Original Paper

The Relationship Between Social Support From Family and Quality of Life Among Cancer Patients: A Cross-Sectional Study

Ismail Toygar[1*] , **Öznur Usta Yeşilbalkan[2]** , **Merve Kürkütlü[3]** , **Tuğba Akgün[4]**

1. Research Assistant Doctor, Department of Internal Medicine Nursing, Faculty of Nursing, Ege University, Izmir, Turkey.
2. Professor Doctor, Department of Internal Medicine Nursing, Faculty of Nursing, Ege University, Izmir, Turkey.
3. Registered Nurse, Medical Park Hospital, Izmir, Turkey.
4. Registered Nurse, Tulay Aktas Oncology Hospital, Faculty of Medicine, Ege University, Izmir, Turkey.

ABSTRACT

Introduction: Improving the Quality of Life (QoL) is considered one of the main objectives in the care of cancer patients. Achieving this objective, it is essential to determine the factors affecting QoL in cancer patients. The studies in the literature have determined the effects of various factors on QoL but social support from family has remained to be studied.

Objective: The present study aimed to determine the relationship between perceived social support from family and QoL in cancer patients.

Materials and Methods: This cross-sectional study was conducted in an oncology unit of a university hospital in İzmir City, Turkey, from March to October 2019. A convenience sample of 276 cancer patients participated in the study. A patient identification form, the Perceived Social Support from family scale (PSS-Family), and the Quality of Life index-cancer version (QLI-C) were used for data collection. The scores of PSS-Family and QLI-C ranged 0-20 and 66-396, respectively. Regression analysis was used to estimate the effect of perceived social support from family on QoL.

Results: Of the participants, 65.2% were female. The Mean±SD age of the study sample was 47.5±14.4 years. Also, the Mean±SD scores of PSS-Family and QLI-C were 16.43±3.01 and 307.77±27.48, respectively. Regression analysis revealed that perceived social support from family was associated with a relative increase in QoL index (B=3.44, P=0.001, R^2=0.141).

Conclusion: Perceived social support from family is positively associated with QoL in cancer patients. Nurses should consider this relationship when they plan to improve the QoL of cancer patients.

* Corresponding Author:
Ismail Toygar, PhD.
Address: Department of Internal Medicine Nursing, Faculty of Nursing, Ege University, Izmir, Turkey.
Tel: +90 (50) 73003736
E-mail: ismail.toygar1@gmail.com

Highlights

● Social support from family may increase the cancer patients' quality of life.

● The quality of life has gained importance in cancer patients, because of the increase in survival and life expectancy.

● Nurses should consider social support from family when they are planning the interventions to increase cancer patients' quality of life.

Plain Language Summary

This study aimed to determine the effect of perceived social support from family on the quality of life of cancer patients. Cancer patients' quality of life is a complex phenomenon affected by many other factors. To improve the patients' quality of life, it is essential to determine all affecting factors. Most of these factors have been investigated in detail. However, the effect of social support from family that affected many aspects of the patients' lives on the quality of life has not been investigated. In many cultures, the family has an important role in patients' daily life and patients spend most of their time with their family. Accordingly, the relationship between family and patients may affect the quality of life of the patients. The results of this study help to understand the relationship between social support from family and quality of life. The results of this study showed perceived social support from family is positively associated with quality of life in cancer patients. In this manner, these findings of the current study will help health professionals to improve cancer patients' quality of life.

Introduction

Along with the development of health systems and treatment opportunities, the mortality rate of chronic diseases and cancer decreases, and life expectancy increases [1]. According to the American Cancer Society, while the cancer incidence has not significantly changed, cancer-related death decreases by 1.4% to 1.8% each year. Thus, the number of people living with cancer increases every year [2].

The Quality of Life (QoL) has gained importance in cancer patients, because of the increase in survival and life expectancy. The disease and side effects of treatments lead to the reduction of QoL in the patients. Nayak et al. reported that 82.3% of cancer patients had low QoL scores [3]. Moreover, the rate of patients with low QoL scores is higher regarding advanced cancer [4]. Numerous factors have been reported as the predictors of QoL; these factors include radiotherapy treatments, the feeling of loneliness, marital status, education status, comorbidity, and weight loss. Although the factors associated with the QoL of cancer patients are well-known, these patients still report the low levels of QoL [5].

