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Araştırma / Original Paper

The Relations Between Perceived Stress, Communication Skills and Psychological Symptoms in Oncology Nurses

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ÖZET

Onkoloji hemşirelerinde algılanan stres, iletişim becerileri ve psikolojik semptomlar arasındaki ilişkiler

Amaç: Bu çalışmanın amacı onkoloji hemşirelerinde algılanan stres, iletişim becerileri ve psikolojik semptomlar arasındaki ilişkiyi incelemektir.
Yöntem: Çalışma İstanbul'da onkoloji birimlerinde çalışan 102 hemşireyle gerçekleştirilmiştir. Veriler Bilgi Formu, Algılanan Stres Ölçeği (ASÖ), İletişim Becerilerini Değerlendirme Ölçeği (İBDÖ) ve Kısa Semptom Envanteri (KSE) kullanılarak toplanmış ve tanımlayıcı istatistiksel analiz ve sperman korelasyon analizi kullanılarak değerlendirilmiştir.
Bulgular: Hemşirelerin ASÖ puan ortalaması 16.85 (SD=6.08), İBDÖ puan ortalaması 73.34 (SD=23.28) ve KSE puan ortalaması 32.68 (SD=33.13) bulunmuştur. Hemşirelerin %84.3'ü öfkeli ve ajite hastalarla iletişimde güçlük yaşadıklarını ifade etmiştir. ASÖ ile İBDÖ arasında (r=-0.28; p<0.01) ve ASÖ ile KSE toplam puan (r=0.50; p<0.01) ve alt boyutları arasında pozitif bir korelasyon saptanmıştır.
Sonuç: Onkoloji birimlerinde çalışan hemşirelerin iletişim becerilerini güçlendirmek ve algıladıkları stres düzeylerine yönelik girişimde bulunmak hem hemşirelerin kendi psikolojik sağlıklarına hem de hasta ve ailelerle yaşadıkları iletişim güçlüklerini azaltmaya ve dolayısıyla sunulan hizmetin kalitesine olumlu katkıda bulunabilir.
Anahtar sözcükler: onkoloji hemşiresi, iletişim, algılanan stres, psikolojik semptom

ABSTRACT

The relations between perceived stress, communication skills and psychological symptoms in oncology nurses

Objective: This study aims to determine the correlation between perceived stress, communication skills and psychological symptoms in oncology nurses.
Methods: The study was conducted in collaboration with 102 nurses working in oncology departments of hospitals in Istanbul. The data was collected through Questionnaire Form, Perceived Stress Scale (PSS), Communication Skills Assessment Scale (CSAS) and Brief Symptom Inventory (BSS). Descriptive statistical analysis and spearman correlation analysis were used to evaluate the data.
Results: Nurses received 16.85 (SD=6.08) points from PSS, 73.34 (SD=23.28) points from CSAS, and lastly 32.68 (SD=33.13) points from BSI. 84.3% of the nurses reported experiencing communication problems with angry and agitated patients. There was a negative correlation between PSS and CSAS (r=-0.28; p<0.01). A positive correlation was found between PSS and BSI total scores (r=0.50; p<0.01) and all the other sub-dimensions.
Conclusion: Improving communication skills of oncology nurses and the interventions for their perceived stress levels may have effects as promoting their own psychological health as well as decreasing communicational difficulties with the patients and their families; and thus, it may affect the quality of care.
Key words: oncology nurse, communication, perceived stress, psychological symptoms

INTRODUCTION

Stress is a term that is used to define the body's physiological and/or psychological reaction to circumstances that require behavioral adjustment (1). A stressful event or situation appears as a problem only when perceived as a threat by the individual. Therefore, the individual's stress perception is more important than the stressor itself (2,3).

An individual perceives a situation as stressful when he or she believes that there is a discrepancy between the demands of the situation and the available psychosocial resources and competences. It is important to emphasize that it is critical how the situation is evaluated. There are

several potential pathways for the effect of psychological distress on physical and mental health. However, these physiological responses may lead to disturbances of mental and physical functioning over the long term (4).

