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The Level of Psychosocial Skills of Nurses Caring for Cancer Patients and Affecting Factors: Results of a Multicenter Study

Nazmiye Yıldırım¹, Perihan Güner^{2,*} and Figen İnci³

¹Department of Psychiatric and Mental Health Nursing, Faculty of Health Sciences, Bolu Abant İzzet Baysal University, Bolu, 14030, Türkiye

²Department of Psychiatric Nursing, Faculty of Health Sciences, Istanbul Bilgi University, İstanbul, 34440, Türkiye

³Department of Psychiatric Nursing, Zübeyde Hanım Faculty of Health Sciences, Niğde Ömer Halisdemir University, Niğde, 51200, Türkiye

*Corresponding Author: Perihan Güner. Email: perihan.guner@bilgi.edu.tr

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ABSTRACT

Caring for cancer patients requires both technical and psychosocial nursing skills. The aim of this study was to determine the psychosocial care skill levels of nurses and affecting factors. This multicenter, cross-sectional study was conducted with 1,189 nurses providing direct care to adult cancer patients in 32 hospitals in 12 geographical regions of Turkey. A questionnaire, the Psychosocial Skills Form, and the Professional Quality of Life Scale were used to collect the data. Nurses' psychosocial skill level was in the range of 2.72 ± 0.98 and 2.47 ± 0.89 out of four points. Communication skills such as empathic response, active listening, and the ability to provide information were found to be at a higher level than skills such as the activation of social support systems, therapeutic touch, and development of coping methods. Approximately 40% of nurses had received psychosocial care training, and 87% were interested in receiving additional psychosocial training. Gender, educational status, previous training in psychosocial care, and work experience with cancer patients were shown to affect psychosocial skill levels. There was a positive relationship between the level of psychosocial skills and the level of compassion satisfaction, and a negative relationship between the level of psychosocial skills and the level of burnout and compassion fatigue ($p < 0.05$). Nurses perceive themselves as having a medium to high level of psychosocial skills yet desire additional training. The results of this study may contribute to the development of training programs according to the needs of nurses who care for cancer patients.

KEYWORDS

Cancer; nurses; communication skills; psychosocial skills; burnout; compassion satisfaction

Introduction

Psychological distress [1,2] and unmet needs in psychosocial support, emotional support, and information [3,4] are common in cancer patients. Psychosocial symptoms and unmet needs are associated with lower quality of life and decreased general well-being [5], leading to a vicious circle. Therefore, there is a gap between the needs of patients and their families and the care they receive, pointing to the importance of integrating psychosocial care into the routine care of cancer patients.

Psychosocial care is a part of holistic care that responds to individuals' psychological and social needs [6]. It aims to help patients and their families endure the challenges of cancer and its treatment [7]. The domain of psychosocial care includes understanding and treating the social, psychological, emotional, spiritual, quality of life, and functional aspects of cancer and is applied across the cancer trajectory from prevention through bereavement [8]. In a qualitative study with cancer patients, hospital workers, and primary health professionals, Daem et al. (2019) concluded that nurses play an important role in promoting



psychosocial care [7]. Providing such care is embedded in the standards of practice for oncology nurses [9]. According to nursing regulations published in Turkey, psychosocial care is within the scope of the duties and authority of nurses [10]. However, studies have shown that nurses have difficulties in eliciting patients' concerns and providing mental and emotional support to patients and their families [11,12]. The literature has consistently determined that nurses provide practical care rather than emotional attention [13,14]. Ultimately, nurses assume the role of providing psychosocial care to cancer patients and their families, but they must have the relevant knowledge and skills to fulfill this role [15]. Providing psychosocial care may be challenging if the psychosocial skills of nurses are not adequate.

Psychosocial skills basically include offering therapeutic communication, providing information, delivering emotional support, encouraging participation in decisions, developing adaptive coping methods, screening for distress levels, and discerning when to refer to psycho-oncology/psychosocial oncology discipline [6,15,16]. The literature has long focused on communication skills, the basis of psychosocial care [11,14,17], but studies on other psychosocial nursing skill levels and affecting factors are limited. A recent study examined the perceived skill level of nurses in meeting psychosocial needs and the effect of certain variables (nurses' gender, age, education level, specialty certification, number of oncology conferences attended, type of unit, number of years of experience in nursing or number of years on current unit, and personal experience with a close friend or relative having cancer), determining that the perceived skill scores of nurses who had a baccalaureate education, specialization certificate, and experience working in oncology, hematology, or bone marrow transplant units were higher than others. A significant positive correlation was found between perceived skill levels, years of oncology experience, and number of oncology conferences attended [18]. The aim of the current study was to determine the psychosocial care skill levels of nurses and affecting factors (Fig. 1).