Improving the QoL is considered one of the main objectives in the care of cancer patients [3]. Achieving this objective, the factors affecting the QoL should be determined. The effect of social support on the QoL of cancer patients has been extensively studied [6]. It was reported that perceived social support is associated with QoL in cancer patients. However, the effect of social support from family on the QoL has not been evaluated in cancer patients.

Social support positively affects the well-being of patients. These positive effects may help improve the QoL. Social support protects against the harmful effects of stressful events and helps people to cope with anxiety and depression. The lack of social support is reported as predictive of higher mortality. Besides, social support has a positive correlation with the health, functioning, psychological, spiritual, and family-related aspects of QoL. However, social support has a possible negative effect in that it could increase the patients' dependency [7].

The term social support from family—as a type of social support—usually refers to the financial, social, and moral assistance that is provided to the stressed individual by the family members. The patients primarily receive support from the family in coping with difficulties. This support is important in providing and maintaining an individual's physical and psychological well-being, thus, it may help improve the QoL [8]. However, a limited number of studies have examined the relationship between perceived social support from family and QoL. Therefore, the present study aimed to determine the re-

lationship between perceived social support from family and the QoL in cancer patients.

Materials and Methods

It was a cross-sectional study that was conducted in the oncology services of a university hospital in İzmir City, Turkey, from March to October 2019. The study was conducted with overall cancer patients who had been diagnosed for more than 6 months. The inclusion criteria were over 18 years of age, the ability of Turkish communication, and the lack of cognitive disorder. A convenience sample of patients was obtained from patients meeting the inclusion criteria. Out of 728 patients who were admitted to the hospital during the study period, 593 met the inclusion criteria. However, the study was carried out with 276 voluntary participants.

The patient's identification form was developed by the research team. The form consisted of 11 questions about age, gender, marital status, income level, education level, cancer-involved area, the duration of disease, family type, and the family history of cancer.

The Quality of Life index-cancer version (QLI-C) was developed by Ferrans [9]. The QLI-C consists of two parts and measures the QoL of cancer patients, based on the patients' satisfaction and the importance of the various aspects of life. Can et al. investigated the validity and reliability of the Turkish version of the QLI-C. The scale consists of 33 items and 4 sub-dimensions, including functional, family, social-economic, and psychological-spiritual. Scores are calculated for the overall QoL and each of the four domains. The satisfaction and importance scales are scored on a 6-point rating-type scale ranging from 1=very dissatisfied (very unimportant) to 6=very satisfied (very important). The total score ranges from 66 to 396, with a higher score representing better QoL [10]. The scale takes approximately 10 minutes to fill and no special training is required for its administration.

The Perceived Social Support from family scale (PSS-Family) was developed by Procidano and Heller [11]. Also, the PSS-Family is adapted into Turkish society [12]; thus, the scale is valid and reliable for Turkish society. The PSS-Family consists of one dimension and 20 questions that are answered as "yes", "no", or "I don't know". For each item, the perceived social support provided by family or friends was scored as +1 for "yes" and 0 for "no", also, the "Don't know" category was not scored. Thus, the scores range from 0 (indicating no perceived social support) to 20 (indicating maximum perceived social support). Higher scores indicate higher perceived

social support from the family [12]. The scale takes approximately 5 minutes to fill and no special training is required for its administration.

The patient identification form, QLI-C, and PSS-Family were used to collect the research data. The data were collected by the same researcher in the study. The researcher asked the questions and filled the form in line with the patient's response.

Data analysis was performed with IBM SPSS-25 for Windows (IBM Corp., Armonk, New York, USA). In this study, the continuous and categorical variables were expressed as mean±standard deviation and frequency (percentage), respectively. After the evaluation of the normal distribution of the data, a linear regression analysis was used to evaluate the relationship between PSS-Family and QLI-C.

Results

Most participants were female (65.2%) and married (73.6%). Also, 39.9% of the participants reported that they have a bachelor's or higher degree of education. More than half of the participants (56.9%) reported that their incomes are equal to their expenses. Table 1 presents the distribution of the other disease-related characteristics of the study sample.

The Mean±SD scores of the PSS-Family and QLI-C were 16.43±3.01 and 307.77±27.48, respectively. Moreover, the Mean±SD scores of the functional, social-economic, psychological-spiritual, and family sub-dimensions were 128.95±14.58, 71.54±7.22, 75.03±7.48, and 32.33±4.24, respectively (Table 2).

