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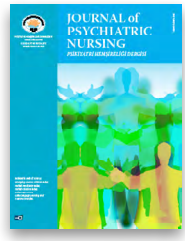

Original Article

The relationship between burnout level and ruminative thought styles and organizational forgiveness in nurses

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Abstract

Objectives: This study seeks to examine the relationship between the level of burnout in nurses and ruminative thought styles and organizational forgiveness.

Methods: This descriptive and correlational study was conducted with 255 nurses working in a university hospital. Data collection tools were as follows: "Introductory Information Form," "Maslach Burnout Inventory (MBI)," "Ruminative Thought Style Questionnaire (RTSQ)," and "Organizational Forgiveness Scale (OFS)." Descriptive statistics (number, percentage, mean, and standard deviation), independent t-test, analysis of variance (ANOVA), and Pearson correlation test were used in the analysis of the data.

Results: It was determined that there was a positive relationship between the scores of the nurses' emotional exhaustion, depersonalization, and reduced sense of personal achievement on the MBI and the scores of the RTSQ and a negative relationship between the scores of these subscales and the scores of the OFS ($p<0.05$).

Conclusion: It was concluded that as ruminative thoughts increase among nurses, the level of burnout increases, and as the level of organizational forgiveness increases, the level of burnout decreases.

Keywords: Burnout; nursing; organizational forgiveness; ruminative thought.

The concept of burnout was coined by Psychologist Herbert J. Freudenberger in 1974 and was expressed as "the state of being burned out arising from exhaustion in the internal resources of the individual as a result of failure, weariness, and decreased energy and power, or unsatisfied desires."[1] Later, Maslach and Jackson built upon the term burnout and defined it as "a concept that occurs as a result of the negative reflection of the feelings of fatigue, exhaustion, helplessness, and hopelessness in individuals, who do "people-work and are exposed to emotional demands, on profession, social life, and relations with people."[2] According to the Maslach burnout model, burnout is comprised of three dimensions: Emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment. According to the model, burnout first emotionally consumes individuals by destroying their emotional resources and then limits human relations, causing emotional depersonalization. In the last stage, the individual begins to deteriorate in service delivery and human relations.[2,3]

In addition to individual characteristics such as gender, age, health status, education, personality, and ability to cope with stress, nurses are among the occupational groups that experience burnout the fastest due to work-related and organizational reasons such as organizational pressure, bureaucracy, role ambiguity, lack of social support in the workplace, inability to participate in decisions, lack of resources, lack of support from managers, conflicts with team members, strict management policies, intense interaction with patients, lack of career prospects, long and shift work hours, time pressure, workload,

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insufficient salary, lack of prestige and status perception of the profession, and mental and physical challenges of the job.[4] Burnout in nurses causes significant effects on not only the individuals themselves but also the clients and the organization. Nurses with burnout also experience emotional and behavioral changes such as a reduced desire to go to work, inability to do their job effectively, increased work accidents, quitting, reduced productivity, depression, hopelessness, deterioration in interpersonal relations, conflict with team members, reduced empathy and creativity, indifference, impatience, and anger towards patients, and negligence of the needs of the patient. Such challenging experiences arising from burnout cause the quality of patient care to be negatively affected.[5] To combat burnout, it is essential to identify the individual and organizational factors that cause the problem.[6]

One of the individual factors thought to cause burnout is the ruminative style of thinking.[7] Ruminative thinking draws attention as a concept frequently encountered in individuals exposed to chronic stressors such as unsatisfied work life and is defined as the process of thinking persistently about emotions and problems passively and repetitively instead of trying to take action.[8] It also means an obsession with thought, overthinking, brooding, worrying, turning over and over, and pondering over something.[8,9] Rumination might occur in situations such as negative emotions, current problems, stressful events from the past, and future misfortunes. What is important here is that the thoughts are negative, useless, repetitive, and long-lasting.[10] A study conducted with nurses in China, that nurses who use cognitive reassessment less frequently and ruminate more are more likely to experience burnout.[11] Another study found that repetitive negative thoughts focused on clinical practice predicted an increase in emotional symptoms in novice trainees.[12] A study conducted with nurses in Korea also found that anger suppression and anger rumination had a significant effect on the relationship between emotional labor and depressive symptoms.[13] Apart from the ruminative style of thinking, forgiveness is also a variable believed to be the source of burnout in nurses and associated with cognitive processes.

Forgiveness is an important coping skill that enables individuals to consciously distract their attention from negative experiences in daily life and helps them move toward more satisfying directions and examined in three subscales: Forgiveness of self, others, and situations.[14] Forgiveness of self occurs when the individual stops self-blame for his/her intentional/unintentional mistake and less frequently avoids the stimulus that reminds him/her of the harm and reduces taking revenge on him/herself.[15] Forgiveness of others occurs when the individual intentionally relinquishes his/her feelings such as anger and wrath, which she/he justifiably has in case of injustice, and gives a reaction that might involve compassion, unconditional value, generosity, and moral love in case of such actions of injustice, which significantly affects the quality and continuity of the relationship.[16-18] Forgiveness of situations occurs when the individual lets go of the situation in which the individual pushes the negative feelings and behaviors against an unfavorable situation to positive ones or neutrality.[14] On the other hand, there are two dimensions to forgiveness: The process in which negative behaviors such as revenge are released, and the process in which positive emotions and behaviors such as mercy are adopted.[19] Organizational forgiveness is a prominent feature of forgiveness among nurses in business life. Organizational forgiveness is defined as "the ability to collectively abandon resentment, pain, and accusations in the face of unfair behavior in the organization and to replace these negative feelings with positive perspectives for the future".[20] Organizational forgiveness behavior is a necessity in work environments where there may be a tendency to argue, where a small number of individuals are employed, and where competition exists. Forgiveness can pave the way for increasing organizational efficiency and developing trust-oriented organizational relations.[21] Organizational forgiveness contributes to the improvement of relations within the organization, ensuring peace, preventing conflicts, increasing organizational commitment, maintaining interpersonal relations, and reducing negative perceptions that cause perturbation.[21,22] In a study conducted with nursing students in their last year in China, it was reported that forgiveness of situations helps reduce the negative effects of perceived job stress on psychological well-being.[23] Some studies report that people with high levels of forgiveness also have high levels of psychological well-being.[24] In a study conducted with nurses in Iran, it was reported that forgiveness of self increases the psychological safety of nurses by reinforcing positive psychological factors and reduces the harm caused by work pressure.[25]

