Knowledge of Nursing Journal Autumn 2023, 1(3):210-222
http://Knjournal.ir

Original Article Open Access

Relationship between COVID-19 Anxiety, Professional Self-Efficacy, and Sense of Entrapment

Rezvaneh Manzour[1], Somayeh Hayati[2]*, Navid Ebrahimi Madiseh[3],Majid Akhondzadeh[4], Azam Saedikia[2], Amin Hoseinzadeh[5] ,Amirhosein Ramezani[5]

[1] *MSc, Psychiatric Nurse, Lecturer, Department of Nursing, School of Nursing, North Khorasan University of Medical Sciences, Bojnurd, Iran.*
[2] *MSc, Lecturer, Department of Nursing, Shirvan School of Nursing, North Khorasan University of Medical Sciences, Bojnurd, Iran.* ***(Corresponding author)***
[3] *MSc, Department of Nursing, School of Nursing, North Khorasan University of Medical Sciences, Bojnurd, Iran.*
[4] *PhD student in family counseling, Shahid Chamran University of Ahvaz, Khouzestan, Iran.*
[5] *BS Nursing, Student Research Committee, North Khorasan University of Medical Sciences, Bojnurd, Iran.*

Abstract

Background and Aim: Today, one of the most important anxieties in nursing profession is the anxiety of Covid-19, which has led to many problems. In this regard, it seems necessary to reduce anxiety related to this condition. This study aimed to investigate the relationship between Covid-19 anxiety, professional self-efficacy, and sense of entrapment among nurses working at educational hospitals in Bojnurd, capital of North Khorasan province, northeastern Iran in 2022.

Materials and methods: In this descriptive-correlational study, 139 nurses with written consent were randomly selected via a multi-stage method. Pisanti et al. standard professional self-efficacy questionnaires, Gilbert & Allan's entrapment scale and Corona Disease Anxiety Scale (CDAS) were used for data collection. Data were analyzed with descriptive statistics, Spearman's correlation coefficient, and Mann-Whitney's non-parametric test.

Results: Findings showed that Covid-19 anxiety had no significant relationship with professional self-efficacy ($P<0.1$), but anxiety with its psychological and physical components had a direct relationship with feeling of distress and both external and internal components ($P<0.03$). In addition, professional self-efficacy in single nurses was significantly higher than married ones ($p<0.03$).

Conclusion: It seems that reduction of Covid-19 anxiety in nurses can reduce their feeling of distress in workplace. Therefore, managers and educators can work to improve the ability of nurses to reduce their anxiety for better care quality with self-efficacy.

Keywords: COVID-19, Anxiety, Self-efficacy, Entrapment, Nurse.

Corresponding author: Somayeh Hayati ORCID ID: 0000-0002-1974-3133 Email: S.hayati@nkums.ac.ir,
Received: August 2023, **Accepted**: November 2023, **ePublish**: Autum 2023. **Citation:** Manzour R, Hayati S, Ebrahimi Madiseh N, Akhondzadeh M, Saedikia A, Hoseinzadeh A , Ramezani A, Relationship between COVID-19 Anxiety, Professional Self-Efficacy, and Sense of Entrapment, Knowledge of Nursing Journal. 2023;1(3):210-222.

[DOI: 10.61186/knjournal.1.3.210]

Introduction

According to WHO, one of the developmental indicators of a country is its health condition [1]. Various internal and external factors can influence on it [2], including anxiety. Anxiety in modern life is complex and can negatively affect individuals' health and well-being [3, 4]. Today, one of the most significant anxieties is related to COVID-19[5].