Nursing is an occupation including potentially high-stress levels. Stress perception is highly subjective, and so the complexity of nursing practice may result stress (5). Work-related stress may cause an array of problems having behavioral, physical and mental consequences (6). The nature of cancer disease, the difficulty of terminal care and briefing a patient about a disease and its course while managing the treatment with severe side effects as well as dealing with critical decision making, the patients' problems of denial, and situations generating from relationships such as failure in therapeutic communication, ethical issues and group conflicts can cause stress in oncology units (7-9). According to the studies conducted with the oncology nurses, the workload, working with terminally ill patients, role conflict and communication problems were shown to be the most important stressors (10-12).

Communication plays an important role in decreasing the difficulties that the professionals and the patients/families experience. Communication within an oncology unit is a core clinical skill but the one in which few oncologists or specialist cancer nurses have received much formal training. Communicative behaviors of nurses seem to play an important role in meeting the cognitive and affective needs of patients with cancer. Lack of communication skills can diminish patient disclosure, increase patient anxiety, and decrease satisfaction with care. Communication difficulties are also a recognized stress and emotional burnout factor among healthcare professionals (7-9).

Perception of stress plays an important role in the development of stress coping skills (4). In this respect, determining how nurses perceive stressors during the planning of consultation and liaison services for the nurses working in oncology departments and the affecting factors may increase the quality of the service. Although many studies have been conducted regarding stress level and types of stressors in oncology field, studies investigated how the stressors are perceived by oncology nurses were not found. Additionally, there are no studies that investigated the relationship between perceived stress, communication skills, and psychological symptoms. Considering the fact that the inability to cope with stress in an effective manner and the communication problems may affect psychological health, the research has been carried out to analyze the relationships between the level of stress perceived by nurses, the communication skills and the psychological symptoms. The aim of the present study is to define the oncology nurses' perceived stress level and to investigate the correlation between perceived stress, communication skills and psychological symptoms. The study questions were as follows: What are the levels of perceived stress, communication skills and the frequency of psychological symptoms in oncology nurses? Is there a relationship between perceived stress level and communication skills and the frequency of psychological symptoms?

MATERIALS AND METHODS

Aim and Design

The aim of the present study is to define the oncology nurses' perceived stress level and to investigate the correlation between perceived stress, communication skills and psychological symptoms. It is a descriptive study which was conducted in the oncology departments of four state-run hospitals, three university hospitals, three private hospitals and one military hospital in Istanbul. The reason for choosing these hospitals is the presence of oncology units in these hospitals. The oncology departments at each hospital include medical oncology, gynaecological oncology, radiation oncology, and paediatric oncology and chemotherapy units.

Participants

There were 190 nurses working in oncology departments of hospitals in Istanbul. The study was conducted with 102 nurses (45.1% of the participants were working at private hospitals and 29.4% were working at university hospitals, while 17.6% were working at state-run hospitals and 7.8% were at military hospital). The nurses, who were willing to participate were included in the study sample. The response rate was 54%. Seventy-eight nurses didn't approve to participate in the study; ten nurses were on leave during this research.

Data Collection

The data was collected through Questionnaire Form, Perceived Stress Scale (PSS), Communication Skills Assessment Scale (CSAS), and Brief Symptom Inventory (BSI).

Questionnaire Form: This form was designed by the researchers in order to discover communication problems that the nurses experience as well as their socio-demographic and occupational details such as age, marital status and educational background. Open-ended questions were utilised regarding communication skills in the workplace. Data regarding communication problems were coupled together with questions in the information form, namely *"Do you experience any communication problems in the workplace?"* and *"If yes, in which areas?"* then the answers were grouped.

Perceived Stress Scale (PSS): This scale was developed by Cohen et al. in 1983. Its validity and reliability studies were performed by Erci (13) and Bilge et al. (2) and were then adapted to Turkish society. Each item has a score of 1 to 5 in the scale, which comprises of 10 items. It is a five-point scale and four items are reversely-stated while six items are proper statements. It is possible to get a total score from 0 to 40. A high total score means that the perceived level of stress is high. In the present study PSS had internal consistency (Cronbach's alpha) of α=0.78.