Findings from the literature reveal that ruminative thinking styles[11,12,13] and organizational forgiveness levels[23-25] of nurses are two important variables that affect their stress management and psychological well-being. In this direction, it is important to reveal the relationship between ruminative thought styles and organizational forgiveness levels and burnout, which is affected by psychological variables and has negative consequences in terms of emotions, interpersonal relations, and individual achievement. The determination of the relevant relationship is important as it might pioneer future studies on combating burnout. The results of the present paper are thought to constitute evidence for the action plans carried out to reduce burnout in nurses, therefore increasing the quality of nursing care and strengthening the positive professional perception. Thus, this study seeks to reveal the relationship between the level of burnout and ruminative thought styles and organizational forgiveness in nurses.

What is presently known on this subject?

- Nurses are among the occupational groups with the highest burnout rates. The literature mainly focuses on the effect of variables related to nurses' working conditions on the level of burnout. It is known that working conditions (excess weekly working hours, factors related to the unit/department, organizational relations, etc.) affect the level of burnout.

What does this article add to the existing knowledge?

- This paper reveals the relationship between ruminative thought styles and organizational forgiveness levels and burnout based on the stressors faced by individuals in working life.

What are the implications for practice?

- It is envisaged that in line with the results, interventions to reduce nurses' ruminative thought styles or increase their organizational forgiveness levels will help combat burnout.

Research Questions

- What is the level of burnout in nurses?
- What is the level of ruminative thought styles in nurses?
- What is the level of organizational forgiveness in nurses?
- Is there a difference between the levels of burnout in nurses according to their sociodemographic characteristics?
- Is there a difference between the levels of burnout in nurses according to their working life characteristics?
- Is there a relationship between the levels of burnout and ruminative thought styles in nurses?
- Is there a relationship between the levels of burnout and organizational forgiveness in nurses?

Materials and Method

Type of Research and Participants

This research is based on a descriptive and correlational model aimed at explaining the relationships among the variables. Studies based on correlational models are used to explain, describe, or investigate the relationships between or among the variables.[26]

The data of the research conducted with nurses working in a university hospital in Türkiye were collected between June 15, 2020, and October 02, 2020. The population of the research consists of 480 nurses working in the relevant hospital. The sample size consists of at least 250 people with a 5% margin of error and 95% power using the R.v3.6.2 program. 255 nurses participated in the research. All voluntary nurses with at least 3 months of experience were included in the research. Involuntary nurses with <3 months of experience were excluded from the research.

Ethical Approach

"Ethical approval" was obtained from the ethics committee of the university where the research was conducted (dated May 09, 2019, and decision no 2019/388) and an "institutional permission" (dated June 21, 2019 and numbered 15374210-302.08.01-E.68568) was obtained from the hospital where the research was conducted. Nurses were informed about the research, and once they gave written and verbal consent, they were included in the research. In addition, permissions were obtained from the researchers who performed the validity and reliability tests for the scales in Turkish.

Data Collection Tools

The data collection forms in the research are the Introductory Information Form, Maslach Burnout Inventory (MBI), Ruminative Thought Styles Questionnaire (RTSQ), and Organizational Forgiveness Scale (OFS).

Introductory information form

It consists of 11 questions including the sociodemographic characteristics of nurses and their working life characteristics. This form was created by the researcher in line with the literature.[6,27-29]

MBI

MBI was developed by Maslach and Jackson (1981).[2] Its validity and reliability tests were performed by Ergin (1992), who adapted the inventory to Turkish.[30] The statements in the inventory consisting of 22 questions are "never, very rare, sometimes, often, and always," and there are 5-point Likert-type response options that meet these statements and are scored between 0 and 4. MBI consists of 3 subscales: "Emotional Exhaustion" (1-2-3-6-8-13-14-16-20), "Depersonalization" (5-10-11-15-22), and "Reduced Sense of Personal Achievement" (4-7-9-12-17-18-19-21). Cronbach's alpha values of the scale were found as 0.83 for Emotional Exhaustion, 0.65 for Depersonalization, and 0.72 for Reduced Sense of Personal Achievement. [30] In this study, the Cronbach's Alpha value of the MBI was found to be 0.89 for Emotional Exhaustion, 0.74 for Depersonalization, and 0.79 for Reduced Sense of Personal Achievement.

RTSQ

The scale, whose original name is "RTSQ," was developed by Brinker and Dozois (2009) and is used to measure ruminative styles of thinking.[31] The RTSQ was adapted into Turkish by Karatepe (2010).[9] It is of a 7-point Likert type and consists of 20 items. Participants rate themselves on a scale of 7 (describes me very well) to 1 (not at all descriptive of me). An increase in the scores obtained from the scale indicates an increase in ruminative thoughts. Since ruminative thought is not specific to a psychopathological condition, the sum of the scores on the scale does not indicate a psychiatric disorder. The Cronbach's alpha value of the scale was found to be 0.90. The scale has one factor.[9] In this study, the Cronbach's alpha value of the scale was found to be 0.90.

OFS

The "OFS," developed by Kepenekçi and Nayır (2015), consists of 21 items in total and is of a 5-point Likert type.[32] Items 17, 18, 19, 20, and 21 in the scale were reverse coded and included in the analysis. In this study, the scale was evaluated as a total score. The total Cronbach's alpha coefficient of the scale is 0.87. In this study, the Cronbach's alpha value of the scale was found to be 0.75.

