW=3.78 p=.15	KW=1.10 p=.57	KW=2.03 p=.36
OCCUPATION									
Working	38	44.7	30.68±10.87	56.50±26.51	37.99±13.86	41.78±12.16	166.94±50.38	2.70±0.23	14.10±10.79
Housewife	24	28.1	25.20±12.31	58.54±27.24	35.83±13.10	44.62±9.08	64.20±52.41	2.66±0.53	7.70±15.20
Retired	23	27.1	26.13±15.16	63.60±27.25	34.13±23.91	36.95±15.77	160.82±70.34	2.51±0.43	19.17±17.37
			KW=3.54 p=.17	KW=0.95 p=.62	KW=2.64 p=.26	KW=3.47 p=.17	KW=0.21 p=.90	KW=3.77 p=.15	KW=0.74 p=.68
MARITAL STATUS									
Single, widow and divorced	25	29.4	30.80±11.62	63.12±23.90	35.16±15.85	39.32±12.23	168.40±50.43	2.69±0.30	12.04±8.68
Married	60	70.6	26.70±12.96	57.28±27.87	36.81±17.36	42.10±12.90	162.90±58.93	2.59±0.48	18.35±15.50
			U=612.00 KW=2442.0 p=.18	U=634.50 KW=2464.5 p=.26	U=716.00 KW=1041.0 p=.74	U=651.00 KW=976.0 p=.33	U=708.50 KW=2538.5 p=.71	U=711.50 KW=2541.5 p=.71	U=609.50 KW=934.5 p=.17
STATE OF HAVING CHILDREN									
Available	68	80	29.76±13.70	58.41±29.89	35.76±17.77	36.23±13.20	160.17±63.89	2.62±0.44	17.20±14.87
N/A	17	20	27.44±12.45	59.14±26.15	36.47±16.75	42.54±12.35	65.60±54.74	2.64±0.42	13.64±10.30
			U=512.50 KW=2858.5 p=.47	U=562.00 KW=2908.0 p=.86	U=569.50 KW=29.15.50 p=	U=400.50 KW=553.0 p=.05	U=559.00 KW=712.00 p=.83	U=557.00 KW=710.0 p=.81	U=539.00 KW=692.0 p=.66

BAI: Beck Anxiety Inventory, GCQ: General Comfort Scale, QOL-FV: The Scale of Quality of Life-Family Version

There was no significant difference between the lower dimensions of QOL-FV and the total score averages of QOL-FV, GCQ and BAI according to the intimacy of the caregiver family members with the cancer patient ($p > .05$) (Table 4).

Regarding the family members living in the same city (inside of Izmir), the total score averages were determined as follows; QOL-FV: 170.92±59.81, GCQ: 2.63±0.46 and BAI: 15.90±14.79. It was determined that there was no significant difference between the lower dimensions of QOL-FV and the total score averages of

QOL-FV, GCQ and BAI according to the environment of the caregiver family members ($p > .05$) (Table 4).

Regarding the family members sharing the same house, the total score averages were determined as follows; QOL-FV: 158.96±55.09, GCQ: 2.61±0.46, BAI: 17.00±14.81. There was no significant difference between the lower dimensions of QOL-FV and the total score averages of QOL-FV, GCQ and BAI according to the states of caregiver family members to share the same house with the patient ($p > .05$) (Table 4).

Regarding the family members caring for cancer patients who participated in the study and receiving support from another individual/individuals for the care of the patients, the total score averages were determined as follows; QOL-FV: 164.79±51.58, GCQ: 2.62±0.41, BAI: 16.32±13.44. There was no significant difference between the lower dimensions of QOL-FV and the total score averages of QOL-FV, GCQ and BAI according to the states of caregiver family members to receive support ($p > .05$) (Table 4).

Regarding the family members whose other responsibilities were affected, the total score averages were determined as follows; QOL-FV: 143.57±44.54, GCQ: 2.60±0.27, BAI: 17.78±14.17. There was no statistically significant difference between the lower dimensions of QOL-FV and the total score averages of QOL-FV, GCQ and BAI according to the states of caregiver family members to have another responsibilities ($p < .05$) (Table 4).

