

## Original Article

### Spiritual intelligence of nurses working at the intensive care units of hospitals affiliated with Tehran University of Medical Sciences

Mehdi Moradnezhad<sup>1</sup>, Khatereh Seylani<sup>1\*</sup>, Elham Navab<sup>2</sup>, Maryam Esmailie<sup>1,3</sup>

<sup>1</sup>Department of Critical Care Nursing, School of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran

<sup>2</sup>Department of Critical Care and Geriatric Nursing, School of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran

<sup>3</sup>Nursing and Midwifery Care Research Center, Tehran University of Medical Sciences, Tehran, Iran

#### ARTICLE INFO

Received 21 April 2017  
Revised 2 May 2017  
Accepted 22 September 2017  
ePublished 22 October 2017  
Published 7 November 2017

Available online at:  
<http://npt.tums.ac.ir>

**Key words:**  
spiritual intelligence,  
intensive care units,  
nurse

#### ABSTRACT

**Background & Aim:** Spiritual intelligence is one of the important concepts in the field of spirituality and is a requirement for better compatibility at workplace. Having spiritual intelligence has a significant effect on the quality of service providing for patients by the medical staff and this feature is of great importance for the nurses working at intensive care units. The present study was conducted to evaluate the level of spiritual intelligence among nurses working at intensive care units of hospitals affiliated with Tehran University of Medical Sciences.

**Methods & Materials:** The present cross-sectional study was conducted in the intensive care units of hospitals affiliated with Tehran University of Medical Sciences using census. 400 nurses working at ICUs and CCUs participated in the study and completed King's Spiritual Intelligence Self-Report Inventory. Data were analyzed using SPSS software version 16 and descriptive and inferential statistics.

**Results:** The mean age of the participants was  $33.88 \pm 5.927$  years. Most of the participants were female (79.8%) and married (51%). The total score of spiritual intelligence was  $54.34 \pm 1.4$  which indicated moderate levels of spiritual intelligence. No significant relation was observed between any of the demographic characteristics and spiritual intelligence.

**Conclusion:** Evaluating and trying for improvement of spiritual intelligence in nurses could increase the possibility of providing spiritual care and increase the quality of care for hospitalized patients at intensive care units and also provide an invaluable inner source to help nurses continue their difficult and stressful job at intensive care units.

## Introduction

Nursing at intensive care units means inevitable occupational exposure to various mental, physical and social stressors which could lead to individual's stress and impact their quality of life and performance by disturbing their personality and spiritual integrity. Therefore, critical care nurses, due to constant exposure to stressors of their professional life, require special evaluation and attention (1). One of the personal factors that might increase individual's resistance

against workplace stressors is intelligence (2). During the recent years, various studies have been conducted to determine the most appropriate criterion for predicting individual's adaptability with the environment, based on each person's specific characteristics, which led to definition of intelligence (3-5). Then in 2000, Zohar and Marshall in a book that was titled "spiritual intelligence: the ultimate intelligence", represented a new dimension for multiple intelligence in scientific societies (6) which could grow and develop; it could provide a deep insight for the individual in the face of accidents and life

\* Corresponding Author: Khatereh Seylani, Postal Address: Nosrat st. Tohid sq. Tehran, Iran. Postal Code: 141973317. Email: kh-seylani@sina.tums.ac.ir

events to find appropriate and rational solutions for problems (7).

Elkins and Cavendish (2004) has defined the spiritual intelligence as an intrinsic intelligence which could grow and develop like other types of intelligence and also could be described and measured (8). Results of the studies have shown that people with higher spiritual intelligence have more tolerance against the difficulties of life and more adaptability with their environment (9). So paying attention to nurses' level of spiritual intelligence is of great importance because it might be used a reliable internal source for increasing their tolerance and resilience in professional life (1).

King believed that spiritual intelligence could create a unique ability for the individual to understand the meaning of life and reach higher spiritual abilities. From King's point of view spiritual intelligence is:

Critical existential thinking: the ability to create meaning based on deep understanding of existence-related issues, the ability to use multiple layers of intelligence for solving problems, the capacity for critical thinking about existence metaphysics topics including truth, life and death.

Creating Personal meaning: the ability to use physical and mental experiences for finding personal goals and meaning.

Transcendental awareness: the ability to determine the transcendental aspects of the existence of one's self, others and the world through consciousness.