Data Collection

While collecting the data for the study, face-to-face interviews were conducted taking into account the times when the nurses were available (times that did not coincide with meal, care, and treatment hours). Once nurses were given information about the research, they were asked to read the "Confirmation Form for Participation in the Study" during the interview. Printed data collection tools were distributed to the nurses included in the study, and they were informed about the points they were supposed to pay attention to while responding to the questions. Nurses were asked to respond to the questions themselves. All of the questions in the data collection tools were responded to in an average of 30–40 min.

Table 1. Distribution of nurses according to their descriptive characteristics

Variables	n	%
Gender		
Male	36	14.1
Female	219	85.9
Educational Status		
Vocational School of Health	5	2
Associate Degree	16	6.3
Undergraduate	213	83.5
Postgraduate	21	8.2
Marital Status		
Single	72	28.2
Married	183	71.8
Number of Children		
None	84	32.9
1 child	70	27.5
2 children	87	34.1
3 children and over	14	5.5
Chronic Disease		
Yes	46	18
No	209	82.0
Department/Unit		
Service	179	70.2
Emergency	16	6.3
Executive	13	5.1
Other (operating room, dialysis, chemotherapy unit)	47	18.4
Working System		
Only daytime	65	25.5
Day and Night	190	74.5
	Mean±SD	**Min.-Max.**
Age	35.0±7.27	23–55
Weekly Working Hour	41.5±3.13	40–54
Seniority (year)	12.89±8.31	1–36
Experience at the hospital (years)	11.31±8.72	1–48

Statistical Analysis of Data

Statistical analysis of the data was performed using the SPSS 20.0 program. The Kolmogorov–Smirnov test was used to reveal that the data conformed to the normal distribution, and therefore, parametric tests were used in the study. Descriptive statistics (number, percentage, mean, and standard deviation), Independent t-test, Analysis of Variance (ANOVA), and Pearson Correlation test were used in the analysis of the data.

Research Variables

The dependent variable is the burnout levels of nurses.
Independent variables are comprised of sociodemographic characteristics, working life characteristics, ruminative thought styles, and organizational forgiveness levels of nurses.

Results

Descriptive characteristics

The distribution of the nurses participating in the study based on their descriptive characteristics is shown in Table 1. It is shown that the mean age of the nurses participating in the study is 35.0±7.27, 85.9% are female, 83.5% have a bachelor's degree, 71.8% are married, and 34.1% have 2 children. Besides, 82.0% of the nurses do not have a chronic disease, 70.2% work as emergency nurses, 74.5% work day and night, the average weekly working hours are 41.5±3.13 years, the average working time in the profession is 12.89±8.31 years, and the average working time in the hospital is 11.31±8.72 years (Table 1).

Subscales of MBI and mean scores of RTSQ and OFS

The mean scores of nurses in the subscales of MBI were 17.41±6.89 for Emotional Exhaustion, 5.29±3.74 for Depersonalization, and 11.48±4.43 for Reduced Sense of Personal Achievement. In addition, the mean RTSQ score of the nurses was 71.84±20.67 while the mean score of OFS was 67.85±11.09 (Table 2).

Comparison of MBI Subscale means scores in terms of sociodemographic characteristics

Among the nurses participating in the study, the male participants had significantly higher scores than the female partici-

Table 2. Distribution of nurses' mean scores in terms of MBI subscales, RTSQ, and OFS

	Mean±SD	Minimum	Maximum
MBI Subscales			
Emotional Exhaustion	17.41±6.89	0	36
Depersonalization	5.29±3.74	0	20
Reduced Sense of Personal Achievement	11.48±4.43	0	28
RTSQ	71.84±20.67	20	121
OFS	67.85±11.09	36	95

MBI: Maslach Burnout Inventory; RTSQ: Ruminative Thought Styles Questionnaire; OFS: Organizational Forgiveness Scale.

Table 3. Statistical analysis of the mean scores of the MBI subscales in terms of the sociodemographic characteristics of the nurses

Sociodemographic Achievement	Emotional Exhaustion		Depersonalization		Reduced Sense of Personal	
Characteristics		**Test and p-value**		**Test and p-value**		**Test and p-value**
Gender						
Female	17.24±6.47	t= 0.992	4.90±3.56	t= 4.236	11.41±4.16	t=0.634
Male	18.47±9.06	p= 0.322	7.66±3.98	p<0.001	11.91±5.86	p=0.527
Educational Status						
Vocational School of Health	18.60±1.14	F= 2.067	5.60±3.13	F=1.879	15.40±2.07	F=2.337
		p=0.105		p= 0.134		p= 0.074
Associate Degree	21.37±5.69		6.87±3.59		13.00±6.06	
Undergraduate	17.19±7.14		5.30±3.83		11.37±4.43	
Postgraduate	10.52±2.35		3.95±2.55		10.52±2.35	
Marital Status						
Married	16.87±6.52	t=2.012	4.91±3.56	t=2.623	11.40±4.24	t=0.416
		p=0.045		p=0.009		p=0.678
Single	18.79±7.61		6.26±4.04		11.66±4.91	
Number of Children						
None	18.92±7.49	F= 2.234	6.32±3.86[a]	F= 3.357	11.60±4.61	F= 0.740
1 child	16.82±6.72	p= 0.085	5.00±3.31[b]	p= 0.019	12.01±4.65	p= 0.529
2 children	16.36±6.41		4.64±3.86[c]		11.00±4.12	
3 children and over	17.78±5.72		4.64±3.24[d]		11.07±4.04	
			a>c*			
Chronic Disease						
Yes	16.95±6.37	t= −0.498	4.10±3.04	t= −2.393	10.82±3.80	t= −1.110
No	17.51±7.01	5.55±3.84	p= 0.619	11.62±4.55	p= 0.017	p= 0.268
Age		r= −0.208		r= −0.343		r= −0.069
		p=0.001		p<0.001		p=0.276

MBI: Maslach Burnout Inventory; t: Independent t test; F= ANOVA; r= Pearson correlation value; p<0.05; * Tukey's HSD.

pants in the depersonalization subscale while the scores of the single participants were significantly higher than the married participants in the emotional exhaustion and depersonalization subscales (p<0.05). The scores of the nurses without children were significantly higher than the nurses with 2 children in the depersonalization subscale (p<0.05). The depersonalization subscale mean scores of nurses with a chronic disease were found to be significantly lower than those without a chronic disease (p<0.05). The difference between the mean scores of the MBI subdimensions in terms of other sociodemographic characteristics was not statistically significant (p>0.05). There was a negative and significant relationship between the ages of the nurses and the subscales of emotional exhaustion and depersonalization (p<0.05). Finally, there was no significant relationship between age and the reduced sense of personal achievement subscale (p>0.05) (Table 3).

