THE EVALUATION OF HOPELESSNESS AND PERCEIVED SOCIAL SUPPORT LEVEL IN PATIENTS WITH LUNG CANCER

Saliha Bozdogan Yesilot
Faculty of Health Sciences Department of Nursing, Cukurova University, Adana, Turkey
saliha81bozdogan@gmail.com

Gursel Oztunc
Faculty of Health Sciences Department of Nursing, Cukurova University, Adana, Turkey
gurseloztunc@gmail.com

Pınar Yesil Demirci
Faculty of Health Sciences Department of Nursing, Cukurova University, Adana, Turkey
pnar.yesil@gmail.com

Ayse Inel Manav
Vocational School of Health Services Department of Elderly Care, Cukurova University, Adana, Turkey
ayseinel@gmail.com

Semra Paydas
Faculty of Medicine Department of Oncology, Cukurova University, Adana, Turkey
sepay@cu.edu.tr

Abstract

Lung cancer is most common and a leading cause of death in women and men in the worldwide.

It has multidimensional effects on patients and their families. Aim of this study was to evaluate

level of hopelessness and perceived social support in patients with lung cancer. This cross-sectional and descriptive study carried out in oncology outpatient unit of a university hospital in Adana, Turkey. The research sample consisted of 98 patients who have been treated between March 1, 2016 and August 31, 2016, have diagnosed lung cancer at least 3 months ago, have cognitive competence to answer questions and volunteer to join the study. Data were collected with socio-demografic form, Beck Hopelessness Scale and Multidimensional Scale of Perceived Social Support. Analysis was made using by descriptive statistical methods (means, standard deviation, frequences), Mann-Whitney U Test, Kruskall-Wallis H test and Spearman Corelation coeffitient test. Statistical significance was taken as p<0,05. Mean age of the participants was 58,34±9,31. In all, 87.8% was male, 80.6% was married, 91.8% had children. The mean scores of scale was respectively;Beck Hopelessness Scale was 5,84±3,55 (lower level) and Multidimensional Scale of Perceived Social Support was 65,24±14,74 (high level). There was no statistically significant relationship between total scores of Beck Hopelessness Scale and Multidimensional Scale of Perceived Social Support. It was found that there was a statistically significant relationship between total scores of hopelessness and having social security, and also total scores of Perceived Social Support Scale with marital status (p<0.05).Our findings indicate that patients with lung cancer have high level social support, mild level hopelessness. Social support can be a protective factor for hopelessness. Therefore ıt is suggested that social support systems can make stronger to increase hope level of patients.

Keywords

Hopelessness, Social support, Lung cancer

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1. Introduction

Lung cancer is one of the most important health problems in the world; it is also the second most prevalent cancer type among men and women and ranked first in terms of mortality rates (WHO, 2017). According to American Cancer Association data, there were 221.200 new cases in America in 2015, and 158.040 people are expected to lose their lives due to lung cancer (ACS, 2017). As for Turkey, according to 2011 data, prevalence of lung cancer is ranked first among men and sixth among women (TPHI, 2015).

Effects of lung cancer for the individual and the family are multidimensional. It affects people's lives in all dimensions such as physical, psychological, social, functional, and economic aspects as well as family dynamics, and it causes various symptoms (Ozkan, 2002). In this process, patients might experience problems such as dyspnea, pain, weakness, fatigue, anorexia, cachexia, cough, and haemoptysis (LCDTG, 2006). In addition to pain and other physiological symptoms, individuals should cope with hospital environment, procedures and uncertainties, and maintain emotional balance and self-image so that they can adapt the problems experienced in this process (Ozkan, 2007). Patients may demonstrate emotional reactions such as anger, anxiety, depression, bereavement, disappointment, fear, frustration, loneliness, weakness, and hopelessness (Aydıner & Can, 2010).

Hope is defined as a power that exists within a person and forces him/her to take action to change the current situation and helps him/her to dream a better future for self and others. Hopelessness, on the other hand, believes that there is nothing to do and thinking that the future is full of pain and problems (Oz, 2010). Hope and hopelessness symbolise opposite expectations. While hope consists of the vision for succeeding the targeted plans, hopelessness has prejudice for failure (Dilbaz & Seber, 1993).

While the literature does not consist of an original study conducted with people having lung cancer, hopelessness in cancer patients was found to be associated with the feelings of being different from others, worrying about losing compatibility with the partner, and having depression and anxiety (Grassi et al., 2010). Hopelessness is reported to have direct contribution to an accelerated desire for death (Breitbart, 2013).