Covid-19 anxiety, stemming from being infected by the coronavirus, is primarily due to its unknown nature and the cognitive ambiguity surrounding it [6]. The fear and anxiety arising from potential exposure to COVID-19 have imposed a significant and destructive psychological burden that may lead to mental and emotional disturbances, weakened immune systems, and reduced mental and physical capabilities to cope with diseases within the community, including healthcare teams (nurses, doctors, etc.) [7, 8]. Among them, nurses play a crucial role in the team and stand as the first line of defense against the COVID-19 pandemic. The health of nurses in COVID-19 units is at risk due to the nature of their work, heavy protective gear such as N95 masks, exposure to contamination, and the risk of infecting others, which may contribute to the emergence of psychological disorders [9]. As an effective adaptive mechanism in challenging situations, self-efficacy can lead to job satisfaction and reduce interpersonal stress [10].

According to Bandura, self-efficacy is an important factor and a situational construct, encompassing various dimensions [11]. Professional self-efficacy, an assessable aspect examining individuals' capacity to handle interpersonally stressful situations in the workplace, was studied through a scale developed by Pisanti et al. in 2008 [12]. Considering the challenges related to COVID-19 pandemic, preserving motivated and skilled nursing personnel in healthcare system is crucial for providing comprehensive and sufficient care to

[DOI: 10.61186/knjournal.1.3.210]

patients. Reducing the sense of entrapment may also contribute to preventing the aforementioned negative consequences and creating a civil and respectful working environment for nurses and decrease environmental stressors. Feeling trapped is a specific type of thinking and emotion referring to a situation where an individual perceives being ensnared or caught in circumstances from which they desire to escape [13]. Someone experiencing the sense of entrapment believes their defensive behaviors are ineffective [14]. Consequently, they tend to avoid the current situation while, at the same time, believe that all potential options for overcoming it are blocked [15].

Li, Wan and Xian Yu (2023) found that of 552 nurses in Wuhan, China, 26% had mild depression and 5.62% had moderate or severe depression. Seventy-four percent had mild anxiety and 1.82% had moderate or severe anxiety [16]. In 2023, Hayati et al. in their cross-sectional study on the relationship between COVID-19 anxiety, resilience and Islamic beliefs in 160 hemodialysis patients of North Khorasan province found that 98.8% of the participants had mild levels of anxiety[17].

Although some studies have been conducted on the anxiety of COVID-19, given its significance and impact on nurses' psychological outcomes, a need for further investigation is evident. Additionally, the components of professional self-efficacy and feelings of entrapment have yet to be examined alongside COVID-19 anxiety. This study was performed to explore the relationship between COVID-19 anxiety, professional self-efficacy, and feelings of entrapment among nurses at teaching hospitals in Bojnurd City in 2022.

Methods

In this descriptive-correlational study, bachelor nurses at teaching hospitals of North Khorasan (Bojnurd) with at least 1 year of work experience were selected via a multi-stage random sampling method. Necessary permissions and informed

[DOI: 10.61186/knjournal.1.3.210]

consent were obtained from the hospitals and the subjects respectively. Required sample size was calculated 108 with 95% confidence level, population proportion of 0.5, precision of 0.08, and 6% dropout rate in its formula. However, for better reliability, 140 subjects were selected. One research sample had not completed the questionnaires and was excluded from the study.

Four questionnaires were used for data collection. The first was demographic including age, gender, educational level, marital status (married/single), history of chronic diseases, length of employment, department of nurses, amount of overtime hours per month, number of leisure hours per month, the number of COVID vaccine received (1st, 2nd, or 3rd), and history of COVID affliction (yes/no). The second was Professional Self-Efficacy Questionnaire, designed by Pisanti in 2008. Its validity has been confirmed through concurrent validity, criterion-related validity, construct validity, and Cronbach's alpha coefficient of 0.8. The scoring of it is with a 5-point Likert scale (completely disagree 4 to completely agree 0), where a higher score indicates higher professional self-efficacy [12]. It has also been validated by Unesi et al. (2020) with a Cronbach's alpha coefficient of 0.82 [18].

