

## Original Article

# The relationship between functional living status and perceived social support in patients with cancer

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## ABSTRACT

**Background & Aim:** Cancer is a significant and global health problem that negatively affects the functional status. The aim of this study was to investigate the relationship between perceived social support, functional status and demographic characteristics in cancer patients.

**Methods & Materials:** : This cross-sectional study was conducted with 243 patients with cancer, who met the research criteria and got treatment in the medical oncology clinic and chemotherapy unit in 2011. In the research, "Patient Information Form" was used to identify the socio-demographic and medical characteristics of the patients, "Functional Living Scale (FLS) - Cancer" was used to assess their functional statuses, and "Cancer Patients Social Support Scale" was used to assess their perceived social support. Data analysis was performed by descriptive statistics tests, One -Sample T Test, Kruskal-Wallis test, Pearson Correlation and regression test. The statistical significance level was determined as  $p < 0.05$ .

**Results:** In this study, there was positive correlation between perceived social support and functional living. There was statistically significant relationship between diagnosis and educational status with FLS. There was statistically significant relationship between age, gender, marital status, educational status, disease duration and social support.

**Conclusion:** In this study, patients' functional living status improves as the perceived social support increases. Therefore, interventions to improve functional living status and social support of patients Can be synergistic.

## Introduction

Survival rates of cancer patients are increasing due to the advances in diagnosis and treatment. For this reason, cancer has become a significant and global health problem (1).

Cancer today, is the disease most feared by the majority of people (2). Although there have been many advanced medical studies made in this area, it is still perceived as a disease that evokes death in pain and suffering with plenty of uncertainties, and

brings fear and concerns about the future with it (3).

Both the treatment and the cancer itself leads to many problems (fatigue, pain, loss of appetite, loss of energy, anxiety, loss of weight, and such). And, these problems negatively affect the functional status (4). Functional status is an indication of the individual's physical, mental, social well-being and general health status (5). It is constitutes a multidimensional structure including the effects regarding the disease and treatment and perception of the patient about these, his/her daily activities, personal care, social life, professional activities, and home and family (6). In a study conducted to evaluate the functional status of patients with cancer in Turkey, it was determined

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that the functional status of patients was affected in different areas depending on both disease and treatment methods (7).

Patients' level of self-care and ability to fulfill their social roles can be measured by assessing their functional status. The functional status can be improved with comprehensive assessment, effective screening, treatment, and effective counseling methods. Issues such as individuals' familial and social relationships, activities of daily living, health perception, and expectations can be evaluated to reveal their need in physical, psychological and social areas, and their functional statuses can be optimized (8,9).

In the course of the disease, only the medical treatment protocols (chemotherapy, radiotherapy, surgery) are not sufficient, regardless their effectiveness. Individuals who need psychological support can be identified early. During and after the treatment, ensuring and maintaining the patient's psycho-social wellbeing are among the basic treatment criteria. As well as, social support is a very important tool in providing this (10). Providing adequate social support during the recovery process affects it positively, facilitates life, provides physical and psychosocial well-being, improves quality of life and facilitates adaptation to cancer. Low social support induces the disease and affects the process negatively (11,12).

There is not enough research on the subject in turkey (13). For this reason, the relationship between social support and functional status in cancer patients needs to be investigated further.

The purpose of this study is to examine the relationship between, functional living status and social support among cancer patients.

## **Methods**

This cross-sectional study was carried out in Atatürk University Hospital's Chemotherapy Clinic and Medical Oncology Clinic. The study population consisted of 289 patients with cancer who admitted to the mentioned clinics in 2011. The study sample consisted of 243 patients included 136 patients in the chemotherapy unit, and 107 patients in the oncology clinic who met the research inclusion criteria and agreed to participate in the research.

Inclusion criteria for this research were who were aged 18 years and above, able to communicate and had no psychiatric problem.

Approval of the ethics committee (ethical approval number; 2011.1.1/6) from the Health Sciences Institute, and necessary permission from the studied hospital were obtained to conduct the study. The individuals participated in the study were informed that they are free to decide whether or not to participate in the study, and quit any time they wish; the principle of respect for human dignity was taken into consideration and the privacy principle was respected. Written informed consent was obtained from the participants.

In the study, the patient information form, Functional Living Scale (Cancer), and Cancer Patient Social Support Scale was used.

The patient information form consists of 19 questions on the socio-demographic characteristics of the patients.