Communication Skills Assessment Scale (CSAS): This scale is a five-point scale that was composed of 25 items. It was designed to determine how individuals assess their communication skills. The highest possible score is 100. Higher scores mean that individuals consider themselves as positive communicators. The scale was developed and tested in terms of validity and reliability by Korkut (14). In the present study CSAS had internal consistency (Cronbach's alpha) of α=0.98.

Brief Symptom Inventory (BSI): This inventory is a five-likert type scale which examines psychological symptoms and has five sub-dimensions including anxiety, depression, negative self-concept, somatisation and hostility. It is also a scale used to evaluate the self. It is composed of 53 items. BSI total scores are evaluated in relation to the five sub-dimensions (15). Score range is between 0-212. The height of the scores shows the frequency of symptoms of the individual. The scale can be performed on adults, adolescents and groups. Its Turkish validity and reliability were tested by Sahin, Durak-Batigun and Ugurtas (16). In the present study, BSI had internal consistency (Cronbach's alpha) of α=0.97.

Statistical Analysis

Demographic characteristics were evaluated with descriptive statistical analysis. Correlations were calculated to see the relationships between PSS and CSAS, PSS and BSI. Spearman correlation analysis was used in this study since the data were not normally distributed. Results were evaluated at $p<0.05$ significance level.

Ethical Considerations

The protocol for this research project was approved by Marmara University Faculty of Medicine Research Ethics Committee (Protocol No: MAR-YÇ-2009-248). Necessary permission was obtained from ethical committees and institutions prior to the study. Moreover, written and oral approval were taken from the participants.

RESULTS

Table 1 shows the descriptive characteristics of the variables in the study. The average age of the nurses was 30.60±7.7 and 92.2% of them were females. 52.9% were

Table 1: Demographic characteristics of the nurses

Characteristics (n=102)	n	%
Gender		
Male	94	92.2
Female	8	7.8
Marital status		
Married	48	47.1
Single	54	42.9
Educational background		
Nursing College	23	22.5
Pre-graduate	26	25.5
Graduate	49	48.0
Postgraduate	4	3.9
Age (mean±SD)	34.94±9.00	
Length of service in oncology (mean±SD)	72.89±79.47 months	

Table 2: Score of Perceived Stress Scale (PSS), Communication Skills Assessment Scale (CSAS) and Brief Symptom Inventory (BSI)

Scale / Sub-Scale	Mean	SD
PSS (Perceived Stress Scale)	16.85	6.08
CSAS (Communication Skills Assessment Scale)	73.34	23.18
BSI (Brief Symptom Inventory)	32.68	33.13
Anxiety	6.67	7.57
Depression	9.10	10.46
Negative self-concept	6.63	8.38
Somatisation	4.68	5.16
Hostility	5.57	4.60

single and lastly 48% were holding a bachelor degree. The average period of employment was 9.82±8.3 years, and there was an average of six years of employment in an oncology unit.

The total score of the nurses for PSS was 16.85±6.08 and they were observed to perceive stress at an intermediate level. The total score for CSAS was 73.34±23.28 and it was found that the nurses considered their general communication skills as positive. When the nurses' psychological symptom scores were considered, their average total score for BSI was 32.68±33.13. The sub-dimensions scores of BSI were 6.67±7.57, 9.10±10.46, 6.63±8.38, 4.68±5.16 and 5.57±4.60 for anxiety, depression, negative self-concept, somatisation and hostility, respectively (Table 2).

Table 3 shows the areas of the nurses' communication difficulties which they pointed out. 84.3% of the nurses reported experiencing communication problems regarding anger and agitated patients, while 83.3% had the same problems with families who manifested their concerns and rage. Moreover, 70.6% reported to have difficulties in communication with patients during the terminal period.

