

## Original Article

# Empathy, Burnout, Demographic Variables and their Relationships in Oncology Nurses

### Abstract

**Introduction:** Development of nurse–patient empathic communication in the oncology ward is of great importance for the patients to relieve their psychological stress, however, nursing care of cancer patients is accompanied with high stress and burnout. The present study aimed to define the level of empathy and its association with burnout and some demographic characteristics of oncology nurses. **Materials and Methods:** This descriptive/correlation study was conducted in a professional cancer treatment center in Isfahan. Through census sampling, 67 oncology nurses were selected. The data collection tools were Jefferson Scale of Nursing Empathy, Maslach Burnout Inventory, and demographic characteristics questionnaire. **Results:** Mean nurses' empathy and overall burnout scores were 62.28 out of 100 and 38.8 out of 100, respectively. Score of empathy showed an inverse correlation with overall burnout score ( $r = -0.189$ ,  $P = 0.04$ ), depersonalization ( $r = -0.218$ ,  $P = 0.02$ ), and personal accomplishment ( $r = -0.265$ ,  $P = 0.01$ ). Multiple regression test was used to detect which dimension of burnout was a better predictor for the reduction of empathy score. Results showed that the best predictors were lack of personal accomplishment ( $P = 0.02$ ), depersonalization ( $P = 0.04$ ), and emotional exhaustion ( $P = 0.14$ ), respectively. The most influential demographic factor on empathy was work experience ( $r = 0.304$ ,  $P = 0.004$ ). One-way analysis of variance showed that official staff had a higher empathy score ( $f = 2.39$ ,  $P = 0.045$ ) and their burnout was lower ( $f = 2.56$ ,  $P = 0.04$ ). **Conclusions:** Results showed a negative relationship between empathy and burnout in oncology nurses. Therefore, nursing support from managers to reduce burnout increases empathic behavior of nurses.

**Keywords:** Burnout, cancer, empathy, Iran, nurses, oncology nursing, patient–nurse relationship

### Introduction

Cancer, as a potentially life threatening, serious, fatal, and untreatable disease, affects patients' physical and psychological condition.<sup>[1,2]</sup> One-third of the cancer patients suffer from emotional problems such as anxiety and depression.<sup>[3-5]</sup> Ida Orlando, in 1958, wrote that the relationship between a patient and a nurse is a dynamic "whole" and a very important ground for professional behavior that need to be used to help the patient.<sup>[6]</sup> Empathy-based care in all stages of cancer is important because it leads to reduction of anxiety, emotional adaptation, pain management, and remaining hopeful.<sup>[7-10]</sup> Although patients' demand for empathic nurses, most cancer patients are dissatisfied with the sort of communication that occurs in the hospital and suffer from anxiety.<sup>[11]</sup>

On the other hand, research shows that oncology nurses are predisposed to burnout

due to their frequent contacts with critical patients, emotional challenges in the workplace, burden of care, and impending death of patients.<sup>[9,12,13]</sup> Maslach and Jackson made the most common definition for burnout, which defines it as a psychological syndrome comprising dimensions of emotional exhaustion, depersonalization, and lack of personal accomplishment. The person with emotional exhaustion feels that he/she is under pressure and emotionally emptied. Depersonalization is revealed in negative attitude and indifference of service giver in giving service to the receiver. Lack of personal accomplishment is the feeling of diminished capability and power to do the tasks, and in fact, it is a negative self-evaluation of work accomplishment.<sup>[13]</sup>

Because burnout negatively affects quality of nursing care<sup>[14,15]</sup> and their empathic behavior toward the patients, it leads to a reduction in occupational function and is associated with lowered quality of life,

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anxiety, irritability, mood change, sense of defeat, suicidal thoughts, depression, and work absenteeism.<sup>[16-18]</sup> Early diagnosis and prevention of burnout and specific attention to the health of the nurses involved in the care of cancer patients is essential.<sup>[15,19]</sup> In this regard, Gleichgerricht and Decety showed that job satisfaction is strongly associated with empathy and burnout is correlated with personal distress.<sup>[20]</sup> Thomas showed that an increase in empathy had a protective role against burnout.<sup>[21]</sup> Hanrahan *et al.* reported that reduction of burnout was significantly associated with working environment.<sup>[22]</sup> Eelen *et al.* reported that burnout and its components were significantly high in professions in oncology ward.<sup>[18]</sup>

Because many factors affect empathy, and there is no study on empathy and burnout of oncology nurses' in Iran, the present study aimed to define the level of empathy and its association with burnout and some demographic characteristics of nurses in the oncology ward.

