



Predicting Job Burnout in Nurses Based on Psychological Distress and Coping with stressful situations

Mozhdeh Bagher Zadeh ¹

MSc in Clinical Psychology, Department of Clinical Psychology, School of Medicine, Lahijan Branch, Islamic Azad University, Lahijan, Iran.

Soheila Mazloum Vajari

Assistant Professor, Department of Nursing, School of Medicine, Lahijan Branch, Islamic Azad University, Lahijan, Iran.

Fateme Jafaraghaee

Associate Professor, School of nursing and midwifery, Guilan university of medical sciences, Rasht, Iran

Abstract

Objective: Job burnout is one of the major occupational problems observed in nurses, which can be related to psychological distress and Coping with stressful situations. The purpose of the current research is to predict nurses' burnout based on psychological distress and Coping with stressful situations.

Methods: The current research was a correlational research with multiple regression method, and its statistical population included nurses working in Dr. Pirouz State Hospital affiliated to Gilan Medical Sciences, which had 200 people whom (27 men and 173 women) were available to sample the research participated. Demographic inventory, Maslach Burnout Inventory (MBI), Kessler Psychological Distress Scale (KPDS) and Coping Inventory for Stressful Situations (CISS) filled. The resulting data were analyzed by SPSS version 22 statistical software and by descriptive indices and multiple regression method.

Results: Data analysis showed that among Coping with stressful situations, the effect of problem-oriented style ($T=2.55$) and psychological distress ($T=12.55$) on job burnout is significant at 0.01 level. But the effect of emotional style and avoidance style is not significant.

Conclusion: Based on the results of this study, problem-oriented coping style and low psychological distress predict lower job burnout in nurses, and improving problem-solving skills more effectively and reducing their emotional distress will reduce job burnout and increase performance and productivity leads. It is suggested that hospital managers in order to maintain, promote the mental health of nurses the level of mental health literacy in working nurses by planning workshops and pathology of the causes of burnout And by applying the necessary support measures, consider the context of reducing burnout as an in-service training program.

Keywords: "Job burnout", "Psychological distress", "Coping with stressful situations", "nurses"