Table 4: Personality traits of family members caring for the cancer patient

	n	%	Physical Health Condition	Psychological Health Condition	Social Anxieties	Spiritual Health Condition	QOL-FV	GCQ	BAI
INTIMACY WITH THE PATIENT									
Partner	25	29.4	26.44±12.10	53.22±25.10	33.92±13.21	43.11±10.50	156.70±49.83	2.55±0.54	19.72±15.97
Parent	23	27.1	31.21±10.44	60.26±21.54	41.73±19.83	39.30±10.72	72.52±47.39	2.70±0.32	15.56±13.11
Sibling	10	11.8	30.10±13.65	62.50±27.56	35.00±11.63	43.80±10.31	171.40±50.87	2.67±0.30	15.30±15.23
Child	27	31.8	25.56±14.54	62.68±32.48	34.48±18.84	40.12±16.97	62.84±72.32	2.61±0.46	14.74±12.88
			KW= 2.40 p= .49	KW=1.30 p= .70	KW= 2.05 p= .56	KW=1.45 p= .69	KW=0.84 p= .83	KW=0.63 p= .88	KW=1.52 p= .67
HOME CITY									
Inside of Izmir	52	62.2	29.96±12.07	60.78±29.10	38.48±18.21	41.69±12.11	170.92±59.81	2.63±0.46	15.90±14.79
Outside of Izmir	33	38.2	24.66±13.05	56.18±22.71	32.93±14.06	40.63±13.74	154.42±49.54	2.61±0.41	17.42±13.07
			t=1.90 p= .06	t=0.77 p= .44	t=1.48 p= .14	t=0.37 p= .71	t=1.32 p= .19	t=0.28 p= .77	t=0.55 p= .63
STATE OF SHARING THE SAME HOUSE									
Sharing	63	74.1	25.88±12.14	56.49±25.89	34.57±16.48	42.01±13.27	158.96±55.09	2.61±0.46	17.00±14.81
Not sharing	22	25.9	33.68±12.58	66.18±28.48	41.36±17.26	38.18±10.90	80.40±58.08	2.66±0.36	15.04±11.97
			U=430.50 KW=2446.5 p= .008	U=552.50 KW=2568.50 p= .15	U=544.00 KW=2560.0 p= .13	U=551.50 KW=804.50 p= .15	U=556.50 KW=2572.50 p= .17	U=693.00 KW=946.00 p=1.00	U=673.00 KW=926.00 p= .84
STATE OF RECEIVING SUPPORT									
Receiving	67	78.8	27.55±12.34	58.62±25.57	36.89±15.28	41.71±11.11	164.79±51.58	2.62±0.41	16.32±13.44
Not Receiving	18	21.2	29.22±14.09	60.38±31.55	34.22±22.15	39.66±17.73	63.50±73.11	2.63±0.53	17.11±16.70
			U=528.00 KW=2806.0 p= .42	U=576.50 KW=2854.50 p= .77	U=554.00 KW=725.00 p= .59	U=588.50 KW=759.50 p= .87	U=577.00 KW=2855.00 p= .78	U=548.00 KW=2826.0 p= .55	U=588.50 KW=759.50 p= .87
EXPOSURE OF OTHER RESPONSIBILITIES									
Exposed	43	50.6	24.76±11.81	50.38±21.53	29.38±13.24	39.04±11.71	143.57±44.54	2.60±0.27	17.78±14.17
Not Exposed	42	49.4	30.97±12.83	67.41±28.85	43.11±17.36	43.46±13.37	84.97±59.50	2.64±0.56	15.23±14.06
			t=2.32 p= .02	t=3.07 p= .003	t=4.09 p= .00	t=1.61 p= .10	t=3.62 p= .00	t=0.44 p= .65	t=0.83 p= .40

BAI: Beck Anxiety Inventory, GCQ: General Comfort Scale, QOL-FV: The Scale of Quality of Life-Family Version

DISCUSSION

Cancer negatively affects the individuals diagnosed with the disease and

their families in terms of the physical, psychological and social aspect, and causes heavy costs for both families and the

society. The changes caused by cancer upon individuals and families gradually increase in the course of time and these increasing negations negatively affect primarily the life style and expectations of sick individuals and their families; in short, they threaten the life quality of both the individuals and their families. [21]

Comfort is an outcome that is highly desired by patients and their family, and hence represents an important goal of nursing care. Kolcaba defined comfort as “the immediate state of being strengthened through having the human needs for relief, ease, and transcendence addressed in four contexts of experience (physical, psychospiritual, sociocultural and environmental)”. Different resources state that maximum comforts of individuals decrease the anxiety and stress of individuals and increase their life quality as much as possible. [26]

It was determined that the family members who participated in the study had the following total score averages; QOL-FV: 164.51 ± 56.32 (min-max: 184.97-60.17), GCQ: 2.62 ± 0.44 (min-max: 2.51-2.73), BAI 16.49 ± 14.09 (min-max: 12.04-19.72). It is seen that family members caring for cancer patients have a moderate level of life quality, comfort and anxiety. In parallel with our study findings; the literature asserts that family members caring for cancer patients have a bad level of life quality [2,3,6,7,9,14,16,18,20] and anxiety. [9-17]

A negatively weak relationship was determined between the caring duration of caregiver family members and the QOL-FV; and a positively weak relationship was determined between the total score averages of BAI. A positively moderate relationship was determined between the total score averages of QOL-FV and GCQ and a negatively weak relationship was determined between the total score averages of QOL-FV and BAI (Table 2). The increase of the caring duration of caregiver family members proportionally causes the decrease of life quality and the increase of

life quality causes the increase of comfort and anxieties, which is an expected result.