Factors that affect both PSS-Family and QLI-C may affect the regression model. Thus, the statistical differences between sociodemographic and disease-related characteristics and the scales were evaluated to determine these factors. The PSS-Family and QLI-C did not significantly differ from gender, marital status, family history of cancer, age, the duration of disease, and family type. According to Table 3, the PSS-Family positively affects the QLI-C (P=0.001) and the subscales of the QLI-C.

Discussion

One of the main goals of care in cancer patients is to improve the QoL. Factors affecting the QoL should be known to plan effective interventions to improve the quality of life in cancer patients [3]. This study aimed

Toygar I, et al. Relationship Between Social Support from Family and QoL. J Holist Nurs Midwifery. 2020; 30(4):217-223.

219

Table 1. Sociodemographic and disease-related characteristics of the study sample

Variables		No. (%)
Gender	Male	96 (34.8)
	Female	180 (65.2)
Marital status	Married	203 (73,6)
	Single	73 (26,4)
Education	Literate	22 (8.0)
	Primary school	54 (19.6)
	High school	90 (32.6)
	Bachelor's or higher degree	110 (39.8)
Income level	Income is less than the expense	81 (29.3)
	Income is equal to the expense	157 (56.9)
	Income is higher than the expense	38 (13. 8)
Treatment	Chemotherapy	234 (84.8)
	Combinational (Surgery + Chemotherapy)	42 (15.2)
Cancer involvement	Breast	73 (26.4)
	Lymphoma	32 (11.6)
	Ovarian	27 (9.8)
	Liver	21 (7.6)
	Other	123 (44.6)
Family structure	Nuclear family	243 (88.0)
	Extended family	26 (9.4)
	Living alone	7 (2.6)
Family history of cancer	Yes	98 (35.5)
	No	178 (64.5)

Variables		Mean±SD
Age (y)	Male	45.6±16.8
	Female	48.5±13.0
Disease duration (m)		30.3±41.7
Caring duration of current caregivers (m)		22.6±31.5

Table 2. Mean scores of PSS-Family and Quality of Life index-cancer in the study sample

Variables	Mean±SD
PSS-Family	16.43±3.01
QLI-C	307.77±27.48
Functional	128.95±14.58
Socio-economic	71.54±7.22
Psychological-spiritual	75.03±7.48
Family	32.33±4.24

PSS-Family: Perceived Social Support From Family; QLI-C: Quality of Life Index-Cancer

Table 3. Regression Analysis of the effect of PSS-Family on Quality of Life index-cancer and its subdimensions

Variables	B	β	R^2	t	Sig.*
QLI-C	3.44	0.376	0.141	6.72	0.001
Functional	0.88	0.181	0.033	3.05	0.001
Social-economic	0.60	0.248	0.062	4.24	0.001
Psychological-spiritual	0.63	0.251	0.063	4.30	0.001
Family	0.54	0.386	0.149	6.93	0.001

* Model summary: R=0.369; R^2=0.136; Adjusted R^2= -0.1384, F=3.352, P=0.006; QLI-C: Quality of Life Index-Cancer

PSS-Family: Perceived Social Support from family; QLI-C: Quality of Life Index-Cancer

to evaluate the effect of perceived social support from family on the QoL in cancer patients.

In the current study, the Mean±SD score of PSS-Family in cancer patients was 16.43±3.01. In the same society, Pehlivan et al. [13] reported the Mean±SD score of PSS-Family as 15.2±0.2. Also, Yıldırım and Kocabıyık [14] reported the Mean±SD score of PSS-Family as 15.92±3.22. Therefore, our study is similar to the literature in this respect. The family ties are reported as a strong and extended family structure, which is common in Turkish society. Thus, people living in Turkey spend more time in the family, compared with the people of many other countries [13, 14]. This difference may interpret these findings.

We found that the increase of social support from family positively affects the QoL in cancer patients. Each type of social support provides estimates for the overall QoL [15]. Eom et al. [16] reported that low social support is associated with poor QoL. According to the study of Zhou et al. [17], the overall social support contributes to the improving QoL in males who are undergoing prostate cancer treatment. Similarly, the results of our study explain the relationship between perceived social support from family and the QoL in cancer patients. Also, the current study is consistent with the literature of perceived social support from family. The literature reports include some beneficial effects of overall social support on the patients' health [8]. We thought that social support from family involves the same beneficial effects. However, further studies are needed to explain the positive effect of perceived social support from family on QoL in cancer patients.

