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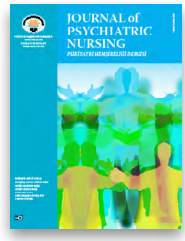

Original Article

Emotional reactivity and burnout in clinical nurses

Nihan Altan Sarıkaya,[1] Selda Öztürk,[1] Sevcan Öz,[2] Saadet Elmas[1]

[1]Department of Mental Health and Diseases Nursing, Trakya University Faculty of Health Sciences, Edirne, Türkiye
[2]Department of Mental Health and Diseases Nursing, Ege University Faculty of Nursing, İzmir, Türkiye

Abstract

Objectives: Nurses are exposed to a variety of factors that can create emotional challenges and increase the risk of burnout. This study was designed to examine the relationship between emotional reactivity and burnout among clinical nurses.

Methods: This correlational and cross-sectional study was conducted at a university hospital. The sample consisted of 199 nurses. The data were collected using a sociodemographic characteristics questionnaire, the Emotion Reactivity Scale (ERS), and the Burnout Measure-Short Form (BM-SF).

Results: The study participants had a mean BM-SF and ERS score of 35.85±11.42 and 41.78±8.50, respectively. They had a mean ERS emotional sensitivity, emotional intensity, and emotional persistence subscale score of 13.94±3.45, 11.46±2.54, and 16.36±3.71, respectively. There was a positive correlation between the BM-SF and ERS scores ($p<0.001$).

Conclusion: Clinical nurses often experience conditions that can trigger emotional reactivity and individuals who display greater emotional reactivity tend to have a higher degree of burnout. It is important that institutions and governing bodies provide nurses with training related to emotion recognition and expression to help them develop coping skills and psychological resilience.

Keywords: Emotion expression; nurses; professional burnout.

What is presently known on this subject?

- Emotional reactivity has been associated with mental health problems, such as depression and anxiety. Nurses are frequently faced with challenging circumstances that include significant emotional demands. Emotional exhaustion and frustration are significant contributors to burnout.

What does this article add to the existing knowledge?

- Nurses must manage emotionally charged and stressful circumstances. Those with a high level of emotional reactivity are more likely to experience symptoms of burnout.

What are the implications for practice?

- Clinical nurses should be given the tools to help them evaluate and manage their emotions, including the ability to recognize emotional reactivity, particularly in the context of mental health problems (stress and anxiety). Training that provides the skills and ability to moderate and manage adversity will support nurses and improve the quality of care.

Clinical nurses work with patients who often have heightened emotional needs and may have poor social functioning. They care for these patients with physical, mental, and emotional problems while dealing with numerous other concerns and crises as part of a full workload in a very challenging environment. These demanding conditions can provoke intense emotions that can affect their work, family, social life, and health. Experiencing and expressing emotions is critical for psychosocial and physical health.[1] The ability to adequately moderate stress and emotions is important. The environment can have positive and negative influences on both healthcare professionals and patients and family members.[2]

Emotional reactivity reflects the extent to which one reacts to daily stressors. It is a measure of the ability to regulates one's emotions.[3] The same stressful event may have a very different impact on different individuals, causing more distress in some than in others. The frequency and intensity of the response to stimuli define the level of reactivity. Emotions affect thoughts

Address for correspondence: Nihan Altan Sarıkaya, Trakya Üniv. Sağ. Bilim. Fak., Ruh Sağ. ve Hast. Hemşireliği Anabilim Dalı, Edirne, Türkiye
Phone: +90 284 236 49 81 **E-mail:** nihanaltan85@gmail.com **ORCID:** 0000-0002-3678-6186

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and behaviors. Therefore, people with high emotional reactivity expend a significant portion of their energy focused on their own emotions. They can become stuck in a heightened emotional state, which affects the way they think and act.[4] The demands of emotional reactivity can lead to fatigue and irritability, contributing to emotional exhaustion over time.[5] A relationship between emotional reactivity and mental health problems, such as stress, depression, and anxiety has been established.[6,7]

Burnout is defined as a state of emotional, mental, and physical exhaustion brought on by prolonged stress.[8] The 11th Revision of the International Classification of Diseases developed by the World Health Organization categorizes burnout as an occupational condition and defines it as a syndrome that results from chronic workplace stress that has not been successfully managed.[9] Woo et al.[10] conducted a systematic review and meta-analysis of the global prevalence of burnout and found that 1 in 10 nurses (11.23%) demonstrated symptoms. Research has also shown that nurses experience burnout more often than other healthcare professionals.[11] O'Mahony[12] reported that in a study of nurses in emergency rooms in Ireland, half experienced high levels of emotional exhaustion and depersonalization. Kim et al.[13] found that 7 in 10 nurses (71.6%) suffered from emotional exhaustion.