The Spearman correlation coefficients in Table 4 show the mere statistical relationships between PSS, CSAS and BSI. Correlations were calculated by evaluating the sizes of scales (Total PSS, CSAS, BSI and BSI sub-dimensions including anxiety, depression, negative self-concept, somatisation and hostility) to see the correlations between

Table 3: The difficulties experienced by the nurses in communicating with patients

Most experienced difficulty	n	%
Communication with angry and agitated patient	86	84.3
Communication with anxiety and anger outward families	85	83.3
Communication with the patient who has too much pain	81	79.4
Communication with the patient who refuses treatment and care	80	78.4
Communication with the patient who requests continuously	79	77.5
Communication with the patient who has verbal communication difficulties	79	77.5
Communication with the patient who is dependent enough to create emotional difficulties	76	74.5
Communication with the patient who is sad, crying and depressed	74	72.5
Communication with the patient in the terminal stage	72	70.6
Communication with the patient who has learned his/her status and diagnosed recently	72	70.6

Table 4: Correlations between Perceived Stress Scale (PSS), Communication Skills Assessment Scale (CSAS) and Brief Symptom Inventory (BSI)

	PSS	CSAS	Anxiety	Depression	Negative Self Concepts	Somatisation	Hostility
CSAS	**-0.28**						
	p<0.01						
Anxiety	**0.44**	**-0.12**					
	p<0.01	*p>0.05*					
Depression	**0.50**	**-0.13**	**0.87**				
	p<0.01	*p>0.05*	*p<0.01*				
Negative Self Concept	**0.43**	**-0.10**	**0.89**	**0.89**			
	p<0.01	*p>0.05*	*p<0.01*	*p<0.01*			
Somatisation	**0.39**	**-0.23**	**0.71**	**0.69**	**0.66**		
	p<0.01	*p<0.05*	*p<0.01*	*p<0.01*	*p<0.01*		
Hostility	**0.55**	**-0.32**	**0.73**	**0.77**	**0.73**	**0.71**	
	p<0.01	*p<0.01*	*p<0.01*	*p<0.01*	*p<0.01*	*p<0.01*	
BSI	**0.50**	**-0.20**	**0.93**	**0.94**	**0.92**	**0.81**	**0.86**
	p<0.01	*p<0.05*	*p<0.01*	*p<0.01*	*p<0.01*	*p<0.01*	*p<0.01*

PSS, CSAS and BSI. There was a negative correlation between PSS and CSAS total scores (r=-0.28; p<0.01). A statistically significant positive correlation was found between PSS and BSI total scores (r=0.50; p<0.01) and all sub-dimensions. A negative significant correlation was determined between CSAS and BSI total scores (r=-0.21; p<0.05), and sub-dimensions of hostility (r=-0.32; p<0.01) and somatisation (r=-0.23; p<0.01) (Table 4).

DISCUSSION

This study, which examines the correlation between perceived stress levels, communication skills and psychological symptoms in nurses working in oncology units, can contribute to literature as it emphasizes the importance of perceived stress and communication skills on a nurse's psychosocial health.

Considering the highest score that can be obtained from PSS was 40 and higher scores indicated elevated levels of stress perception, it is observed in this study that mean PSS scores of the nurses was low (16.85±6.08). This result suggests that nurses generally do not perceive themselves as stressful. It is known that perception of stress can be affected by many personal and environmental factors (2,3). It can be stated that stress perception of the nurses who are working in oncology departments which have a higher possibility of having stressors, is affected by their individual, occupational and working environment characteristics and by the meaning they put on these stressors.

There are a lot of stressors in oncology units (7-9). In the literature, there is no study on how stressors are perceived by the employee in the oncology departments; but there are some studies on stress levels. Isikhan, Comez and Danis (17) have found stress scores at intermediate levels for both nurses and doctors in their study on healthcare personnel working with cancer patients. Escot et al. (18) have determined oncology nurses' general stress levels as low in their study and stated that they experience higher levels of stress when they are against specific situations such as providing care for patients who are about to die or suffering from pain.