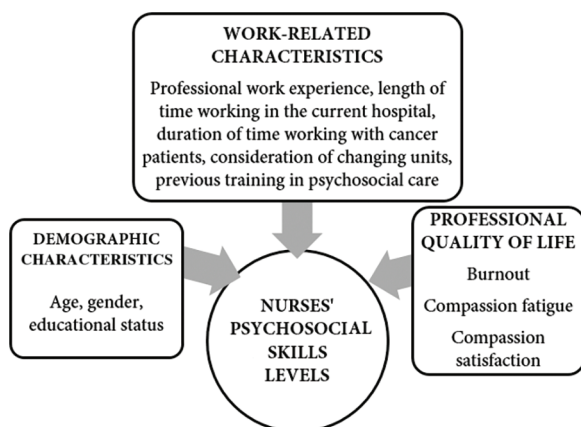


FIGURE 1. Hypothetical model of factors affecting psychosocial skills.

Methods

Design

This study is a part of a larger Turkish project termed “Determining the Psychosocial Care-Related Needs of Oncology Nurses” and focused on nurses’ psychosocial caregiving skills and professional quality of life. It is a cross-sectional, nationwide survey study.

Participants

This study’s participants consisted of 1,189 registered nurses providing direct care to cancer patients in 32 hospitals located in 12 geographical regions in Turkey. Stratified sampling was used in the selection of hospitals, and convenience sampling was used in the selection of participants.

In line with Turkey’s harmonization process with the European Union, and in accordance with the Law no. 2002/4720, Turkey is divided into 12 geographical regions (Istanbul, West Marmara, Aegean, East Marmara, West Anatolia, Mediterranean, Central Anatolia, West Black Sea, East Black Sea, Northeast Anatolia, Middle East Anatolia, and Southeast Anatolia) according to the Statistical Regional Units Classification [19]. The list of university, state, and private hospitals in each region was compiled, and 32 hospitals containing the highest number of patients and nurses were selected. The study was carried out in 12 universities, 11 state, and 9 private hospitals, as there were no private hospitals in three regions and no state hospitals in one region. After contacting the nursing managers of the hospitals via telephone, it was determined that the total number of nurses working in outpatient and inpatient oncology clinics was 1,389. Calculating according to the 3% error and 99% confidence levels determined that the necessary sample size was 793. Only registered nurses providing direct care to inpatient and outpatient adult cancer patients, regardless of length of employment, were included in the study. Nurses working in fields such as education and management, who were on leave at the time of the study, and/or from whom no written informed consent was obtained were excluded from the study.

Procedures

Approval for this study was obtained from the Ethics Committee of Koç University (Protocol number: 2016.162 IRB 3.092), and written permission from the participating institutions and written informed consent of the participants were obtained. Ethics committee and institutional permissions were obtained before the study was conducted. One nurse per hospital was assigned and trained as a study coordinator. The coordinator nurse (having previous research experience and sufficient communication skills, who could spare time for data collection, etc.) was selected by recommendation of each hospital’s nursing manager. These coordinators were trained in the inclusion-exclusion criteria of the study, informed consent, questions in the questionnaire, etc., by the project manager. Surveys were delivered to the coordinating nurse of each hospital by

cargo, and eligible nurses received information about the study in face-to-face orientation meetings during each shift, delivered by the coordinating nurse. Each participant received a paper copy of the survey and voluntarily submitted an informed consent form along with the self-completed questionnaires during their shift. In an attempt to increase the response rate, participants were sent follow-up reminders every two weeks. The questionnaires, referenced anonymously, were returned to a closed box and collected by the coordinating nurse, who then sent the collected survey results to the responsible researcher by cargo. Coordinators were paid for their services, and data collection was carried out between April–August 2017.

Instruments

The questionnaire, Psychosocial Skills Form, and Professional Quality of Life Scale (ProQOL) were used to collect the data.

