

## Relation Between Burnout Levels and Ruminative Thought Styles, as well as Organizational Forgiveness, in Psychiatric Nurses

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### ABSTRACT

**Background:** Burnout among nurses may be influenced by organizational forgiveness, a common trait of forgiveness among nurses in the workplace that describes an organization's capacity to forgive perceived wrongdoing or infractions. A leadership style known as "organizational forgiveness" focuses on tactics that make it easier for people to forgive when misconduct occurs in the workplace. **Aims:** explore the relation between burnout levels and ruminative thought styles, as well as organizational forgiveness, in psychiatric nurses. **Method:** A descriptive correlational research design was conducted on a purposive sample of 128 psychiatric nurses at El-Azazi Mental Health, Hospital in Abo Hamad City, Elsharkia Governorate, Egypt. Demographic characteristics, Maslach burnout inventory, ruminative thought styles questionnaire, organizational forgiveness scale were the tools of the study. **Results:** 54.7% of the studied nurses exhibited extreme total burnout, with a mean (SD) of 58.6 (11.4). Specifically, 52.3%, 53.9%, and 57.1% of them experienced high burnout in the domains of emotional exhaustion, depersonalization, and reduced sense of personal achievement, respectively. Furthermore, 46.9% of the nurses demonstrated high levels of ruminative thought, with a mean score of 74.6 (16.5), while 48.4% showed moderate levels of organizational forgiveness, with a mean score of 49.3 (8.9). **Conclusions:** The significant positive correlation was observed between burnout levels and ruminative thoughts underscores the impact of psychological distress on cognitive processes among nurses. Conversely, the significant negative correlation between burnout, ruminative thought, and nurses' organizational forgiveness suggests that as burnout and rumination increase, forgiveness toward the organization decreases.

**Keywords:** Burnout, organizational forgiveness, psychiatric nurses, ruminative thought.

## INTRODUCTION

In the challenging and high-pressure setting of healthcare, nurses are especially susceptible to encountering burnout, which is defined by emotional fatigue, depersonalization, and diminished personal achievement <sup>(1)</sup>. The term 'burnout' was introduced by psychologist Freudenberger in 1974 who defined it as a condition characterized by depletion of internal resources due to factors such as stress, fatigue, diminished energy, and unmet needs <sup>(2)</sup>.

Burnout constitutes a psychological condition marked by emotional fatigue, detachment, and a diminished feeling of fulfillment. It emerges as a protracted reaction to enduring emotional and relational strains in the workplace, characterized by three key facets: emotional exhaustion, depersonalization, and diminished personal achievement. Nurses are especially susceptible to burnout because of the unique demands of the work and the long hours that they put in. The problem of burnout among nurses is a worldwide issue that has captured the attention of the professional and popular press. It results in human suffering as well as economic burden <sup>(3)</sup>.

Numerous factors contribute to burnout among nurses, including heavy workloads, exposure to traumatic events, insufficient organizational backing, and ineffective coping strategies <sup>(4)</sup>. Burnout not only affects nurses' well-being but also has implications for patient care and organizational outcomes <sup>(4)</sup>. Nurse burnout is prevalent and negatively impacts work performance, with higher levels of burnout being associated with absenteeism and poor work performance <sup>(5)(6)</sup>. Research has shown that nurses experiencing burnout are more likely to have lower compliance with safety outcomes, compromising their ability to provide standard-based measures for patient safety <sup>(7)</sup>.

One potential psychological factor that may influence burnout in nurses is ruminative thought styles <sup>(8)</sup>. Ruminative thought patterns are notable among individuals enduring persistent stressors like dissatisfaction in the workplace. It involves repetitively dwelling on emotions and issues without actively seeking solutions. Ruminative thought styles refer to those cognitive processes that encapsulate the tendency to continuously think about the causes and consequences of one's negative emotional experiences <sup>(9)</sup>. Ruminative thinking also encompasses an

obsession with thoughts, excessive pondering, brooding, worry, and repetitive mental examination of a subject <sup>(10)</sup>.

In a study involving Chinese nurses, those who engage in less frequent cognitive reappraisal and exhibit higher levels of rumination are found to be more prone to experiencing burnout <sup>(11)</sup>. Nurses who engage in rumination may have difficulty letting go of work-related stressors and may dwell on negative events, which can contribute to burnout <sup>(12)</sup>. Studies have shown that nurses with higher levels of rumination are more likely to experience burnout <sup>(11,13,14)</sup>.