The third questionnaire was Perceived Entrapment Scale, developed by Gilbert & Allan [13]. Its scoring is also with a 5-point Likert scale (0= ‘never like me’, 1= ‘a little bit like me’, 2= ‘moderately like me’, 3= ‘quite a bit like me’, and 4= ‘highly like me’). A higher score suggests greater entrapment of a person. The total score ranges between 0 and 64 (0-16 Poorly perceived entrapment ,16-32 Moderate perceived entrapment, >32 very good perceived entrapment). It measures perceived entrapment with 16 questions, encompassing both external and internal components. External entrapment pertains to the perception of things in the outside

[DOI: 10.61186/knjournal.1.3.210]

world, causing escape motivation. Internal entrapment deals with escape motivation initiated by internal feelings and thoughts. The internal consistency as well as split-half coefficients were calculated to assess its reliability. Cronbach's α coefficient was 0.87 for external entrapment subscale, 0.88 for internal entrapment subscale, and 0.92 for whole scale. The split-half reliability coefficient was 0.88 for the whole scale [19].

The fourth questionnaire was Corona Disease Anxiety Scale (CDAS). It was developed and validated to measure the anxiety related to the spread of the Corona virus in Iran [20]. Its final version entails 18 items and 2 components (factors). Items 1 to 9 measure psychological symptoms and items 10 to 18 physical symptoms. It is scored on a 4-point Likert scale (never=0, sometimes=1, most of the time=2, and always=3), ranging from 0 to 54. In this scale, high scores indicate a higher level of anxiety in individuals. Its validity and reliability have been confirmed by Alipour et al. with Cronbach's alpha (0.91). Its validity in this study was also confirmed with Cronbach's alpha coefficient ($\alpha = 0.8$), and a reliability coefficient of 88% [20].

After distributing the questionnaires to the nurses, they were requested to self-report and complete the questionnaires when they felt calm, within the specified time frame. The majority of participants returned the questionnaires after 2 days. Categorical variables were measured using counts (percentages), while continuous variables were measured using means (standard deviations). Furthermore, considering deviations from normality assumptions observed in response variables and some independent variables, summary statistics such as percentiles (1st percentile, 1st quartile, median, 3rd quartile, and 99th percentile) were used to describe these variables. Accordingly, Spearman's correlation coefficient was employed to assess the relationship between response

[DOI: 10.61186/knjournal.1.3.210]

variables, with a coefficient range of -1 to 1, indicating inverse and direct relationships, respectively.

To test the differences in response variables among levels of categorical independent variables, the non-parametric Mann-Whitney U test was utilized. The missing data rate of variables was less than 5%. Stata software (*ver. 14*) was used for conducting the statistical analyses. A significance level of 0.05 was chosen in calculations. The code of ethics (IR.NKUMS.REC.1400.178) was bestowed by the Ethics Committee of Northern Khorasan University of Medical Sciences. All participants signed the written informed consent.

Results

A total of 139 nurses (80.6% female) between 23 and 49 years (mean=30.5, SD=7.5) were selected. Almost all of them (97.8%) had bachelor degrees. Table 1 provides a descriptive overview of the dependent and other independent variables.

Table 1. Demographic variables

Variable		Number (%)	1st Percentile, 1st Quartile, 3rd Quartile, 99th Percentile
Age	<30 years	77 (55.39)	
	≥30 years	62 (44.61)	
Marital status	(married)	100 (71.9)	
Chronic disease history	(yes)	12 (8.8)	
Department of service	(CCU)	11 (7.91)	
	(ICU)	35 (25.17)	
	(internal)	25 (17.98)	
	(surgery)	46 (33.09)	
	(emergency)	22 (15.82)	
COVID-19 Vaccine	1	7 (5.1)	
	2	62(44.2)	
	3	70 (50.7)	
COVID-19 history	(yes)	137 (98.5)	
Employment duration	(years)		1.5 (2 4 7) 21
Extra Shifts per month	(hour)		2 (50 80 100) 180
Vacation per month	(hour)		0 (10 24 60) 300
Anxiety			0 (1 4 10) 53
	Psychological component		0 (1 4 9) 28
	Physical component		0 (0 0 1) 23
Professional Self-Efficacy			0 (7 12 18) 32
Sense of entrapment			0 (0 3 11) 53
	External component		0 (0 2 6) 22
	Internal component		0 (0 1 5) 31

[DOI: 10.61186/knjournal.1.3.210]

The correlations between dependent variables (and their components) are presented in Table 2, where significant correlations (P<0.05) are highlighted in bold. Anxiety with its psychological and physical components had a positive correlation with the feeling of entrapment (P < 0.01).