This study determined that the perceived social support from the family positively affects all the sub-dimensions of the QoL index, especially the family sub-dimension. In this regard, recent study report a relationship between functional status and social support [18]. Furthermore, Ozkan and Once [19] reported the positive effect of social support on the functional status in cancer patients. Besides, social support had a positive effect on psychological well-being [20]. Luszczynska et al. [21] reported that social support improves the emotional, functional, and physical QoL, among lung cancer patients. Thus, this aspect of our study is consistent with the literature.

Toygar I, et al. Relationship Between Social Support from Family and QoL. J Holist Nurs Midwifery. 2020; 30(4):217-223.

221

According to the present results, the increase of social support improves the QoL through the positive effects on the overall well-being. This connection is also reported in the literature. No negative effect of social support from family was observed [22]. However, as a negative effect of social support, it was reported that the increase in social support increases the dependency of the patient [7]. The design and questionnaires of the current study were not suited to evaluate this effect of social support. Thus, further studies are recommended to determine this aspect of social support from family.

The increase in perceived social support from the family significantly improves the QoL in cancer patients. So, the perceived social support from the family should be considered while evaluating the QoL of cancer patients. While the interventions are planned to improve the QoL in cancer patients, interventions that increase perceived social support from the family should also be considered. We recommend further research on the subject.

The study has some limitations. it was conducted with the participants diagnosed with cancer, but there was no particular cancer group. Investigation with the separated cancer groups may provide new specific findings and solutions. As the participants were patients admitted to the hospital, the study is not necessarily generalizable.

Ethical Considerations

Compliance with ethical guidelines

Written permission was obtained from the Medical Research Ethical Committee of the university (Protocol: 19-7T/62), hospital (54148036-100), and participants to conduct the study. All participants signed an informed consent form. Also, all principles of the Declaration of Helsinki were observed throughout the study.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or non-profit sectors.

Authors' contributions

All authors equally contributed to all parts of the study.

Conflict of interest

The authors declared no conflict of interest.

References

[1] Torre LA, Siegel RL, Ward EM, Jemal A. Global cancer incidence and mortality rates and trends-an update. Cancer Epidemiology and Prevention Biomarkers. 2016; 25(1):16-27. [DOI:10.1158/1055-9965.EPI-15-0578] [PMID]

[2] Siegel RL, Miller KD, Jemal A. Cancer statistics, 2019. CA: A Cancer Journal for Clinicians. 2019; 69(1):7-34. [DOI:10.3322/caac.21551] [PMID]

[3] Nayak MG, George A, Vidyasagar MS, Mathew S, Nayak S, Nayak BS, et al. Quality of life among cancer patients. Indian Journal of Palliative Care. 2017; 23(4):445-50. [DOI:10.4103/IJPC.IJPC_82_17.] [PMID] [PMCID]

[4] Daly LE, Dolan RD, Power DG, Ní Bhuachalla É, Sim W, Cushen SJ, et al. Determinants of quality of life in patients with incurable cancer. Cancer. 2020; 126(12):2872-82. [DOI:10.1002/cncr.32824] [PMID]

[5] Rukshani DL, Kahandawala P, Jayawardana K, Karunarathne D, Galgamuwa LS, Kumara C, et al. Factors associated with quality of life among cancer patients in Sri Lanka. International Journal of Community Medicine and Public Health. 2018; 5(7):2705-13. [DOI:10.18203/2394-6040.ijcmph20182603]

[6] Heydarnejad MS, Hassanpour DA, Solati DK. Factors affecting quality of life in cancer patients undergoing chemotherapy. African Health Sciences. 2011; 11(2):266-70. https://www.ajol.info/index.php/ahs/article/view/68456

[7] Salonen P, Tarkka MT, Kellokumpu-Lehtinen PL, Koivisto AM, Aalto P, Kaunonen M. Effect of social support on changes in quality of life in early breast cancer patients: A longitudinal study. Scandinavian Journal of Caring Sciences. 2013; 27(2):396-405. [DOI:10.1111/j.1471-6712.2012.01050.x] [PMID]

[8] Tremolada M, Bonichini S, Basso G, Pillon M. Perceived social support and health-related quality of life in AYA cancer survivors and controls. Psycho-Oncology. 2016; 25(12):1408-17. [DOI:10.1002/pon.4072.] [PMID]

[9] Ferrans CE. Development of a quality of life index for patients with cancer. Oncology Nursing Forum. 1990; 17(3 Suppl):15-9. [PMID: 2342979]