Consciousness state expansion: the ability to enter higher spiritual status including in-depth thinking, prayer, meditation and exiting it (10, 11).

According to George (2004), the outcomes of benefiting from high spiritual intelligence are:

1) Enjoying peace of mind which would improve individual's effectiveness and performance (12). Having peace of mind

and inner peace are necessary features for working at stressful environments of intensive care units because evidences have shown that calm nurses with control over their nerves have been more successful in critical, emergency and stressful situations and have been able to save the lives of more patients (13).

2) Benefiting from high spiritual intelligence would create mutual understanding between people which is one of the basic foundations for having a healthy relationship and concordance (12). Nursing is an interpersonal process and the ability to establish a therapeutic relation based on sympathy has an essential role in improving the quality of provided care for the patients and is also more important for working successfully within a combination of multi-disciplinary team, which is required in intensive care units (14).

3) High levels of spiritual intelligence would make individuals capable of managing the changes, resolving the obstacles, and understanding their mistakes. When people understand their own mistakes, they will not repeat them and would be released from fear and chaos in the face of changes and this would be the deepest level of spiritual intelligence (12). So the achievements of spiritual intelligence including personal achievements like coherent and strong perspective, organization excellence, internal occupational satisfaction, and collective alignment with organization's values and process achievements like creating organizational interest, and improvement of relations (15) could help nurses in providing better performance and improving the quality of care for critically ill patients hospitalized at intensive care units who are on the edge between life and death.

High spiritual intelligence would lead to ability for adaptation and compatibility with difficult conditions and stressful

environment and nurses could apply this ability for managing difficult conditions and stressful environment of intensive care units. Abilities such as balance and flexibility, maintaining stability and calmness in critical situations (16), altruism and wisdom, patience and tolerance (17), delight and happiness (18, 19), encountering problems and pain and tolerating them (20), by equipping nurses with an internal source of energy, could also decrease the stress of working at the stressful environment of intensive care units and make them find peace and improve their quality of life and professional performance.

Many researchers have concentrated on spiritual intelligence of nurses in Iran and around the world and various studies have been conducted in this field which their results mostly have reported a moderate level of spiritual intelligence in nurses and also the positive relation of spiritual intelligence with emotional intelligence and caring behaviors (21), delight and happiness (19, 20), the level of clinical competency and the quality of care (1); this approves the importance of paying attention to this topic among nurses, But none of these studies have focused on the nurses working at intensive care units, who probably require higher levels of spiritual intelligence comparing to nurses working at other fields.

According to all that was mentioned about the personal and organizational outcomes of spiritual intelligence, determining the level of spiritual intelligence in critical care nurses and then finding its personal and social related factors could be a starting step for improving and strengthening this intelligence in nurses and making them and then the patients and clients benefit from its positive outcomes. Results of the present study could help nursing managers and educational system understand their performance in selecting nurses for intensive

care units and strengthening this spiritual aspect in nurses during their working period; then, based on the spiritual intelligence element they could understand the path they should take for hiring nurses in intensive care units and also constant and in-service training. So, the present study was conducted to evaluate the level of spiritual intelligence in nurses working at intensive care units of hospitals affiliated with Tehran University of Medical Sciences and its personal and social related factors.

## **Methods**

The present study was a cross sectional study that was conducted after gaining approval from the ethics committee (IR.TUMS.REC.1394.738) and taking permission for being present at the hospitals of Tehran University of Medical Sciences. Study population for this study included all of the nurses working at ICUs and CCUs of the hospitals affiliated with Tehran University of Medical Sciences. All of the nurses working at the ICUs and CCUs of the Tehran University of Medical Sciences hospitals who had the inclusion criteria and were willing to participate were invited to the study. From all the 560 eligible nurses for the study, 400 completed the questionnaire and the response rate was 71.42%.

The inclusion criteria were having at least one year of working experience at ICUs or CCUs and having a bachelor's degree or higher in nursing and the exclusion criterion was having any psychological disorders, according to participant's own statement.