In addition to these, hope is positively associated with quality of life, self-respect, coping, adaptation to diseases, healing and comfort, relationship with friends and family, and social support (McClement & Chochinov, 2008, Vellone, Rega, Galletti & Cohen, 2006).

Social support is defined as people's perception or experience about being loved, cared, respected, and valued. In other words, it is a part of mutual help and commitment. Social support can be received from a partner, a relative, a friend, a colleague, social connections, and even a pet (Taylor, 2011). It is reported in literature that in times of stress, social support decreases anxiety and depression and increases quality of life (Courtens, Stevens, Crebolder & Philipsen, 1996, Hanna et al., 2002).

Emotional reactions of patients could contribute to hopelessness. To regain feeling of hope, people need to look at the situation differently, change negative outcomes, and probably create new ones. Presence of social support could be helpful in providing the time and energy that ill people need. With the psychological burden it brings along, lung cancer causes difficulties in people's lives. In the treatment process, patients have to review and reorganize their work and private life and relationships, question their lives, and experience various emotional reactions. Due to the prevalence rates of lung cancer, lung cancer patients are among the patient groups that are provided care most frequently. Nurses are one of the health care team members who are in touch with patients in the whole process beginning from the diagnosis phase to recovery or death. Nurses' roles in relation to maintaining patients' hope is self-evident. On the other hand, nurses have responsibilities for recognising patients' social support and activating them. In the care process, nurses themselves could become one of the social support sources for patients. Given the effects of social support and hopelessness on cancer patients, it is important for nurses to evaluate patients with this feature in mind. However, there are no studies that investigate hopelessness and social support in patients with lung cancer. Hence, the present study aims to investigate social support and hopelessness in patients with lung cancer, which is the most prevalent cancer type in Turkey and in the world.

2. Materials and Methods

Target population of the present study, which is descriptive and cross-sectional, was all lung cancer patients who were treated in the oncology department of a university hospital located in Adana/ Turkey. The participants were volunteer patients who met the inclusion criteria and volunteered to participate in the study. Power analysis was performed for identifying the number of participants in the study conducted between 1st of March and 31st of August, 2016, and 94 patients were targeted. Considering any potential losses, 98 patients were involved in the sample group.

Inclusion criteria;

- Having lung cancer diagnosis at least three months ago,

- Being over 18,

- having cognitive competence to answer questions, and

- Volunteering to participate in the study,

Data were collected through the Personal Identification Form, which included questions about the patients' socio-demographic features; "Beck Hopelessness Scale (BHS)", which identifies patients' hopelessness levels; and "Multidimensional Scale of Perceived Social Support (MSPSS)", which assesses the perceived social support.

2.1. Personal Identification Form

Personal Identification Form, which was developed by the researchers in line with the related literature, consists of 15 questions that include the patients' socio-demographic features and health history (Oztunc, Yesil, Paydas & Erdogan, 2013, Yildirim & Kocabiyik, 2010, Requena, Arnal & Moncayo, 2015).

2.2. Beck Hopelessness Scale (BHS)

This study utilised "Beck Hopelessness Scale (BHS)" in order to identify the participants' negative expectations, attitudes or hopelessness about future. The scale was developed by Beck, Weissman & Lester, 1974 and adapted to Turkish by Durak, 1994. It has 20 items scored between 0 to 1. One point is given to 11 items if they are answered as "yes" and 9 items if they are answered as "no". Thus, scores range between 0 and 20. The scale has three subscales which include "feelings and expectations about the future" (Item 1,3,7,11, and 18), "loss of motivation" (Item 2,4,9,12,14,16,17, and 20), and "hope" (Item 5,6,8,10,13,15, and 19). Higher scores indicate high hopelessness levels.

2.3. Multidimensional Scale of Perceived Social Support (MSPSS)

The study utilised Multidimensional Scale of Perceived Social Support (MSPSS) in order to identify the patients' perceived social support factors. MSPSS was developed by Zimet Dahlme, Zimet & Farley, 1988   and Turkish reliability and validity was performed by Eker & Arkar, 1995. The 12-item scale assesses the adequacy of social support obtained from three different sources in a subjective way. It involves 3 groups with 4 items in relation to the source of support. These include family (Item 3,4,8 and 11), friends (Item 6, 7,7 9 and 12), and a special person (Item 1, 2, 5 and 10). Each item is ranked on a 7-point scale. Higher scores indicate high social support.

Filling in the forms took about 30 minutes; 5minutes for the Personal Identification Form, 10 minutes for the BHS, and 15 minutes for the MSPSS. Personal Identification Form and the scales were administered by the researcher, through face to face interviews with the patients.

