Measuring the nurses' professional self-concept and its correlation with working stress in Iranian educational Hospitals

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ABSTRACT

Introduction: Professional self-concept is defined as an individual's perception of self as a professional person, which affects different aspects of professional performance. This study was aimed to investigate the professional self-concept and its relation to work stress in a sample of Iranian nurses.

Methods: This research is a cross-sectional study using Cowin's 36-item questionnaire of professional self-concept and the Expanded Nursing Stress Scale (ENSS) in three educational hospitals of Yazd, Iran. A total of 150 nurses were included. We used descriptive statistics and Pearson's correlation coefficient for data analysis in $SPSS_{22}$.

Results: The analysis of gathered data was done separately for included hospitals due to the nature of the study. Only in one hospital, a statistical relationship was found between professional self-concept and nursing stress while in the other two hospitals, the same relationship was not statistically significant. This finding may be due to different working conditions in different types of hospitals.

Conclusion: Although the definitive confirmation of the relationship between professional self-concept and working stress requires further studies, the approved effect of professional self-concept on some aspects of nursing stress in the studied hospitals can have important policy implications.

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INTRODUCTION

Professional self-concept is an individual's perception of self as a professional. This concept can affect the thinking style, role development, and professional performance.[1-3] In recent decades, the concept of professional self-concept has been considered and studied in different careers.[4,5] Research in the field of professional self-concept can generally be divided into three categories. The first category included studies that have descriptively examined the level of professional self-concept among various occupations. The second category of researchs studied the affecting factors or the determinants of professional self-concept. This category showed that a wide range of factors, such as individual, environmental, and occupational factors as well as the performance of the educational system affects the development of professional self-concept. The last category of studies examined the consequences/outcomes of professional self-concept and proved that professional self-concept could affect various aspects of professional life and performance.[6-12]

Nursing is an important profession in the health system and plays an important role to in providing health care.[13] The professional performance of nurses may determine the quality of health services and the outcomes of health systems' functions.[14]

On the other hand, according to existing literature, nurses are among the experts who are at high risk of working stress because of their work's nature. Although all occupations have working stress, occupations which deal with human lives, such as nursing, exposure to working stress is greater and the consequences of the same stress are worse.[15,16]

Working stress can be defined as the natural response of an individual to the pressures of work and working environment.[17,18] According to current reports, nursing is one of the most stressful professions.[14] Factors such as shifts, occupational responsibilities, and issues related to the administrative system are among the main causes of working stress in nursing. In addition, many other factors such as a nurse's demographic characteristics, personality traits, socioeconomic status, and many other factors also contribute to nursing stress.[19-25] Nursing stress affects the performance of nurses, in addition to the individual consequences, which occurs as physical, psychological and behavioral disorders. Such stress can lead to dissatisfaction or reduced job satisfaction, job fatigue, increased absenteeism and burnout, reduced productivity, increased nursing errors and ultimately reduced quality of nursing care which endangers patients' health.[19-21,26-30] Therefore,

studying the determinants of working stress in nursing for policy-making is one of the important research priorities in health care systems. It seems that the level of nurses' professional self-concept can be one of the determinants of nursing stress. Therefore, this study aimed to measure the level of professional self-concept and its relationship with working stress in nurses of public hospitals.

METHODS

This cross-sectional study was done in three educational hospitals of Yazd, Iran in April to June, 2017. The purpose of this study was measuring nurses' professional self-concept and its relationship with nursing stress. A total of 150 nurses from studied hospitals were included in the study. Inclusion criteria included the minimum work experience of 2 years and willingness to participate. We used stratified-random sampling method. Required data was gathered using two valid questionnaires:

1. Cowin's 36-item questionnaire of professional self-concept (2001): This questionnaire comprises of 36 items which relates to six subscales of professional self-concept, including self-esteem, care, knowledge, leadership, staff relations and communication. All items are expressed positively and scored from 1-8 by respondents. Thus, the total score of each subject is ranged from 36 to 288 and a higher score shows a greater self-concept. The reliability of Persian version of the scale and its subscales was approved using Cronbach's Alpha and were determined between 0.83 to 0.93 for professional self-concept and its subscales. The validity of the translated version was approved using experts' views prior to the study.