Functional Living Scale was developed by Schipper et al. in 1984 to assess functional status and quality of life in patients with cancer, and its Turkish validity and reliability study was carried out by Bektaş & Akdemir in 2006. Cronbach's Alpha reliability coefficient of the scale was found to be 0.88 (14) . In our study, the Cronbach's alpha coefficient of the scale was 0.86. The scale consists of 22 items in total. In this 7-point likert-type scale, after reading each

item, participants mark one of the responses graded from positive to negative (never/always, not good/good, quite inadequate/very adequate). The lowest and highest scores of the scale are 22 and 154 respectively. Higher scores indicate a higher level of functional status.

Cancer Patient Social Support Scale was developed and its validity and reliability study was conducted by Eylon in 2002 in order to identify the type and level of social support perceived by patients from their families. Cronbach's Alpha reliability coefficient of the scale was reported as 0.92 (15).

In our study, the Cronbach's alpha coefficient of this scale was found to be 0.81. The scale consists of 35 items in total. Higher scores in the scale indicates that the patients with cancer perceive a higher social support from the family.

The research data were collected by the researcher using the face-to-face interview technique in a private room.

The questions were read by the researcher, and explained in detail when not understood by the patients, and the responses were noted. It took approximately 15-20 minutes to complete the questionnaire.

Data analysis was performed in SPSS 18.00 statistics package program. It was used t-test, Kruskal-Wallis test, Pearson correlation, regression in data analysis.

Conducting the research in a single center, collection of data via face-to-face interviews by the researcher are the limitations of this study.

## Results

The average age of patients was  $50.24 \pm 12.77$ . Of the patients, 30.9% was in the 41-50 age group, 53.9% was female, 77.8% was married, 43.2% was graduated

from primary school, and 46.1% was housewife. The mean duration of the disease was  $18.52 \pm 15.72$  months, and this was 3-12 months for 46.5% of the patients, and 49 months and above for 3.3% of the patients. Of the patients, 29.6% had gastrointestinal cancer, and 4.1% was found to have a diagnosis of head and neck cancer (Table 1).

There was a statistically significant difference in functional living scores, according to the educational status and diagnosis of patients ( $p < 0.05$ ). The mean functional living scores of the university graduate patients diagnosed with blood-lymph cancer were found to be higher than of the other groups (Table 1).

There was a statistically significant difference in the mean perceived social support scores of the patients in terms of their age, gender, marital status, educational status, and duration of illness ( $p < 0.05$ ). The mean perceived social support scores of the male, married, university graduate patients, which has 25-36 months of duration of disease, in the 51-60 age group were found to be higher than the other groups (Table 1).

The relationships between perceived social support scores and the functional living scores of the patients participated in the study are shown in Table 2.

The relationship between functional living and perceived social support scores of patients with cancer is shown in Table 2. A positive correlation was found between perceived social support and total functional living score and sub-scale scores of the patients ( $p < 0.05$ ).

Simple linear regression analysis was used to determine the role of perceived social support as a predictor factor for functional living status scores. Accordingly the standardized regression coefficient ( $\checkmark$ ) was 0.28 (Table 3).

**Table 1.** Comparison of functional living scale and cancer patient social support scale mean scores according to the characteristics of the patients

	N	%	Functional Living $\bar{x} \pm SD$	P-value	Social Support $\bar{x} \pm SD$	P-value
<b>Age</b>						
<30	18	7.4	106.44±33.16		147.17±29.04	
31-40	33	13.6	109.97±28.91	**KW=5.506 0.239	151.73±24.02	**KW=12.8 60 0.012*
41-50	75	30.9	106.72±30.96		157.92±22.83	
51-60	63	25.9	108.83±29.37		158.75±16.02	
≥61	54	22.2	96.89±31.80		151.17±20.61	
<b>Gender</b>						
Female	131	53.9	106.40±27.68	***t=-.486	150.31±24.08	***t=-3.841
Male	112	46.1	104.45±34.10	0.627	160.47±16.96	0.000*
<b>Marital status</b>						
Married	189	77.8	104.92±31.16		156.28±22.16	
Single	22	9.1	111.77±32.38	**KW=1.451 0.484	152.68±16.82	**KW=7.67 2 0.022*
Divorced/Widow	32	13.1	104.63±27.49		149.00±21.07	
<b>Educational status</b>						
Illiterate	38	15.6	96.16±26.70		142.58±27.95	
Literate	27	11.1	100.93±31.79		146.93±25.24	
Elementary	105	43.2	105.68±30.38	**KW=18,033 0.003*	158.88±15.38	**KW=22.1 15 0.000*
Middle school	24	9.9	109.75±31.94		157.08±25.16	
High school	35	14.4	105.11±34.54		158.06±25.48	
University	14	5.8	132.07±12.60		163.93±13.87	
<b>Disease duration</b>						
3-12 month	113	46.5	101.83±31.56		151.12±23.17	
13-24 month	74	30.5	108.84±30.96	**KW=5.254 0.262	158.11±22.89	**KW=12.2 8 60.015*
25-36 month	34	14.0	103.50±29.24		159.74±14.29	
37-48 month	14	5.7	113.71±29.21		158.64±18.87	
≥49 month	8	3.3	120.63±19.95		154.50±8.04	
<b>Diagnosis</b>						
Lung	30	12.3	94.00±28.53		157.13±17.95	
Breast	37	15.2	119.92±22.87		158.46±13.14	
Gastrointestinal	72	29.6	93.15±31.98		152.92±20.21	
Colorectal	26	10.7	108.04±31.55	**KW=41.957 0.000*	147.65±30.69	**KW=7.31 7 0.397
Genitourinary	34	14.0	107.38±27.92		156.44±21.14	
Blood-lymph	22	9.2	130.05±19.05		154.41±34.16	
Bone	12	4.9	102.00±33.48		158.58±13.45	
Head and neck	10	4.1	112.80±26.71		161.90±1.49	