Nurses often experience emotional stress, fatigue, and burnout as a result of the need to make important decisions and understand and care for their patients while performing in difficult circumstances. Among other consequences, including desensitization and cynicism, people who feel emotionally drained and worn-out can also experience anxiety and tension that results in judging themselves harshly, believing that they are not acting responsibly enough.[14] Rezaei and Dalaki[15] noted that negative emotions reduced nurses' resilience. Nurses interact with patients and their family members as well as other healthcare professionals. The ability to maintain a balanced emotional status will contribute to quality of care, as well as job satisfaction and less burnout. There is a large body of research on burnout in nurses. However, to the best of our knowledge, this is the first study to address the relationship between emotional reactivity and burnout in clinical nurses in Türkiye.

Research Questions

1. What is the level of emotional reactivity and burnout among clinical nurses?
2. Is there a relationship between emotional reactivity and burnout in clinical nurses?
3. Does emotional reactivity predict burnout in clinical nurses?

Materials and Method

Ethical Considerations

This study was conducted according to the ethical principles outlined by the World Medical Association's Declaration of Helsinki. The study was approved by the Trakya University Faculty of Medicine Scientific Research Ethics Committee on May 21, 2018 (No: 09/20, protocol code: TÜTF-BAEK 2018/196). Permission was also obtained from the participating hospital. All of the contributing nurses were informed about the purpose and procedures of the research and provided verbal consent.

Participants

This correlational and cross-sectional study was conducted at a university hospital between July and August 2018. The study population consisted of 408 nurses with at least 1 year of work experience. The established sample calculation formula was used to determine the sample size (95% confidence level, 5% tolerance, and 90% power). The results indicated that a sample of 199 would be large enough to detect significant differences: The study sample analyzed consisted of 199 voluntary nurses with at least 1 year of work experience.

Data Collection Tools

The data were collected using a sociodemographic characteristics questionnaire, the Emotion Reactivity Scale (ERS), and the Burnout Measure-Short Form (BM-SF).

Sociodemographic Characteristics Questionnaire

The sociodemographic characteristics questionnaire was based on a literature review conducted by the researchers. The questionnaire consisted of 10 items related to age, gender, education, work experience, working hours, unit of duty, work schedule, feelings about the nursing profession, participation in social activities, and perception of psychological support.

Emotion Reactivity Scale

The ERS was developed by Nock et al.,[16] and Seçer et al.[17] developed a Turkish version. The instrument has a Cronbach's alpha (α) value of 0.91. It consists of 17 items rated on a 4-point, Likert-type scale (4=strongly agree, 3=agree, 2=disagree, 1=strongly disagree). Three subscales are used to measure emotional intensity (α=0.76), emotional sensitivity (α=0.86), and emotional persistence (α=0.81).[17] The total score is the sum of the subscale scores. The total possible score ranges from 17 to 68. A higher score indicates higher emotional intensity and sensitivity and lower persistence.[15] In the present study, the scale had a Cronbach's alpha value of 0.91, and the emotional sensitivity, emotional intensity, and emotional persistence subscales had a Cronbach's alpha value of 0.89, 0.69, and 0.84, respectively.

Burnout Measure-Short Form

The BM-SF was developed by Pines and Aronson.[18] It is the most-used scale after the Maslach Burnout Inventory. Pines[19] developed a short version of the scale for ease of use by researchers and practitioners. Çapri[20] created a Turkish version

of the BM-SF. The scale consists of 10 items rated on a 7-point, Likert-type scale (1=never to 7=always). Higher scores indicate a higher level of burnout.[20] The scale has a Cronbach's alpha of 0.91. In the present study, the value was 0.90.