2. Expanded Nursing Stress Scale (ENSS): To assess the nursing stress we applied the Expanded Nursing Stress Scale (ENSS). ENSS is an expanded version of the classic Nursing Stress Scale (NSS) developed by Gray-Toft & Anderson (1981). The NSS scale was the first instrument to examine nursing stress rather than the general job stress. The original 34 items of NSS measure the frequency and main sources of stress in patient care situations. Major changes in health care delivery and work environment of nurses stimulated French et al. (2000) to identify stressful situations which are not reflected in the NSS scale and develop an expanded version useful for various work settings. The researchers then tested the 59 item ENSS on a larger sample (N=2.280) after which two items were removed from the instrument. The final ENSS contained 57 items

in 9 subscales related to physical, psychological and social working environments. The 57 items were arranged in a 5 point Likert response scale. The offered response options are: never stressful (1), occasionally stressful (2), frequently stressful (3), extremely stressful (4) and does not apply (5). The response (5) indicated that the respondent had never faced the situation described by the item. Calculation of the average values was performed excluding five values. The reliability of Persian version of the scale and its subscales was approved using Cronbach's Alpha and were determined between 0.65 to 0.96 for nursing stress and its subscales. Also, the validity of translated version was approved using experts' views, prior to study.

In this study, data analysis was done with SPSS software English version 22. We used descriptive statistics and Pearson's correlation coefficient for data analyzing.

For ethical considerations, all participants were informed from study objectives, a written consent was obtained and participants' personal information was kept confidentially. Ethical approval was obtained from Ethical Committee, Shahid Sadoughi University of Medical Sciences (Ethical code: SSU. SPH.REC.1397.004).

RESULTS

The demographic characteristics of participants are presented in table1.

Additionally, the mean age of participants in hospital 1, 2 and 3 was 30.30±7.51; 33.02 ± 6.83 and 31.56 ± 6.92 years, respectively. The mean professional experience of the participants from three hospitals was 6.25 ± 6.02; 9.08 ± 6.20 and 8.24 ± 5.89, respectively.

Descriptive statistics of participants' professional self-concept and its subscales are presented in table 2.

Table 1 Demographic characteristics of participants

Variable		N (percent)
Gender	Male	52 (35)
	Female	98 (65)
	Total	150 (100)
Education	BS_c	148 (99)
	MS_c	2 (1)
	Total	150 (100)
Marital status	Single	49 (33)
	Married	101 (67)
	total	150 (100)

Table 2 **Mean scores (Mean ± SD) of participants' professional self-concept and its subscales**

Variable	Hospital 1	Hospital 2	Hospital 3	P-value
Self-esteem	31.05 ± 4.94	30.00 ± 5.06	31.54 ± 4.38	0.31
Care	36.48 ± 5.57	35.35 ± 7.10	37.22 ± 5.77	0.35
Knowledge	36.96 ± 7.91	35.60 ± 7.31	36.26 ± 7.43	0.67
Staff relations	36.38 ± 5.79	34.30 ± 7.19	36.14 ± 6.03	0.23
Communications	36.50 ± 6.13	35.30 ± 5.81	35.60 ± 7.34	0.61
Leadership	37.46 ± 6.70	36.37 ± 6.06	37.90 ± 6.40	0.52
Professional self-concept	214.85 ± 29.53	206.92 ± 34.18	214.66 ± 31.50	0.40

*Significant at P<0.05

Table 3 **Mean scores (Mean ± SD) of participants' nursing stress**

Variable	Hospital 1	Hospital 2	Hospital 3	P-value
Nursing stress	136.80±28.57	141.75±44.93	121.02±35.64	0.01*

*significant at P<0.05

Table 4 **Correlation of professional self-concept and nursing stress**

	Nursing stress					
	Hospital 1		Hospital 2		Hospital 3	
	r	P-value	r	P-value	r	P-value
Self-esteem	-0.62	0.63	-0.94	0.56	-0.17	0.21
Care	0.14	0.26	0.01	0.92	-0.31	0.02*
Knowledge	-0.03	0.77	0.11	0.48	-0.44	0.00*
Staff relations	-0.01	0.91	0.03	0.83	-0.35	0.01*
Communications	0.04	0.72	0.06	0.69	-0.36	0.00*
Leadership	0.20	0.11	0.06	0.68	-0.36	0.01*
Professional self-concept	0.06	0.64	0.02	0.90	-0.41	0.00*

*significant at P<0.05

As shown in the above table, participants have "good" scores of professional self-concept. Based on the p-value, the work setting characteristics may not affect nurses' professional self-concept.