Moreover, forgiveness serves as a significant coping mechanism, allowing individuals to intentionally shift their focus away from negative experiences in their daily lives, thus guiding them towards more fulfilling paths <sup>(15)</sup>. Organizational forgiveness, a prominent feature of forgiveness among nurses in business life that refers to the ability of an organization to let go of perceived wrongdoing or transgressions, may play a role in nurses' burnout levels. Organizational forgiveness is a leadership style that focuses on strategies that facilitate forgiveness to occur when workplace wrongdoing emanates <sup>(15)</sup>. The study conducted among nurses in Iran revealed that self-forgiveness enhances nurses' psychological well-being by bolstering positive psychological attributes and mitigating the detrimental effects of workplace stress <sup>(16)</sup>.

### **Significance of the study**

Burnout is very common among psychiatric nurses because of their emotionally taxing jobs and high levels of stress. Burnout can have a negative impact on healthcare facilities by increasing medical errors, decreasing efficiency, and causing absenteeism. Nurse burnout may be impacted by ruminative thought patterns; problem-focused rumination may help to mitigate the issue, while self-focused rumination may exacerbate it. Additionally, organizational forgiveness may help reduce burnout, which highlights the need of studying and understanding organizational forgiveness in nursing care. Healthcare institutions may foster more forgiving workplaces and enhance patient care and employee well-being by tackling these problems. <sup>(12)</sup>

## **AIM OF THE STUDY**

This research aims to explore the relation between burnout levels and ruminative thought styles, as well as organizational forgiveness, in psychiatric nurses.

## **MATERIAL AND METHOD**

### **Research questions**

1. What is the burnout rate among psychiatric nurses in the chosen healthcare setting?
2. How do ruminative thought styles manifest among psychiatric nurses experiencing burnout?
3. Is there a significant correlation between burnout levels and ruminative thought styles among psychiatric nurses?
4. What is the extent of forgiveness inside the organization among mental nurses at the chosen healthcare facility?

### **Study design**

A study employing descriptive correlational research methodology was conducted.

### **Setting**

El-Azazi Mental Health, Hospital in Abo Hamad City, Elsharkia Governorate, Egypt

### **Subjects**

The participating nurses were individuals who deliver direct patient care at designated governmental hospitals under the Egyptian Ministry of Health and Population, as well as university hospitals. They were chosen using a purposive sample of 128 psychiatric nurses..

**Sample size:** The sample size required for this study is predicted to be 128 nurses. The confidence level is set at 95% and the accuracy rate is 0.05. The calculation method used is the Steven equation, as described by Steven in 2012. The total number

of nurses was 190.

$$n = \frac{190 \times 0.5(1-0.5)}{[[190-1 \times (0.05^2 \div 1.960^2)] + 0.5(1-0.5)]} = 128 \text{ nurses}$$

**Confidence level 95%, p 0.05%, total population 190, Z 1.96**

#### **Tools for data collection:**

Three data collection instruments were used:

#### **Demographic characteristics**

It was developed in Arabic language after review of literature by the researcher and was revised by supervisors. The personal data of psychiatric patients' caregivers including: : age, sex, educational level, experience, marital status, working system, and having children.

#### **Maslach Burnout Inventory (MBI)**

The Maslach Burnout Inventory (MBI) was originally created by Maslach and Jackson <sup>(17)</sup> in an English language. Its validity and reliability were subsequently verified by Ergin <sup>(18)</sup>, who modified it for use in the Turkish context. The inventory consists of 22 statements that are evaluated using a 5-point Likert scale ('never, extremely uncommon, occasionally, frequently, and always'), with scores ranging from 0 to 4. The scale is composed of three domains: 'Emotional Exhaustion' (9 items), 'Depersonalization' (5 items), and 'Reduced Sense of Personal Achievement' (8 items). The scoring system spans from 0 to 21, where higher scores correspond to more severe burnout. The categorization is as follows: a range of 0-26 indicates minor burnout, a range of 27-51 indicates moderate burnout and a range of 52-88 indicates extreme burnout.

#### **Ruminative Thought Styles Questionnaire (RTSQ)**

The Brinker and Dozois <sup>(19)</sup> Questionnaire was devised to assess ruminative

thinking patterns. The survey utilized a 7-point Likert scale and had a total of 20 items. Participants evaluated themselves using a 7-point scale, where 7 indicated a strong description of one self and one indicated a weak description. A rise in the scores derived from the Questionnaire showed a rise in ruminative thoughts. The scores varied from 20 and 140, with higher scores suggesting a greater degree of ruminative thinking. The scores were characterized as follows: scores between 20 and 42 were classified as low, scores between 43 and 83 were classified as moderate, and scores between 84 and 140 were classified as high.