Comparison of MBI Subscale means scores in terms of working life characteristics

The findings revealed that the emotional exhaustion subscale scores of the nurses in executive positions were significantly lower than the nurses employed at emergency services and other units (p<0.05). In addition, the depersonalization subscale scores of the nurses in executive positions were found to be significantly lower than the nurses employed at emergency services and other units (p<0.05). The depersonalization subscale scores of nurses working day and night were significantly higher than those working only during the day (p<0.05). The difference between the mean scores of the MBI subscales in terms of other characteristics related to the working life of the nurses was not statistically significant (p>0.05). There was a positive and significant relationship between weekly working hours and depersonalization and a reduced sense of personal achievement (p<0.05). Finally, there was a negative and significant relationship between the duration of working in the profession and the duration of working in the hospital where the research was conducted and the subscales of emotional exhaustion and depersonalization (p<0.05) (Table 4).

The relationship between the subscales of the MBI and the RTSQ and OFS scores

There was a positive correlation between the scores of nurses

Table 4. Statistical analysis of the mean scores of the MBI subscales in terms of nurses' working life characteristics

Sociodemographic Achievement	Emotional Exhaustion		Depersonalization		Reduced Sense of Personal	
Department/Unit		**Test and p-value**		**Test and p-value**		**Test and p-value**
Service	16.85±6.81[a]	F=9.370	5.21±3.53[a]	F=2.913	11.34±4.32	F=0.595
Emergency	21.12±5.78[b]	p<0.001	6.31±3.49[b]	p= 0.035	10.75±3.21	p= 0.619
Executive	10.69±5.73[c]		2.76±3.26[c]		11.76±6.45	
Other (Operating room,	20.14±6.07[d]		5.93±4.45[d]		12.17±4.58	
dialysis, chemotherapy unit)	c<a,b,d*		c<b,d*			
Working System						
Only daytime	17.50±6.21	t= 0.124	4.43±3.03	t= −2.169	11.47±4.66	t= −0.011
Day and night	17.38±7.12	p= 0.901	5.58±3.92	p= 0.031	11.48±4.36	p= 0.991
Weekly working hours		r= 0.084		r= 0.160		r= 0.208
		p=0.182		p=0.011		p=0.001
Seniority (years)		r= −0.199		r= −0.323		r= −0.074
		p=0.001		p<0.001		p=0.239
Experience at the hospital (years)		r= −0.146		r= −0.249		r= −0.043
		p=0.020		p<0.001		p=0.492

MBI: Maslach Burnout Inventory; t: Independent t test; F= ANOVA; r= Pearson correlation value; p<0.05; * Tukey's HSD.

Table 5. The relationship between MBI subscales and RTSQ and OFS scores of the nurses

		Emotional Exhaustion	Depersonalization	Reduced Sense of Personal Achievement
Ruminative Thought	r	0.460	0.261	0.197
	p	0.000*	−.000*	0.002*
Perceived Organizational Forgiveness	r	−0.184	−0.219	−0.305
	p	0.003*	0.000*	0.000*

MBI: Maslach Burnout Inventory; RTSQ: Ruminative Thought Styles Questionnaire; PT: Organizational Forgiveness Scale; r= Correlation coefficient; *p<0.05.

in emotional exhaustion, depersonalization, and reduced sense of personal achievement, which are the subscales of the MBI, and the RTSQ scores while there was a significant and negative correlation between the MBI subscales and the OFS scores (p<0.05) (Table 5).

Discussion

The findings revealed that there was a significant relationship between the levels of burnout and ruminative thought and organizational forgiveness of nurses, ruminative thoughts increase as the level of burnout increases, and as the level of organizational forgiveness increases, the level of burnout decreases.

It was concluded that nurses experience moderate levels of emotional exhaustion, low levels of depersonalization, and close-to-moderate levels of reduced sense of personal achievement. A previous study focused on the professional burnout levels of nurses in terms of subscales and found high levels of emotional exhaustion, low levels of personal failure, and moderate levels of depersonalization.[27] Along the same lines, a study found high levels of emotional exhaustion, moderate levels of depersonalization, and inversely proportional low levels of personal achievement.[28] The literature related to burnout among nurses revealed different results, which probably arise from various variables used for nurses and their working conditions (stress management, psychological flexibility, workload, social rights, occupational health and safety, presence of appropriate physical conditions, and adequate equipment, team cooperation, communication with the team, appreciation, effective management, the characteristics of the team leader, etc.).

Another finding of the study is the revelation of a negative and significant relationship between the ages of the nurses and emotional exhaustion and depersonalization (p<0.05) while no significant relationship was found between age and reduced sense of personal achievement (p>0.05). The literature review also highlights that there is a plethora of previous

studies in parallel to the present paper.[33,34] It was reported that a statistically significant relationship was found between age and personal achievement scores and that an increased age means feeling more competent and successful in their profession for nurses.[35] It was also reported in yet another study that as age increases, nurses experience a less reduced sense of personal achievement, in other words, they find themselves more successful as they get older. This finding implies that nurses do not want to learn new knowledge and skills in the later years of their careers, and on the contrary, older nurses control their work-related stress more easily than younger ones, which increases their sense of personal achievement.[36] Based on the information in the literature, the fact that the level of burnout is lower among old people than among young people implies that work experience increases with age and thus helps health workers find themselves more successful and sufficient and be able to cope with problems; in addition to these, it is emphasized that young health workers might experience burnout as a result of disappointment, which also occurs due to high expectations.[33,37] In other words, young nurses experience burnout more since they have higher expectations from the profession, less experience, and more difficulty in solving problems related to business life than nurses with advanced age and experience.[37-39] It is thought that with advancing age, professional commitment and adaptation to work conditions increase along with an increased experience in the management of work stress.