## Materials and Methods

This descriptive/correlation study was conducted in one of the professional oncology hospitals in Iran and the only cancer referral center in Isfahan province, between July and September 2015. Sampling method was census. The inclusion criteria included having at least a bachelor degree in nursing, 1-year employment in oncology departments, and the exclusion criteria was partial response or no response to the questionnaire. Researcher referred to the hospital wards after obtaining permission from the Isfahan University of Medical Sciences and coordinating with the hospital manager. Researcher explained the research goals and confidentiality of patient information patients and obtained a verbal informed consent from them. In the present study, 67 working nurses out of 76 completed the questionnaires (response rate = 88%). The measures in the study were standardized questionnaires with acceptable psychometric properties and demonstrated construct validity. The Cronbach's alpha 0.76 for Jefferson Scale of Empathy and Cronbach's alpha between 0.71 and 0.90 for Maslach Burnout Inventory in previous studies;<sup>[23]</sup> Cronbach's alpha values of dimensions were emotional exhaustion 0.90, depersonalization 0.79, and personal accomplishment 0.71, revealing proper scientific reliability of scales.<sup>[24]</sup> The Jefferson Scale of Nursing Empathy with 20 items based on seven-point Likert scale (absolutely agree to absolutely disagree) was scored from 0 to 6. The Maslach Burnout Inventory including 22 items, comprising 9 items associated to emotional exhaustion, 5 to depersonalization, and 8 to personal accomplishment, was scored on a six-point Likert scale (never to very much) from 0 to 5. To be more understandable, the results were changed to 0–100, and then, the mean score was calculated. A demographic characteristics questionnaire including age, sex, marital status, total work experience and work experience in the oncology ward, educational

degree, history of hospitalization, employment status, having experience of a family member with cancer, and a history of a physical and psychological disease was also completed. Data were analyzed by the Statistical Package for the Social Sciences software (version 16, SPSS Inc, Chicago, IL, USA). Descriptive statistics were used for empathy and burnout mean scores. Pearson correlation coefficient test was adopted for the correlation between empathy score and burnout, age, work experience, and work experience in the oncology ward. Spearman correlation coefficient test was used for the correlation between empathy and burnout scores and level of education. Multiple regression analysis test was used to determine which dimension of burnout was a stronger predictor for empathy score. Independent *t*-test was used to determine mean empathy and burnout scores concerning sex, marital status, experience of cancer in a family member, and history of physical and psychological diseases. To determine the mean score of empathy and burnout on the basis of employment status, one-way analysis of variance (ANOVA) test was used.

## Ethical considerations

Ethics Committee of IUMS approved the study process, and an informed consent was obtained from all of the subjects.

## Results

Nurses' demographic characteristics are presented in Table 1. Nurses mean empathy and overall burnout scores were 62.28 (9.5) and 38.8 (15), respectively. Concerning the components of burnout, mean [standard deviation (SD)] of emotional exhaustion, depersonalization, and lack of personal accomplishment were 38.06 (22.7), 25.6 (17.8), and 47.9 (13.7), respectively. Pearson correlation coefficient test showed an inverse correlation between empathy score and overall burnout score ( $r = -0.189$ ,  $P = 0.04$ ). There was an inverse correlation between empathy score with domains of depersonalization ( $r = -0.218$ ,  $P = 0.02$ ) and lack of personal accomplishment ( $r = -0.256$ ,  $P = 0.01$ ), but no significant association with emotional exhaustion score ( $r = 0.05$ ,  $P = 0.34$ ). Multiple regression analysis showed that the best predictors were lack of personal accomplishment, depersonalization, and emotional exhaustion scores [Table 2]. The formula of empathy score prediction line from the scores of various burnout dimensions was obtained as  $Y = 70 + 0.11X_1 - 0.1X_2 - 0.19X_3$ , where  $Y$  is empathy score and  $X_1$ ,  $X_2$ , and  $X_3$  were emotional exhaustion, depersonalization and lack of personal accomplishment, respectively.