Before completing the questionnaire, by taking informed consent, all of the participants were ensured that their information would remain confidential. Then the questionnaires were distributed among the critical care nurses to be completed. The average required time for

completing the demographic characteristic questionnaire and Kings Inventory was 10 minutes; but considering the heavy workload of intensive care units, participants were not required to complete the questionnaires instantly and it was explained to them that they were free to complete the questionnaires during their free hours and hand the questionnaire to the researcher in the same pocket they were given, during the next visit of the researcher. Sampling lasted from October 2015 to January 2016, for four months.

Data gathering tools for the present study were a researcher-made demographic characteristics questionnaire and Spiritual Intelligence Self-Report Inventory by King. The intended demographic characteristics in the present study included age, sex, marital status, working department, educational level, total working experience at intensive care units, working experience at general departments, working rounds, working shifts, working position, type of hiring (project-based, conventional, official, contractual), income level, willingness to work at intensive care units, willingness to change the working department, considering individual's opinion in arranging working schedule, and working at private hospitals. Spiritual Intelligence Self-Report Inventory (SISRI) is one of the tools for evaluating spiritual intelligence that was designed and developed by King in 2008. This questionnaire has 24 items and has four subscales including critical existential thinking, personal meaning production, transcendental awareness and conscious state expansion and each item has been scored with a 5-point Likert scale from 0 to 4; the score of 0 is assigned to completely wrong, 1 to wrong, 2 to somehow, 3 to right and 4 to completely right. At the end the achieved score would vary from 0 to 96 and scores of less than 32 indicate low spiritual intelligence, scores of 32 to 64 indicate

moderate spiritual intelligence and scores of more than 64 indicate high spiritual intelligence. Questions No. 6 is scores in reverse (10). In the English version of this questionnaire, the reported Cronbach's  $\alpha$  for the entire questionnaire is 0.92 and it is respectively 0.78 for the critical existential thinking subscale, 0.78 for the personal meaning production subscale, 0.87 for the transcendental awareness subscale and 0.91 for the conscious state expansion subscale (9). In the study of Hariri and Zarrin Abadi (2011) that was titled "demographic analysis of spiritual intelligence in librarians", face and content validity of the questionnaire were approved by the experts. The Cronbach's  $\alpha$  for the subscale of critical existential thinking was 0.76, for personal meaning production was 0.78, for conscious state expansion was 0.72, for transcendental awareness was 0.80 and for the entire questionnaire was 0.91 (22). The reliability of the King's spiritual intelligence inventory was evaluated in the study of Khodabakhshi and Koolaei (2013) that was titled "the relation of spiritual intelligence with resilience against stress and selecting the method of delivery in pregnant women" using test-retest method and it was acceptable with a coefficient of 0.67 (23).

Data were analyzed using descriptive statistics (frequency and percent for qualitative variables and mean and standard deviation for quantitative variables). To determine the normal distribution of the variables, Kolmogorov-Smirnov test and to determine the related variables to spiritual intelligence, Spearman correlation test were used. Data were analyzed using SPSS software version 16. The significant level was set at  $p < 0.05$  for all the statistical tests.

## **Results**

Data analysis showed that most of the participants were 32 to 36 year's old, female, married, working ICUs, and had a

bachelor's degree. The highest working experience at intensive care units was 20 years and the lowest was 1 year (Table 1).

