

The Prediction of Hospital Stress Based on Self-Actualization and Life Orientations (Optimism and Pessimism) in Female Nurses

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Received April 4, 2020; Revised September 7, 2020; Accepted November 10, 2020

Abstract

Background: Hospital stress is one of the most important factors in nurses' mental health. So, this study aimed to investigate the effects of self-actualization and life orientation on hospital stress.

Methods: This research was a correlational study. We analyzed the data via multiple regression and SPSS version 22. Participants included 178 female nurses from Borujerd city, Lorestan Province, Iran, selected by simple random selection method. They completed hospital stress, self-actualization, and life orientation scales.

Results: Results showed that self-actualization ($\beta=-0.29$, $P=0.001$) and optimistic orientation ($\beta=-0.28$, $P=0.001$) were significant negative predictors of hospital stress, but pessimistic orientation was not a predictor. Also, the results showed that 29% of variable hospital stress was explained by the proposed model.

Conclusions: According to the results of this study, increased self-actualization and optimism reduced hospital stress in female nurses.

Keywords: Hospital; Stress, Self-actualization; Optimism; Pessimism

How to Cite: Naderi H, Akbari A, Abbasi-Asl R, Amraee F. The Prediction of Hospital Stress Based on Self-Actualization and Life Orientations (Optimism and Pessimism) in Female Nurses. Women. Health. Bull. 2021;8(1):44-48. doi: 10.30476/whb.2021.83716.1009.

1. Introduction

Stress is an unavoidable part of human life. We are all faced with a variety of obstacles in our daily lives. Challenges that go beyond our strength lead to stress (1). Human environment is full of factors that can potentially cause stress. McEwen and Stellar held that a stressor can work quite differently depending on one's perception and interpretation of the situation; this means that one stressor may cause a great deal of stress for one person and almost no stress for another (2).

Studies showed that stress had a negative correlation with both mental and physical health (3). Research also suggested a correlation between stress and a variety of diseases (4).

Researchers have shown in their studies that one of the most important factors that causes stress is people's jobs. In this way, experimental and theoretical studies indicate that job stress is a reaction of people to stressful environmental conditions. In addition, the personality traits of individuals and their educational backgrounds, as well as the specific conditions of each job, affect the amount of stress that each individual experiences (5). According to Wolniak and Szromek, job stress

related to hospital environments is a phenomenon that reduces people's emotional, physical and mental energy (6). Job stress has warning signs such as headache, sleep disturbances, distractions, low mood, poor relationships with others, and cardiovascular diseases. Although stress is not a new phenomenon, it is becoming a bigger threat every day (7).

Among various professions, nursing is one of the most stressful job. In addition to the stressors prevalent in all organizations and businesses, nurses deal with a number of specific factors such as exposure to infectious diseases, concerns about exposure to chemicals and harmful radiation, and the mismatch between the number of patients and the number of nurses. Unstable work shifts and patient death are specific to hospital and medical environments. In this connection, many believe that the stressors in this profession cause various mental and physical disorders (8). Research has been done on the sources of nurses' stress. Organizational, environmental, familial, social, and individual factors were mentioned in these studies (5).

A factor expected to predict hospital stress is life orientation that has two dimensions, namely optimism and pessimism. Optimism and pessimism are defined

as expectations of positive and negative consequences for life events. Optimists believe that the dreams are achievable while pessimists are not hopeful about the future (9-11). Research has shown that optimism and pessimism are associated with important indicators of mental health (12).

Self-actualization is another variable expected to predict hospital stress (13). Self-actualization is a growth process based on the idea that human beings have many potentials that can flourish in a continuous process (14). According to Ewen, human is motivated by a positive force and has an innate tendency to develop his capacities and abilities (15). In this connection, D'Souza and colleagues believed that self-actualized people tend to be spiritual and happy, help others and attend the general interest of society. These individuals maintain relative peace in deprivation, failure, or disaster (16). D'Souza and colleagues argued that moving on the path of self-actualization is an innate tendency, but it is not automatic and accompanied by the experience of hardship and suffering. For instance, a child struggles with hardship and pain from the very first steps. He falls and gets hurt but continues to fight because he wants to flourish (16).

