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Original Article

Mediating Role of Self-Efficacy in Relation with Job Stress and Life Satisfaction in Nurses of Imam Hossein Hospital

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Abstract

Introduction: Considering the level of quality of life in nurses has an important role on their function and plays a major role at the level of giving services to patients and the health system. This study mediates the role of self-efficacy in relation with job stress and life satisfaction in nurses of Imam Hossein hospital.

Methods: This study is based on structural equation modeling. The samples consisted of 120 nurses from Imam Hossein hospital who were randomly selected. Research tools were a checklist for demographic information, the Sherer General Health Inventory, Hospital Job Stress (HSS) questionnaire, and Satisfaction with Life Scale (SWLS). To evaluate the model, structural equation modeling and coefficient Pearson correlation were applied. Finally, the data was statistically analyzed using SPSS software.

***Results*:** There was a significant relationship between the direct effect of self-efficacy on life satisfaction ($p<0.01$), direct effect of occupational stress on self-efficacy ($p<0.01$) and indirect effect of job stress on satisfaction with life ($p<0.05$) variables.

Conclusion: Self-efficacy reduces the effects and negative symptoms of stress, and increases individual's ability to cope with stress and this causes lack of individual's discomfort and his calm in face of problems and increases his/her level of happiness and satisfaction with life.

Declaration of Interest: None.

Key words: Job stress; Stress, Psychological; Self efficacy; Life satisfaction; Nurses

Introduction

Stress can have harmful effects on our physical and mental health (1). Workplace stress may lead to behavioral problems such as increased alcohol consumption and smoking (2). A common result of occupational stress is its negative effects on families and family life, which means that the effects of occupational stress do not enter workplace environment, and consequently this effect, will spread to other areas of life (3).

Job stress does not directly and utterly result in stress (4). Everyone is at risk of stress, but some people may experience higher levels of stress than others (1). Therefore, there must be other variables such as individual differences involved in the relationship between stress and its implications, either directly or indirectly (5). A group of individual variables that have a

mediating role in the relationship between stressors and stress are the beliefs that individuals have towards themselves (6). Among these beliefs, self-efficacy plays a significant role as a fundamental component of cognitive-social theory in facing obstacles, disadvantages and failures and has a major share of research, especially in the area of work-related stress (7).

Bandura defined perceived self-efficacy as "individual's beliefs about his abilities to organize and implement the necessary actions to achieve the desired results" (8). Perceived self-efficacy is also not a measure of individual's skills in one area, but a person's belief in this context that what he can achieve by having a set of skills and under different circumstances. In other words, there is a difference between what skills the individual possesses, and what they will do with these skills and under different circumstances. The individual may have an unsuccessful performance due to poor self-efficacy beliefs and despite having the skills necessary to perform an action and despite their knowledge about how to do it (8, 9).

The experience of happiness and satisfaction with life is the ultimate goal in the life of human beings. Therefore, individuals are striving to achieve it throughout their lifetimes (10). Satisfaction with life is one of the oldest and most enduring issues, which have been researched in adult that is generally expressed as an overview of existing conditions, from comparing individual's desires to actually achieving them (11). In fact, life satisfaction reflects the distance between the individual's ideals and his/her status, and the more the gap between the individual's ideals and the individual's current situation, of course his/her satisfaction will be reduced (11).

Among the components of quality of life is mental health. Current study was designed with the assumption of a significant effect of occupational stress on the quality of life in nurses. Considering the level of quality of life in nurses is important in their function and plays the main role at the level of giving services to patients and the health system and on the other hand, existence of abundant stressful stimuli in work environment of nurses. It is believed the results of present study smoothen the path to assess the dimensions of quality of life and occupational stress and planning preventive interventions in order to redesign nursing occupations for increasing the efficiency and effectiveness of nurses activities, helping managers and decision makers within health system. Therefore, the current study is aimed to investigate the mediating role of self-efficacy in relation with job stress and life satisfaction of nurses in Imam Hussein hospital.

