

Relationship between Spiritual Intelligence and Job Performance: A Case Study of Nurses and Nursing Aids in the Main University Hospital of Qom, Iran

Received 26 Dec 2016; Accepted 11 Mar 2017

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Abstract

Background and Objectives: Nurses represent the largest and most important staff in the healthcare system, and healthcare organizations' effectiveness is unlikely without the appropriate performance of nurses. This study was conducted to investigate relationship between Spiritual Intelligence (SI) and job performance among nurses in the main teaching hospital in of province in 2016.

Methods: In this cross-sectional study, nurses were selected by randomized convenience sampling. Data collection was conducted by three questionnaires: Spiritual intelligence questionnaire, Peterson job performance questionnaire and a demographic questionnaire. Data analysis was conducted by ANOVA, t-test, Pearson correlation coefficient, and Poisson regression in SPSS 20.

Results: A total of 197 nurses were studied of whom 68.5% were female. The mean age of the participants was 32.56 ± 6.67 years. Mean score for SI and job performance was 86.75 ± 17.06 and 35.71 ± 7 , respectively. Poisson regression showed significant relationship between gender and job performance ($P < 0.001$). However, there was no significant difference in SI between the men and women ($P > 0.05$).

Conclusion: Due to the impact of nurses' SI on their job performance, SI training courses should be incorporated into in-service training for nurses and other healthcare workers. SI leads to changes in attitudes, behaviors, and patient support among nurses. Promotion of SI can help to improve nurses' mental health status to respond to patients' needs and therefore patient safety and organizational efficiency.

Keywords: Job Performance, Nurses, Spiritual Intelligence, University Hospital.

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Please Cite This Article As: Khandan M, Eyni Z, Koohpaei A. Relationship between Spiritual Intelligence and Job Performance: A Case Study of Nurses and Nursing Aids in the Main University Hospital of Qom, Iran. Health Spiritual Med Ethics. 2017;4(3):8-13.

Introduction

Nurses, as the largest and most important human resource in healthcare organizations, play a vital role in promoting community health such that healthcare organizations do not succeed without efficient nurses (1). Due to nurses' role in patient care, their failure to perform their duties appropriately brings about irreversible consequences (2). It is therefore essential to address the role of the health and safety of nurses, as a human capital, in the healthcare system and their performance, from an organizational perspective, and associated impact on patient safety. Human resources are one of the main factors in productivity. Job performance is influenced by several factors including spirituality, organizational

commitment, and general health that result in greater commitment and improvement in service quality or productivity (1). Psychologists use terms such as intelligence and emotional intelligence quotient to refer to the ability to think, reason, and express emotions. Besides that, Spiritual Intelligence (SI) and moral intelligence have attracted the psychologists' attention in the recent years. By integrating the intellectual and emotional intelligence, SI facilitates interaction among logical thinking processes; emotional intelligence can lead to personal growth and changes. SI is a complete image of human intelligence that enhances one's psychological coping capacities and able to improve or facilitate consciousness or sense of connection

with a higher power or a holy being. This intelligence indicates a set of spiritual abilities, capabilities, and resources application of which leads to increase in people's adaptability and therefore mental health, because the development of beliefs plays a fundamental role in various fields especially mental health promotion. The significance of happiness role in mental and physical health as well as efficiency and participation in community has been considered important priorities in psychology (2-4).

According to Vaughn, SI integrates inner and spiritual life into outside of life as well as work life. He argues that SI is essential to identify factors that are potentially involved in all people's psychological well-being and health growth. Behroozi study showed that SI was negatively correlated with depression, aggression, hostility, anxiety, and self-deception, and was positively correlated with mood traits, social sensitivity, life satisfaction, energy, and activity (5). Spirituality and spiritual growth and their role in different parts of human's life have increasingly attracted the attention psychologists and mental health professionals in the recent decades (6). SI is associated with many psychological factors such as extraversion, emotional and behavioral stability, and resilience to stress (4). Many organizations emphasize the importance of employees as their most important asset. In the recent decades, developments particularly in the areas of health, spirituality, and job satisfaction have been reported to play an effective and crucial role (7).

Association between SI and other variables has been studied. A study showed that SI was associated with care behaviors, and emotional perception and management of it significantly (8). Furthermore, relationship between SI and burnout was studied, which showed that SI helped to manage complex situations better (9). Abdul Rani et al. study in Malaysia confirmed relationship between SI and job performance (10). In organizations where spiritual experiences are facilitated, performance is better (11). Motekallem introduced SI as a predictor of teachers' job performance (12). Job performance is aimed to achieve general values

expected by the organization that consist of distinct behaviors of individuals at work (13).

The aim of this study was to investigate relationship between SI, as one of the internal factors of people and their job performance, among nurses in Shahid Beheshti Hospital of Qom in 2016.