It was also concluded that males experience depersonalization more than females ($p<0.05$). Along the same lines, some studies in the literature report that males experience higher levels of depersonalization than females.[40,41] However, some studies on burnout in the literature report that females experience more burnout.[39,42,43] Studies showing that females experience more burnout emphasize that work and non-work factors affect the social roles of females together.[30,44] On the other hand, some studies in the literature reveal different perspectives, concluding that females experience higher levels of burnout than males since females are more likely to express their emotional and physical exhaustion states and feelings.[45,46] Along the same lines, a study conducted with nurses working in surgical units found that male nurses had higher levels of depersonalization.[47] This finding is thought to be because of the effect of the reflection of male social roles on business life. Since males have learned to hide their emotions in the roles imposed on them, they might withdraw into their shells under stress. Accordingly, males are more likely to become depersonalized due to this situation.[45,46] Considering burnout in terms of depersonalization, individuals with burnout may take a firm line against what is happening around them and the feelings of the people around them, leading to alienation from work and the environment and an impact on belief in work and productivity.[44] In this direction, it can be inferred that male nurses included in the study are at higher risk than female nurses in terms of the consequences of burnout. In addition, male nurses are observed to feel a more reduced sense of personal achievement than female nurses. This could be a continuation of the depersonalization process.

It was concluded that single nurses participating in the study experienced more emotional exhaustion and depersonalization than married ones ($p<0.05$). Along the same lines, it was reported that single nurses had a statistically higher burnout level than married nurses.[6,38,48,49] In a study, depersonalization scores were found to be significantly higher in singles than in married ones.[42] It was concluded in another study that single nurses had higher depersonalization and emotional exhaustion scores than married ones.[50] The relevant research finding overlaps with the results of previous studies. The lower burnout level of married nurses is probably because married nurses have a regular life, feel more social support in terms of family communication and sharing, develop strategies to cope with stress related to the experiences of solving psychosocial difficulties in the family, and possess more psychological resilience.

Nurses without children were observed to experience more depersonalization than those with two children ($p<0.05$). A plethora of studies has demonstrated that the burnout level of nurses with children is lower than those without children.[38,48] This probably arises from the fact that nurses with children are more advantageous in coping with work-related stress and difficulties and in interpersonal communication due to psychosocial factors such as gaining communication skills in the child–parent relationship and having social support in the family environment.

Another finding is that depersonalization mean scores of nurses with a chronic disease were significantly lower than those without a chronic disease ($p<0.05$). It was reported in a study that nurses suffering from chronic diseases and receiving psychological support are more likely to experience emotional exhaustion.[28] It was also reported that emotional exhaustion was higher in nurses diagnosed with and treated for physical illness.[35] This study revealed that depersonalization mean scores of nurses with a chronic disease were significantly lower than those without a chronic disease. The relevant finding differs from the findings of some previous studies. Since nurses with chronic diseases are also individuals who receive care services, a change occurs in the meaning attributed to care behaviors as a result of the awareness created by the approaches they want to see from care providers based on their own experiences, which also reduces the level of depersonalization.

This study also revealed that the emotional exhaustion and depersonalization levels of the nurses in executive positions were significantly lower ($p<0.05$). In a study conducted with nurses, the burnout scores of the nurses in executive positions were found to be significantly lower than the other nurses.[51] It is implied that the burnout levels of the nurses working in administrative departments are lower as they do not provide one-to-one care to the patients and their relatives and thus they less frequently encounter stressful situations such as ill-

ness, suffering and death, and have greater authority to solve the problems that may arise in business life.

Another finding of the present study is a negative significant relationship between the duration of working in the profession and the duration of working in the hospital where the research was conducted and emotional exhaustion and depersonalization ($p<0.05$). The literature also contains some studies on the effect of working time on the level of burnout.[6,37,38,52] Nurses with a long working time in the profession gain more experience in the superior-subordinate order/system while the novices do more routine work and have more problems keeping up with the system.[53] As nurses gain more experience at work, they are more likely to cope with work-related problems with reduced professional exhaustion and the increase in age and professional experience is more likely to increase the sense of confidence and decrease the level of burnout since nurses feel that they help people.[54] It is thought that due to similar reasons the emotional exhaustion and depersonalization levels of the nurses participating in the study decrease as the duration of work in the profession and the duration of working in the hospital where the research is conducted.

This study also found that the levels of depersonalization of nurses working day and night were higher than those working only during the day ($p<0.05$). It was reported that the emotional exhaustion levels of nurses working in shifts are higher than those working constantly during the day.[38] Similarly, another study found that the depersonalization score was higher in employees who are on duty for 24 h.[42] Some studies support back up these findings.[6,48,55] Working at night disrupts sleep patterns and accelerates burnout by increasing the stress level of individuals.[38] The results of the study show that the biological, psychological, and social problems experienced by nurses working in shifts, especially due to circadian rhythm disruption, may cause burnout in nurses.

This study found a positive and significant relationship between weekly working hours and the scores of depersonalization and reduced sense of personal achievement ($p<0.05$). Along the same lines, a study found that in parallel with the increase in the average weekly working hours, the level of emotional exhaustion and depersonalization increases while personal achievement reduces.[56] In another study, it was found that nurses with a weekly working time of 46 h or more had a higher mean score in emotional exhaustion and depersonalization and a lower mean score in reduced sense of personal achievement.[54] In another study, it was concluded that the mean scores of emotional exhaustion, depersonalization, and reduced sense of personal achievement of nurses working overtime are significantly higher than the mean scores of those who do not work overtime.[52] In some studies in the literature, it was found that as a result of the increase in monthly working hours, there was an increase in the levels of emotional exhaustion and depersonalization, and a reduction in the levels of personal achievement, and thus the level of burnout increased.[6,57] Resting is as important as working in human life. It may be inevitable for a nurse to go to shifts and overtime without resting, to feel tired, to experience loss of energy and power, and to suffer from burnout. Working overtime is thought to be a factor that increases the burnout levels of nurses as it has a negative effect on the quality of life. As the weekly working time increases, burnout is affected by some factors such as the increase in the physical fatigue level of nurses and the time they are exposed to work-related stress, the reduced spare time for themselves and their families, and the decrease in the quality of life depending on self-actualization.