### **Organizational Forgiveness Scale (OFS)**

The "OFS," which was developed by Khezri <sup>(20)</sup> in an English language, The scale consisted of a total of 21 items and employed a 5-point Likert scale. Participants provided ratings for each item on a scale ranging from one ("I have not forgiven at all") to five ("I have fully forgiven") with negative items being reverse-coded for analysis purposes. A higher overall score on this scale indicated a greater degree of forgiveness toward an offender. The scale was divided into three categories: low (21-31), moderate (32-62), and high (63-105).

### **Validity and reliability**

The tools underwent translation into Arabic under the supervision of a language specialist for the study's purposes. Face and content validity were examined by psychiatric nursing experts, who evaluated the tools' design, content, consistency, relevance, and accuracy. Additionally, the reliability of the tools was assessed using the Cronbach alpha coefficient statistical test. Adequate internal consistency reliability was found for the MBI, RTSQ, and OFS, with coefficients of 0.870, 0.836, and 0.901, respectively.

### **Data collection**

To engage eligible participants, the research team initially contacted department head nurses at the hospital under study. They briefed the head nurses on the study's objectives and the specific nursing staff being targeted. Subsequently, the team provided an online questionnaire to the head nurses for distribution among

psychiatric nurses in their respective units.

The online tools incorporated the aforementioned measures and was designed to permit only one response per participant. It commenced with a consent section outlining the study's purpose and procedures, offering participants the option to either agree or decline participation. Upon agreement, nurses proceeded by clicking "Next" to commence answering the tools.

### **Ethical considerations**

Prior to gathering data, the study team acquired ethical permission from the Ethical Committee of the Faculty of Nursing at Zagazig University (ID/Zu.Nur.REC#:0097). The nurses who participated were assured that their involvement was completely voluntary and were briefed on the study's objectives, with the ability to walk away at any given moment. In order to guarantee confidentiality and the absence of identification, all collected data were identified. Additionally, the data were securely stored with password protection to maintain confidentiality.

### **Statistical analysis**

The study variables were entered into the Statistical Package for the Social Sciences (IBM SPSS) version 26 utilizing computerized data input. Descriptive and inferential analyses were then performed on the data. A multiple linear regression statistical model was used to forecast the factors that influence the research variables, using a dependent continuous variable. The correlation coefficient functioned as a statistical metric to quantify the intensity of the linear association between two variables. An Analysis of Variance (ANOVA) was employed to discover disparities among study findings from three or more independent samples or groups. In addition, a t-test was used to compare the means of the two groups and evaluate their association. Moreover, a linear regression model was employed to elucidate the correlation between a dependent variable and one or more independent variables.

## **RESULTS**

### **Personal Characteristics of Studied Nurses**

**Table (1):** Distribution of studied nurses according to their Demographic characteristics (n=128)

Demographic characteristics	n	%
Age:		
20 - <30	34	26.6
30 - <40	59	46.1
40 – 50	29	22.7
>50	6	4.6
Mean $\pm$ SD	35.31 $\pm$ 4.7	
Education level:		
Diploma of Nursing	38	29.7
Technical health institute	60	46.8
Bachelor of Nursing	28	21.9
Postgraduate	2	1.6
Years of experience:		
1 - <5	27	21.1
5 - <10	30	23.4
10 – 15	42	32.8
>15 year	29	22.7
Mean $\pm$ SD	10.48 $\pm$ 3.25	
Marital status:		
Married	97	75.8
Unmarried	31	24.2
Sex:		
Males	42	32.8
Females	86	67.2
Chronic disease		
Yes	18	14.1
No	110	85.9
Working system		
Only daytime	27	21.1
Day and Night	101	78.9
Having children		
Yes	88	68.8
No	40	31.2

**Table 1** reveals that 59 nurses (46.1%) were aged between 30 to <40 years, with an average age of 35.31 $\pm$ 4.7 years. Among them, 86 (67.2%) were females and 42 (32.8%) were males. Among the 128 nurses who were polled, 42 of them, which accounts for 32.8% of the total, had accumulated more than 10-15 years of experience. With a mean of 10.48 years and a standard deviation of 3.25. Additionally, 60 nurses (46.8%) had graduated from technical health institutes, and 75.8% of them were married. Moreover, 110 nurses (85.9%) were free from chronic diseases, and 78.9% of them worked both day and night shifts. Furthermore, 88 nurses



(68.8%) were parents.