Methods

Data collection was done by hospital personnel and presenting questionnaires to nurses. The study population consisted of all nurses working in Imam Hussein hospital in Tehran in 2014. First, the names of all nurses of this hospital were prepared and a number was assigned to each person. In the next step, 120 numbers were selected using a random numbers table. The questionnaires were distributed to 120 nurses in the field of self-efficacy, hospital occupational stress and life satisfaction in different sections of the hospital. Considering that in correlation research, the minimum sample size is recommended to 30 persons (12), so the sample size of the research is sufficient.

After completing the sampling and obtaining a permit from the university to distribute the questionnaire and making the necessary arrangements with the hospital director, questionnaires were distributed among nurses. Criteria for entering the study, volunteer nurses and exit criteria were non-completion of the questionnaire or unwillingness to participate in the study.

Before distribution of questionnaires, information was given to the nurses about the questionnaires and the importance of completing it and the questionnaires were distributed by the researcher after obtaining written informed consent from the sample population. The time limit for completing the questionnaires was not considered due to the time limit of nurses in the department and the questionnaires were handed to the nurses to fill them out at their free time and the giving back of the questionnaires to the researcher was postponed to the next meeting. It should be

noted that nurses gender was not one of the studied variables. Participation in the research was voluntary for all subjects and the participants could refer to the tests if they did not want to continue their collaboration. In addition, in order to observe ethical considerations, participants were allowed to refrain from writing their name and address and declare their wishes if they desired to have the results. The confidentiality of the information obtained, the informed consent of the subjects of the research, the non-disclosure of the subjects' information to others and the creation of a reassuring atmosphere were among the considerations that the researcher considered.

Data were collected through General Sherer Self-efficacy Inventory (13), Hospital Occupational Stress (HSS) (14) and Satisfaction with Life Scale Questionnaire (SWLS) (15). Finally, the data were statistically analyzed to use SPSS software. To describe the research data, demographic characteristics and descriptive statistics (mean, standard deviation, inclination, and elongation) were used to test the hypothesis about the distribution of data closeness to normal distribution from a single-sample Kolmogorov-Smirnov test and to evaluate the hypothesized linearity of relationships, the distribution chart was used. Also, the hypotheses were tested by structural equation modeling and through Pearson zero-order correlation matrix for research variables, goodness of fit indexes, direct and indirect effects, and all the latent variables and standardized path coefficients.

Data Gathering Tools

Hospital Occupational Stress (HSS) questionnaire: The standardization (validity and reliability) of the HSS questionnaire was carried out by Badaghi in 2008. This questionnaire consists of 35 questions that measure hospital job stress and is scored on Likert scale. The mean score of each sub-scale expression represents the measured stress level of each sub-scale, with a range of 1 to 5 in which 1 is desirable (insignificant stress) and 5 is undesirable (severe stress). The lowest obtained score is 35 and the highest score is 175. A higher score indicates higher level of stress that the individual experiences. Reliability of this questionnaire is 0.84 using Cronbach's alpha (14).

General Self-Efficacy questionnaire: Sherer et al. developed this test in 1982. It consists of 17 questions, which the respondents answer based on the five-point Likert scale. The lowest score is 1 and the highest score for each question is 5.The original version of the test had 36 items, which was based on, conducted analysis, 13 items were removed due to lack of 40% load. Accordingly, 13 items that did not have this feature were deleted and the test decreased to 23 items. Out of these 23 items, 17 measure general self-efficacy. Therefore, the lowest self-efficacy score in this questionnaire is 17 and the highest score will be 85. Its psychometric properties have been reported to be satisfactory (13). The internal consistency of Beyrami's test has been obtained by a Cronbach's alpha of 0.79 (16).

Life satisfaction questionnaire (SWLS): This scale is developed by Diener et al. and consists of five propositions that measure the component of subjective cognitive well-being. This scale consists of 48 questions that reflect the degree of satisfaction with life and well-being and consists of three factors. 10 questions were related to life satisfaction, which after numerous studies, ultimately reduced to 5 questions and was used as a separate scale (15). In this study, 5 questions in relation with life satisfaction have been included and the scoring method for all items in this questionnaire, a 1 to 7-point scale (1: totally disagree, 7: totally agree) is taken into account and subjects are asked to rate their agreement or opposition to evaluate each of the items. In this test, the minimum score is 5 and the maximum score is 35. Corrigan et al. reported their internal consistency by a Cronbach's alpha of between 0.78 and 0.97, and the reliability of its retest with an interval of one month between 0.80 and 0.84 (17). The reliability of this scale has been obtained by a Cronbach's alpha of (0.83) in Bayani et al. research (18).