Demographic, professional, and other variables: The questionnaire form included questions concerning the demographic (four questions: age, gender, education, and marital status) and professional characteristics (six questions: professional work experience, type of hospital, specific unit, duration of time working in the current hospital, duration of time working with cancer patients, and type of work) of participants. The questionnaire included four questions: “Would you change your unit if you had the opportunity?”, “Have you ever received any training in psychosocial care?”, “Did you find the training you attended to be sufficient?”, and “Are you interested in receiving additional psychosocial care training?”.

Psychosocial Skills Form: This form was created based on the literature [14,16–18,20] and the experiences of the authors. The authors had an average of 18 years of psychosocial oncology experience in counseling and psychoeducation for cancer patients, consultancy, and training (courses, certificates, etc.) for nurses working in oncology. The Psychosocial Skills Form consisted of 15 items concerning the following skills: actively listening, responding with empathy, asking open-ended questions, using non-verbal communication, encouraging the expression of concerns and emotions, encouraging the expression of thoughts and perceptions, facilitating the identification of functional/alternative ideas, providing information, offering the opportunity to ask questions, ensuring participation in decisions about one’s own health, identifying and improving existing coping methods, identifying and mobilizing social support systems, using therapeutic touch, distinguishing between normal and pathological responses, and identifying and referring at-risk patients. Answers were recorded on a 4-score Likert scale. Nurses were asked to identify their competency levels regarding the listed items by choosing one of the following options: “1-Not adequate,” “2-Slightly adequate,” “3-Quite adequate,” and “4-Completely adequate.” In the present study, Cronbach’s Alpha value of the Psychosocial Skills Form was found to be 0.939.

Professional Quality of Life Scale (ProQOL): ProQOL (Revision IV) was developed by Stamm [21], and its reliability and validity study in Turkey was carried out by Yeşil et al. [22]. It contains a total of 30 items and 3

subscales and uses a five-point Likert-type scale. Compassion satisfaction, the first subscale, refers to feelings of satisfaction and pleasure as a consequence of helping someone else in an area associated with him/herself or his/her profession; high scores obtained from this subscale indicate that the helper’s feeling of satisfaction is high. Burnout, the second subscale, measures the feeling of burnout associated with hopelessness and difficulty in coping with work problems; high scores obtained from this subscale indicate that the level of burnout is high. Compassion fatigue, the third subscale, measures manifestations of encountering stressful events; high scores from this scale indicate that the level of compassion fatigue is high. In Turkey, Cronbach’s alpha value was 0.848 for the scale, 0.819 for the compassion satisfaction subscale, 0.622 for the burnout subscale, and 0.835 for the compassion fatigue subscale [22]. In the present study, the overall Cronbach’s alpha value was found to be 0.792, while Cronbach’s alpha value of the compassion satisfaction, burnout, and compassion fatigue subscales were found to be 0.911, 0.727, and 0.874, respectively.

Analysis

SPSS for Windows (version 24 software) (IBM Corp., Armonk, NY, USA) program was used for data analysis. For descriptive statistics, numbers, percentages, means, standard deviations (SD), or minimum and maximum scores were used according to the data type. The Skewness and Kurtosis values for the Psychosocial Skills Form and ProQOL subscales varied between –0.01 and 0.68, indicating that all data or scores were normally distributed [23]. Student’s *t*-test and Pearson correlation test were used to examine the factors affecting the level of each skill. The alpha level for significance in all analyses was determined to be $p < 0.05$.

Results

Of the entire population ($N = 1389$), 1,189 nurses participated in the study, equivalent to a response of 85.6%. Most of the participants were women, married, and held a baccalaureate degree. Participants had been working as a nurse for an average of 11.35 years and had been caring for cancer patients for an average of 6.22 years (Table 1).

It was found that nurses evaluated their levels of psychosocial skills between 2.72 ± 0.98 and 2.47 ± 0.89 . It was determined that the level of empathy skills was the highest and the level of the ability to mobilize social support was the lowest. The averages of compassion satisfaction, burnout, and compassion fatigue were 33.46 ± 9.86 , 22.27 ± 7.46 , and 16.20 ± 9.33 , respectively (Table 2).