### **Burnout, Ruminative thought, and Organizational Forgiveness among Studied Nurses.**

**Table (2):** Distribution of Studied Nurses according to their Burnout, Ruminative Thought, and Organizational Forgiveness Levels (n=128)

	Mean (sd)	Extreme		Moderate		Minor	
		n	%	n	%	n	%
<b>Total Maslach Burnout domains</b>	58.6 (11.4)	70	54.7	36	28.1	22	17.2
Emotional exhausting (9 items)	23.7 (4.6)	67	52.3	38	29.7	23	18
Depersonalization (5 items)	14.1 (2.9)	69	53.9	34	26.6	25	19.5
Reduce the sense of personal achievement (8 items)	20.8 (3.7)	73	57.1	36	28.1	19	14.8
	Mean (sd)	High		Moderate		Low	
<b>Ruminative Thought Styles</b>	74.6 (16.5)	60	46.9	41	32	27	21.1
<b>Organizational Forgiveness</b>	49.3 (8.9)	37	28.9	62	48.4	29	22.7

**Table 2** reveals that 54.7% of the studied nurses exhibited extreme total burnout, with a mean (SD) of 58.6 (11.4). Specifically, 52.3%, 53.9%, and 57.1% of them had significant burnout specifically in the areas of emotional weariness, depersonalization, and reduce the sense of personal achievement, respectively. Furthermore, 46.9% of the nurses exhibited elevated levels of ruminative thinking, an average score of 74.6, and a standard deviation of 16.5, 48.4% of the participants exhibited moderate levels of organizational forgiveness, with an average score of 49.3 (8.9).

### Relation between Burnout, Ruminative Thought, and Organizational Forgiveness and nurses' characteristics

**Table (3):** Relation between Mean Scores of burnouts and Demographic Characteristics of The nurses (N=128).

Demographic characteristics	Mean (sd)	Test	p. value
Age:			
20 - <30	65.80 (12.3)	Anova 8.332	0.002**
30 - <40	60.3(10.7)		
40 – 50	56.4 (9.3)		
>50	53.6 (8.8)		
Education levels:			
Diploma of Nursing	58.2 (8.6)	Anova 1.240	0.062
Technical health institute	60.1(10.2)		
Bachelor of Nursing	59.3 (11.5)		
Postgraduate	57.5(9.7)		
Years of experience:			
1 - <5	63.7 (9.4)	Anova 3.966	0.019*
5 - <10	59.0 (8.2)		
10 – 15	57.2 (8.5)		
>15 year	54.6 (7.3)		
Marital status:			
Married	65.3 (11.5)	T.test 9.103	0.000**
Unmarried	56.1 (10.4)		
Gender:			
Males	59.2 (10.3)	T.test 1.009	0.078
Females	58.01 (9.4)		
Chronic disease			
Yes	61.3 (8.6)	T.test 4.158	0.012*
No	57.1 (9.5)		
Working system			
Only daytime	58.3 (8.5)	T.test 2.130	0.052
Day and Night	60.1 (7.9)		
<b>Having children</b>			
Yes	62.6 (7.6)	T.test 3.902	0.018*
No	57.5 (8.4)		

**Table (3)** indicates a highly significant relationship between nurses' age and marital status with their burnout level, with a p-value of <0.01\*\*. Additionally, there was a significant relationship between nurses' experience, chronic disease status, and

having children with burnout levels, with a p-value of  $<0.05^*$ . However, no significant relationship was found between education level, gender, and working system with burnout level, as indicated by a p-value of  $>0.05$ .

**Table (4):** Relation between Mean Scores of The ruminative Thought Styles and Demographic characteristics of The nurses (N=128).

Demographic characteristics	Mean (sd)	Test	p. value
Age:			
20 - <30	69.7 (8.7)	Anova 5.662	0.011*
30 - <40	71.2 (10.7)		
40 – 50	73.5(12.3)		
>50	76.8 (9.9)		
Education level:			
Diploma of Nursing	77.4 (10.2)	Anova 8.142	0.002* *
Technical health institute	73.2(11.3)		
Bachelor of Nursing	69.5 (9.4)		
Postgraduate	62.0(7.6)		
Years of experience:			
1 - <5	68.2 (8.8)	Anova 4.016	0.018*
5 - <10	70.3 (10.2)		
10 – 15	72.8 (9.3)		
>15 year	77.4 (9.4)		
Marital status:			
Married	75.1 (13.6)	T.test 1.002	0.067
Unmarried	73.2 (11.9)		
Gender:			
Males	76.3 (12.0)	T.test 0.812	0.146
Females	74.0 (11.8)		
Chronic disease			
Yes	75.2 (10.1)	T.test 2.019	0.058
No	72.6 (9.7)		
Working system			
Only daytime	71.8 (10.9)	T.test 1.826	0.064
Day and Night	73.5 (12.3)		
Having children			
Yes	76.9 (13.5)	T.test 3.765	0.023*
No	70.1 (12.4)		

**Table (4)** Demonstrates a strong relation between the educational attainment of nurses and the extent of their ruminative thinking. with a p-value of  $<0.01^{**}$ . Moreover, a notable correlation was seen between the age, years of experience, and parental status of nurses and their level of ruminative thinking, with a p-value of  $<0.05^*$ . However, there was no discernible correlation discovered between marital status, chronic disease status, gender, and working system with ruminative thought level, as proven by a p-value of  $>0.05$ .