Result

120 nurses from Imam Hossein hospital participated in this study, 92 of whom (about 77%) were female and 28 (about 23%) were male. Among all the subjects, 42 (35%) were

single and 78 (65%) were married, and 8 (about 7%) of them held a master's degree and the remaining 112 (about 93%) had a bachelor's degree. Participants in the study were between the ages of 24 and 56, with an average age of 36.

To test the hypothesis of the first to third zero-order correlation matrix variables were used. Measuring the distance data was collected, and Pearson correlation coefficient was used. To investigate the hypothesis fourth, fifth and sixth of structural equation modeling was used.

The results of studying whether occupational stress can predict self-efficacy are presented in table 1.

Table 1. The direct effect of occupational stress on self-efficacy

Direct Effect			Squared Multiple Correlation
β	t	Significance Level	
0.36	4.70	0.01	0.36

The ability to predict self-efficacy based on job stress is confirmed.

The results of an investigation of whether self-efficacy can predict life satisfaction are presented in table 2.

Table 2: Direct effect of self-efficacy on life satisfaction

Direct Effect			Squared Multiple Correlation
β	t	Significance Level	
0.61	3.16	0.01	0.42

The ability to predict life satisfaction based on self-efficacy is confirmed.

The results of investigating whether occupational stress can predict life satisfaction are presented in table 3.

Table 3: Indirect Effect of Job Stress on Satisfaction with Life

Indirect Effect			Squared Multiple Correlation
β	t	Significance Level	
0.21	2.35	0.05	0.22

The ability to predict the satisfaction of life based on job stress is confirmed.
The results of the study on whether self-efficacy is a significant mediator between job stress and life satisfaction is presented in table 4.

Table 4: The amount of direct, indirect and total effect on life satisfaction

Dependent Variable (criterion)	Independent variable (predictor)	Direct Effect			Indirect Effect			Total Effect			Squared Multiple Correlation
		β	t	p	β	t	p	β	t	p	
Life Satisfaction	Job Stress	-	-	-	0.21	2.35	0.05	0.21	2.35	0.05	0.42
	Self-Efficacy	0.61	3.16	0.01	-	-	-	0.61	3.16	0.01	0.22

The mediating role of self-efficacy is confirmed in the relationship between job stress and life satisfaction.