Before the study was carried out, the necessary permissions were obtained from the Oncology Department and Ethical Committee of the hospital where the study was conducted.; verbal consent of the participants was also obtained.

Statistical analysis was performed using SPSS (IBM SPSS Statistics 20) package programming. Findings were demonstrated using frequency tables and descriptive statistics.

Non-parametric methods were used for the measurements that were not distributed normally; comparison of two independent groups was done using Mann-Whitney U Test (Z table value); Kruskal-Wallis H Test (χ^2 table value) was used for the comparison of the measurement values of independent three or more groups; and the relationship of measurement values with each other was analysed with "Spearman Correlation Coefficient".

Statistical significance was taken $p<0.05$ in all tests.

3. Results

Average age of the participants was found 58,34±9,31. Of all the participants, 80,6% were married, 87,8% were male, 53,1% graduated from primary school, 51,0% were retired, and 91,8% had children. Besides, 67,3% of the patients had income less than expenses, 46,9% lived in city centre, and 73,5% had nuclear family (see Table 1).

Table 1: *Socio-demographic features of the patients (N=98)*

Variable	*n*	*%*
Age [$\overline{X} \pm S.S. \rightarrow 58,34 \pm 9,31$ (yıl)]		
50 and below	22	22,4
51 to 57	23	23,5
58 to 64	29	29,6
65 and over	24	24,5
Gender		
Female	12	12,2
Male	86	87,8
Marital Status		
Single	19	19,4
Married	79	80,6

Having children		
Yes	90	91,8
No	8	8,2
Place of Living		
City Centre	46	46,9
Province	39	39,8
Village/ Town	13	13,3
Family type		
Extended Family	26	26,5
Nuclear Family	72	73,5
People who you live with		
Alone	6	6,1
With spouse	24	24,5
With spouse and children	56	57,1
With children	6	6,1
With relatives	2	2,1
With friends	4	4,1
Education Level		
Literate	3	3,1
Illiterate	11	11,2
Primary school	52	53,1
Secondary school/high school	26	26,5
University and higher	6	6,1
Income level		
Income less than expenses	66	67,3
Income equal to expenses	28	28,6
Income more than expenses	4	4,1

57,1% of the participants lived with their wife and children, 73,5% had been ill for less than 1 year, and 80,0% of the ill participants were at tumour stage, and 75% had lung surgery. Besides, 28,0% of them reportedly felt their spouses' and 26,8% their children's support

throughout the process of their disease. Only 3,1% of the participants received support from an institution or organization (see Table 2).

Table 2: *Characteristics of the patients in relation to the disease (N=98)*

Variable	n	%
Duration of the Disease		
Less than 1 year	72	73,5
1 to 2 years	21	21,4
2 to 3 years	3	3,1
5 years and more	2	2,0
Phase of the disease		
Tumour phase [T]	72	80,0
lymph node phase [N]	8	8,9
metastasis phase [M]	10	11,1
Undergoing surgery		
Yes	43	44,8
No	53	55,2
People who provided support throughout the disease*	72	28,0
spouse	69	26,8
children	29	11,3
Friends	37	14,4
Relatives	22	8,6
Neighbours	25	9,7
Healthcare personnel	3	1,2
Other patients' relatives		
Any institution providing support		
YEs	3	3,1
No	95	96,9

* As this question had more than one response, percentages were calculated out of "n"

The participants' perceived social support scores were high (65,24±14,74), and hopelessness scale scores were low (5,84±3,55). An analysis of social support subscales shows

that mean scores and standard deviations were "26,46±2,68" for family, "19,48±8,31" for friends, and "19,31±7,84" for a special person. The participants received the highest score from the family dimension (see Table 3).

Table 3: *Distribution of the BHS and MSPSS mean scores of the participants*

Scales		$\bar{X} \pm S.D.$	*Median*	*Min.*	*Max.*
Beck Hopelessness Scale	Feelings and expectations about the future	0,87±1,19	0,0	0,0	4,0
	Loss of motivation	3,56±1,83	3,0	1,0	8,0
	Hope	1,41±1,47	1,0	0,0	7,0
	Total Score	5,84±3,55	5,0	1,0	17,0
Multidimensional Scale of Perceived Social Support	Family	26,46±2,68	28,0	16,0	28,0
	Friends	19,48±8,31	22,0	4,0	28,0
	A special Person	19,31±7,84	21,0	4,0	28,0
	Total Score	65,24±14,74	66,5	30,0	84,0

Correlation between the BHS and MSPSS mean scores is given in Table 4.