Table 2. Correlations between variables of interest

Variables	Anxiety	Psychological	Physical	Entrapment	External	Internal	Professional Self-Efficacy
1 Anxiety	1						
1.1 Psychological		1					
1.2 Physical			1				
2. Entrapment	0.48	0.44	0.44	1			
2.1 External	0.47	0.43	0.40		1		
2.2 Internal	0.46	0.41	0.46			1	
3 Professional Self-Efficacy	0.10	0.11	-0.02	-0.03	-0.02	-0.03	1

Note. Average self-efficacy in single nurses was significantly higher than married ones.

Finally, the relationship between dependent and independent variables is demonstrated in Table 3 using medians (interquartile range). The only significant relationship was related to marital status in terms of self-efficacy. Specifically, the average level of self-efficacy in single nurses was significantly higher than that of married ones (P = 0.01).

[DOI: 10.61186/knjournal.1.3.210]

Table 3. Distributions of Gender, Age, Marital Status and COVID-19

Variables		Anxiety	Professional Self-Efficacy	Entrapment
Sex	Male	3 (0.4)	4 (0.9)	11 (3.16)
	Female	5 (2.12)	2 (0.13)	12 (7.5)
Age	<30 years	4 (2.12)	4 (0.12)	12 (8.16)
	≥30 years	4 (1.9)	2 (0.11)	10 (7.19)
Marital status	Single	4 (1.13)	6 (1.18)	11 (8.15)
	Married	4 (1.5)	2 (0.8)	12.5 (7.19)
COVID-19 Infection	No	4 (0.11)	4 (0.18)	10 (6.21)
	Yes	4 (2.10)	3 (0.11)	12 (7.17)

Discussion

The results showed that there is no significant relationship between COVID-19 anxiety and professional self-efficacy. Xiong et al. (2020), Simonetti et al. (2021) and Mamani-Benito et al. (2021) have indicated a significant relationship between self-efficacy and COVID-19 anxiety [21-23]. This discrepancy can be attributed to various reasons: one could be that, at the beginning of the COVID-19 pandemic, the condition undoubtedly caused higher levels of anxiety among people [20], especially healthcare workers. Our study was conducted two years after the onset of the pandemic, and it is conceivable that the anxiety related to COVID-19 at the initial stages of the pandemic might have had more prominent impact on self-efficacy of healthcare workers and was gradually diminishing over time. On the other hand, it can be theorized that nurses typically experience varying degrees of anxiety, and this aspect has become intertwined with the nursing profession itself.

According to Bandura, physiological and emotional arousal is one of the factors influencing self-efficacy. The higher the level of physiological and emotional arousal, the lower the sense of efficiency and self-efficacy would be [11].

[DOI: 10.61186/knjournal.1.3.210]

Furthermore, in explaining the mediating role of self-efficacy in the relationship between problem-solving orientation and COVID-19 anxiety, it can be said that individuals with a problem-solving orientation are those with a positive attitude toward challenges and a willingness to confront problems. A positive orientation is considered as one of the constructive problem-solving elements [24]. In the study by Bagheri Sheykhangafshe et al., nurses and physicians who had high levels of resilience and self-efficacy were found to have suitable mental health [25].

Asadi et al. (2020) highlighted that all individuals and various social groups, particularly nurses and healthcare workers, have experienced anxiety related to COVID-19 disease [26]. In another study by Pappa and colleagues using a meta-analysis approach, it was revealed that the prevalence of anxiety among healthcare team was moderate. This study also demonstrated varying degrees of anxiety among nurses working in coronavirus units, which is consistent with the findings of the aforementioned study [27].