Pearson correlation coefficient showed an association between work experience and empathy score ( $r = 0.269$ ,  $P = 0.01$ ) and work experience in oncology ward and empathy score ( $r = 0.304$ ,  $P = 0.004$ ). There was an inverse correlation between age and overall burnout score ( $r = -0.23$ ,  $P = 0.03$ ), depersonalization score ( $r = -0.28$ ,

**Table 1: Demographic characteristics of the sample (N=67 oncology nurses)**

Characteristic	Mean (SD) or Number (%)
Age Mean (SD)	30.39 (8.35)
Work experience Mean (SD)	7.28 (6.71)
Work experience in oncology ward M (SD)	5.16 (6.56)
Gender N (%)	
Female	59 (88.06%)
Male	8 (11.94%)
Marital status N (%)	
Single	33 (49.25%)
Married	34 (50.75%)
Employment Status N (%)	
Official	6 (8.95%)
Contractual	34 (50.75%)
Other than that	27 (40.30%)
Educational level N (%)	
Associate Degree	(45.97%)
BS	60 (89.55%)
MA	3 (4.48%)
Experience of a family member with cancer N (%)	
Yes	30 (44.78%)
No	37 (55.22%)
History of physical disease N (%)	
Yes	19 (28.36%)
No	48 (71.64%)
History of hospitalization N (%)	
Yes	29 (43.28%)
No	38 (56.72%)

**Table 2: Regression coefficient of dimension of burnout and beta according to empathy score**

	Unstandardized Coefficients		P value
	B	Beta	
Constant	70	-	<001
Emotional exhaustion	0.11	0.12	0.14
Depersonalization	-0.10	-0.19	0.04
Personal accomplishment	-0.19	-0.28	0.02

$P = 0.01$ ), and lack of personal accomplishment ( $r = -0.03$ ,  $P = 0.02$ ) although age showed no significant correlation with empathy score and emotional exhaustion score. Spearman correlation coefficient test showed no significant correlation between education, and empathy score, and burnout score and its dimensions. Independent  $t$ -test showed that mean empathy score was higher among those with experience of a family member with cancer ( $P = 0.03$ ) while they had a higher emotional exhaustion ( $P = 0.04$ ). There was a significant difference between empathy score and hospitalization history ( $P = 0.043$ ) such that those with a hospitalization history had higher empathy scores. Overall burnout ( $P = 0.01$ ) and emotional exhaustion ( $P = 0.004$ ) were higher among those with a history of psychological

problems. Those with a history of a physical disease also had higher emotional exhaustion ( $P = 0.04$ ), whereas empathy mean score concerning sex, marital status, history of a psychological problems, and history of a physical disease showed no significant difference. One-way ANOVA showed that official staff had a higher empathy score ( $f = 2.39$ ,  $P = 0.045$ ) and their burnout was lower whereas the contractual staff had a higher overall burnout score ( $f = 2.56$ ,  $P = 0.04$ ) and lack of personal accomplishment ( $f = 3.01$ ,  $P = 0.03$ ), compared with the others.

## Discussion

Empathy has been recommended as a part of professional role among oncology nurses to conduct patient-centered care. Our findings showed that most of the nurses had moderate score of empathy and moderate score of burnout, which is in line with Beddoe *et al.*, who reported that oncology nurses face a reduction in their empathy due to increased personal stress.<sup>[25]</sup> Some stressors have been identified for burnout of oncology nurses, including the nature of cancer, complex treatments, death, and intense involvement with patients and families,<sup>[26]</sup> however, findings showed those having a lower burnout score had higher empathy score, which is consistent with Brazeau *et al.*,<sup>[27]</sup> Paro *et al.*,<sup>[28]</sup> and Wagaman *et al.*<sup>[29]</sup> Concerning the components of burnout, the findings showed that the best predictor for nurses' empathy were scores of lack of personal accomplishment, depersonalization, and emotional exhaustion, which is in line with Hojat *et al.* and Brazeau *et al.*<sup>[30,27]</sup> Meanwhile, Lee *et al.* reported that the best predictors of burnout among burnout components were emotional exhaustion, lack of personal accomplishment, and depersonalization.<sup>[31]</sup> The shortage of nurses and their related heavy workload may be the primary reasons for increased burnout and reduced empathy of nurses in our study.