Methods

This analytical-descriptive study was conducted on 210 nurses of the Shahid Beheshti Hospital of Qom selected according to randomized convenience sampling. After making necessary adjustments and explaining the research purposes to the hospital head nurses, questionnaires were distributed. A researcher-developed questionnaire was used to collect demographic information including age, gender, work experience, education level, marital status, and work system. SI was measured by 29-item questionnaire developed by Abdullahzadeh et al. This tool was validated in Iran with regards to cultural and religious characteristics. The reliability of the spiritual intelligence questionnaire was derived 0.89 by Cronbach's alpha coefficient. The items of this questionnaire are rated by 5-point Likert scale ranging from strongly disagree scored 1 to strongly agree scored 5, with minimum and maximum possible score of 29 to 145, respectively (14). Peterson job performance questionnaire with 15 items rated by 4-point Likert scale, validated in previous studies on Iranian workers, was used to measure job performance (12, 14-16). It should be mentioned that all ethical considerations were observed to conduct the current study including voluntary withdrawal from the study without any penalty. The study protocol was approved by the Ethics Committee of the Qom University of Medical Sciences. Relationship between main variables and demographic variables was investigated using Shapiro-Wilk test, one-way analysis of variance (ANOVA), t-test, Poisson regression, Scheffe test, and Pearson correlation coefficient.

Result

After excluding incompletely filled out questionnaires, the data drawn from 197

questionnaires were analyzed. Out of the respondents, 135 (68.5%) were male. Most of them were married (70.1%) and 90.9% held bachelor's degree (Table 1).

Table 1. Descriptive data on demographic variables (n=197)

Variable		Frequency	%
Gender	Male	62	31.5
	Female	135	68.5
Marriage status	Married	138	70.1
	Single	59	29.9
Education	Diploma or lower	5	2.5
	Associate degree	9	4.6
	Bachelor's	174	90.9
	Master's degree or higher	4	2.0
Shift working	Yes	182	92.4
	No	15	7.6

In addition, the mean age and work experience of the participants was 32.56 and 9.26 years, respectively (Table 2). The mean score for SI and job performance was 86.75 (\pm 6.17) and 35.71(\pm 7.13), respectively.

Table 2. Descriptive data on quantitative variables (n=197)

Variable	Mean	SD	Max.	Min.
Age	32.56	6.67	56	21
Work experience	9.26	6.68	33	1
Emotional Intelligence	86.75	17.06	131	25
Job Performance	35.71	7.13	54	14

In the current study, the reliability of spiritual intelligence questionnaire and job performance questionnaire was measured 0.91 and 0.93, respectively, using Cronbach's alpha coefficient. Normality of the data distribution was confirmed by Shapiro-Wilk test.

Poisson regression showed significant relationship between gender and job performance ($P < 0.001$). The rate of job performance was 8% higher in the women than in the men [36.7 (\pm 6.76) vs. 33.53 (\pm 7.49)].

The model showed that the single did not attain significantly higher or lower scores than the married ($P = 0.18$). Responders with education levels of diploma or lower ($P = 0.29$), associate degree ($P = 0.85$), and bachelor's degree ($P = 0.58$) did not attain significantly higher or lower scores for job performance compared to those with master's degree or higher education levels (Table 3).

Relationship between nurses' SI and other variables was analyzed using independent t-test and ANOVA. There was no significant

difference in SI between the women and men ($P = 0.45$) yet the women attained higher scores (87.37 vs. 58.39).

Table 3. Poisson regression results to detect factors affecting nurses' job performance

Parameter	Class	Job performance		
		exp(β)*	Std. Error	Sig.
Intercept	-	3.12	0.17	0.000
Education	Diploma or lower	-0.125	0.12	0.29
	Associate degree	0.02	0.10	0.85
	Bachelor's degree	0.05	0.09	0.58
	Master's degree or higher	Reference		
Gender	Male	-0.08	0.03	0.000
	Female	Reference		
Marriage status	Single	-0.04	0.03	0.18
	Married	Reference		
Shift working	Yes	-0.002	0.04	0.96
	No	Reference		
Work experience	-	0.004	0.002	0.06
Spiritual Intelligence	-	0.01	0.001	0.000

* exp (β) (the odds multiplier) was used as the odds ratio for a unit of increase or decrease in the explanatory variable.

Difference in SI among people with different education levels was investigated using one-way ANOVA and Scheffe test, and no significant differences were found ($P = 0.86$). Finally, correlation between demographic variables of age and work experience, and SI was analyzed by Pearson correlation coefficient (Table 4).