Our results also indicated that there was a significant relationship in the levels of self-efficacy and marital status (single/married). In other words, single nurses exhibited higher levels of self-efficacy compared to married ones. Conversely, Zarrin et al. (2023) concluded that educational level, marital status and gender had no significant relationship with the level of self-efficacy of nurses referring to Tabriz hospitals. This difference may be attributed to the COVID-19 pandemic or other factors that require further investigation [28]. It seems that single nurses, being younger and likely experiencing the initial years of their employment, had better performance in dealing with job situations. On the other hand, married nurses, due to their responsibilities for their families, might gradually experience negative impacts on their performance as well as professional

[DOI: 10.61186/knjournal.1.3.210]

self-efficacy. In other words, singles with an independent and sole life outside of work may increase their engagements with their patients, causing changes in their social interactions. This may explain the relationship between marital status and self-efficacy.

Additionally, this study found that anxiety in nurses has both emotional and physical aspects, and both are linked to feelings of being trapped. Nurses are expected to provide care despite their fear and anxiety, which can create a conflict between their emotions and professional abilities[29]. This conflict can lead to feelings of entrapment [30-32], as found in our study.

Taylor et al. assert that the sense of entrapment is significantly associated with other psychological disorders especially anxiety disorders [33]. The mechanism of action and impact of entrapment in conditions like anxiety have been substantiated through disruptions in problem-solving and induction of hopelessness at individuals [34-35]. Therefore, it can be deduced that entrapment, defined as a sense of falling into a trap or a specific form of thinking and feeling that occurs when a person is stuck in a situation they wish to avoid, could lead to compulsive cessation of human activities and individual's inability to escape from a situation [14]. This, in turn, can result in the emergence of anxiety symptoms in the individual, as supported by the findings of this study.

One of the limitations of our study was the lack of access to a completely similar study for comparison purposes, which is somewhat related to the novelty and uniqueness of the research topic. Future studies in this field are necessary to provide better and more reliable results. Another limitation was the use of self-report questionnaires, which can be influenced by the psychological conditions of nurses and the way they respond to the questions. Therefore, the researchers made an effort

[DOI: 10.61186/knjournal.1.3.210]

during the study to maximize the honesty and accuracy of their responses by allocating enough time and verbally requesting for their participation.

Since our research was conducted in hospitals in Bojnurd city, it is recommended to conduct studies that are congruent with this research, using samples from other communities as well. This will allow for a clearer perspective on the variables and provide a more comprehensive view of the factors influencing healthcare personnel.

Conclusion

The results indicated that the more COVID-19 anxiety increases, the more the level of entrapment would be. Therefore, nursing educators and managers can reduce these problems through training of professional competencies, providing support with psychological counseling as well as stress management, fostering peer support networks and implementing interventions in the workplace to enhance the mental well-being of nurses.

Acknowledgement

The authors extend their utmost gratitude and appreciation to the personnel of the Research Deputy of North Khorasan University of Medical Sciences in Bojnurd for their collaboration in project approval. Additionally, the authors sincerely thank all the staff members of Imam Hasan A, Imam Ali A, Imam Reza A, and Bentolhoda hospitals, who wholeheartedly participated in this study. Their valuable contributions and participation are highly acknowledged and appreciated.

Conflict of Interest

The authors of the article declare no conflicts of interest.

[DOI: 10.61186/knjournal.1.3.210]