Table 4: *Distribution of the patients' BHC and MSPSS mean scores (N=98)*

Correlation*		**Beck Hopelessness Scale**			**Multidimensional Scale of Perceived Social Support**			
		Feelings and expectations	Loss of motivation	Hope	Family	Friends	A special person	Total score
Beck Hopelessness Scale	Feelings Expectations	r=1.000 p=.	r=0,397 **p=0,000**	r=0,515 **p=0,000**	r=0,012 p=0,907	r=-0,043 p=0,677	r=0,127 p=0,213	r=0,031 p=0,765
	Loss of motivation	#	r=1.000 p=.	r=0,260 **p=0,010**	r=0,008 p=0,935	r=0,072 p=0,479	r=0,092 p=0,369	r=0,070 p=0,495

	Hope	#	#	r=1.000 p=.	r=0,101 p=0,324	r=-0,050 p=0,627	r=0,043 p=0,672	r=-0,007 p=0,948
Multidimensional Scale of Perceived Social Support	Family	#	#	#	r=1.000 p=.	r=0,202 **p=0,047**	r=0,310 **p=0,002**	r=0,384 **p=0,000**
	Friends	#	#	#	#	r=1.000 p=.	r=0,489 **p=0,000**	r=0,830 **p=0,000**
	A special person	#	#	#	#	#	r=1.000 p=.	r=0,860 **p=0,000**
	Total Score	#	#	#	#	#	#	r=1.000 p=.

*As the data were not distributed normally, Spearman correlation coefficient was used.

No statistically significant relationship was found between the patients' BHS and MSPSS total scores (p>0.05).

However, there was a statistically significant relationship between the sub-scales. Correlations between the subscales are given in Table 4.

Comparison of the descriptive variables with BHC and MSPSS showed that there was a statistically significant difference according to marital status in terms of the special person subscale scores of the MSPSS (Z=-3,636; p=0,000). Scores of married participants in the special person subscale were significantly higher than those of the single participants.

A statistically significant difference was found between the participants' MSPSS total scores and their marital status (Z=-2,987; p=0,003). Social support scores of married participants were significantly higher than those of single participants.

A statistically significant difference was found according to having children variable and the participants' MSPSS scores of "a special person" subscale (Z=-2,083; p=0,037). Special person subscale mean scores of the participants who had children were significantly higher than those who did not have children.

No statistically significant differences were found between BHC and MSPSS subscales and total scores in terms of age, gender, number of children, place of living, education level, work and income level, people they live with, duration of the disease, phase of the disease, and undergoing a surgery (p>0,05).

There was statistically significant difference according to family type of the participants and their scores obtained from the friends sub-scale of MSPSS (Z=-2,083; p=0,037). Scores the participants who had nuclear family in the friends sub-scale were significantly higher than those who had extended family.

A statistically significant difference was found according to the participants' social security and loss of motivation subscale scores of BHS (Z=-2,769;p=0,006). Loss of motivation scores of those who had no social security was significantly higher than those who had social security.

4. Discussion

Hope, which is important for people's lives, is a healing factor that gives people strength for coping with instant difficulties and sorrow. Hope determines the way an individual perceives a thread, the response to this thread, and the efficiency of this response (Oz, 2010). Studies show that individuals with high hope levels can cope with pain better and have better mood (Lin, Lai & Ward, 2003) while people who do not have hope experience negative outcomes such as deterioration in physical, emotional, social, and moral health (Yildirim, Sertoz, Uyar, Fadiloglu & Uslu, 2009), depression, shorter length of life (Liu et al., 2009) and increased suicidal ideation (Mystakidou et al., 2009).

Hope levels of the people who participated in this study were found to be high. A number of studies about the hope levels of patients with various cancer types indicate that the patients have high hope levels (Vellone et al., 2006; Felder, 2004; Abdullah-zadeh, Agahosseini, Asvadi-Kermani & Rahmani, 2011). Results of the present study are thus parallel to the literature. Given the effect of hope in coping with chronic diseases, patients' high hope levels are quite positive and important for them.

Social support helps to reduce harmful effects of negative events on physical health and feeling well, and function as a buffer against stress in the face of these negative things (Sahin, 1999; Ozyurt, 2007). It is known that there is a positive relationship between social support and health (Tan & Karabulutlu, 2005).

Studies with cancer patients report that families expect and receive support mostly from their families (Taghavi et al., 2015; Dumrongpanapakorn & Liamputtong, 2015).