**Table (5):** Relation between Mean Scores of Organizational Forgiveness and Demographic characteristics of The nurses (N=128).

Items	Mean (sd)	Test	p. value
Age:			
20 - <30	48.3 (7.2)	Anova	0.054
30 - <40	50.1(8.3)	1.826	
40 – 50	48.7 (6.8)		
>50	51.2 (7.9)		
Education level:			
Diploma of Nursing	43.0 (10.7)	Anova	0.003**
Technical health institute	48.6 (9.2)	7.900	
Bachelor of Nursing	52.3 (8.6)		
Postgraduate	57.2 (8.3)		
Years of experience:			
1 - <5	47.1 (7.0)	Anova	0.030*
5 - <10	48.2(6.5)	3.665	
10 – 15	50.1 (7.4)		
>15 year	52.4 (8.2)		
Marital status:			
Married	48.2 (9.1)	T.test	1.269
Unmarried	49.3(8.9)	0.762	
Gender:			
Males	49.4 (7.3)	T.test	1.260
Females	48.7(9.5)	0.688	
Chronic disease			
Yes	43.9 (7.6)	T.test	0.021*
No	52.8 (8.5)	4.012	
Working system			
Only daytime	50.2 (9.3)	T.test	0.052
Day and Night	47.8 (7.6)	1.902	
Having children			
Yes	51.2 (10.2)	T.test	0.059
No	49.6 (8.4)	1.653	

**Table (5)** illustrates a strong and statistically significant correlation between the educational attainment of nurses and their level of organizational forgiveness, with a p-value of  $<0.01^{**}$ . Additionally, there was a significant relationship between nurses' years of experience and chronic disease status with their Organizational Forgiveness level, with a p-value of  $<0.05^*$ . Nevertheless, there was no discernible correlation found between age, married status, gender, having children, and working system and the amount of Organizational Forgiveness. As proven by a p-value of  $>0.05$ .

**Table (6):** Correlation between Burnout, Ruminative Thought, and Organizational Forgiveness

	Burnout	Ruminative thought styles	Organizational Forgiveness
Burnout		r. 0.634 p. 0.001**	r. - 0.573 p. 0.002**
Ruminative thought styles			r. - 0.321 p. 0.016*
Organizational Forgiveness			

**Table (6)** reports a significant positive correlation between nurses' burnout level and ruminative thought ( $r = 0.634$ ,  $p < 0.01^{**}$ ). This indicates that as burnout levels increase, so do ruminative thought patterns among nurses. Conversely, a strong inverse relationship was seen between the level of burnout and the degree of organizational forgiveness among nurses.

**Table (7):** Multiple Linear Regression Model for Burnout

	Unstandardized Coefficients		standardized Coefficients		
	<i>B</i>		<i>B</i>	<b>T</b>	<b>P. value</b>
Ruminative thought styles	0.467		.401	6.791	<0.01**
Organizational Forgiveness	-0.596		.487	8.601	<0.01**
Having children (Yes)	0.198		.177	3.019	<0.05*
Marital status (Married)	0.307		.218	5.837	<0.01**
Age	-0.361		.291	6.031	<0.01**
Experience	-0.204		.160	2.881	<0.05*
Chronic disease (Yes)	0.233		.200	3.901	<0.05*
<b>Model</b>	<b>R<sup>2</sup></b>	<b>Df.</b>		<b>F</b>	<b>P. value</b>
Regression	0.58	6		12.902	<0.01**

a. Dependent Variable: Burnout

b. Predictors: (constant): Ruminative thought styles, Organizational Forgiveness, Having children (Yes), Marital status (Married), Age, Experience, Chronic disease (Yes)

**Table (7)** stated that there is highly significant model-related burnout with 58% detected through  $R^2$  .58. Also, Ruminative thought styles, marriage status, having children and chronic disease had positive significant predictor effects on burnout, While Organizational Forgiveness, age, and experience had negative significant predictor effect on their burnout.

## DISCUSSION

The interplay between burnout levels, ruminative thought styles, and organizational forgiveness among nurses is a multifaceted dynamic within healthcare environments <sup>(21)</sup>. Studies indicate that higher burnout levels among nurses are associated with increased tendencies towards ruminative thought patterns, characterized by repetitive and intrusive negative thinking <sup>(21)</sup>. Conversely, organizational forgiveness, which fosters a culture of understanding and empathy, appears to mitigate burnout levels among nurses. Understanding these dynamics is crucial for implementing effective interventions to promote nurse well-being and enhance patient care outcomes <sup>(22)</sup>.