References

1. Group W. Development of the World Health Organization WHOQOL-BREF Quality of Life Assessment. Psychological Medicine. 1998;28(3):551-8.
2. Keyes CL. Social Well-Being in the United States: A Descriptive Epidemiology. How Healthy Are We. 2004:350-72.
3. Chen WW. Impacts of Social Integration and Loneliness on Mental Health of Humanitarian Migrants in Australia: Evidence from a Longitudinal Study. Australian and New Zealand Journal of Public Health. 2019;43(1):46-55.
4. Dong X, Wang L, Tao Y, Suo X, Li Y, Liu F, Zhang Q. Psychometric Properties of the Anxiety Inventory for Respiratory Disease in Patients with COPD in China. International Journal of Chronic Obstructive Pulmonary Disease. 2017:12(1):49-58.
5. Wu Z, McGoogan JM. Characteristics of and Important Lessons from the Coronavirus Disease 2019 (COVID-19) outbreak in China: summary of a Report of 72 314 Cases from the Chinese Center for Disease Control and Prevention. JAMA. 2020:1239-12142.
6. Bajema KL. Persons Evaluated for 2019 Novel Coronavirus—United States, January 2020. Morbidity and Mortality Weekly Report. 2020;69(6):166-95.
7. Murthy RS. COVID-19 Pandemic and Emotional Health: Social Psychiatry Perspective. Indian Journal of Social Psychiatry. 2020;36(Suppl 1):S24-S42.
8. Simnani FZ, Singh D, Choudhury A, Akhtar A. Impact of COVID-19 on Brain and Psychological Health, its Possible Mechanisms, and Coping Strategies. Recent Patents on Biotechnology. 2023;17(1):62-79.
9. Liu C, Yang YZ, Zhang X M, Xu X, Dou Q L, Zhang WW, Cheng AS. The Prevalence and Influencing Factors in Anxiety in Medical Workers Fighting COVID-19 in China: a Cross-Sectional Survey. Epidemiology & Infection. 2020,20 :148-57.
10. Lim J, Bogossian F, Ahern K. Stress and Coping in Singaporean Nurses: a Literature Review. Nursing & Health Sciences. 2010;12(2):251-8.
11. Bandura A. Guide for Constructing Self-Efficacy Scales. Self-Efficacy Beliefs of Adolescents. 2006;5(1):307-37.
12. Pisanti R, Lombardo C, Lucidi F, Lazzari D, Bertini M. Development and Validation of a Brief Occupational Coping Self-Efficacy Questionnaire for Nurses. Journal of Advanced Nursing. 2008;62(2):238-47.
13. Gilbert P, Allan S. The Role of Defeat and Entrapment (arrested flight) in Depression: An Exploration of an Evolutionary View. Psychological Medicine. 1998;28(3):585-98.
14. Broozi A, Mohammadi FS, Fraghdani A. The Effect of Spouse-Specific Dependency on Entrapment and Couple Burnout in Married Students. Family Pathology, Counseling and Enrichment Journal. 2018;3(2):1-20.[Persian]
15. Brown GW, Harris TO, Hepworth C. Loss Humiliation and Entrapment Among Women Developing Depression: A Patient and Non-Patient Comparison. Psychological Medicine. 1995;25(1):7-21.
16. Li W, Wan Z, XianYu Y. Factors Influencing Nurses Self-Efficacy Two Years After the COVID-19 Outbreak: A Cross-Sectional Study in Wuhan, China. Medicine. 2023;102(36):e35059.
17. Hayati S, Manzour R, Hashemi FH, Dizavandi AR. The Relationship Between Coronavirus Anxiety, Resilience, and Islamic Beliefs in Hemodialysis Patients During the Pandemic: A Survey in Iran. Islamic Guidance and Counseling Journal. 2023;6(1):45-58.
18. Unesi Z, Hayati S, Nasiri Forg A, Nomiri S. The Relationship Between Workplace Incivility with Professional Self-Efficacy and Psychological Ability in Nurses Working in Birjand Hospitals in 2019. Journal of Jiroft University of Medical Sciences. 2020;7(3):469-77. [Persian]
19. Ghamarani A, Siadatian SH, Pishdad R. An Investigation of Validity and Reliability of Entrapment Scale in the Students of Isfahan University of Medical Sciences, Iran. Qom Univ Med Sci J. 2014;7(6):54-61. [Persian]
20. Alipour A, Ghadami A, Alipour Z, Abdollahzadeh H. Preliminary Validation of the Corona Disease Anxiety Scale (CDAS) in the Iranian Sample. Quarterly Journal of Health Psychology. 2020;8(32):163-75. [Persian]
21. Xiong H, Yi S, Lin Y. The Psychological Status and Self-Efficacy of Nurses During COVID-19 Outbreak: A Cross-Sectional Survey. INQUIRY(The Journal of Health Care Organization, Provision, and Financing) 2020;57:1-6. doi: 10.1177/0046958020957114
22. Simonetti V, Durante A, Ambrosca R, Arcadi P, Graziano G, Pucciarelli G, et al. Anxiety, Sleep Disorders and Self-Efficacy Among Nurses During COVID-19 Pandemic: A Large Cross-Sectional Study. Journal of Clinical Nursing. 2021;30(9-10):1360-71.
23. Mamani-Benito O, Esteban RFC, Ventura-León J, Caycho-Rodríguez T, Solís RF, Shocosh DHB. Effect of Concern about COVID-19 on Professional Self-Efficacy, Psychological Distress, Anxiety, and Depression in Peruvian Health Personnel. Salud Mental. 2021;44(5):215-20.
24. Maydeu-Olivares A, D'Zurilla TJ. A factor-analytic study of the Social Problem-Solving