In the present study, the ruminative thought styles of nurses were found to be high. In addition, a positive and significant relationship was found between the emotional exhaustion, depersonalization, and reduced sense of personal achievement scores of the nurses participating in the study and their RTSQ scores ($p<0.05$). In a study conducted with doctors and nurses working in the intensive care unit, it was determined that the department/unit-related stressors of the participants led to a greater risk of burnout, depression, and psychiatric morbidity through increased emotional rumination.[58] In another study conducted with 602 nurses in China, it was determined that nurses who used cognitive reassessment less frequently and ruminated more frequently experienced higher burnout.[11] In a study conducted with geriatric nurses in the USA, rumination was found to be associated with greater depersonalization.[59] This means that the individual focuses on him/herself incongruously and rigidly. Rumination is believed to prevent recovery from depressive mood and increase the length of depressive episodes.[8] The fact that the level of burnout increases as ruminative thinking increases among the nurses participating in the research probably arises from the low level of mindfulness and shows that nurses are at risk for depression. It can be said that the participants of the present study are in the process of thinking persistently about their feelings and problems in a passive and repetitive way and fail to solve their problems.

In the study, the organizational forgiveness rates of nurses were found to be high. It was reported that perceived organizational forgiveness among health workers was moderate.[60] It was also reported that the forgiveness levels of nurses were above the average value.[61] In a study conducted on personnel working in various public and private sector organizations, the tendency to forgive was found to be high.[15] A negative and significant relationship was found between the emotional exhaustion, depersonalization, and reduced sense of personal achievement scores of the nurses participating in the study and their OFS scores ($p<0.05$). In other words, as the level of organizational forgiveness increases, the level of burnout decreases. Organizational forgiveness consists of three subdimensions: Forgiveness of self, forgiveness of others, and forgiveness of situations.[62]

A qualitative study found that individuals experiencing chal-

lenges in forgiving of self-fail to accept their faults or change their impossible standards.[63] In another study, a scholar investigated the effects of revenge intention and forgiveness tendency in organizations on the mental health of employees, concluding that the tendency to forgive can provide relief in the mental health of individuals.[15] It is argued that forgiveness should be supported to increase efficiency in organizations, reduce conflicts, and provide a better cooperation environment.[21] The socialization environment reflected in the working culture in Turkish society can also be reflected in subordinate-superior, employee-manager, and colleague relations. Employees may prefer forgiving their colleagues to perpetuating the negative effect of any problem and taking revenge.[64] It is reported that the functioning of work and organizational productivity is likely to increase in work environments where organizational forgiveness is widespread.[22] On the other hand, "forgiveness" is a highly subjective experience and is greatly influenced by an individual's personal, cultural, social, and spiritual structures.[65] For this reason, it is thought that the high level of organizational forgiveness of nurses in the study and the related change in burnout levels are related to the organizational structure, cultural characteristics of Turkish society, and the psychosocial variables of nurses.

Limitations

The limitation of this study is that it was conducted in a single center. In addition, data in the study were collected with self-report scales, and the findings were obtained solely from the evaluations of the participants.

Conclusion

It was concluded that as ruminative thoughts increase in nurses, the level of burnout increases, and as the level of organizational forgiveness increases, the level of burnout decreases. In line with these results, it is recommended that health-care organizations develop strategies to prevent burnout for nurses and include comprehensive psychoeducational programs such as mindfulness-based stress reduction, compassion, cognitive emotion regulation, forgiveness, and psychological resilience.

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References

1. Freudenberger HJ. Staff burn-out. J Soc Issue 1974;30:159–65.
2. Maslach C, Jackson SE. The measurement of experienced burnout. J Organ Behav 1981;2:99–113.
3. Maslach C. Stress, burnout, and workaholism. In: Kilburg RR, Nathan PE, Thoreson RW, editors. Professionals in distress: Issues, syndromes, and solutions in psychology. Washington DC: American Psychological Association; 1986. p.53–75.
4. Kaçan CY, Örsal Ö. Yoğun bakım hemşirelerinde tükenmişliği etkileyen faktörler: Sistematik derleme. Yoğun Bakım Hemşireliği Derg [Article in Turkish] 2018;22:25–36.
5. Gönültaş T, Aytaç N, Akbaba M. Çukurova Üniversitesi Balcalı Hastanesinde çalışan hemşirelerde iş doyumunun araştırılması. Sakarya Tıp Derg [Article in Turkish] 2018;8:30–40.
6. Altay B, Gönener D, Demirkiran C. Bir üniversite hastanesinde çalışan hemşirelerin tükenmişlik düzeyleri ve aile desteğinin etkisi. Fırat Tıp Derg [Article in Turkish] 2010;15:10–6.
7. Nolen-Hoeksema S, Davis CG. "Thanks for sharing that": Ruminators and their social support networks. J Pers Soc Psychol 1999;77:801–14.
8. Nolen-Hoeksema S, Wisco BE, Lyubomirsky S. Rethinking rumination. Perspect Psychol Sci 2008;3:400–24.
9. Karatepe HT. Ruminatif düşünme biçimi ölçeği'nin Türkçe'ye uyarlanması, geçerlik ve güvenirlik çalışması. Psikiyatri Uzmanlık Tezi. İstanbul: Sağlık Bakanlığı/Bakırköy Prof. Dr. Mazhar Osman Ruh ve Sinir Hastalıkları Eğitim ve Araştırma Hastanesi 13. Psikiyatri Kliniği; 2010.
10. Koç V. Üstbilişsel perspektiften depresyon ve tedavisi üzerine bir derleme. Klinik Psikoloji Derg [Article in Turkish] 2017;1:34–43.
11. Sun JW, Lin PZ, Zhang HH, Li JH, Cao FL. A non-linear relationship between the cumulative exposure to occupational stressors and nurses' burnout and the potentially emotion regulation factors. J Ment Health 2018;27:409–15.
12. Ruiz FJ, Dereix-Calonge I, Martinez Sierra MA. The increase in emotional symptoms of novice clinical psychology trainees compared with a control cohort. Rev Latinoam Psicol 2019;51:191–8.
13. Kim JE, Park JH, Park SH. Anger suppression and rumination sequentially mediates the effect of emotional labor in Korean nurses. Int J Environ Res Public Health 2019;16:799.
14. Thompson LY, Snyder CR, Hoffman L, Michael ST, Rasmussen HN, Billings LS, et al. Dispositional forgiveness of self, others, and situations. J Pers 2005;73:313–59.
15. Akın M, Özdevecioğlu M, Ünlü O. Örgütlerde intikam niyeti ve affetme eğiliminin çalışanların ruh sağlıkları ile ilişkisi. Amme İdaresi Derg [Article in Turkish] 2012;45:77–97.
16. Hall JH, Fincham FD. Self–forgiveness: The step child of forgiveness research. J Soc Clin Psychol 2005;24:621–37.
17. Witvliet CVO, Root Luna LM. Forgiveness and Well-Being. In: Dunn DS, editor. Positive psychology: Established and emerging issues. New York: Routledge; 2018. p.131–52.
18. Forster DE, Billingsley J, Russell VM, McCauley TG, Smith A, Burnette JL, et al. Forgiveness takes place on an attitudinal continuum from hostility to friendliness: Toward a closer union of forgiveness theory and measurement. J Pers Soc Psychol 2020;119:861–80.
19. Gismero-González E, Jóda R, Martínez MP, Carrasco MJ, Cagigal V, Prieto-Ursúa M. Interpersonal offenses and psycholog-