The finding of the present study denoted that, provides insights into the frequency and features of burnout, ruminative thought patterns, and organizational forgiveness seen among the nurses in our research. It is noteworthy that a substantial proportion of nurses, half of them indicated experiencing significant degrees of complete burnout, with notable scores across all three dimensions: emotional exhaustion, depersonalization, and reduced personal accomplishment. This suggests a substantial prevalence of burnout within the nursing workforce, which might have negative effects on their overall well-being and job performance. Additionally, nearly half of the nurses exhibited elevated levels of ruminative thought, suggesting a propensity for repetitive and intrusive negative thinking patterns, which may exacerbate burnout symptoms. On the other hand, organizational forgiveness emerged as a mitigating factor, with almost half of the nurses reporting moderate levels of forgiveness within their workplace. This suggests that a forgiving organizational culture could play a role in alleviating Nurse burnout. These findings highlight the need to tackle burnout and foster supportive organizational settings to improve the mental health and resilience of nurses, ultimately benefiting both healthcare professionals and patient care outcomes.

These findings align with the research conducted by **Çelik & Kılıç** <sup>(23)</sup>. The study examined the degrees of professional burnout among nurses by analyzing the subscales. Their findings indicated significant levels of emotional weariness and a notable lack of personal success, with mild to severe degrees of depersonalization. Furthermore, separate research similarly documented elevated levels of emotional weariness and depersonalization, coupled with diminished levels of personal performance <sup>(24)</sup>, suggesting a consistent trend across many investigations.

Moderate to extreme levels of burnout were shown in the systematic reviews and meta-analysis <sup>(25)</sup>. In addition, **Zarei & Fooladvand** <sup>(26)</sup> stated that the average score for rumination was a medium 42.65 (7.37). Also, **Zengin & Orak** <sup>(21)</sup> mentioned that the mean score of organizational forgiveness was 67.85±11.09. In essence, individuals can mitigate negative emotions, shame, and excessive mental rumination, as well as reduce interpersonal conflicts, by practicing self-forgiveness <sup>(27)</sup>. While disagreement with the study by **Yi et al.** <sup>(28)</sup> who reported that the mean score for rumination was rather low, with a value of 21.62 ± 10.77. Furthermore,

**Rahmati & Poormirzaei** <sup>(16)</sup> detected that Self-forgiveness mean score was low  $26.27 \pm 3.58$ .

#### **According to the relation between burnout and the characteristics of the nurses:**

Our study demonstrated a highly significant relationship between nurses' age and marital status with their burnout level, with a p-value of  $<0.01^{**}$ . Nurses with more experience, those with chronic diseases, or those with children may experience varying degrees of burnout compared to their counterparts without these attributes

The outcomes associated with chronic illnesses can have a substantial effect on an individual's physical and mental state, potentially resulting in heightened weariness, pain, or emotional distress. Married nurses may experience heightened stress due to the juggling of multiple roles and responsibilities, such as managing household duties, childcare, and spousal relationships alongside their professional duties.

These results were consistent with the study by **Zborowska et al.** <sup>(29)</sup> which detected that there was a significant relationship between chronic disease and nurses' burnout levels. While being in disagreement with the research by **Zare et al.** <sup>(26)</sup> The researchers discovered that the burnout level was higher among unmarried nurses ( $p = 0.01$ ). Also, **Xie et al.** <sup>(30)</sup> stated that gender was a predictor of burnout among nurses.

#### **Relation between the mental patterns and characteristics of the nurses**

The study demonstrated a strong correlation between the education level of nurses and their ruminative thought level, with a p-value of  $<0.01^{**}$ . Furthermore, the analysis identifies significant relationships between nurses' age, years of experience, and having children with their ruminative thought level, with a p-value of  $<0.05^{*}$ .

These Outcomes may be due to, the influence of educational level on cognitive processes, problem-solving abilities, and coping strategies, all of which may contribute to variations in ruminative thought patterns among nurses with different educational backgrounds. Also, older nurses and those with more experience may have accumulated a wealth of professional and personal experiences over their careers, including exposure to various stressors such as patient care challenges,



workplace conflicts, and organizational changes. The accumulation of these stressors over time may contribute to heightened levels of rumination, as individuals reflect on past experiences and grapple with ongoing stressors.