[DOI: 10.61186/knjournal.1.3.210]

Inventory: An Integration of Theory and Data. Cognitive Therapy and Research. 1996;20:115-33.
25. Bagheri Sheykhangafshe F, Arianipour M, Savabi Niri V, Shayanfar S, Asgari F. The Role of Resilience and Self-Efficacy in Promoting Mental Health of Medical Staff During of the COVID-19 Pandemic: A Narrative Review. EBNESINA. 2022;24(2):77-86. [Persian]
26. Asadi N, Salmani F, Pourkhajooyi S, Mahdavifar M, Royani Z, Salmani M. Investigating the Relationship Between Corona Anxiety and Nursing Care Behaviors Working in Corona's Referral Hospitals. Iranian Journal of Psychiatry and Clinical Psychology. 2020;26(3):306-19.
27. Pappa S, Ntella V, Giannakas T, Giannakoulis VG, Papoutsi E, Katsaounou P. Corrigendum to Prevalence of Depression, Anxiety, and Insomnia among Healthcare Workers During the COVID-19 Pandemic: A Systematic Review and Meta-Analysis. Brain Behav Immun. 2021;92(245):901-7.
28. Zarrin L, Ghafourifard M, Sheikhalipour Z. Relationship between Nurses Reflection, Self-Efficacy and Work Engagement: A Multicenter Study. Journal of Caring Sciences. 2023;12(3):155.
29. Glomb TM, Tews MJ. Emotional Labor: A Conceptualization and Scale Development. Journal of Vocational Behavior. 2004;64(1):1-23.
30. Huynh T, Alderson M, Thompson M. Emotional Labour Underlying Caring: An Evolutionary Concept Analysis. Journal of Advanced Nursing. 2008;64(2):195-208.
31. Stayt LC. Death, Empathy and Self Preservation: The Emotional Labour of Caring for Families of the Critically Ill in Adult Intensive Care. Journal of Clinical Nursing. 2009;18(9):1267-75.
32. Yoon SL, Kim JH. Job-Related Stress, Emotional Labor, and Depressive Symptoms among Korean Nurses. Journal of Nursing Scholarship. 2013;45(2):168-76.
33. Taylor PJ, Gooding PA, Wood AM, Johnson J, Pratt D, Tarrier N. Defeat and Entrapment in schizophrenia: The Relationship with Suicidal Ideation and Positive Psychotic Symptoms. Psychiatry Research. 2010;178(2):244-8.
34. Gilbert P. Depression and stress: A Biopsychosocial Exploration of Evolved Functions and Mechanisms. Stress. 2001;4(2):121-35.
35. MacLeod AK, Tarbuck AF. Explaining Why Negative Events Will Happen to Oneself: Parasuicides Are Pessimistic Because They Can't See Any Reason Not to Be. British Journal of Clinical Psychology. 1994;33(3):317-26.

[DOI: 10.61186/knjournal.1.3.210]