Psychosocial skills levels varied according to gender and educational status. It was found that female nurses had higher mean scores in 12 out of 15 skills when compared to male nurses, and the difference was statistically significant ($p < 0.05$). It was also determined that nurses with a baccalaureate degree and a postgraduate education had higher mean scores in nine skills than nurses with a vocational high school education and associate’s degree ($p < 0.05$). Those who received psychosocial care training had a higher mean score in only two skills when compared with

TABLE 1
Characteristics of nurses

Characteristics		% (n/N) or mean \pm SD (Min-Max)
Age (years)		32.75 \pm 8.53 (18–63)
Gender	Female	86.6% (1022/1180)
	Male	13.4% (158/1180)
Marital status	Married	58.5% (683/1167)
	Single	37.2% (434/1167)
	Divorced or widowed	4.3% (50/1167)
Educational status	Vocational high school	18% (212/1175)
	Associate degree	20.9% (245/1175)
	Baccalaureate degree	53.7% (631/1175)
	Postgraduate education	7.4% (87/1175)
Professional work experience (months)		136.17 \pm 104.98 (1–540)
Type of hospital	State	35% (357/1021)
	University	44.9% (458/1021)
	Private	20.1% (206/1021)
Experience in current hospital (months)		87.7 \pm 85.50 (1–444)
Specific unit	Oncology/hematology inpatient unit	47% (519/1104)
	Outpatient chemotherapy/radiotherapy unit	27.1% (299/1104)
	Bone marrow transplantation unit	10.1% (112/1104)
	General units including oncology patients	15.8% (174/1104)
Duration of working with cancer patients (months)		74.66 \pm 68.07 (1–480)
Type of work	Shifts	58.3% (679/1164)
	Daytime	41.7% (485/1164)
Would you change your unit if you had the opportunity?	Yes	45.8% (533/1163)
	No	54.2% (630/1163)
Have you ever received any training in psychosocial care?	Yes	38.9% (445/1144)
	No	61.1% (699/1144)
Did you find the training you attended to be sufficient?	Not at all adequate	18% (77/427)
	Somewhat adequate	33% (141/427)
	Neither adequate nor inadequate	24.4% (104/427)
	Quite adequate	20.1% (86/427)
	Very adequate	4.4% (19/427)
Are you interested in receiving addition psychosocial care training?	Yes	86.7% (972/1121)
	No	13.3% (149/1121)

those who did not ($p < 0.05$) (Table 3). There was no difference between the skill scores of those who wanted to change the unit in which they worked and those who did not ($p > 0.05$).

No statistically significant correlation was found between nurses' psychosocial skill levels, age, professional work experience, and time working in the current hospital ($p > 0.05$). A weak positive ($r = 0.07$ and $r = -0.08$) correlation was found between the duration of time working with

cancer patients and the level of seven skills ($p < 0.05$) (Table 4).

A weak positive ($r = 0.15$ to $r = 0.21$) correlation was found between compassion satisfaction and all psychosocial skills ($p < 0.01$). A weak negative correlation ($r = -0.06$ to $r = -0.10$) was found between burnout and 10 psychosocial skills ($p < 0.05$). A weak negative correlation ($r = -0.07$) was found between compassion fatigue and one psychosocial skill ($p < 0.05$) (Table 5).

TABLE 2

Means and standard deviations of nurses' psychosocial skills and professional quality of life

Psychosocial skills^a	Mean^b ± SD
Responding with empathy	2.72 ± 0.98
Offering the opportunity to ask questions	2.71 ± 0.96
Providing information	2.65 ± 0.95
Actively listening	2.64 ± 1.00
Ensuring participation in decisions about one's own health	2.63 ± 0.95
Encouraging the expression of concerns and emotions	2.59 ± 0.91
Using nonverbal communication	2.58 ± 0.93
Encouraging the expression of thoughts and perceptions	2.56 ± 0.89
Distinguishing between normal and pathological responses	2.55 ± 0.89
Identifying and referring at-risk patients	2.53 ± 0.91
Identifying and improving existing coping methods	2.53 ± 0.90
Asking open-ended questions	2.52 ± 0.88
Facilitating the identification of functional/alternative ideas	2.52 ± 0.87
Using therapeutic touch	2.48 ± 0.90
Identifying and mobilizing social support systems	2.47 ± 0.89
Professional quality of life	
Compassion satisfaction	33.46 ± 9.86
Burnout	22.27 ± 7.46
Compassion fatigue	16.20 ± 9.33

Note: ^aMin-Max:1–4 (1-not adequate, 2-slightly adequate, 3-quite adequate, 4-completely adequate). ^bSorted from high score to low.