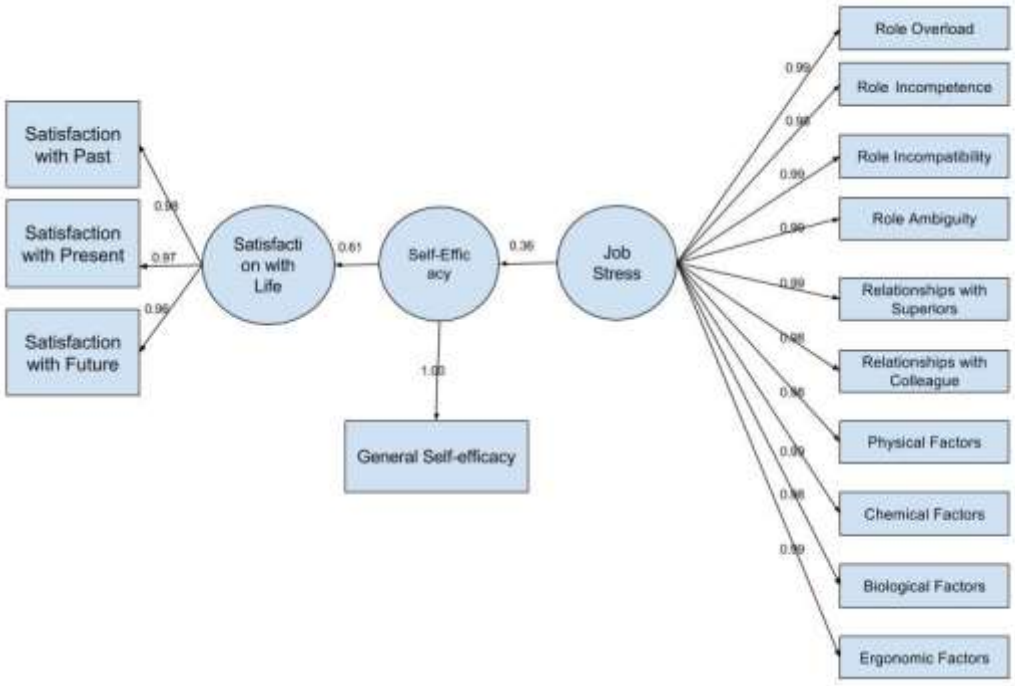

Figure 5 shows mediating role of self-efficacy in the relationship between job stress and life satisfaction.

Conclusion

The direct effect of job stress sources on self-efficacy is consistent with Bandura's (8) perspective in explaining the role of this structure. Accordingly, if one believes that he can effectively face environmental pressures, he will not be stressed or worried. This finding is consistent with views of Alavi Arjmand et al. (19), Peyman and Rastegar (20), Keshavarz et al. (21), Moeini et al. (22), Skaalvik and Skaalvik (23), Betoret (24), Adeyemo and Ogunyemi (25), Siu et al. (26). Based on these studies, stressors are fearful for those who have less self-confidence in doing their homework. Therefore, self-efficacy affects one understands of control. Therefore, people with high self-efficacy are more likely to believe they can maintain a high level of job performance and not be stressed or worried. Bandura (8) knows that if one believes that he can effectively deal with environmental pressures, she will be worried and stressed, but if she believes that he cannot control these pressures, she will be stressed and his performance will be disrupted. Hence, stress rather than directly resulting from threats and demands of the environment, is largely influenced by individual self-efficacy beliefs.

The results of the study showed that self-efficacy has an impact on life satisfaction and is consistent with the views of Ahadi et al. (27), Kanbara et al. (28), Vecchio et al. (29), Karademas (30) and Bandura et al. (31). Based on this, self-efficacy is related to the process of stress control, higher self-esteem, physical and mental health, and better adaptation and more recoveries from chronic and severe illnesses. According to the Karademas (30) research, self-efficacy expectations for optimism as representations of self-efficacy. Optimism effectively predicts different aspects of mental health and ultimately leads to satisfaction with life. According to Vecchio et al. (29), self-efficacy beliefs reduce the passivity and adaptability of the individual with problems and challenge the individual with problems. Also, high self-efficacy beliefs lead to better interpersonal management, and thus can predict life satisfaction.

The direct and indirect effects of the sources of job stress on life satisfaction have been shown a mediating role of self-efficacy, which is consistent with the findings of Gangi and Farahani (32).

Siu et al. (26) reported that self-efficacy is very sensitive and determining in the process of

job stress because it affects one's perception of control. It seems that individuals with high self-efficacy understand personal control and this control may help to moderate the relationship between stressors and job-related health. According to Vaezfar et al. (33), self-efficacy is a very important variable when studying the consequences of occupational stress. For example, exposure to stressors without having perceived ability to experience adequate control can disrupt the function of the immune system. Also, self-efficacy can be a buffer against the negative physiological reactions to short-term stressors by recalling individual's emotional responses and initiating coping behaviors. Considering that in this research, control is one of the important variables in job stress of nurses, the point to be considered here is that a person may believe that a particular outcome is due to his or her actions (i.e. it is internal and controllable), but it may have little confidence that can carry out the necessary actions. Bandura (8) with regarding to the difference between the concept of self-efficacy and Ruther's notions of internal and external control believes that perceived self-efficacy and the source of control are not essentially the same phenomena that are measured at different levels of generality. Individual's belief about whether they can produce certain actions (perceived self-efficacy) are different from the person's belief about whether these actions can affect the consequences of the action (control source). Bandura (8) points out that these two variables have very little or no relation to each other. While control source is typically a poor predictor of behavior, self-efficacy can strongly affect behavior. Another explanation is that self-efficacy reduces the effects and negative symptoms of stress, and increases individual's ability to cope with stress and this causes to a lack of individual's discomfort and his calm in face of problems and increases his/her level of happiness and satisfaction with life.

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