The literature asserts that as the duration of treatment increases, the stress, sorrow and caring burden of caregivers increase, too. [27] The literature involves studies showing that as the duration of disease and caregiving increases, the life quality worsens [2,9,17,20] and the anxiety increases. [9,12]

In the study, no relationship was determined between the total score averages of QOL-FV, GCQ and BAI according to age. On the other hand, the literature involves different studies showing that the advanced age [15,20] or the young age of caregivers [9] worsen the life quality. In their study, Friðriksdóttir et al. (2011) and Lee et al. (2013) stated that young caregivers had higher levels of anxiety. [9,15]

Even though there is no significant difference between the lower dimensions of QOL-FV and the total score averages of QOL-FV, GCQ and BAI according to gender ($p > 0.05$), it is seen that caregiver women have higher levels of anxiety compared to men. In their study, Yesilbalkan et al. (2010) determined no significant difference between the gender and life quality. [3] According to social norms, the fact that women have great responsibilities within the triangle of home-child-husband causes them to sustain their traditional roles within the family and have a higher level of anxiety. Grov et al. (2005) determined that family members caring for cancer patients of both genders had significantly higher levels of anxiety. [28] In literature, it is stated that female family members caring for cancer patients have a worse life quality [8,9,18,20] and anxiety. [9,12,17] In parallel with our study finding, Hacialioglu et al., (2010) and also the literature state that the rate of caregiver women are higher than men, which shows a parallelism with our study finding. [7] Similar results in the world and in our country show that the burden of caregiving is undertaken by women in various societies. The most important reason of

considering women convenient for caregiving may be the fact that societies generally consider the housework and familial private spaces a natural business of women. [8,12]

It was determined that there was no significant difference between the lower dimensions of QOL-FV and the total score averages of QOL-FV, GCQ and BAI according to the educational level ($p>.05$). In parallel with this finding; Yesilbalkan et al. (2010) and Hacialioglu et al. (2010) determined no significant difference between the educational level and life quality. [3,7] However, it is seen in our study that as the educational level increases, the life quality and comfort of patient relatives increase and their anxiety levels decrease. This may be associated with the fact that as the educational level increases, the conscious coping mechanisms, financial possibilities and social conditions get better. The studies show that as the educational level increases, the life quality increases [18,20,21] and the anxiety decreases. [29]

It was determined that there was no significant difference between the working, housewife and retired individuals in terms of the lower dimensions of QOL-FV and the total score averages of QOL-FV, GCQ and BAI according to their working conditions ($p>0.05$). In parallel with this finding; Yesilbalkan et al. (2010) determined no significant difference between the working condition and life quality. [3] However, it is seen in this study that housewife and retired caregivers have lower levels of life quality and comfort and higher levels of anxiety compared to working individuals. This may be associated with the fact that they are constantly with patients both at home and at the hospital and share all their negative experiences. On the other hand, as the working patient relatives have a job and social environment where they could let themselves go, they might have lower levels of anxiety and thus, higher levels of comfort and life quality. In their study, Turkoğlu and Kılıç (2012) indicated the failure of patient relatives to allocate sufficient time for

themselves as a resource stress, which supports this result. [6]

There was no significant difference between the lower dimensions of QOL-FV and the total score averages of QOL-FV, GCQ and BAI according to the marital status of family members ($p>.05$). In parallel with this finding; Yesilbalkan et al. (2010) and Hacialioglu et al., (2010) determined no significant difference between the marital status and life quality in their study. [3,7] However, this study determined higher levels of anxiety and lower levels of life quality and comfort in married patient relatives, compared to single, widow and divorced patient relatives. This may be associated with the fact that married patient relatives have greater roles and responsibilities as mothers and wives. The studies determined that married caregivers had higher levels of anxiety, [9] and lower levels of life quality. [6,9,17,18]