CSAS scores show that nurses consider their general communication skills as positive. When they were asked whether they experience communication difficulties in their working environment or not, they explained that they had communication difficulties in many fields. These fields include communicating with angry and agitated patients, angry and anxious families, and patients suffering from pain, and patient who are in the terminal period and rejecting care. This result shows that nurses who are working in oncology units have general communication skills but they experience difficulties in communication with the patients and their families in working environment. It can be thought that the meaning that the nurses put on oncology unit and cancer disease may cause difficulties in handling responses of the patient and their families and in communication. Communication skills of healthcare professionals in oncology field may be affected by their knowledge and skills in psychosocial topics, communicational skills and their attitudes and beliefs about cancer disease (19,20). At the same time, communication between the patient and healthcare team may become complicated due to perceptions of the patients and their families, their expectations, emotional status and the course of the disease (21).

This result may also show that knowledge and skills of the nurses for the communicational difficulties with the patients and their families should be improved. In the performed studies, it was found that oncology nurses were not adequately educated in these topics (22,23).

Kushnir, Rabin and Azulai (24) have revealed that nurses have concerns regarding attitudes towards death and fatal diseases, death and dying; and also they feel an emotional connection with the patients and their families. It has been determined that the communication with cancer patients and their families is a major stressor in the studies which were conducted in collaboration with nurses working with cancer patients. The biggest cause of stressors has been found to be communication problems with patients and their relatives (25-30). In our country, usually healthcare professionals don't talk to the patients who are diagnosed with chronic and terminal illness. At the same time, this is also the wish of the families. This situation creates a burden on the patients, families, and healthcare workers and can lead to anger and anxiety. For this reason, we think that there were communication difficulties between the patient, family and healthcare providers.

When average psychological symptom scores were taken into consideration, psychological symptom frequency of nurses was found to be low and depression was the most

frequently experienced symptom. A depressive emotional state, feeling of inadequacy and guilt, rage against self and others, loss of desire to work are among other psychological symptoms of stress and burnout (31-33).

As perceived stress levels increase, nurses consider their own communication skills more negatively. It has been understood in studies that improving nurses' communication skills decreases stress and burnout (34-36).

There are several potential pathways for the effect of psychological distress on physical and psychological health. However, these physiological responses may lead to disturbances of psychological and physical functioning over the long term (4). It has been found that as perceived stress level increased, psychological symptom frequency increased as well. Healthcare personnel, especially those working with chronic and terminal diseases, are under the risk of psychological disorders as a result of chronic work stress (36-41). According to the previous studies, it can be stated as work stress level increases, various mental illnesses are likely to occur with depression being the most frequent one (18,31,42).

When nurses evaluate their communication skills as positive, psychological symptom frequency and symptoms of hostility and somatisation are generally observed to decrease. In the relevant literature, it is stated that inability to express feelings orally in detail can make individuals somatise their problems and thereby they can behave more hostile (43). Ramirez et al. (42) indicated a correlation between inefficient communication among healthcare personnel and inadequate coping skills and psychological symptoms, emotional burnout and feeling of personal success at low levels. Communication is one of the most important components of nursing care in oncology (42). Also, study findings show that most nurses experience communication problems with patients, families and healthcare personnel. When considered from this point of view, it can be said that improving communication skills of the nurses in oncology departments has great importance for them in terms of protecting their psychological health.

The response rate was 54% in this study. Because of the workload in the unit considered to be low participation in the study. The study findings are limited by the sample size and cannot be generalized. This has been the limitation of the study.

CONCLUSION

As a result, nurses' perceived stress level and psychological symptom frequency were low. Nurses evaluated their general communication skills as positive. They experienced problems in communicating with patients and their families. As perceived stress levels increased, mental symptom frequency increased as well. When nurses evaluate their general communication skills as positive, psychological symptom frequency and symptoms of hostility and somatisation are generally observed to decrease. Improving communication skills of oncology nurses and the interventions for their perceived stress levels may have effects as promoting their own psychological health as well as decreasing communicational difficulties with the patients and their families; and thus, it may affect the quality of care.

In line with these results, it may be recommended to carry out qualitative studies that determine stress, stress perception and the factors affecting this perception among individuals working in oncology units, to enhance their knowledge and skills about communication with cancer patients and their families and to study this topic with larger samples as randomized and controlled.

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