Table 1. Demographic characteristics (n=199)

Characteristics	Mean±SD	
Age (years)	32.66±7.14 (min-max:19-:56)	
	n	%
Gender		
Female	137	68.8
Male	62	31.2
Marital status		
Single	49	24.6
Married	150	75.4
Educational status		
High school	27	13.6
College/university	152	76.4
Postgraduate	20	10.0
Years of employment in profession		
1-9	96	48.2
10-19	79	39.7
≥20	24	12.1
Department		
Internal medicine clinics	111	55.8
Surgery clinics	51	25.6
Pediatric clinics	26	13.1
Psychiatry clinics	7	3.5
Emergency clinics	4	2.0
Continuous-day	51	25.6
Type of employment		
Continuous-night	5	2.5
Shift work	143	71.9
Loves the profession		
Yes	134	67.3
No	65	32.7
Participates in social activities		
Yes	56	28.1
No	143	71.9
Receives social support		
Yes	150	75.4
No	49	24.6

Statistical Analysis

The data were analyzed using IBM SPSS Statistics for Windows, Version 21.0 software (IBM Corp., Armonk, NY, USA) at a significance level of 0.05. Percentage, frequency, arithmetic mean, and SD were used for nominal and ordinal variables. The Shapiro-Wilk test was used for normality testing. Median values and the Spearman correlation test were used to determine the relationship between mean values. A regression analysis was performed to determine whether emotional reactivity predicted burnout.

Results

Table 1 provides the participants' demographic characteristics. Participants had a mean age of 32.66±7.14 years. A majority were women (68.8%), married (75.5%), and had a bachelor's degree (76.4%). More than a quarter of the participants had 10 to 19 years of work experience (39.7%) and more than half of the participants worked in clinics of internal medicine (55.8%). The remainder worked in a surgery clinic (25.6%), pediatrics clinic (13.1%), psychiatry clinic (3.5%), or emergency clinic (2%). The majority of the participants worked in shifts (71.9%). More than half the participants stated that they loved their profession (67.3%), did not participate in social activities (71.9%), and felt they had social support (75.4%) (Table 1).

The participants had a mean ERS score of 41.78±8.50 (median: 42.00). They had a mean emotional sensitivity, emotional intensity, and emotional persistence subscale score of 13.94±3.45 (median: 14.00), 11.46±2.54 (median: 11.00), and 16.36±3.71 (median: 16.00), respectively. The responses demonstrated a mean BM-SF score of 35.85±11.42 (median: 35.00) (Table 2). Spearman correlation analysis revealed a positive correlation between the ERS and its subscale scores and the BM-SF scores (Table 3).

Regression analysis was performed to determine the relationship between emotional reactivity and burnout. The model was statistically significant ($p<0.01$). The results showed that emotional reactivity significantly predicted burnout

Table 2. ERS and BM-SF scale scores of the study participants

Scale	Median (Q1-Q3)	Mode	Mean±SD	Scale min-max
ERS total score	42.00 (36.00-47.00)	39.00	41.78±8.50	17-68
Emotional sensitivity subscale	14.00 (11.00-16.00)	15.00	13.94±3.45	5-20
Emotional intensity subscale	11.00 (10.00-13.00)	12.00	11.46±2.54	5-20
Emotional persistence subscale	16.00 (14.00-18.00)	18.00	16.36±3.71	7-28
BM-SF total score	35.00 (27.00-43.00)	40.00	35.85±11.42	10-70

BM-SF: Burnout Measure-Short Form; ERS: Emotional Reactivity Scale.

Table 3. Relationship between ERS scale scores and BM-SF of the study participants

Scales and subscales	I	2	3	4	5
Emotional sensitivity subscale	1				
Emotional intensity subscale	.660**	1			
Emotional persistence subscale	.576**	.742**	1		
ERS total score	.862**	.883**	.874**	1	
BM-SF total score	.660**	.364**	.742**	.409**	1

**Spearman correlation test; p<0.001. BM-SF: Burnout Measure-Short Form; ERS: Emotional Reactivity Scale.

(R^2=0.180). Emotional reactivity explained 18% of the total variance of burnout (adjusted R2=0.180) (Table 4).

Discussion

It has been well established that nurses experience high levels of stress. They work day and night to identify care needs, provide treatment, and communicate with patients and their family members in conditions that can be very challenging. Stress can cause physical, emotional, and mental exhaustion over time. People exposed to stress for long periods can struggle with occupational burnout and difficulties with emotion regulation.[21,22] To our knowledge, this is the first study in this country to address the relationship between emotional reactivity and burnout among clinical nurses in Türkiye.