Discussion

The current study established that nurses who care for cancer patients evaluated themselves at moderate and high levels of psychosocial skills. In a study conducted in previous years, it was found to be at a moderate level [18]. This result may be due to several factors. Given the prevalence of unmet needs of cancer patients and their families [3,4], nurses' current skills may be insufficient to meet the psychosocial needs of patients and their families. Another factor is that although nurses' psychosocial skills may be sufficient, they may not be able to apply them due to other obstacles. Various studies on barriers to psychosocial care may confirm this interpretation [24,25]. Another possibility is that nurses may perceive their psychosocial skill levels to be higher than they actually are. As a matter of fact, as the current study and other studies have shown, nurses need additional training in order to provide psychosocial care [13,18,26,27].

Among the psychosocial skills, communication is the backbone of the relationship between health professionals and patients and their families [27]. One study found that

oncology inpatient ward nurses' confidence levels in communicating empathetically with their patients was 4.12 ± 0.64 out of five points [28]. Another well-studied issue concerning cancer patients is information delivery. It has been reported that nurses are a reliable source of information, with the delivery of such information being an important part of nurses' role in clinical practice [29]. Such results support our study's finding that most of the nurses had higher skill levels in showing empathy, allowing the patient/family the opportunity to ask questions, give information, and actively listen when compared to other skills. In Turkey, importance is given to the development of these skills in pre- and post-graduate nurse training. Therefore, this result is to be expected. However, it is also understood that nurses need to develop the skill of asking open-ended questions, one of the therapeutic communication techniques.

This study found that two of the skills that nurses should develop most are the activation of social support systems and therapeutic touch. In support of this finding, one study found that physicians and nurses working in oncology were able to identify but not meet patients' supportive needs, including the mobilization of social resources [30]. Since the positive effect of social support on the cancer process has been well documented [31], it should be emphasized that nurses' responsibility is to mobilize such support by empowering people (such as spouses or friends) who can support the patient. Considering that therapeutic touch is also beneficial, inexpensive [32], and can be improved with education [33], these skills are recommended to be a crucial part of psychosocial care training. Cultural factors may play a role in both skills. The active role of the patients' families in the diagnosis, treatment, and care process in Turkey may have decreased nurses' use of these skills.

This study revealed that nurses who are female, have a bachelor's degree or higher, and have participated in psychosocial care training have higher communication and informational skills. The level of these skills improved as the length of care for cancer.

Patients increased, but surprisingly, they were not related to years of experience as a nurse. Similarly, another study reported a significant gender difference in communication skills in favor of female students [34]. Therefore, it may be important to consider the necessity of gender-specific training programs. In addition, field-specific training programs and nurse certification may be beneficial. In their study with hospice nurses, Clayton et al. found that nurses' perceptions of their own effectiveness of communication were not related to their time working as a nurse [26]. In the current study, the ability to mobilize social support was improved only by increased experience of working with cancer patients. In addition, the skill of therapeutic touch was at a higher level in female nurses when compared to male nurses.

Our study found that there was a significant positive correlation between all nursing psychosocial skills and compassion satisfaction. Since compassion satisfaction involves the pleasure of helping others and the positive aspect of care [35], it is conceptually significant that the

TABLE 3

The difference between the psychosocial skill levels of nurses according to gender, educational status, and previous training in psychosocial care