Table 4. Pearson correlation coefficients among spiritual intelligence, age, and work experience

		Age	Work experience
Work experience	Cor.	0.910	1
	Sig.	0.000	-
Spiritual Intelligence	Cor.	0.270	0.309
	Sig.	0.000	0.000

Discussion

It seems that some mismatch between the available resources in Iran and access to up-to-date and fairly distributed health services, as an undeniable right, imposes constant pressure on all organizational levels of the healthcare system. In such conditions, local, cultural, and religious specifications can positively affect nurses' performance (17). One of these advantageous specifications is the use of people's in-depth religious and spiritual

thinking (18). Considering demographic characteristics, our findings are consistent with similar research as the majority of the studied nurses were female, but the mean age and work experience of these nurses were lower than those of other studies' participants (19-21). Newly employed staff with low experience in hospital and nurses' commuting between hospitals and medical centers can explain this inconsistency. It is much more likely to implement interventions for younger staff (22). Mean score for the SI of the current study's participants was over moderate level, which is consistent with some other studies (23, 24). No significant difference was seen in mean score for SI between the men and women in our study. Although some studies reported significant difference in score for SI between men and women (25-27), some evidence is consistent with the current study showing that SI was not associated with gender (28-30). Motherly and educative role of women and the impact of this role in social tasks, greater sensitivity of women to the humane and emotional issues, their multi-sectoral attention to the nursing profession, along with dominant religious viewpoints in Iran, can be reasons for the women's higher scores for SI than men's in our study. Besides that, no significant association was seen between SI and education level of the participants in our study. In this regard, the results of previous studies are inconsistent. Some studies reported significant differences (31), yet some other studies did not (32). Homogeneity of the number of nurses with different education levels can partly explain this finding (90.9% of nurses had bachelor's degree). However, further research on this variable with subjects with different education levels is recommended.

Age and work experience of the nurses were significantly correlated with scores for SI ($P < 0.001$), which is consistent with others studies (33, 34). Although the presence of young nurses in wards is considered strength from educational program perspective, it should not be neglected that these staff are more influenced by emotions induced in the workplace. Many studies have pointed to the possibility of improving SI scores (30, 35-37),

and training is considered one of the main strategies to achieve such purpose (38, 39). The results showed that the nurses had moderate levels of job performance. It seems that lack of training courses related to performance during the education (40), the absence of in-service training, and weaknesses associated with performance monitoring based on clinical practices guidelines (41), uncertainties in the payment system and its impact on the people's motivation as well as high workload imposed on the healthcare providers can be some of the reasons for the findings in the present study. Detailed planning for job enrichment and enhancing employees' motivation can help to improve nurses' performance.

Job performance was 8% lower in the men than in the women in our study. Interestingly, despite the better performance of women in the workplace, women are less able to adapt to environmental and organizational challenges and therefore their performance is more varying compared to men. Thus, ensuring job satisfaction among nurses can bring about stable job performance among the healthcare workers. However, it is obvious that using and strengthening SI in the workplace, in addition to improving nurses' performance (36, 37), leads to reduction in stress and improvement of job satisfaction (42), peace, mutual understanding, and agreement (43), increases flexibility and patience (44), enhances organizational commitment and happiness, and can enhance organizational communications (45). Therefore, more serious efforts should be made to improve the level of SI in healthcare settings. In a study, only 12.5% of respondents reported that they had attended necessary training courses of spirituality (39). It seems that job performance can be improved with continuous training appropriate to nurses' education level as well as the type of their duties. In this situation, organization's general climate moves toward happiness and job satisfaction. From the perspective of patient safety, because spirituality is the basis for the formation of nursing activities (46), nurses need to pay attention to the spiritual dimension of personality (24). This important issue is

fulfilled through establishing a comprehensive program to improve the spiritual level of the workforce. Cultural, personality, and psychological differences, differences in lifestyle and social interactions, and ambiguity in differentiation between spirituality and religion in Iranian society should be studied in similar studies. Furthermore, given that this study was conducted in an educational hospital, similar studies in non-educational hospitals are suggested. Similar research in other educational hospitals helps to deepen outcomes and improve planning to promote organizational performance.

Conclusion

In the light the impact of SI on nurses' job performances, it seems that SI training should be incorporated into in-service educational courses for nurses. Based on the results, it can be inferred that SI is able to enhance motivation and hope resulting from trust in God through changing people's attitudes and lives. In addition, SI paves the way for nurses to meet the needs of patients and do the tasks by promoting mental health and thus improving patients' safety and organizational efficiency.

Conflict of interest

The authors declare no conflict of interest.

Acknowledgements

This study was funded by Vice Chancellor for Research of the Qom University of Medical Sciences. The authors hereby gratefully thank all honorable managers and staff of Shahid Beheshti Hospital of Qom for their sincere cooperation.

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