\*p<0.05, \*\*KW:Kruskal Wallis, \*\*\*t: One-Sample T Test

## Discussion

Results obtained in the study were discussed within the scope of related

literature. The mean functional living scores of the university graduate patients were found to be higher than of the other groups

(Table 1). Similarly, in a study by Bektaş et al., the functional living scores of the university/college graduate patients were found to be higher (5). Petrick et al. also found in their study that lower educational status were associated with decreased functional status (16). The knowledge on

health and expectations of individuals increase as their level of education increases. And, it is thought that this condition affects the healthy life behaviors necessary to improve the functional status of the patients.

**Table 2.** The relationship between perceived social support and functional living of patients

Variable	Perceived Social Support	
	Correlation	P-value
Functional Living total score	.280*	<0.001**
Physical functioning	.204*	<0.001**
Psychological functioning	.304*	<0.001**
Current well-being	.224*	<0.001**
Social functioning	.446*	<0.001**
Gastrointestinal symptoms	.175*	<0.006***

\*r: \*\*p<0.001 \*\*\*p<0.005

**Table 3.** Simple linear regression analysis results regarding prediction of functional living scores.

Variable	*B	Standard Error	Beta	**t	P-value
Sabit	43.889	13.741		3.194	.002
Sosyal Destek	.398	.088	.280	4.527	p<0.001
***R=.280		R <sup>2</sup> =.078			
***F <sub>(1,241)</sub> =20.497 p<0.001					

\*B : B constant \*\*t : t test \*\*\*R: Regression \*\*\*\*F: F-Test

It was found that there was a difference in the mean functional living scores, according to the diagnosis of patients. In this study, the functional status of the patients diagnosed with blood-lymph cancer were found to be better than of the other patients, however, the mean functional living scores of the patients diagnosed with gastrointestinal tract cancer were found to be worse (Table 1). Different results were obtained in studies conducted on the issue. The functional status of the patients with breast cancer in the study conducted by Bektaş et al., and the patients diagnosed with prostate cancer in the study conducted by Dedeli et al. were found to be worse (7,13). The study by Petrick et al. conducted with patients with

lung, breast, colorectal and prostate cancer, reported that the decrease in functional status after the diagnosis was maximum in patients with lung cancer, and was minimum in patients with prostate cancer (16). It is thought that this result was due to the fact that the blood-lymph cancer occur at young-age mostly, with a well response to treatment, and the fact that stomach, colon, and pancreatic cancers are seen more in advanced age, with higher rate of incidence of metastasis.

Looking at the mean perceived social support scores of the patients based on their ages, the scores were found lowest in the ≥ 61 age group (Table 1). Different from the results of this study, some studies suggest the perceived social support is not affected

by age (17,18). With aging, communication with close circle, relatives and the community may be lost. This loss of communication may be at an abstract level in the form of reduced interest and support of spouse and children as well as being a concrete level such as children leaving home or death of spouse (19). These conditions, in addition to a difficult to cope disease, such as cancer, are thought to cause elderly patients aged 61 and over perceive lower social support.