Psychosocial skills	Gender		<i>t</i>	<i>p</i>	Educational status		<i>t</i>	<i>p</i>	Previous training in psychosocial care		<i>t</i>	<i>p</i>
	Female X ± SD	Male X ± SD			VHS = Vocational High School or Associate degree X ± SD	Baccalaureate degree or Postgraduate education X ± SD			No X ± SD	Yes X ± SD		
Actively listening	2.67 ± 0.99	2.44 ± 1.04	2.616	0.009	2.49 ± 1.01	2.73 ± 0.98	−3.927	0.000	2.61 ± 0.98	2.76 ± 1.01	−2.099	0.036
Responding with empathy	2.74 ± 0.97	2.52 ± 1.02	2.639	0.008	2.61 ± 1.00	2.78 ± 0.95	−2.841	0.005	2.72 ± 0.97	2.80 ± 0.98	−1.176	0.240
Asking open-ended questions	2.54 ± 0.86	2.36 ± 0.89	2.307	0.021	2.49 ± 0.87	2.54 ± 0.87	−0.889	0.374	2.50 ± 0.85	2.58 ± 0.89	−1.331	0.184
Using nonverbal communication	2.60 ± 0.92	2.40 ± 0.93	2.448	0.015	2.47 ± 0.93	2.64 ± 0.92	−3.026	0.003	2.58 ± 0.89	2.62 ± 0.98	−0.607	0.544
Encouraging the expression of concerns and emotions	2.61 ± 0.90	2.45 ± 0.95	2.016	0.044	2.51 ± 0.96	2.63 ± 0.87	−2.156	0.031	2.59 ± 0.88	2.61 ± 0.95	−0.224	0.823
Encouraging the expression of thoughts and perceptions	2.56 ± 0.88	2.46 ± 0.93	1.310	0.190	2.51 ± 0.91	2.57 ± 0.87	−1.083	0.279	2.52 ± 0.85	2.63 ± 0.93	−1.748	0.081
Facilitating the identification of functional/alternative ideas	2.53 ± 0.88	2.39 ± 0.90	1.860	0.063	2.49 ± 0.92	2.54 ± 0.86	−0.991	0.322	2.49 ± 0.85	2.59 ± 0.91	−1.585	0.113
Providing information	2.68 ± 0.93	2.47 ± 1.00	2.512	0.012	2.56 ± 0.96	2.71 ± 0.93	−2.761	0.006	2.64 ± 0.90	2.77 ± 1.00	−2.113	0.035
Offering the opportunity to ask questions	2.74 ± 0.96	2.52 ± 0.97	2.629	0.009	2.61 ± 0.99	2.77 ± 0.93	−2.803	0.005	2.71 ± 0.93	2.78 ± 1.03	−1.071	0.285
Ensuring participation in decisions about one's own health	2.65 ± 0.94	2.44 ± 0.96	2.539	0.010	2.52 ± 0.97	2.69 ± 0.92	−2.928	0.003	2.62 ± 0.91	2.69 ± 0.98	−1.110	0.267
Identifying and improving existing coping methods	2.56 ± 0.89	2.30 ± 0.88	3.268	0.001	2.47 ± 0.92	2.56 ± 0.88	−1.617	0.106	2.51 ± 0.87	2.60 ± 0.90	−1.540	0.124
Using therapeutic touch	2.50 ± 0.90	2.33 ± 0.85	2.235	0.026	2.42 ± 0.90	2.52 ± 0.89	−1.737	0.083	2.48 ± 0.87	2.49 ± 0.93	−0.161	0.872
Identifying and mobilizing social support systems	2.48 ± 0.88	2.39 ± 0.92	1.105	0.269	2.44 ± 0.91	2.49 ± 0.87	−0.883	0.377	2.44 ± 0.85	2.52 ± 0.91	−1.296	0.195
Distinguishing between normal and pathological responses	2.59 ± 0.89	2.37 ± 0.87	2.776	0.006	2.49 ± 0.87	2.61 ± 0.90	−2.324	0.020	2.54 ± 0.84	2.64 ± 0.95	−1.703	0.089
Identifying and referring at-risk patients	2.56 ± 0.89	2.36 ± 0.96	2.563	0.010	2.43 ± 0.89	2.60 ± 0.90	−3.111	0.002	2.50 ± 0.86	2.58 ± 0.94	−1.212	0.226

Note: VHS = Vocational High School.

level of nurses' psychosocial skills increases and contributes to increased satisfaction when providing psychosocial care to patients. Another study also found that empathic concern predicted compassion satisfaction, thereby contributing to nurses' sense of meaning and achievement in their work [36]. A negative correlation between all psychosocial skills

and compassion fatigue would be expected, as nurses' proficiency in psychosocial skills would make it easier to manage the emotional burden of oncology patients. However, our study revealed a negative correlation only between compassion fatigue and eliciting questions from patients and their families. A study conducted with

TABLE 4

Correlation between nurses' levels of psychosocial skills and age, professional work experience, experience working in current hospital, and duration of time working with cancer patients

Psychosocial skills	Age (years)	Professional work experience (months)	Experience working in current hospital (months)	Duration of time working with cancer patients (months)
Actively listening	−0.003	−0.032	0.042	0.058
Responding with empathy	−0.018	−0.041	0.030	0.073*
Asking open-ended questions	0.009	−0.021	0.052	0.082*
Using nonverbal communication	0.016	−0.009	0.031	0.023
Encouraging the expression of concerns and emotions	−0.009	−0.043	−0.005	0.049
Encouraging the expression of thoughts and perceptions	−0.015	−0.046	−0.015	0.045
Facilitating the identification of functional/alternative ideas	0.013	0.002	0.021	0.076*
Providing information	0.022	0.002	0.054	0.072*
Offering the opportunity to ask questions	−0.029	−0.041	0.016	0.054
Ensuring participation in decisions about one's own health	−0.008	−0.029	0.040	0.063
Identifying and improving existing coping methods	−0.006	−0.032	0.020	0.030
Using therapeutic touch	−0.020	−0.051	0.029	0.042
Identifying and mobilizing social support systems	.006	−0.015	0.030	0.071*
Distinguishing between normal and pathological responses	.012	−0.006	0.056	0.066*
Identifying and referring at-risk patients	−0.005	−0.015	0.016	0.074*

Note: * $p < 0.05$.