Introduction

Nurses are the people most involved in hospital and with treatment programs due to their high occupational sensitivity and nature (Heydari & Abdollahi, 2021). And they play a key role in addressing difficult hospitalized patients and often have vulnerabilities and mortality complications (Dasil, et al, 2020). Studies have shown that one of the major occupational issues observed in the medical staff working in hospitals, especially nurses, is job burnout (Hosseini Adl & Khoshlahjeh sedgh, 2023). Job burnout is a chronic emotional state that has three components: cognitive, physical and emotional fatigue (Kousouri et al, 2024). In general, burnout can be seen as the result of a chronic decrease in the resources of a person's abilities, which is caused by a long-term confrontation with stress, especially job pressures (Debnath et al, 2024). According to (Gutas, 2008) job burnout has a wide range of possible symptoms such as weakness, despair, withdrawal, irritability, despair, apathy, feelings of loneliness and separation, emotional exhaustion and depersonalization (Elshaer et al, 2018). As a result of job burnout, the person's ability to adapt to life's stressful factors decreases and physical and emotional fatigue is formed, which leads to: creating a negative self-concept in the person, a negative attitude towards the job and a lack of feeling of proper communication with clients when the task is done. There are many causes of burnout, some of which are related to the position and nature of the job and others with individual factors. One of the individual factors that has recently attracted the attention of researchers and psychologists is psychological distress. Structural psychological distress is expressed as a meta-emotional structure and as a person's ability to experience and resist negative emotional states, and hence it is a structure related to emotional disorder (MacKillop & De Wit, 2013). This structure, which may be created as a result of cognitive or physical processes in a person, is an emotional state that is often characterized by practical tendencies to reduce the negative effects of emotional experience. Also, psychological distress is opposite to distress tolerance, which distress tolerance has a multi-dimensional nature and includes several dimensions such as the ability to tolerate emotional distress, evaluation and capacity to accept emotional state, the way to regulate emotions by the individual and regulate efforts to relieve distress, the amount of attention. It is caused by negative emotions and the amount of its contribution to the occurrence of dysfunction (Kousouri et al, 2024). Psychological distress means the presence of depression, anxiety and stress, and people with psychological distress find anxiety unbearable and cannot deal with their distress. These people do not accept the existence of anxiety and feel ashamed and distressed. As a result of all their attention, this excitement and anxiety becomes disturbing and their performance decreases (Gou et al, 2016). Researchers in their research, which looked at a large sample of healthcare professionals, found that symptoms of depression, anxiety, and anxiety, insomnia and distress, and higher levels of psychological distress, are present in nurses and technicians than in doctors (Li et al, 2020). Also, the results of the research indicate that psychological distress affects the assessment and consequences of anxiety and the experience of negative emotions, so that people with high psychological distress. They react more strongly to stress and anxiety and have a weaker coping ability to cope with distress (Keough et al, 2010). According to the results of another study, high psychological distress in nurses led to higher burnout compared to others (Kousouri et al, 2024). A study of nurses showed that poor psychological status in nurses and lack of adequate mental health led to greater burnout (Shakerinia I, 2012). Variables associated with psychological distress and burnout can be referred to Coping with stressful situations. Coping with stressful situations refer to specific efforts, both behavioral and psychological, that people use to dominate, tolerate, reduce or minimize stressful events (Spaan, 2024). Confronting is defined as: behavioral and cognitive efforts that are constantly changing to meet the specific external or internal desires of the person that are evaluated beyond his or her resources and abilities (Folkman & Lazarous, 1986). Coping with stressful situations are thoughts and behaviors used after a person encounters a stressful event (Schwarzkopf et al, 2016). In psychological texts and theories, two types of problem-oriented and exciting Coping with stressful situations are distinguished. In a problem-oriented coping style. A person's focus is on the stress element and the person tries to examine the dimensions and help with problem-solving strategies such as aiding friends and experts. Change the stressful relationship between yourself and the environment (Kausar & Munir, 2004). But the goal of the thrill-driven coping style. The regulation of the emotional state is caused by stress, and by avoiding the stress factor. Thus, its re-evaluation is realized from a cognitive angle and considering the positive aspects of oneself and the situation. It should be noted that both Coping with stressful situations using cognitive or behavioral facilities can be effective (Mohino et al, 2003). Effective coping with job problems and challenges can have a positive effect on improving the situation and psychological distress and can change the pace and process of burnout. Thus, the coping style of the excitement or the problem of the circuit helps to improve various psychological issues.

In a study aimed to investigate the role of resilience and coping style in predicting burnout in nurses, the results showed that resilience and problem-oriented coping style. Reduces burnout among nurses. (Babai et al, 2022). In another study, it was stated that coping with the problem of the circuit is associated with less burnout of health care providers (Spaan et al, 2024). Therefore, problem-oriented Coping with stressful situations and excitatory circuitry can be associated with reduced burnout. According to the above and previous research, the main question of this study is whether psychological distress and Coping with stressful situations predict burnout among nurses or not?

Methods

The present study was approved by the Ethics Committee and the necessary licenses were obtained from the educational deputy of Guilan University of Medical Sciences and It was carried out in cooperation with the management of the hospital and nurses. This study was of the type of correlation research with multiple regression method, and its statistical population included nurses working in Dr. Pirouz State Hospital affiliated with Guilan Medical Sciences. For the implementation of the research according to the number of variables and the background of the research, 200 people were selected by the available method and after reviewing the criteria for entering the design and obtaining the satisfaction of samples To participate in the research, they were asked to fill out questionnaires . Participants answered all questionnaires.Finally, the data obtained by and statistical software SPSS version 22 was analyzed by the method of descriptive indicators and multiple correlations. The tools used were:

Demographic questionnaire: Including questions such as: Age, Gender, Education, Work history, Marital status.