The mean perceived social support scores of male patients were found to be higher than of female patients (Table 1). Karakoç et al. also found higher mean perceived social support scores in male patients (20). Since Turkish culture place men in a more valuable position than women, men be more effective and advantageous in many areas. Women have also played a more supportive role in Turkish society. The social support perceived by males was thought to be higher because of this reason.

The perceived social support score in this study was found to be maximum in married patients, and was minimum in divorced patients (Table1). The social support perceived by married patients was found to be higher in studies conducted on this issue (18,21-23). Especially the supportive acts of spouses towards each other in the family are extremely important in helping to cope with the stress caused by the disease. The divorced or widowed individuals have their way of life shaken. The individuals, who are trying to cope with it, are forced to carry the burden of a severe illness such as cancer and live an emotionally challenging process, and feel even more alone in this situation.

The mean perceived social support scores of the university-graduate patients were found to be higher than of the other patients (Table 1). In some studies conducted in Turkey, the perceived social support was found to increase as the level of education

increases (13,24). And, the social support perceived by patients with lower educational level was found to be lower in studies conducted in other countries (25,26). It is thought that the increased awareness of patients in assessing their illnesses, appropriate use of the social support resources, ability to express their disease-related thoughts and feelings are among the reasons why patients with higher level of education perceive higher social support.

The highest perceived social support, according to the duration of disease of the patients, was in the 25-36 months group (Table 1). Some studies have also found that the duration of disease has no effect on the perceived social support (27). And, Arora et al. found that perceived social support is decreased over time in their study (26). In Turkish culture, it is natural for relatives to take care of the patients' need and caregivers deem this as a natural duty and responsibility. For this reason caregivers' burden levels is low (28). It can be considered that the support provided is also higher because the care burden is low.

In this study, the relationships between perceived social support scores and the functional living scores of the patients were found to be positive significantly (Table 2). Dedeli et al. also found a significant relationship between the social support and overall well-being, which is a sub-scale of functional status (13). And, in a study by Özkan et al., social support was found to be effective on the functional status (6). Social support facilitates patients' compliance with the treatment and disease, and improved their ability and willingness to cope with illness. Thus, the patients fight against the disease and symptoms better. Therefore, it is considered that the functional status improves with the increase social support.

### **Acknowledgments**

It was found that as the level of perceived social support increases, the functional status improves.

Nurses should provide information about the disease, strategies for coping with symptoms, and social and psychological support for the cancer patients during their treatment process. To improve the functional status of patients, appropriate interventions should continue in order to reduce functional limitations. Nurses should work especially with other health care workers, those who mobilize family dynamics in relation to social support. Moreover, it is recommended to conduct further studies investigating functional status, social support and effective factors in different types of cancer.

### Conflict of Interest

The authors declare that they have no conflicts of interest

### References

1. Akdemir N, Birol L. Internal medicine and nursing care. Ankara: Sistem Ofset; 2004. P.243-306. (In Turkish)
2. Talu GK. Cancer and its reasons, diagnosis and epidemiology. In: Talu GK, editor. Pain clinic: cancer pain. Ankara: Bilimsel Tıp Yayınevi; 2010. P. 1-33. (In Turkish)
3. Bultz B D, Holland J C. Emotional distress in patients with cancer: The sixth vital sign. *Commun Oncol.* 2006; 3(5): 311-314.
4. Teunissen SC, Wesker W, Kruitwagen C, De Haes HCJM, Voest EE, De Graeff A. Symptom prevalence in patients with incurable cancer: a systematic review. *J Pain Symptom Manage.* 2007; 34(1): 94-104.
5. Bektaş HA, Akdemir N. The importance of functional status in person with cancer. *Journal of Anatolia Nursing and Health Sciences.* 2009; 12(3): 54-60. (In Turkish)
6. Özkan S, Ögce F. Importance of social support for functional status in breast cancer patients. *Asian Pac J Cancer Prev.* 2008; 9(4): 601-604.
7. Bektaş HA, Akdemir N. The assessment of functional status in individual's who have cancer. *Turkiye Klinikleri J Med Sci.* 2006; 26(5): 99-488. (In Turkish)
8. Ferrans CE, Faan RN. Quality of life as an outcome of cancer care. In: Yarbro CH, Goodman M, Frogge MH, editors. *Cancer nursing principles and practice.* Canada: Jones and Bartlett Publishers; 2005. P. 183-201.
9. Beck LA. Cancer rehabilitation: does it make a difference?. *Rehabil Nurs.* 2003; 28(2): 7-42.
10. Tuncay T. Support groups in coping with cancer. *Toplum ve Sosyal Hizmet.* 2010; 21(1): 59-71. (In Turkish)
11. Melchiorre MG, Chiatti C, Lamura G, Torres-Gonzales F, Stankunas M, Lindert J, et al. Social support, socio-economic status, health and abuse among older people in seven european countries. *PloS One.* 2013; 8(1):e54856 [http:// doi: 10.1371/journal.pone.0054856](http://doi:10.1371/journal.pone.0054856)
12. Uchino, B. Social support and health: A review of physiological processes potentially underlying links to disease outcomes. *J Behav Med.* 2006; 29(4): 377-387.
13. Dedeli Ö, Fadılođlu Ç, Uslu R. A survey of functional living and social support in patients with cancer. *Türk Onkoloji Dergisi.* 2008; 23(3): 132-139. (In Turkish)
14. Bektaş HA, Akdemir N. Reliability and validity of the functional living index–cancer in Turkish cancer patients. *Cancer Nurs.* 2008; 31(1):E1-7.[doi: 10.1097/01.NCC.0000305684.51884.1f](http://doi:10.1097/01.NCC.0000305684.51884.1f).
15. Eylen B. A study on validity, reliability and factor structure of cancer