The study participants had a mean ERS score of 41.78±8.50 (median: 42.00), indicating a moderate level of emotional reactivity. The mean ERS emotional sensitivity, emotional intensity, and emotional persistence subscale scores was 13.94±3.45 (median: 14.00), 11.46±2.54 (median: 11.00), and 16.36±3.71 (median: 16.00), respectively. These scores suggest that the participants had a tendency to experience emotional reactions and that their emotions could supersede their reason when providing care and support. While they must perform professionally, this reaction can in part be due to the caring nature of the work and the time nurses spend understanding and adjusting to patients' emotions. Nurses are affected by their patients' mental state. Nurses often also have a heightened sensitivity because they sometimes think that they cannot adequately meet the needs of their patients.

Individuals react differently to different situations. Our results showed that nurses who experienced negative emotions did not exhibit excessive emotional reactions. This can be interpreted in 2 ways. Nurses are trained to regulate and control their emotions for important reasons; however, suppression of emotion is not necessarily conducive to quality care or their own mental health. Yıldız[23] found that 1 in 2 nurses were emotionally affected during care but kept their emotions under control for the sake of professionalism. Lee and Jang[24] reported that nurses experienced negative emotions during treatment and care but suppressed them and pretended that they were not bothered.

Psychological resilience is important for nurses to be able to perform their duties efficiently. Nurses with a high level of psychological resilience have demonstrated a positive attitude toward their profession.[25] Our participants had above-average resilience scores (16.36±3.71), and most stated that they loved their profession and reported receiving social support.

Our participants had a mean BM-SF score of 35.85±11.42 (median: 35.00). Mersin et al.[26] reported that the nurses in their study had a mean BM-SF score of 39.36±15.46. The research, in general, shows that nurses experience moderate levels of burnout.[27–32] Ribeiro et al.[33] conducted a study on burnout among clinical nurses and reported that some 1 in 10 nurses could be categorized as experiencing burnout and that more than half of the nurses studied were likely to develop burnout. Burnout in nurses may be affected by a variety of factors, including demographic characteristics, personality traits, empathy skills, individual needs, motivation level, and organizational factors.[34–36] Nurses are leaders and partners with physicians and other co-workers. However, they experience a unique level of burnout, compared with other healthcare professionals. Our healthcare system relies on nurses who are physically and mentally healthy to provide efficient care. Concerns about burnout merit attention.

Excessive reactivity to emotions contributes to anxiety, fear, helplessness, anger, and stress. Burnout also has an impact on how we react to stress. Our results revealed a significant correlation between emotional reactivity and burnout. The regression analysis results also showed that emotional reactivity predicted burnout. Burnout can be a result of the inability to regulate underlying emotions. Nurses must be able to appropriately manage their reactions to a stressful environment. Lee and Jang[24] noted that nurses who suppressed their emotions were more likely to experience negative emotions and emotional exhaustion. Furthermore, Wright[37] found that nurses with higher emotional reactivity were likely to face more work-related problems. Hunt et al.[38] maintained that nurses

Table 4. Effect of ERS on BM-SF regression analysis

Dependent variable	Independent variable	B	ß	T	P	Model (p)	R^2
BM-SF	ERS	11.180		3.204	43.321	<0.001	0.180
		.576	.429	6.657			

BM-SF: Burnout Measure-Short Form; ERS: Emotional Reactivity Scale.

who can self-regulate emotions during empathetic responses are at a lower risk for burnout.

Limitations

The primary limitation of this study is that the sample consisted of nurses from a single hospital.

Conclusion

The clinical nurses in this study demonstrated a moderate level of emotional reactivity and burnout. Those with higher emotional reactivity are more likely to experience burnout. Burnout is a significant problem.

Healthcare professionals work with patients and the public in times of stress and high emotion, and must frequently do so under difficult conditions. Therefore, providing the appropriate support to ensure that they develop enough psychological resilience to be perform with sensitivity yet professional distance is critical. Other work conditions are also important considerations in reducing burnout. Generally, nurses enter the profession with a desire to provide care. Supportive training to develop psychological resilience and providing adequate work circumstances will improve the quality of care, increase job satisfaction among nurses, and reduce burnout. Emotional reactivity plays a key role in burnout and nurses should be encouraged to consider their own emotions, recognize emotional reactivity in the context of mental health (stress and anxiety), and develop their self-awareness. Hospitals should provide nurses with training to help them recognize the potential increase in emotional sensitivity and the intensity of emotional responses in the face of difficult patient behavior or other conditions, regulate their emotions, and develop resilience. Regular group meetings for nurses to share experiences and to help them develop emotional and behavioral communication skills could be very beneficial.

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