There was no significant difference between the lower dimensions of QOL-FV and the total score averages of QOL-FV, GCQ and BAI according to the states of family members who participated in the study to have children ($p>0.05$). It is seen that family members with children have lower levels of life quality, higher levels of anxiety and very close levels of comfort. This may be associated with the fact that the patient relative is responsible for the care of both the patient and her child/children. Owayolu et al. (2014) stated that caregiver family members with children had lower levels of life quality. [8]

There was no significant difference between the lower dimensions of QOL-FV and the total score averages of QOL-FV, GCQ and BAI according to the intimacy of the caregiver family member with the patient ($p>.05$); however, the caregiver partners had lower levels of life quality and comfort and higher levels of anxiety. The anxiety experienced by partners could be associated with the ambiguities of the disease and treatment process, as well as the fear of losing their partners and the spiritual

support. In literature, it is stated that individuals caring for their sick partners have tension, emotional problems, psychosomatic complaints and a decreased work activity due to the change of roles. [29] In parallel with this findings; Hacialioglu et al. (2010) determined that caregiver partners had lower levels of life quality and there was no significant difference between the life qualities according to the intimacy with the cancer patient. [7]

There was no significant difference between the lower dimensions of QOL-FV and the total score averages of QOL-FV, GCQ and BAI according to the environment of caregiver family members ($p > .05$); however, family members living in different cities (outside of Izmir) had lower levels of life quality and comfort and higher levels of anxiety. Travel and accommodation expenses that are added to treatment expenses may have caused the increase of the material burden of the patient relative. It is thought that our study finding is affected by reasons such as the difficulties of living in a metropolis, and problems of accommodation and transportation. According to literature, patients and their relatives living in metropolis have higher levels of life quality, which shows a parallelism with our study. [30]

There was no significant difference between the lower dimensions of QOL-FV and the total score averages of QOL-FV, GCQ and BAI according to the states of caregiver family members to share the same house with patients ($p > .05$); however, patient relatives sharing the same house with patients had lower levels of life quality and comfort and higher levels of anxiety. This may be associated with the fact that they are constantly with the patient at home and at the hospital and share all the negative experiences of the disease and treatment more frequently.

There was no significant difference between the lower dimensions of QOL-FV and the total score averages of QOL-FV, GCQ and BAI according to the states of caregiver family members to receive

support ($p > .05$). Even though the score averages are close to each other, it is seen that patient relatives receiving no support have lower levels of life quality and higher levels of anxiety. Patient relatives receiving no support have the burden of the entire care and needs of patients alone and try to also fulfill other responsibilities (such as home, work, family), which is the possible reason of their increased levels of anxiety. Studies determined that family members receiving no support for the patient care had a worse life quality [2, 6,7,9,21] and higher levels of anxiety. [9,13,17]

There was no significant difference between the lower dimensions of QOL-FV and the total score averages of QOL-FV, GCQ and BAI according to the exposures of other responsibilities of caregiver family members ($p < .05$). It was determined that family members whose other responsibilities were not exposed while caring for their patients had higher levels of life quality and comfort, and lower levels of anxiety. Caregivers' communications with their relatives and friends, and greater knowledge on the disease have been described as positive strategies for the caregivers. Caregivers want more attention from health professionals and need to receive clear information on the patient. Caregiver family members are unable to allocate sufficient time for other responsibilities such as home, work and children. Problems such as delaying or leaving the job or education, getting alienated from the social environment and being unable to fulfill familial responsibilities may cause them to experience anxiety and consequently have decreased levels of life quality and comfort.

CONCLUSION

It was determined that family members caring for cancer patients have a moderate level of life quality, comfort and anxiety. Nurses should assess their caregiver's quality of life, comfort, anxiety levels before, during and after treatment periods and educate them about adverse

effects of cancer treatments and needed care.

Implications for nursing

The identified research positive aspects should be stimulated and valued in caregivers, so as to enhance resilience and reduce suffering. Prevention and awareness-raising programs can be put in practice for cancer patients, addressing the use of their internal resources, stimulating them towards overcoming and adaptation to difficult situations.

The use of multidimensional holistic assessment instruments with cancer patients' caregivers can be useful in multi-professional teams' of clinical practice as they seek to improve care delivery to caregivers.

Author's Contribution

Cinar Yucel was responsible for drafting the article or advising it critically for important intellectual content. Goke Arslan, Kurt, Celebi, Kavlı, Orhan, Usta and Aslan performed the data collection and Cinar Yucel and Goke Arslan performed the data analysis. Cinar Yucel, Goke Arslan and Unsal Avdal made the critical revisions to the paper. All authors read and approved the final approval of the version to be published. The authors would like to thank the participant who took part in this study.

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