The results align with the research carried out by **Yi et al** <sup>(28)</sup>, The study revealed that both intrusive rumination and intentional rumination scores had a positive correlation with age, more years of work experience, and higher professional rank ( $P < 0.05$ ). Furthermore, healthcare personnel who received psychological training or intervention had increased levels of intrusive rumination and purposeful ruminating ( $P < 0.05$ ). A study conducted in Shenzhen also discovered a positive correlation between the number of years spent in employment and the intensity of intrusive rumination experienced by nurses <sup>(22)</sup>. In addition, **Ham and You** <sup>(8)</sup> observed a correlation between the age of nurses and their tendency to ruminate.

### **Relation between organizational forgiveness and characteristics of the nurses**

Our study showed a significant relationship between nurses' education level and Organizational Forgiveness, as indicated by a p-value of  $<0.01^{**}$ . This suggests that as nurses' educational attainment increases, their propensity for forgiveness within the organizational context also tends to rise. Such a relationship underscores the potential impact of educational interventions aimed at fostering forgiveness-related attitudes and behaviors among nursing staff.

Moreover, our study also uncovered a noteworthy association between nurses' years of experience and their chronic disease status with their Organizational Forgiveness level, with a p-value of  $<0.05^{*}$ . This finding suggests that both experiential factors, such as years spent within the nursing profession, and health-related factors, such as chronic disease status, play a role in shaping nurses' forgiveness tendencies within the organizational setting. Nurses with greater tenure or those grappling with chronic health conditions may exhibit different patterns of forgiveness compared to their counterparts with less experience or better health.

These Conclusions were supported by **Toussaint et al.** <sup>(31)</sup> who found that chronic disease had a significant relation with Forgiveness working. While these conclusions were inconsistent with the study by **Li et al.** <sup>(22)</sup> The study indicated a

significant correlation between Forgiveness and nurses' working hours with a p-value of less than 0.05\*.

According to the linear regression model, our study revealed ruminative thought styles, marriage status, having children and chronic disease had a positive significant predictor effect on burnout, While Organizational Forgiveness, age, and experience had a negative significant predictor effect on their burnout. Overall, these findings highlight the complex interplay of individual characteristics, organizational factors, and personal circumstances in influencing burnout levels. Understanding these predictors can inform interventions and strategies aimed at mitigating burnout and promoting well-being in various contexts, whether in the workplace or personal life.

The study done by **Quesada-Puga et al.**<sup>(32)</sup> supports these conclusions., which identified a relationship between nurses' experience and their levels of burnout. In addition, **Norful et al.**<sup>(33)</sup> said that younger employees and those with less experience are more susceptible to burnout. Conversely, **Ke et al.**<sup>(34)</sup> discovered that factors such as duration of employment (OR 6.352), workload (OR 6.647), and social support (OR 4.555) Exert a substantial impact on the occurrence of burnout syndrome.

### **Correlation between Burnout, Ruminative thought styles, Organizational Forgiveness**

Specifically, the findings demonstrate a notable and positive association between the amount of burnout experienced by nurses and their tendency to engage in ruminative thinking, indicating that as burnout levels increase, so do ruminative thought patterns among nurses. The observed positive correlation between burnout and ruminative thought aligns with previous research indicating that rumination is a common coping strategy among individuals experiencing chronic stress or emotional distress. When confronted with overwhelming work demands, interpersonal conflicts, or feelings of inadequacy, nurses may turn to rumination as a way to make sense of their experiences or attempt to problem-solve. However, this tendency to ruminate can perpetuate a cycle of negative thinking, exacerbating feelings of burnout and reducing overall well-being.

These results cohort with the study by **ŞİMŞEK** <sup>(35)</sup> who reported that high ruminative thinking styles of students affect burnout. Furthermore, Syed et al. <sup>(36)</sup> asserted that rumination plays a substantial mediation ( $P=.05$ ) function in the relationship between neuroticism and depression among nurses. Furthermore, **Zarei & Fooladvand** <sup>(12)</sup> and **Sun et al.** <sup>(11)</sup> found that there was a high correlation between rumination and burnout.

Conversely, the study also reveals a significant negative relationship between burnout level and nurses' organizational forgiveness. This implies that burnout levels increase, and nurses may become less inclined to forgive perceived organizational injustices, such as unfair treatment, lack of support, or inadequate resources. Organizational forgiveness encompasses the ability to let go of grievances and resentments towards one's workplace, fostering a sense of acceptance, reconciliation, and emotional healing. However, when nurses experience burnout, they may harbor feelings of bitterness, resentment, or disillusionment towards their organization, hindering their capacity for forgiveness and exacerbating workplace dissatisfaction.