ical well-being: The mediating role of forgiveness. J Happin Stud 2020;21:75–94.
20. Fehr R, Gelfand MJ. The forgiving organization: A multilevel model of forgiveness at work. Acad Manage Rev 2012;37:664–88.
21. Şener E, Çetinkaya FF. Forgiveness as a leadership feature and a study on its effects on organizational level. J Bus Res Turk 2015;7:24–42.
22. Konan N, Nazlı K. Okul yöneticilerinin örgütsel affedicilik düzeyleri. Bingöl Üniv Sosyal Bil Enst Derg [Article in Turkish] 2018;8:127–43.
23. Li L, Yao C, Zhang Y, Chen G. Trait forgiveness moderated the relationship between work stress and psychological distress among final-year nursing students: A pilot study. Front Psychol 2020;11:1674.
24. Ma C, Chen M, Guo N. The effect of interpersonal trust on minority high school students' psychological well-being the mediating roles of forgiveness and self-esteem. 2nd International Conference on Contemporary Education, Social Sciences and Ecological Studies (CESSES 2019). Atlantis Press; 2019. p.525–9.
25. Rahmati A, Poormirzaei M. Predicting nurses' psychological safety based on the forgiveness skill. Iran J Nurs Midwifery Res 2018;23:40–4.
26. Burns N, Grove SK. The practice of nursing research: Appraisal, synthesis, and generation of evidence. 6th ed. St.louis, Missouri: Saunders & Elsevier; 2009.
27. Çelik Y, Kılıç İ. The relationships between job satisfaction, professional burnout and quality of life in nurses. Kocatepe Med J [Article in Turkish] 2019;20:230–8.
28. Uzun LN, Mayda AS. Investigation of burnout levels in nurses according to different variables: Example of a universty hospital. Konuralp Med J [Article in Turkish] 2020;12:137–43.
29. Başar U. Burnout Syndrome among nurses: Causes, consequences, and preventive strategies. J Health Nurs Manag [Article in Turkish] 2020;7:303–9.
30. Ergin C. Doktor ve hemşirelerde tükenmişlik ve Maslach tükenmişlik ölçeğinin uyarlanması. VII. Ulusal Psikoloji Kongresi. Ankara: Haccettepe Üniversitesi; 1992.
31. Brinker JK, Dozois DJ. Ruminative thought style and depressed mood. J Clin Psychol 2009;65:1–19.
32. Kepenekçi YK, Nayir KF. Development of the workplace forgiveness scale and opinions of teachers on workplace forgiveness. Mersin Univ J Fac Educ 2015;11:922–34.
33. Esen DA, Mercan NG, Kaçar E. Aile hekimliği asistanlarında tükenmişlik sendromu ve iş doyumu düzeyleri. Anatol J Family Med [Artcle in Turkish] 2018;1:34–6.
34. Anıl M, Yurtseven A, Yurtseven İ, Ülgen M, Anıl AB, Helvacı M, et al. The evaluation of burnout and job satisfaction levels in residents of pediatrics. Turk Pediatri Ars 2017;52:66–71.
35. Taycan O, Kutlu L, Çimen S, Aydın N. Bir üniversite hastanesinde çalışan hemşirelerde depresyon ve tükenmişlik düzeyinin sosyodemografik özelliklerle ilişkisi. Anadolu Psikiyatr Derg [Article in Turkish] 2006;7:100–8.
36. Gillespie M, Melby V. Burnout among nursing staff in accident and emergency and acute medicine: A comparative study. J Clin Nurs 2003;12:842–51.
37. Kaya E. İş stresi ve tükenmişlik duygusunun işten ayrılma niyeti üzerine etkileri: Sağlık personeli üzerinde bir uygulama. Yüksek Lisans Tezi. İstanbul: Gebze Yüksek Teknoloji Enstitüsü Sosyal Bilimler Enstitüsü; 2010.
38. Hezer M. Hemşirelerin iş doyumu ve tükenmişlik düzeyleri ile hemşirelik bakım kalitesinin değerlendirilmesi. Yüksek Lisans Tezi. İstanbul: Biruni Üniversitesi, Sağlık Bilimleri Ensititüsü; 2019.
39. Kaya N, Kaya H, Ayık SE, Uygur E. Bir devlet hastanesinde çalışan hemşirelerde tükenmişlik. Uluslararası İnsan Bil Derg [Article in Turkish] 2010;7:401–19.
40. Türkmenoğlu B, Sümer H. Sivas il merkezi sağlık çalışanlarının tükenmişlik düzeyleri. Cumhuriyet Üniv Sağ Bil Enst Derg [Article in Turkish] 2017;2:24–34.
41. Helvaci I, Turhan M. Tükenmişlik düzeylerinin incelenmesi: Silifke'de görev yapan sağlık çalışanları üzerinde bir araştırma. İşlet İktisat Çalış Derg [Article in Turkish] 2013;1:58–68.
42. Sivrikaya S, Erişen M. Sağlık çalışanlarının tükenmişlik ve işe bağlı gerginlik düzeylerinin incelenmesi. Anadolu Hemşire Sağ Bil Derg [Article in Turkish] 2019;22:121–9.
43. Soba M, Babayiğit A, Demir E. Yaşam doyumu ve tükenmişlik; öğretmenler üzerine bir araştırma. Mehmet Akif Ersoy Üniv Sosyal Bil Enst Derg [Article in Turkish] 2017;9:269–86.
44. Serenken M, Ergör A, Çımrın AH, Ersoy G. İzmir ilindeki acil servis hekimlerinin tükenme düzeyleri. Toplum Hekim [Article in Turkish] 2003;18:293–9.
45. Purvanova RK, Muros JP. Gender differences in burnout: A meta- analysis. J Vocat Behav 2010;77:168–85.
46. Kış A. Eğitim paydaşlarının tükenmişliğinde cinsiyet farklılığı: Bir meta-analiz çalışması (Türkiye örneği). Ondokuz Mayis Univ J Educ Fac [Article in Turkish] 2015;34:88–106.
47. Gezginci E, Öztaş B. investigation of the relationship between burnout and innovation levels of nurses working in surgical units. Hacettepe Sağlık İdaresi Derg [Article in Turkish] 2021;24:361–74.
48. Tangünü S. Hemşirelerin sabır ve tükenmişlik düzeylerinin belirlenmesi. Yüksek Lisans Tezi. Ankara: Gazi Üniversitesi, Sağlık Bilimleri Enstitüsü; 2020.
49. Tekir Ö, Çevik C, Arık S, Çetin G. Examining health workers' burnout, job satisfaction levels and life satisfaction. J Kırıkkale Univ Fac Med [Article in Turkish] 2016;18:51–63.
50. Maslach C, Schaufeli WB, Leiter MP. Job burnout. Annu Rev Psychol 2001;52:397–422.
51. Güven S. Cerrahi kliniklerde çalışan hemşirelerin mizah tarzları ile tükenmişlik düzeyleri arasındaki ilişkinin saptanması. Yüksek Lisans Tezi. Ankara: Başkent Üniversitesi; 2013.
52. Kebapçı A, Akyolcu N. The effects of the work environment on nurse burnout in emergency department. Tr J Emerg Med [Article in Turkish] 2011;11:59–67.
53. Dolunay AB, Piyal B. Öğretmenlerde bazı mesleki özellikler ve tükenmişlik. Kriz Derg [Article in Turkish] 2003;11:35–48.
54. Kaçan CY, Örsal Ö, Köşgeroğlu N. Investigation of burn out among nurses. Cumhuriyet Nurs J [Article in Turkish]