**Table 1.** Frequency distribution of samples according to personal and social characteristics

| Variable                                                       |                          | Frequency        | Percentage           |
|----------------------------------------------------------------|--------------------------|------------------|----------------------|
| Age                                                            | 22- 26                   | 38               | 9.5                  |
|                                                                | 27-31                    | 117              | 29.2                 |
|                                                                | 32-36                    | 121              | 30.2                 |
|                                                                | 37-42                    | 82               | 20.5                 |
|                                                                | >42                      | 42               | 10.5                 |
|                                                                |                          | <b>Mean ± SD</b> |                      |
| Gender                                                         | Male                     | 81               | 20.2                 |
|                                                                | Female                   | 319              | 79.8                 |
| Marital status                                                 | Single                   | 171              | 42.75                |
|                                                                | Married                  | 204              | 51                   |
|                                                                | Divorced                 | 25               | 6.25                 |
| Working department,                                            | ICU                      | 274              | 68.5                 |
|                                                                | CCU                      | 126              | 31.5                 |
| Educational level                                              | BSN                      | 357              | 89.2                 |
|                                                                | MA                       | 43               | 10.8                 |
| Total working experience at intensive care units (years)       | 1-4                      | 142              | 35.5                 |
|                                                                | 5-9                      | 172              | 43                   |
|                                                                | 10-14                    | 63               | 15.8                 |
|                                                                | >15                      | 23               | 5.8                  |
|                                                                |                          | <b>Mean ± SD</b> |                      |
| Total working experience at general units (years)              | <1                       | 81               | 20.2                 |
|                                                                | 1-4                      | 226              | 56.5                 |
|                                                                | 5-9                      | 83               | 20.8                 |
|                                                                | 10-14                    | 5                | 1.2                  |
|                                                                | >15                      | 5                | 1.2                  |
|                                                                | <b>Mean ± SD</b>         |                  | 3.47 ± 2.93          |
| Working rounds                                                 | Morning                  | 36               | 9                    |
|                                                                | Evening                  | 1                | 0.3                  |
|                                                                | Morning & Evening        | 154              | 38.5                 |
|                                                                | Night                    | 50               | 12.5                 |
|                                                                | Evening & Night          | 81               | 20.2                 |
|                                                                | Morning & Evening& Night | 74               | 18.5                 |
|                                                                | Morning & Night          | 2                | 1                    |
| Working shifts                                                 | Fixed                    | 234              | 58.5                 |
|                                                                | Rotating                 | 166              | 41.5                 |
| Working position                                               | Head nurse               | 17               | 4.2                  |
|                                                                | Staff nurse              | 76               | 19                   |
|                                                                | Nurse                    | 307              | 76.8                 |
| Type of hiring                                                 | Project-based            | 22               | 5.5                  |
|                                                                | Conventional             | 35               | 8.75                 |
|                                                                | Official                 | 242              | 60.5                 |
|                                                                | Contractual              | 67               | 16.75                |
|                                                                | Other                    | 34               | 8.5                  |
| Level of income (Rials)                                        | < 15,000,000             | 22               | 5.5                  |
|                                                                | 16,000,000-20,000,000    | 264              | 66                   |
|                                                                | 21,000,000-25,000,000    | 102              | 25.5                 |
|                                                                | >26,000,000              | 12               | 3                    |
|                                                                | <b>Mean ± SD</b>         |                  | 22,600,000±6,000,000 |
| Willingness to work at intensive care units                    | Yes                      | 375              | 93.8                 |
|                                                                | No                       | 25               | 6.2                  |
| Willingness to change the working department,                  | Yes                      | 38               | 9.5                  |
|                                                                | No                       | 362              | 90.5                 |
| Considering individual's opinion in arranging working schedule | Yes                      | 324              | 81                   |
|                                                                | No                       | 76               | 19                   |
| Working at private hospitals                                   | Yes                      | 183              | 45.8                 |
|                                                                | No                       | 217              | 54.2                 |

**Table 2.** Frequency distribution of critical care nurses according to level of spiritual intelligence

| Score of spiritual intelligence | Frequency | Percentage |
|---------------------------------|-----------|------------|
| < 32 ( low level if SI)         | 11        | 2.75       |
| 32-63 (Moderate level if SI)    | 305       | 76.25      |
| >63 ( High level if SI)         | 84        | 21         |
| Total                           | 400       | 100        |
| Mean ± SD                       |           | 1.4±54.34  |

Regarding the level of spiritual intelligence of the nurses working at ICUs and CCUs, results revealed that most of the studied nurses (76.25%) had a moderate level of spiritual intelligence (a score of 32 to 63) and only 21% of the participants had high levels of spiritual intelligence (a score of more than 63); also, 2.75% of the nurses had low levels of spiritual intelligence (a score of less than 32) (Table 2).

### Discussion

Results of the present study indicated that only about one fifth of critical care of nurses in hospitals affiliated with Tehran University of Medical Sciences enjoy high spiritual intelligence and for majority the nurses, spiritual intelligence was in moderate level. This result was in line with the results of the study by Noohi et al (2014) that was conducted on the nursing and midwifery students of Kerman University of Medical Sciences. In the study of Noohi et al also most of the students (56.76%) had moderate levels of spiritual intelligence (24). Also in the study of Khavari et al (2014) that was conducted on the nurses working at hospitals affiliated with Tehran University of Medical Sciences, most of the participants (59.62%) had moderate levels of spiritual intelligence, 31.48% had high levels of spiritual intelligence and 8.89% had low levels of spiritual intelligence, which had the highest similarity to the results of the present study (25). One of the reasons for this similarity might be using similar study environment and study population. But in the study of Parandeh et

al (2013), which was conducted on the nursing managers of five army hospitals of Tehran, results revealed that most of the participants (82.7%) had high levels of spiritual intelligence and the rest (17.3%) had moderate levels of spiritual intelligence; none of the participants had low levels of spiritual intelligence (26). One of the reasons for this difference might be selecting people with higher intellectual and mental abilities for managerial positions which would lead to completely different results from those of nurses working at intensive care units.