TABLE 5

Correlation between nurses' levels of psychosocial skills and professional quality of life quality

Psychosocial skills	Professional quality of life		
	Compassion satisfaction	Burnout	Compassion fatigue
Actively listening	0.187**	−0.061*	−0.043
Responding with empathy	0.179**	−0.058	−0.033
Asking open-ended questions	0.166**	−0.061*	0.008
Using nonverbal communication	0.182**	−0.046	0.023
Encouraging the expression of concerns and emotions	0.197**	−0.085**	−0.028
Encouraging the expression of thoughts and perceptions	0.189**	−0.062*	−0.017
Facilitating the identification of functional/alternative ideas	0.202**	−0.076*	−0.003
Providing information	0.203**	−0.098**	−0.056
Offering the opportunity to ask questions	0.175**	−0.096**	−0.068*
Ensuring participation in decisions about one's own health	0.205**	−0.100**	−0.057
Identifying and improving existing coping methods	0.177**	−0.088**	−0.046
Using therapeutic touch	0.200**	−0.064*	0.005
Identifying and mobilizing social support systems	0.167**	−0.042	0.025
Distinguishing between normal and pathological responses	0.175**	−0.056	−0.014
Identifying and referring at-risk patients	0.146**	−0.028	0.020

Note: * $p < 0.05$, ** $p < 0.01$.

hematology nurses reported that no relationship was found between nursing competencies and compassion fatigue [37]. Our study, however, found that there was a significant negative correlation between nurses' nine psychosocial skills and burnout. This may be due to the fact that nurses who experienced higher levels of burnout may have perceived their level of psychosocial skills to be lower. Other studies have supported that empathetic abilities are significantly reduced in professionals who experience burnout [36,38]. However, the cross-sectional nature of this study does not allow for causal directions, and the inverse relationship may also be true. Chen et al. found that better nursing competence in communication/coordination and specialized clinical practice predicted less burnout [37], and a previous study reported that self-efficacy in communication skills prevents the occurrence of emotional exhaustion [39]. Our study showed that in addition to communication skills, skills such as helping patients develop coping methods and functional/alternative ideas also reduced burnout, perhaps indicating that nurses can use psychosocial care skills not only for the benefit of their patients but also for themselves.

The lack of consensus on psychosocial skills and the lack of standard measurement tools to evaluate competencies in these skills is an important limitation. Another limitation is that the data obtained by this study are based upon the reports of participants. Participants may have overestimated or underestimated their competence in psychosocial care skills. Hence, we recommend that new studies use objective measurement tools in addition to participant self-reports to confirm reliability and consistency of the findings. Finally, the cross-sectional nature of this study does not allow causality inferences between nurses' psychosocial care skill levels and the factors investigated. Therefore, future studies on alternative ways to measure oncology nursing psychosocial skills, as well as observational studies aimed at evaluating such skills, are recommended. In addition, considering the barriers to psychosocial care, it may be useful to investigate other variables not examined in this study.

Conclusion

According to the findings of this study, which was conducted with a large sample, the psychosocial skills of nurses who care for cancer patients were at a medium or high level, however nurses desired additional training. In particular, there is a need for increased proficiency in skills such as activating social support systems for patients, using therapeutic touch, facilitating the development of alternative ideas, and supporting coping methods. Our study showed that nurses perceive themselves to be competent in communication skills such as empathy and active listening, but the method of asking open-ended questions needs to be further developed. In addition to psychosocial care training that will meet the needs of nurses, the experience of caring for cancer patients can also increase nurses' skill levels. It was observed that special attention should be paid to increasing the level of the psychosocial skills of male nurses. Increasing nurses' professional quality of life can positively affect their psychosocial skills and improving such skills can also

increase nurses' compassion satisfaction and reduce burnout levels.

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