[10] Can G, Durna Z, Aydiner A. The validity and reliability of the Turkish version of the Quality of Life Index [QLI] (Cancer version). European Journal of Oncology Nursing. 2010; 14(4):316-21. [DOI:10.1016/j.ejon.2010.03.007.] [PMID]

[11] Procidano M, Heller K. Measures of perceived social support from friends and from family: Three validation studies. American Journal of Community Psychology. 1983; 11(1):1-24. [DOI:10.1007/BF00898416] [PMID]

[12] Eskin M. Reliability of the Turkish version of the perceived social support from friends and family scales, scale for interpersonal behavior, and suicide probability scale. Journal of Clinical Psychology. 1993; 49(4):515-22. [DOI:10.1002/1097-4679(199307)49:4<515::AID-JCLP2270490410>3.0.CO;2-K.]

[13] Pehlivan S, Ovayolu O, Ovayolu N, Sevinc A, Camci C. Relationship between hopelessness, loneliness, and perceived social support from

222

Toygar I, et al. Relationship Between Social Support from Family and QoL. J Holist Nurs Midwifery. 2020; 30(4):217-223.

family in Turkish patients with cancer. Supportive Care in Cancer. 2012; 20(4):733-9. [DOI:10.1007/s00520-011-1137-5.] [PMID]

[14] Yildirim Y, Kocabiyik S. The relationship between social support and loneliness in Turkish patients with cancer. Journal of Clinical Nursing. 2010; 19(5-6):832-9. [DOI:10.1111/j.1365-2702.2009.03066.x.] [PMID]

[15] Kroenke CH, Kwan ML, Neugut AI, Ergas IJ, Wright ED, Caan BJ et al. Social networks, social support mechanisms, and quality of life after breast cancer diagnosis. Breast Cancer Research and Treatment. 2013; 139(2): 15-27. [DOI:10.1007/s10549-013-2477-2.] [PMID] [PMCID]

[16] Eom CS, Shin DW, Kim SY, Yang HK, Jo HS, Kweon SS, et al. Impact of perceived social support on the mental health and health-related quality of life in cancer patients: Results from a nationwide, multi-center survey in South Korea. Psycho-Oncology. 2013; 22(6):1283-90. [DOI:10.1002/pon.3133.] [PMID]

[17] Zhou ES, Penedo FJ, Lewis JE, Rasheed M, Traeger L, Lechner S, et al. Perceived stress mediates the effects of social support on health-related quality of life among men treated for localized prostate cancer. Journal of Psychosomatic Research. 2010; 69(6):587-90. [DOI:10.1016/j.jpsychores.2010.04.019.] [PMID] [PMCID]

[18] Gonzalez-Saenz de Tejada M, Bilbao A, Bare M, Briones E, Sarasqueta C, et al. Association of social support, functional status, and psychological variables with changes in health-related quality of life outcomes in patients with colorectal cancer. Psycho-Oncology. 2016; 25(8):891-7. [DOI:10.1002/pon.4022] [PMID]

[19] Ozkan S, Ogce F. Importance of social support for functional status in breast cancer patients. Asian Pacific Journal of Cancer Prevention. 2008; (4)9:601-4. https://www.researchgate.net/profile/Filiz_Ogce/publication/24173092_Importance_of_social_support_for_functional_status_in_breast_cancer_patients/links/02bfe510294a86a67e000000.pdf

[20] Kim J, Han JY, Shaw B, McTavish F, Gustafson D. The roles of social support and coping strategies in predicting breast cancer patients' emotional well-being: testing mediation and moderation models. Journal of Health Psychology. 2010; 15 (4):543-52. [DOI:10.1177/1359105309355338.] [PMID] [PMCID]

[21] Luszczynska A, Pawlowska I, Cieslak R, Knoll N, Scholz U. Social support and quality of life among lung cancer patients: A systematic review. Psycho-Oncology. 2013; 22(10):2160-8. [DOI:10.1002/pon.3218.] [PMID]

[22] Momeni M, Ghanbari A, Jokar F, Rahimi A, Leyli EK. Predictors of quality of life in patients with colorectal cancer in Iran. Indian Journal of Cancer. 2014; 51(4):550-6. [DOI:10.4103/0019-509X.175331] [PMID]

Toygar I, et al. Relationship Between Social Support from Family and QoL. J Holist Nurs Midwifery. 2020; 30(4):217-223.

223