Descriptive statistics of participants' nursing stress and its subscales are presented in table 3.

As shown in table 3, participants from all three hospitals experienced moderate nursing stress. The statistical difference between the participants' nursing stress in each hospital reveals that the hospital characteristics may affect nurses' working stress. From the studied hospitals, one is a general hospital and the other two hospitals are trauma center and cardiology hospitals.

Table 4 shows the statistics of relationship between professional self-concept and nursing stress.

Table four reveals statistical correlations between the majority of the subscales of professional self-concept and nursing stress in hospital 3. This

finding may be due to different working conditions in different types of hospitals.

DISCUSSION

This study was done to measure the Nurses' Professional Self-Concept and its Correlation with Working Stress in Iranian Educational Hospitals. A total of 150 nurses included in the study. The majority of participants was female with BSc degree and married nurses. As noted in introduction, professional self-concept can affect the performance of individuals of different occupations.[3-5] Nursing is an important and stressful profession and nurses' performance is dependent on multiple factors.[21,22] Various studies have shown that nurses' professional self-concept level affects the various aspects of their performance. Based on existing literature, nurses with a high level of professional self-concept are more accountable to their work outcomes, care for patients with more interest and respect, have better interpersonal relationships and better consideration of ethical values. In contrast, nurses with a low level of professional self-concept have less clinical competence and poorer clinical performance.[2,4,5-9] Therefore, the study of the determinants and effects of professional self-concept of nurses may have positive results in improving clinical and even non-clinical performance of nurses. In this study, the level of professional self-concept of nurses was measured in three public hospitals in Iran. Its relationship with job stress, which in turn could affect various aspects of nurses' performance, was tested.

The descriptive findings of the study showed that nurses in all three hospitals have a good level of professional self-concept. Furthermore, in all hospitals, participants achieved the highest score in the "leadership" subscale. Existing few studies in Iran have reported similar results. In their study, Ashketorab et al. (2015) reported that the level of professional self-concept of nurses working in intensive care units in some Tehran hospitals is relatively good. At the same time, these authors have concluded that the level of self-concept of the participants is far from the desired level.[2] Mosayebi et al. (2017) also evaluated the professional self-concept of pediatric nurses in some hospitals in Tehran as "good".[31] At the same time, it seems that it is possible to improve the nurses' professional self-concept through proper policy and implementation of the related programs.

Heydari et al. (2014) and Torabizadeh et al. (2016), in their study on nursing students in Mashhad and Shiraz respectively[3,32] have shown that implementing the suitable interventions and the learning climate can affect the level of students' professional self-concept.

Other descriptive findings of this study showed that participants are experiencing moderate levels of nursing stress. Many studies in this area in Iran have shown that nurses have a moderate and higher stress level in the workplace.[19,22-25,27-29] In general, various studies show that nursing is a stressful profession.[21] Meanwhile, the authors believe that nursing stress can be reduced by identifying its determinants and implementing appropriate interventions. In this study, the level of professional self-concept was evaluated as a determinant of nursing stress. The results of the study showed that only in one hospital the majority of subscales of professional self-concept were correlated with nursing stress. In other hospitals, no such relationship was found. This finding reinforces the hypothesis that the type of hospital and its working conditions can affect factors such as professional self-concept and working stress, as well as the relationship between these factors. Meanwhile, Mosayebi et al. (2017) have reported a negative linear relationship between professional self-concept and nursing stress.[31] However, due to the limited number of studies in this area, more studies are required to make more conclusive conclusions. The findings of the same studies can have policy applications and can be used in planning to improve nurses' professional performance.

CONCLUSION

Although, this study didn't confirm the correlation of professional self-concept with nursing stress, but more studies are required to make conclusion. However, the descriptive reporting of the studied features might have policy implications. It is notable that beside its strengths, this study had some limitations. The main limitation comes from the cross-sectional nature of study which makes the generalization of findings difficult. Additionally, all the reported findings are self-reported data and suffering from the limitations of this type of data.

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CONFLICT OF INTERESTS

Not declared

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