In the present study, no significant relation was observed between personal and social variables and spiritual intelligence. Most of the conducted studies have found no significant relation between demographic characteristics and spiritual intelligence (27-29). However, in a study that was conducted by Mohebbi et al (2012) on the students of nursing and midwifery faculty, a significant relation was reported between spiritual intelligence with demographic variables of age, sex and field of study (30). Furthermore, in the study of Noohi et al (2012), among demographic variables, they found only a significant relationship between age and the mean score of attitude toward spirituality and spiritual care not directly with spiritual intelligence (P= 0.029)(24). These results are not in line with the results of the present study and the reason for that might be the difference in the study population or using different measurement tools, as well as difference between SI and spiritual care tendency.

Working at intensive care units would make nurses to be constantly at stressful environments, encountering and challenging critical situations, critically ill patients and anxious or mourning relatives (31). Therefore finding sources that could be helpful for critical care nurses to effectively encounter these occupational situations, maintain their health and prevent the decline of their performance's and service's quality would be valuable (32). One of these sources could be benefiting from high levels of spiritual intelligence because spiritual intelligence would guarantee increased adaptability and problem-solving ability and is a series of abilities which, by creating spiritual values and characteristics, could lead to improved performance and welfare in daily personal and professional lives (33, 34). However, as it was observed, most of the nurses working at intensive care units of hospitals affiliated with Tehran University of Medical Sciences had moderate levels of spiritual intelligence and only a few were benefiting from high levels of spiritual intelligence. Also, according to above mentioned results, no significant relation was found between nurses' demographic characteristics and their spiritual intelligence. It might be concluded from these results that no attention and intervention has been assigned to spiritual intelligence at the occupational organizational environment, just as, no improvement was observed in the level of spiritual intelligence among experienced nurses with more working experience. While due to the impact of nurses' SI on their job performance, SI training courses should be incorporated into in-service training to empower them to be creative and be able to change the situation in the best way. This way better behavior and performance will be attainable (35). Also, in the participants of the present study, aging had not led to paying more attention to spiritual issues.

Evidences have indicated that aging would not strengthen the spiritual aspect by itself, but it is expected that by aging, especially during the second half of life (after the age of thirty), people would turn to spiritual skills strengthen their spiritual intelligence (36-38). Lack of relation between the educational level of individual's spiritual intelligence showed that paying attention to the spiritual aspect and improving the spiritual intelligence have also been neglected at universities and in the educational curriculums.

Considering that absorbing, hiring and maintaining skilled nurses at intensive care units has a great share in successful care and treatment for critically ill patients, and it is also more economic for the organization from the human resources point of view, should the level of spiritual intelligence of intensive care units' nurses be regarded as a selection criterion and the organization try to improve their spiritual intelligence level after hiring by performing interventions such as conducting courses, educational workshops, continuous medical education and exercises for addressing nurses' spiritual aspects, then the level of resilience, tolerance and adaptability of the nurses with higher levels of spiritual intelligence could be benefitted for maintaining their own health as the organization's assets; using this ability as a support for better professional performance at stressful environments of intensive care units might provide higher levels of care for critically ill patients at these units.

As regards that results of the present study were achieved from nurses working ICUs and CCUs, it is recommended that future studies should be conducted on nurses from other departments too and their results would be compared with each other. Also, since the effect of interpersonal relationships on spiritual intelligence was not evaluated in the present study, it is recommended that

future studies should assess this topic too. Conducting educational workshops and strengthening nurses' spiritual intelligence and also using the experiences of nurses with higher levels of spiritual intelligence could be helpful in improving the level of spiritual intelligence. The present study had not evaluated the effect of educating spiritual intelligence on the quality of nurses' professional life and the quality of provided care by them; so, it is recommended to perform interventional studies for evaluating this cause and effect relation. Also, for future studies, it is recommended to select samples from different environments in the universities and provinces to achieve a more comprehensive image of nurses' spiritual intelligence.