These findings are reinforced by the study conducted by **Li & Yao** <sup>(38)</sup>, which revealed a negative association between trait forgiveness and psychological distress. **Duru et al.** <sup>(39)</sup> underscored the importance of recognizing the connections among forgiveness, compassion, and professional commitment for hospital administrators, nurse leaders, and policymakers. Additionally, **Zengin & Orak** <sup>(21)</sup> identified a negative correlation between burnout levels and nurses' organizational forgiveness.

## CONCLUSION

In conclusion, the findings of this study reveal a concerning prevalence of burnout among nurses, with over half exhibiting high levels of total burnout. Nearly more than half of the studied nurses reported high levels of burnout, although it was most noticeable in the areas of emotional tiredness, depersonalization, and diminished feeling of personal accomplishment. Additionally, a considerable portion of nurses demonstrated elevated levels of ruminative thought, indicating potential detrimental effects on their mental well-being. Moreover, findings suggest a notable presence of moderate levels of organizational forgiveness among nurses, highlighting potential avenues for intervention and support within healthcare organizations. The significant

positive correlation observed between burnout levels and ruminative thoughts underscores the impact of psychological distress on cognitive processes among nurses. Conversely, the significant negative correlation between burnout, ruminative thought, and nurses' organizational forgiveness suggests that as burnout and rumination increase, forgiveness toward the organization decreases.

## **RECOMMENDATIONS**

Establish comprehensive burnout prevention programs that address emotional exhaustion, depersonalization, and diminished personal achievement. Provide training on cognitive coping strategies, such as mindfulness and cognitive-behavioral techniques, to manage rumination. Foster a culture of organizational forgiveness through transparent communication and conflict resolution mechanisms. Enhance support systems for nurses with access to counseling services, peer support groups, and mental health resources. Conduct regular assessments of nurses' burnout levels, ruminative thoughts, and organizational forgiveness to identify areas for intervention and support.

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## العلاقة بين مستويات الاحتراق الوظيفي وأنماط التفكير الاجتراري والتسامح التنظيمي لدى المرضى النفسيين

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### الخلاصة

يتأثر الاحتراق الوظيفي بين المرضى بعوامل عدة، منها التسامح التنظيمي، والذي يعبر عن قدرة المنظمة على استيعاب الأخطاء أو التجاوزات المدركة في بيئة العمل. يُعد التسامح التنظيمي أحد أساليب القيادة التي تهدف إلى تعزيز التسامح بين الأفراد عند وقوع سوء تصرف داخل مكان العمل. **الأهداف:** تهدف الدراسة إلى استكشاف العلاقة بين مستويات الاحتراق الوظيفي، أنماط التفكير الاجتراري، والتسامح التنظيمي لدى المرضى النفسيين. **الطرق:** اعتمد البحث تصميمًا وصفيًا ترابطيًا على عينة قصدية من 128 ممرضًا نفسيًا يعملون في مستشفى العزازي للصحة النفسية بمدينة أبو حماد، بمحافظة الشرقية، مصر. واستخدمت الدراسة الأدوات التالية: استبيان الخصائص الديموغرافية، مقياس ماسلاش للاحتراق الوظيفي، استبيان أنماط التفكير الاجتراري، ومقياس التسامح التنظيمي. **النتائج:** أظهر 54.7% من المرضى المشاركين مستوى شديدًا من الاحتراق الوظيفي الإجمالي، بمتوسط (انحراف معياري) بلغ 58.6 (11.4). على وجه التحديد، عانى 52.3%، و53.9%، و57.1% منهم من مستويات مرتفعة من الاحتراق في مجالات الإرهاق العاطفي، وتبلد المشاعر، وانخفاض الإحساس بالإنجاز الشخصي، على التوالي. علاوة على ذلك، أظهر 46.9% من المرضى مستويات مرتفعة من التفكير الاجتراري، بمتوسط درجات 74.6 (16.5)، بينما أظهر 48.4% مستويات متوسطة من التسامح التنظيمي، بمتوسط درجات 49.3 (8.9). **الاستنتاجات:** لوحظ ارتباط إيجابي كبير بين مستويات الاحتراق الوظيفي وأنماط التفكير الاجتراري، مما يؤكد تأثير الضغوط النفسية على العمليات الإدراكية لدى المرضى. وعلى العكس، يشير الارتباط السلبي الكبير بين الاحتراق الوظيفي والتفكير الاجتراري والتسامح التنظيمي لدى المرضى إلى أنه مع زيادة مستويات الاحتراق والاجترار، ينخفض مستوى التسامح تجاه المنظمة.

**الكلمات المرشدة:** الاحتراق الوظيفي، التسامح التنظيمي، المرضى النفسيون، التفكير الاجتراري