A review of health research shows that hospital stress is one of the most serious problems in the nursing profession; this type of stress can have many consequences and include many physical and mental illnesses. For example, it can reduce the efficiency of the immune system and pave the way for various diseases (17). Therefore, it is important to find the predictors of this phenomenon. Prior studies showed that life orientation (11) and self-actualization (13) were important stress predictors. However, there is no research to simultaneously examine the role of these two variables in predicting hospital stress. Because of this research gap, the present study investigated the simultaneous role of self-actualization variables and life orientations in predicting hospital stress. Accordingly, self-actualization, optimism, and pessimism variables were considered as predictor variables and hospital stress variable as criterion variable. Hence, the research hypotheses are:

1. Self-actualization is a significant negative predictor of hospital stress.
2. Optimism is a significant negative predictor of hospital stress.
3. Pessimism is a significant positive predictor of hospital stress.

The present study aimed to examine the predictor role of self-actualization and life orientations on hospital stress.

2. Methods

The present correlational study used a multiple regression model to assess the role of self-actualization and life orientation variables in predicting hospital stress in female nurses. The statistical population comprised female nurses working in the hospitals of Borujerd, Lorestan province, Iran. The main purpose behind selecting female nurses was to control the effect of gender on research variables. Another reason was that a very large percentage of the employed nursing population are female individuals. In addition, studies showed that women experience more negative emotions compared with men (18). Using Morgan table and random cluster sampling method, we selected 178 female nurses ($M=32.50$ and $SD=5.21$). In this sampling plan, we primarily split the population into random groups. In this way, we randomly selected two out of the four hospitals in Borujerd city, and all the female nurses answered the questionnaires. We conducted the study in the winter of 2014. We obtained the necessary legal permits prior to sample selection and data collection. When collecting the data, we informed the subjects that their participation in the study was voluntary. In addition, their information is kept confidential and will be employed in an academic research. Nurses who were not present at workplace were excluded from the data collection process.

2.1. Research Instruments

2.1.1. Life Orientation Scale

Extended Life Orientation Scale (ELOT-P) assesses the orientations of optimism and pessimism in the face of various life events. Chang and co-workers (19) developed this scale, and Rezaei (20) examined its psychometric properties in Iran. This scale is comprised of 13 items and scored based on a five-point Likert-scale from strongly disagree (1) to strongly agree (5). Five items measure optimism and eight items measure pessimism. The minimum and maximum scores are (5 and 25) for optimism and (8 and 40) for pessimism, respectively. In Iran, one study confirmed the validity and reliability of this questionnaire (20). That study used Cronbach's alpha coefficient to measure the scale reliability with optimism and pessimism coefficients of 0.71 and 0.83, respectively. Furthermore, factor analysis evaluated the validity of the questionnaire.

Their results indicated two aspects of optimism and pessimism (20). In the present study, we employed Cronbach's alpha coefficient to evaluate the reliability of the instrument. The coefficients of optimism and pessimism were 0.81 and 0.84. Internal correlation method assessed the validity of the questionnaire. The correlation coefficients of each of the following optimism and pessimism questions ranged from 0.41 to 0.67 and from 0.38 to 0.69.

2.1.2. Hospital Stress Rating Scale

In order to measure hospital stress, we used Hospital Stress Rating Scale. This scale has 35 items. Previous studies have examined and confirmed the psychometric properties of the scale (21). In this regard, Cronbach's alpha coefficient for this scale was 0.84. In addition, each item was scored based on a five-point Likert scale from 1 (never) to 5 (always). The minimum and maximum scores of this scale are 35 and 175 (21). In the current study, we employed Cronbach's Alpha coefficient to measure the reliability (0.79). The internal correlation method measured the validity; the correlation coefficients of the items and total score varied between 0.32 and 0.49, and all of them were significant at the level of 0.001.

2.1.3. Self-actualization Inventory

Ismail Khani and colleagues developed this scale with 25 items (22). They calculated its reliability using Cronbach's alpha method; its validity was determined by calculating the correlation coefficient of this scale with Cooper's self-esteem questionnaire and Beck Depression Inventory. The results showed the acceptable reliability and validity of the scale. The scoring of this questionnaire is such that for each item, four options (never (0), rarely (1), sometimes (2), and often (3)) are

considered. The scores ranged from 0 to 75. In this study, we used Cronbach's alpha coefficient to assess the reliability (0.85). Internal validity method evaluated the validity of the questionnaire. The correlation coefficients of items with total scale score ranged from 0.33 to 0.52.