### **Acknowledgments**

The present study was conducted at hospitals affiliated with Tehran University of Medical Sciences. The authors would like to all the nurses who participated in the present study for their sincere cooperation. This study was financially supported by Tehran University of Medical Sciences.

### **Conflict of Interest**

The authors of this study declare no conflicts of interest.

### **References**

1. Karimi-Moonaghi H, Gazerani A, Vaghee S, Gholami H, Salehmoghaddam AR, Gharibnavaz R. Relation between spiritual intelligence and clinical competency of nurses in Iran. *Iranian journal of nursing and midwifery research.* 2015; 20(6): 665–669.
2. Ardalan M, Sarchehani Z, SARCHEHANI M. The Relationship of Teachers' Spiritual Intelligence to Quality of

- Work Life and Maturity. *Journal Management System.* 2014; 5(17): 81-102.
3. Sohrabi F, Naseri E. A study of the conception and components of spiritual intelligence and developing an instrument to assess it. *RPH.* 2010; 3 (4): 69-77.
4. Akbarizadeh F, Hajivandi A, Bagheri F, Hatami H. Relationship between nurses' spiritual intelligence with hardiness and general health. *Journal of Kermanshah University of Medical sciences.* 2011; 15(6): 465-473.
5. Ross LA. Spiritual aspects of nursing. *Journal of Advanced Nursing.* 1994; 19(3): 39-47.
6. Zohar D, Marshall I. *Spiritual intelligence. The ultimate intelligence.* London: Bloomsbury Publishing; 2000. 3(2).101, 211.
7. Ghashghaizadeh N, Hosienpour M. Surveying the Relationship of Spiritual Intelligence, Emotional Intelligence and Self-Efficacy with Organizational Citizenship Behavior among Behbahan Higher Education Institutes Women Employees of. *Islamic Azad University Scientific Journal.* 2013; 5(5): 105-126.
8. Ghobary Banab B, Salimi M, Seilani L, Norrie Moghadam S. spiritual intelligence. *Andishe Novine Dini Journal.* 2007; 3(10): 125-147.
9. Hajian A, Shekhuleslami M, Homaei R, Rahimi F, Aminoroaia M. Relationship between spiritual and emotional intelligence. *Journal of Research in Behavioral sciences.* 2011; 10(6): 500-8.
10. King D. Rethinking claims of spiritual intelligence: A definition, model, and measure. Unpublished Master's Thesis, Trent University, Peterborough, Ontario, Canada; 2008.7(1). 39-56.
11. Hildebrant Linda S. (2010). *Spiritual intelligence: is it related to a leader's level of ethical development? A Dissertation Presented in Partial Fulfillment of the*



Requirements for the Degree Doctor of Philosophy: Capella University; 2011.