Maslach Burnout Inventory(MBI):This questionnaire has 22 items, which are four components: emotional fatigue, personality loss .It measures personal performance and involvement in terms of the seven-choice Likert spectrum and also gives an overall score. Accordingly, the subjects are never to choose options, several times a year, monthly, several months, each week, several times a week, and every day, respectively 0, 1, 2, 3,4, 5 and 6 points are scored and each person's score is between 0 and 132, and higher scores indicate higher burnout (Gou et al,2016). In a study conducted in Iran, the reliability coefficient was reported by alpha 0.89 and its validity 0.74 (Rostami et al, 2011).

Kessler Psychological Distress Scale(KPDS):The psychological distress questionnaire developed by Kessler et al. In year 2002 to measure mental disorders in the general population.This tool has three components of its measurement, which include educational presence, social presence and cognitive presence . It ultimately gives an overall score. The questionnaire has 10 questions and will be scored from 1 to 4 based on Likert's four-choice spectrum and so the individual score will be between 10 and 40 . According to a study

Kronbach's alpha coefficient with 0.84 showed favorable validity of the questionnaire (Shakerinia I ,2012).

Coping Inventory for Stressful Situations (CISS):It was created In 1990 by Endler & Parker .It consists of 48 materials that measure three styles of coping behaviors such as: circuit problem coping, circuit emotional coping, and avoidance coping. The score of the questionnaire is done by the method of never (1) to always (5), and the score of the individual in the dominant style is considered to be his main coping style(Khamisa et al, 2017). In 1990, Endler & Parker reported the validity and reliability of the questionnaire appropriately. In a study conducted by Choi to examine the psychometric properties of questionnaires in Korean adults, alpha-Cronbach levels of all three styles were reported to be optimal(Chen et al, 2020). Also, according to a study by Nergsi and colleagues in 1396, Kronbach's alpha coefficients are equal to the Coping with stressful situations of circuit, excitement and avoidance among Iranian students 0.74, 0.70, 0.73 obtained(Azizi et al, 2017).

Results

The descriptive analysis showed that among the participants, 13.5 percent were male and 86.5 percent were female. Also, the data collected were matched in terms of some demographic variables such as age, education, marriage, etc. In order to analyze the data and the research model, the assumptions of the normalization of variables were first studied through the determination of the elongation and density, and the data showed that The corresponding values are in the normal standard range. "Table 1" shows descriptive indicators of research variables.

Table 1- Descriptive Indicators of Research Variables

Scale	Subscales	Average	Standard deviation	At least	Maximum
Psychological distress		16.31	11.1	0.	40
Coping with stressful situations	problem oriented	52.69	9.3	16	80
	excite oriented	50.92	10.28	16	80
	Avoidance	54.1	9.24	26	75
Burnout		63.82	13.85	24	101

To predict burnout from Coping with stressful situations and psychological distress, multiple regression variance analysis was used. Given that in the present study, it is assumed that all sub-variables of defense styles have meaningfully the ability to predict burnout, step-by-step regression was used. "Table 2" summarizes the reported regression results.

Table 2- Summary of the results of the predictive model of burnout from Coping with stressful situations and psychological distress

(R)Multiple correlation	(R ²)Variance explained	justified R ²	Standard error of estimate
0.69	0/477	0/466	10.125

According to Table 2, the correlation coefficient of variation is the Coping with stressful situations of excitation circuit, avoidance, circuit problem and psychological distress with burnout 0.69. These four variables predict a total of 47.4 percent of burnout changes. "Table 3" The results of variance analysis of the model for the variable prediction burnout from the Coping with stressful situations of excitation circuit, avoidance, problem-oriented and psychological distress have been reported.

Table 3- Results of analysis of multiple regression variance of the predetermined variables

Model	Sum of squares	Degrees of freedom	Mean square	F	The significance level
Regression	18213.918	4	4553.480	44.411	0.001*
Remainder	19993.602	195	102.531		
Total	38207.520	199			

*It is meaningful at the 0.001 level.