2016;5:65–74.
55. Torun T, Çavuşoğlu H. Examining Burnout and job satisfaction of nurses working in pediatric units. J Educ Res Nurs 2018;15:71–80.
56. Keskin S, Ateş S. Hemşirelerin çalışma koşulları tükenmişlik düzeylerini etkiler mi? Uluslararası Hakem Psikiyatri Psikoloji Araşt Derg [Article in Turkish] 2018;11:47–67.
57. Serinken M, Erdur B, Tomruk Ö, Cokun E, Kuru Ö. Burn out syndrom in Turkish emergency physicians. Turk J Emerg Med [Article in Turkish] 2004;4:19–23.
58. Vandevala T, Pavey L, Chelidoni O, Chang NF, Creagh-Brown B, Cox A. Psychological rumination and recovery from work in intensive care professionals: Associations with stress, burnout, depression and health. J Intensive Care 2017;5:16.
59. Bamonti PM, Smith A, Smith HM. Cognitive emotion regulation strategies predict burnout in geriatric nursing staff. Clin Gerontol 2022;45:1236–44.
60. Şantaş G, Akbolat M, Sağlam H. The effect of organizational forgiveness and organizational gossip on intention of revenge among health employees. Pamukkale Univ J Soc Sci Inst [Article in Turkish] 2019;36:131–48.
61. Tekin G. Örgütsel adaletin, intikam ve affetme davranışları ile ilişkilendirilmesi: Hemşireler üzerinde bir uygulama. Yüksek Lisans Tezi. Konya: Necmettin Erbakan Üniversitesi, Sağlık Bilimleri Enstitüsü; 2019.
62. Thompson LY, Synder CR. Measuring Forgiveness. In: Lopez SJ, Snyder CR, editors. Positive psychological assessment: A handbook of models and measures. Washington, DC: American Psychological Association; 2003. p.301–12.
63. Ingersoll-Dayton B, Krause N. Self-forgiveness: A component of mental health in later life. Res Ag 2005;27:267–89.
64. Tatarlar CD, Çangarli BG. Revenge or forgiveness? An equation with multiple variables in organizational setting. Ege Acad Rev [Article in Turkish] 2018;18:591–603.
65. Jo KH, Sung KW, Kim YK. A phenomenological study on the experience of hurt and forgiveness of clinical nurses in Korea after loss of employment. Taehan Kanho Hakhoe Chi [Article in Korean] 2008;38:561–72.