Cancer patients participating in this study were found to have high MSPSS total scores. Family was found to have the highest score in the perceived social support scale. In their study that assessed social support and hopelessness in breast cancer patients, Oztunc et al., 2013 found the hopelessness levels high and perceived social support levels low, which is similar to our findings. In a similar vein, Pehlivan, Ovayolu, Ovayolu, Sevinc & Camci, 2012 investigated the relationship between hopelessness, loneliness and perceived social support in cancer patients and found that their hopelessness levels were low and perceived social support levels were high. Tan & Karabulutlu, 2005 also reported similar results in their study that investigated social support and hopelessness in cancer patients. Results of this study are in line with the study results in the literature. Traditional Turkish family structure is quite effective in terms of meeting the needs of family members and supporting them. Especially in times of serious crises such as diseases and death, the importance of family support emerges significantly, and it creates a protective effect. The present study also shows that people receive social support from their families.

Unlike the related literature, no significant relationship was found between hopelessness and perceived social support. Related literature has studies that show negative relationships between hopelessness and social support (Ottilingam Somasundaram & Devamani, 2016; Akgun Sahin, Tan & Polat; 2013; Gil & Gilbar, 2001), which indicate an increase in hopelessness with the decrease in social support. Despite not being statistically significantly associated; high perception of social support is considered to be effective in maintaining hope.

Findings show that there is a statistically significant difference between marital status and the participants' multidimensional Scale of perceived social support total scores (Z=-2,987;p=0,003). Scale total scores of the married participants were found to be statistically higher than those of single participants. In their study that investigated the relationship between family social support and loneliness in cancer patients in Turkey, Yildirim & Kocabiyik, 2010 found that 81.3% of the participants were married, social support of married participants was significantly higher, and loneliness levels were significantly lower. In their study that investigated the relationship between perceived social support and quality of life in cancer patients receiving chemotherapy, Gunes & Calısır, 2016 found that perceived social support levels of married people were significantly higher than those of single people. In a similar vein, Requena, Arnal & Moncayo, 2015 found that perceived social support of married cancer patients was significantly higher in comparison to single patients. Accordingly, marriage positively
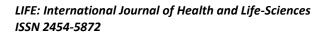
affects perceived social support in married people. These results are also in line with the result which indicates that spouses are ranked first (28.0%) among people who provide support throughout the disease process.

An analysis of the findings related to having children showed a statistically significant difference in terms of a special person subscale scores in the multidimensional scale of perceived social support (Z=-2,083;p=0,037). Perceived Social support scores of the people who had children were significantly higher than the people who had no children. In their study that investigated social support and fatigue in older cancer patients receiving chemotherapy, Karakoc & Yurtsever, 2010 found that, although the difference was not statistically significant, patients who lived alone had lower social support from family members and friends than the patients who lived with their family. Naseri & Taleghani, 2012 investigated the socio demographic variables related to the perceived social support in cancer patients and found that 94,5 % perceived high social support in family, friends, and relatives; and there was a significant relationship between the number of children and perceived social support.

The literature indicates that a partner, family members, friends, colleagues, social connections, and even a pet could provide social support (Vellone et al., 2006). Given the Turkish family structure, presence of a family member who has fatal disease could lead other family members to protect that person. Besides, this result could be associated with the importance of responsibilities of children in terms of respecting parents and showing interest and help as well as positive approval of these behaviours. This finding is parallel with the result which showed that children were ranked second among the people who provided support in the disease process (26.8%).

Social support scores of those who had nuclear family were significantly higher than those who had extended family. In their study that investigated social support and hopelessness in breast cancer patients, Öztunç et al., 2013 found no significant relationships between family type and social support. The finding which indicates more perceived social support in fewer family members could be associated with the fact that it is more likely to share emotions and recognise the needs in nuclear families.

5. Research Limitations

Data obtained from the study were limited to only one oncology outpatient unit in a university hospital. Therefore, the results cannot be generalized to all patients with lung cancer.

6. Conclusion and Recommendations

This study which aimed to investigate hopelessness and social support in lung cancer patients found that participants had high perceived social support and low hopelessness, but no statistically significant relationships were detected between them. Patients receive the social support mostly from their families. People who are married and who have nuclear family have higher social support. Social support could be a protective factor for hopelessness Therefore, it is recommended that nurses' awareness could be raised about strengthening social support system in the treatment process of lung cancer patients so that the family can be considered as a source for hope. Throughout the care process, nurses could have important roles in helping patients to maintain the social support they get from their family.

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