According to Table 3 and the results of the statistics, F=411.44 at the level of 0.001 is meaningful; therefore, it can be concluded that the variables are predefined (exciting Coping style, Avoidant style and Problem-oriented style) The problem of circuitry and psychological distress have the ability to predict the variety of criteria, i.e. burnout. In "Table 4", the results of standardized and unstandardized regression coefficients are reported.

Table 4- non-standardized and standardized regression coefficients of the predictive model of burnout

Model	Not standardized coefficients		Standardized coefficients	T	The significance level
	B	Standard Error of Estimate	Beta		
Constant number a	46.820	5.224		8.963	0.001*
Exciting style	-0.037	0.140	0.025	-0.262	0.794
Avoidant style	-0.194	0.146	0.144	-1.331	0.185
Problem-oriented style	0.263	0.103	0.175	-2.558	0.011**
	0.893	0.069	0.715	12.556	0.001*

*It is meaningful at the 0.01 level.

**It is meaningful at the 0.05 level.

According to Table 4, the effect of problem-oriented style and psychological distress on burnout at the 0.01 level is significant. But the effect of the excitatory style and avoidance style is not significant. Therefore, according to the results of Table 4 of the 3 styles of coping and psychological distress, problem-oriented style variables and

psychological distress .It predicts burnout in nurses, and the problem-oriented coping style predicts it negatively. Therefore, it can be concluded that the more problem-oriented coping style, the less burnout will be, and the more psychological distress, the more burnout will be experienced.

Conclusions

The present study aimed to predict nurses' burnout from psychological distress and Coping with stressful situations. To perform those nurses working at Dr. Pirouz State Hospital were selected by available method and answered the questions of the research questionnaires in full. The data were analyzed by descriptive indicators and by multiple regression methods. The results showed that the problem-solving circuit style predicts burnout in nurses. The above finding is in line with the results of (Babaei et al, 2022), and (Spaan et al, 2024). Researches showed in their research that problem-oriented coping style reduces burnout among nurses (Babaei et al, 2022). Also, Researchers in their research stated that coping with the problem of circuitry is associated with less burnout of health care providers (Spaan et al, 2024). In a study conducted by (Babaei et al, 2022), it was stated that the problem-oriented coping style reduces the burnout of nurses. Also, in a study conducted by (Spaan et al, 2024), stated that coping with the circuit problem is associated with less burnout of health care providers. In explaining the above results, it can be said that the problem-oriented coping style allows nurses experience better are resolving their job and life challenges and hence stress fewer mental and physical illnesses. So burnout will be less experienced in them. The results of the present study also showed that psychological distress significantly predicted burnout in nurses. The above result is in line with the results of (Kousouri et al, 2024) and (Shakerinia I, 2012). In a study conducted by (Kousouri et al, 2024), they stated that high psychological distress in nurses is associated with high burnout. Also, in the research conducted by (Shakerinia I, 2012). Concluded that poor psychological status in the nurses and lack of adequate mental health leads to greater burnout. In explaining this result, it can be said that psychological problems and distress lead to increased stress and a lack of sufficient psychological ability to effectively deal with occupational and individual problems and challenges. The person cannot manage his or her job well. In explaining this result, it can be said that psychological problems and distress are associated with increased stress, resulting in a lack of sufficient psychological ability to effectively deal with occupational and individual problems and challenges. Be and one cannot manage their career issues well. So burnout increases. In general, good coping skills and low psychological distress provide more job relaxation for nurses, which reduces burnout. It is suggested that hospital managers in order to maintain, promote the mental health of nurses. In order to improve job performance and raise the level of mental health literacy in working nurses by planning for in-person meetings and educational centers such as: (Workhouse of Occupational Stress Management, Workplace mental health workshop, work place burnout and ways to deal with it and...) and provide pathology of the causes of burnout and, using the necessary support measures, consider the field of reducing burnout as an in-service training program. Also it is suggested to future researchers that, given the importance of mental health, the current research treatment teams are working on other nursing personnel in other hospitals and are ready to continue their work.

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