12. Luis Daniel J. The effect of workplace spirituality on team effectiveness. *Journal of Management Development*. 2010; 29(5):442-56.
12. George, M. (2006). Practical allocation of spiritual intelligence in the workplace. *Human Resource Management International Digest*. 14 (5): PP 3-21.
13. Acebedo-Urdiales M S, Medina-Noya JL, Ferré-Grau C. Practical knowledge of experienced nurses in critical care: a qualitative study of their narratives. *BMC Med Educ*. 2014; 14(1):173.
14. Boyle D. Enhancing communication skills of critical care nurses: Focus on prognosis and goals of care decision-making. *Journal of clinical outcomes management: JCOM*. 2015. 22(12):543.
15. Sultany A. Intelligence: Smart leadership tool. *Tadbier journal*. 2008; 7(210):21-26.
16. Sahebazzamani M, Safavi M, Farahani H. Burnout of nurses employed at Tehran psychiatric hospitals and its relation with social supports. *Medical Science Journal of Islamic Azad University Teheran Medical Branch*. 2009; 19(3): 206-211.
17. Razmjooei SA. Relationship between emotional intelligence and spiritual intelligence in student of Shiraz University. *Journal of Islamic Studies and Psychology*. 2010. 1(4): 79-55.
18. Khorshidi A, Ebaadi M. A review literature about relationship between Spiritual Intelligence and Job Satisfaction. *Journal of Life Science Biomed*. 2011. 1(1): 28-31.
19. Bagheri F Akbarizadeh, F Hatami H. The relationship between nurses' spiritual intelligence and happiness in Iran. *Procedia Social and Behavioral Sciences*. 2010. 5(1): 1556–1561.
20. Hasandost F, Haj Hashemkhani M A, Alizadeh A, Momeni M, Norozi N, Yousefi F et al. The relationship between spiritual intelligence & happiness in nursing students in 2015. *nmj*. 2016; 24 (4): 264-271.
21. Kaur D, Sambasivan M, Kumar N. Impact of emotional intelligence and spiritual intelligence on the caring behavior of nurses: a dimension-level exploratory study among public hospitals in Malaysia. *Appl Nurs Res*. 2015. 28(4): 293-8.
22. Hariri N, Zarrinabadi Z. Demographic analysis of librarians' spiritual intelligence. Case study: governmental university libraries in Isfahan. *Library and Information Research Journal*. 2011; 1(2): 29-44.
23. Khodabakhshi Koolae A, Heidari S, Khoshkonesh A, Heidari M. Relationship between Spiritual Intelligence and Resilience to Stress in Preference of Delivery Method in Pregnant Women. 2013; 16(58): 8-15.
24. Nouhi E, Nakhaee N, Rahimi N. Spiritual Intelligence and Attitude towards Spirituality and Spiritual Care in Nursing and Midwifery Students. *Iran Journal of Nursing*. 2014; 27(91):150-159.
25. Khavari k, Abbasi R, Afshar A, Talebi M. The relationship between intellectual intelligence to emotional reactions nurses working at Tehran University. *Journal of social Welfare Quarterly*. 2014; 14(53): 165-177.
26. Parandeh A, EZADI A, Ebbay A, Ghanbary M. Relationship between Spiritual Intelligence and Organizational Commitment in Nurse- Managers in Military Hospitals. *Journal of Military Psychology*. 2011; 2(6): 69-78.
27. Akbarizadeh F, Bagheri F, Hatami H. Relationship between spiritual intelligence and happiness and demographic variables on nurses Fatemah Zahra and

BentolHuda Hospital in Bushehr. Iranian South Med. 2011; 14(4):256-63.

28. Raghieb M, Ahmadi J, Siadat A. Analysis of amount of spiritual intelligence among students at university of Isfahan and its relation to demographic traits. *Journal of Educational Psychology Studies*. 2008; 5(8):39-56.

29. Kaheni S, Heidar-Far J, Nasiri E. Relationship between Spiritual Intelligence and Medical-Demographic Characteristics in Community-dwelling Elderly. *Journal of Mazandaran University of Medical Sciences*. 2013; 23(101):87-94.

30. Mohebi P, Rastegari L, Jaafari E, Sepehrinia M. Spiritual intelligence in zanzan nursing and midwifery students and its related factors. *Preventive Care in Nursing & Midwifery Journal*. 2013; 2(2):49-56.

31. Preto Vivian Aline, Pedrão Luiz Jorge. Stress among nurses who work at the intensive care unit. *Rev.esc. Enferm. USP*. 2009; 43(4): 841-848.

32. Sarafis P, Rousaki E, Tsounis A, Malliarou, M., Lahana, L., Bamidis P, Niakas D and Papastavrou E. The impact of occupational stress on nurses' caring

behaviors and their health related quality of life. *BMC Nursing*, 2016; 15:56.

33. 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.

34. Yaghoubi A. survey relationship between spiritual intelligence with happiness of Buali university's students in Hamedan. *Res Train Syst*. 2011; 9: 92-105.

35. Estanesti S. The study of impact spiritual intelligence on Job Performance of managers. *International Academic Journal of Organizational Behavior and Human Resource management*. 2016; 3 (5): 1-8.

36. Lavretsky H. Spirituality and Aging. *Aging Health*. 2010; 6(6):749-69.

37. Zimmer z. Jagger C. Chiu C T. Ofstedal M B. Rojo F. Saito Y. Spirituality, religiosity, aging and health in global perspective: A review. *SSM - Population Health*. 2016; 2: 373-381.

38. Moberg DO: Research in spirituality, religion and aging. *J. Gerontol. Soc. Work*. 2005; 45:11-40.