Findings showed that nurses with high work experience in the oncology ward had a higher empathy score; official nurses also had higher empathy score and lower burnout. Age had no significant correlation with score of empathy, however, there was an inverse correlation between age and overall score of burnout; there was no correlation between empathy, burnout with gender, educational level, and marital status of nurses. In general, the most influential demographic factor on empathy and burnout was work experience, which is consistent with Gleichgerricht and Decety.<sup>[20]</sup> Ostacoli *et al.* reported that the nurses' work location was the only effective factor in their burnout.<sup>[32]</sup> Because empathy is a multidimensional concept that is influenced by various variables,<sup>[33]</sup> the findings of the present study seem rational. In our study, official nurses had more work experience, wages, and promotion opportunities, which may be an explanation for lower burnout and higher empathy they are experiencing.

Moreover, nurses with experience of cancer in a family member had higher score of empathy and more emotional exhaustion than those without. This outcome is consistent



with the findings of Whitehead and Smith.<sup>[34]</sup> Stenberg *et al.* also reported emotional exhaustion in cancer patients care givers.<sup>[35]</sup> Long involvement in the process of treatment and care of cancer patients may result in more empathy and more emotional exhaustion in caregivers.

Our findings showed that there was a significant difference between score of empathy and history of hospitalization such that those with such a history had higher empathy scores. Wilkes *et al.* also reported that a history of hospitalization was helpful in manifestation of empathetic behavior toward the patients.<sup>[36]</sup> It seems that hospitalization results in sensitivity to the distress of others and enables us to put ourselves in the shoes of the patients to predict the effect of our actions on them.

The findings of the present study showed no significant difference in the scores of empathy of nurses with a history of psychological problems and physical disease and those without, however, overall burnout and emotional exhaustion scores were higher among those with a history of psychological problems, which was consistent with studies of Lee *et al.* and Blanchard *et al.*<sup>[17,31]</sup> Because psychological problems can impact individuals' stress reactions, it may result in the burnout of oncology nurses in our study.

Our results indicated that there is correlation between empathy and burnout, however, this relationship was not strong, on the other hand, correlation detection in which cause and effect relationship is not clear was among the limitations of the present study. In this regard, there are two hypotheses:

- Burnout leads to lowered empathy due to depersonalization
- Empathy prevents burnout due to an increase in job satisfaction.

It is suggested to conduct longitudinal studies with larger sample sizes to determine the effect of empathy patterns on burnout over time.

Notwithstanding its limitations, this study is the first investigation of association between empathy and burnout of oncology nurses in Iran.

## Conclusion

Empathy is a basic component of nurse-patient communication, and burnout is associated with decreased job performance, stress-related health problems, and low career satisfaction. Based on the findings, nurses with higher empathy score experience lower burnout and vice-versa. The most influential demographic factor on empathy and burnout was work experience of nurses; official nurses have more empathy and less burnout. In this regard, it should be noted that official nurses have more career development opportunities and experience more personal accomplishment and less emotional exhaustion. It can be generally concluded that empathic

nurses have no depersonalization and experience less emotional exhaustion toward the patients and have a better feeling of personal accomplishment, whereas nurses with emotional exhaustion will be less able to stand in the patient's shoes and listen emphatically, and would prefer to protect themselves by putting the patients at a distance and depersonalizing them. Therefore, the findings of the present study revealed the necessity for provision of interventional programs to relieve oncology nurses from stress, to prevent their burnout, and to increase their empathy to encourage patient-centered communication because oncology nurses play an important role in the psychosocial care of cancer patients.

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## Conflicts of interest

There are no conflicts of interest.

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