3. Results

Research participants included 178 female nurses with a mean age of 32.50 (SD=5.21). We reported the findings of the present study in two parts: descriptive information (Tables 1) and findings from regression analysis (Table 2).

Table 1 shows that self-actualization had a significant positive relationship with optimism (r=0.58, P=0.001), and it had a significant negative association with pessimism (r=-0.39, P=0.001) and hospital stress (r=-0.48, P=0.001). In addition, optimism had a significant negative correlation with pessimism (r=-0.53, P=0.001) and hospital stress (r=-0.49, P=0.001). Finally, there was a positive and significant relationship between pessimism and hospital stress (r=0.32, P=0.001).

In order to investigate the research hypotheses, multiple regression method has been used. The results are shown in Table 2.

The results of regression analysis (Table 2) showed that self-actualization (β=-0.29, P=0.001) and optimism (P=-0.28) were significant negative predictors of hospital stress, but pessimism could not significantly predict hospital stress.

4. Discussion

The objective of this study was to examine the predictors of hospital stress in female nurses. For

Table 1: Mean and standard deviation of research variables and correlation matrix between them

Variables	Mean	SD	1	2	3	4
1 Self-Actualization	50.49	13.92	1			
2 Optimism	18.57	2.56	0.58 ^a	1		
3 Pessimism	27.30	8.84	-0.39 ^a	-0.53 ^a	1	
4 Hospital stress	58.36	8.63	-0.48 ^a	-0.49 ^a	0.32 ^a	1

^aAll coefficients are significant.

Table 2: Hospital stress regression on self-actualization and life orientation dimensions

Predictor variables	Criterion variable	F	P	R	R ²	β	t	P
Self-Actualization						-0.29	3.71	0.001
Optimism	Hospital Stress	24.7	0.001	0.55	0.29	-0.28	3.38	0.001
Pessimism						0.06	0.74	0.463

this purpose, we selected self-actualization and life orientation as predictors of hospital stress. Overall, optimism and self-actualization were able to predict 0.29% of the hospital stress variance in female nurses. In the following, according to the results of data analysis, research hypotheses are discussed.

The results showed that self-actualization beliefs were significant negative predictors of hospital stress, which is in line with the findings of Ford and Procidano (13) and Lee and colleagues (23). In explaining this finding, it can be stated that when faced with a problem, self-actualized individuals recognize the difference between what is good and what is not, and because they believe that they should act according to their own beliefs, so they have little difficulty in decision making. Therefore, they are expected to be more confident in their decisions, hence less stressed (14). Another explanation is that self-actualized people are patient in matters that cannot be changed (14). Thus, they are expected to be more composed in face of difficulties.

Optimism was a significant negative predictor of hospital stress in female nurses. This means that the more optimistic female nurses are, the less hospital stress they will experience. It can further be stated that optimists have higher psychological adjustment than pessimists (9, 10). And, when they are in challenging and stressful situations, the tendency for optimism can act as a protective factor (24), thereby increasing their capacity and ability to cope with stress (9, 10, 25). On this basis, it can be said that optimism is able to control and reduce stress in stressful conditions.

In addition, optimistic people can deal with stressful life events more appropriately. Also, they pursue their personal goals with better optimism and self-confidence (26), so it can be expected that optimistic people in stressful situations can maintain their peace of mind and experience less stress.

5. Conclusions

This study showed that self-actualization and optimistic orientation decreased the hospital stress of nurses. Because nursing is an important part of the health system, the findings of this study could be both theoretically and practically important. Theoretically, they expand our knowledge concerning the variables under study and their relationships and can be used in health centers to enhance nurses' health. These results can help health care managers to identify the underlying and effective factors in the hospital stress

of nurses and design appropriate remedial programs. It is recommended that environmental variables not be used along with personality traits as predictor variables in the future studies.

The research team would like to appreciate the valuable contributions of the hospital managers of Borujerd and all the nurses participating in this study.

Acknowledgement

The authors would like to thank the participants for their help in the research.

Ethical Approval

The Research Ethics Committee of the University of Mazandaran approved all research processes and methods in terms of ethical considerations (coded IR.UMZ. REC.1399. 022). Written informed consent forms were obtained from all participants.

Funding/Support: This article was not supported by any specific organization or university.

Conflicts of interest: The authors declared no conflict of interest.

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