- patient social support scale . Uludağ Üniversitesi Eğitim Fakültesi Dergisi. 2002; 15(1): 109-117. (In Turkish)
16. Petrick JL, Reeve BB, Kucharska-Newtona AM , Forakerc RE, Platzd EA, Stearnsb SC, et al. Functional status declines among cancer survivors: trajectory and contributing factors. *J Geriatr Oncol.* 2014; 5(4): 359-367.doi: 10.1016/j.jgo.2014.06.002.
  17. Öztunç G, Yeşil P, Paydaş S, Erdoğan S. Social support and hopelessness in patients with breast cancer. *Asian Pac J Cancer Prev.* 2013; 14(1): 571-578.
  18. Faghani S, Rahmani A, Parizad N, Mohajjel-Aghdam AR, Hassankhani H, Mohammadpoorasl A. Social support and its predictors among Iranian cancer survivors. *Asian Pac J Cancer Prev.* 2014; 15(22); 9767-9771.
  19. Softa HK, Bayraktar T, Uğuz C. Elders' perceived social support systems and factors effecting their healthy life-style behaviour. *Elderly Issues Research Journal.* 2016 Jun; 9; 1-12. (In Turkish)
  20. Karakoç T, Yurtsever R. Relationship between social support and fatigue in geriatric patients receiving outpatient chemotherapy. *Eur J Oncol Nurs.* 2010; 14(1); 61-67. doi: 10.1016/j.ejon.2009.07.001.
  21. Forsythe LP, Alfano CM, Kent EE, Weaver KE, Bellizzi K, Arora N, et al. Social support, self-efficacy for decision-making, and follow-up care use in long-term cancer survivors. *Psychooncology.* 2014; 23(7); 788-796.
  22. Yildirim Y, Kocabiyik S. The relationship between social support and loneliness in Turkish patients with cancer. *J Clin Nurs.* 2010; 19(5-6); 832-839. doi: 10.1111/j.1365-2702.2009.03066.x.
  23. Filazoglu G, Griva K. Coping and social support and health related quality of life in women with breast cancer in Turkey. *Psychol Health Med.* 2008; 13(5): 559-573. doi: 10.1080/13548500701767353.
  24. Nazik E, Ozdemir F, Soydan S. Social support and quality of life in Turkish patients with gynecologic cancer. *Asian Pac J Cancer Prev.* 2014; 15(7): 3081-3086.
  25. 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, multicenter survey in South Korea. *Psychooncology.* 2013; 22(6): 1283-1290. doi: 10.1002/pon.3133.
  26. Arora NK, Finney Rutten LJ, Gustafson DH, Moser R, Hawkins RP. Perceived helpfulness and impact of social support provided by family, friends, and health care providers to women newly diagnosed with breast cancer. *Psychooncology.* 2007; 16(5): 474-486.
  27. Zhou ES, Penedo FJ, Bustillo NE, Benedict C, Rasheed M, Lechner S, et al. Longitudinal effects of social support and adaptive coping on the emotional well-being of survivors of localized prostate cancer. *J Support Oncol.* 2010; 8(5); 196-201.
  28. Kahrman F, Zaybak A. Caregiver burden and perceived social support among caregivers of patients with cancer. *Asian Pac J Cancer Prev.* 2015; 16(8); 3313-3317.