



## Spiritual intelligence and its related factors in the students of Sanandaj Universities, Iran, 2015

Ahmad Vahabi<sup>1</sup>, Arezoo Vahabi<sup>2</sup>, Boshra Vahabi<sup>2</sup>, Daem Roshani<sup>3</sup>, Mahnaz Sayyadi<sup>4</sup>

1 Assistant Professor, Department of Medical Laboratory Sciences, Faculty of Paramedical, Kurdistan University of Medical Sciences, Sanandaj, Iran

2 Student of Medicine, Student Research Committee, Kurdistan University of Medical Sciences, Sanandaj, Iran

3 Social Determinants of Health Research Center, Research Institute for Health Development, Kurdistan University of Medical Sciences, Sanandaj, Iran

4 Ghods Hospital of Paveh, Kermanshah University of Medical Sciences, Kermanshah, Iran

### Original Article

#### Abstract

**BACKGROUND:** Spiritual intelligence is the capacity of human to ask final questions about the meaning of life and the unified relationship between us and the universe. The present study was done to determine spiritual intelligence and its related factors among the students of the universities of Sanandaj, Iran, in 2015.

**METHODS:** This study was a cross-sectional research. The study population included students of Kurdistan University, Islamic Azad University of Sanandaj, and Kurdistan University of Medical Sciences. 902 students were selected using cluster sampling method. A two-part questionnaire including demographic characteristics and 29 questions about spiritual intelligence was used. The data were analyzed using SPSS software.

**RESULTS:** The mean total score of spiritual intelligence was  $116.43 \pm 15.65$ . 453 (50.6%) subjects had high spiritual intelligence. There was a positive correlation between age and spiritual intelligence of the students ( $r = 0.02$ ,  $P = 0.61$ ). Moreover, there was a significant statistical difference between spiritual intelligence and university ( $P < 0.001$ ).

**CONCLUSION:** The results showed that the spiritual intelligence of the most students was satisfactory and good. Considering the high spiritual intelligence score of the studied students, it is expected that most of them have a good performance, especially in the field of education.

**KEYWORDS:** Intelligence, Spirituality, Students, Universities

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### Introduction

Intelligence is the problem-solving ability, which has a more cognitive aspect and was raised by Alfred Binet in the early of twentieth century.<sup>1,2</sup> In the late of 20<sup>th</sup> century, in addition to intelligence quotient (IQ) and emotional intelligence (EI), there was also a third-generation intelligence called spiritual intelligence.<sup>3,4</sup> Experts believe that spiritual intelligence is specific to human beings and it

is the basis of individual beliefs that affect its effectiveness and enhance flexibility against stresses and problems.<sup>2,5,6</sup> Spiritual intelligence can be considered as something we believe in, and it embraces the role of beliefs, norms, and values in the activities we take. The intelligence through which we focus on questions about fundamental issues and the life as a whole that makes changes in our lives is called spiritual intelligence. By using this intelligence, we are able to solve life problems and we can give meaning to our activities.<sup>7,8</sup>

Amram believes that there is no coherent and systematic research in identifying and

#### Corresponding Author:

Boshra Vahabi

Email: boshrahahabi@gmail.com

exploring the characteristics of spiritual intelligence.<sup>9</sup> It seems that the nature of the components and the way of expressing spiritual intelligence is influenced by cultural factors, and the difference in personality characteristics of individuals will make a difference in the amount of spiritual interests, areas, and practices as well as skills and capacities associated with spiritual intelligence. Although spiritual intelligence is seen as an obvious global phenomenon, the meaning and way of expressing it differ among different groups.<sup>10</sup> According to Sohrabi, because spiritual intelligence is influenced by different cultural factors and value systems, research in this field is valuable in different cultures and nationalities of the country, and in this way we can take longer scientific steps.<sup>11</sup>

New neurological studies have shown that some brain actions are associated with spiritual experiences, so that spirituality affects some parts of the brain. One of these episodes is the temporal lobe that neuropsychologists called it the "God" region, because its artificial stimulation emerges spiritual issues such as meeting God, religious dialogue, selflessness, sacrifice, humanity, and the like; therefore, we can believe in the existence of spiritual intelligence in human.<sup>12-14</sup> Studies have shown that people with higher spiritual intelligence have better general health and they are better than others in different fields.<sup>1,2,5,6,15-19</sup>

Considering the student's views on various subjects in the universities of Sanandaj, Iran,<sup>20-29</sup> no study was found on the status of students' spiritual intelligence in Sanandaj universities, and considering the importance of spiritual intelligence in the students' success in providing services to patients and society, we decided to carry out this study aimed to determine spiritual intelligence and its related factors among university students in Sanandaj.

## Materials and Methods

This was a cross sectional research. The study population included the students of Kurdistan

University, Islamic Azad University of Sanandaj, and Kurdistan University of Medical Sciences in Sanandaj city. The population of the present study was about 12000 students. Using a standard deviation (SD) of 5.5 from a similar study,<sup>5</sup> and using the following sampling formula, the subjects required to complete this study were calculated as 920. In this formula,  $Z_{1-\alpha/2} = 1.96$ ,  $Z_B = 1.28$ ,  $\sigma = 5.5$ ,  $d = 0.83$ , and the design effect (DEEF) = 2 were determined.

$$n = \frac{(Z_{1-\alpha/2} + Z_B)^2 \sigma^2 (\text{DEEF})}{d^2}$$

A cluster sampling method was used for this study. Each university was considered a cluster. In each university 2-3 faculties and in each faculty a number of classes were selected; in each class, all students in the class who were willing to cooperate in the study, were examined. All students of all ages and all disciplines from the three universities could be included in the study. The exclusion criterion was students' unwillingness to participate in the study. For data collection, the used questionnaire by Heravi-Karimooi *et al.*<sup>5</sup> was used. The questionnaire had two parts. The first part included the demographic characteristics and the second part had 29 questions about spiritual intelligence. Grading questions in this section was based on a 5-point Likert scale of totally disagree with the score of 1 to totally agree with the score of 5. Before the data collection, the necessary explanations were provided about the importance of the study to the students, and it was emphasized that the participation in this study was entirely optional and the students did not need to write their name. They also were assured that all personal information would remain completely confidential. The study was approved by the Ethics Committee of Kurdistan University of Medical Sciences (No. 94/110) prior to the study and was conducted in coordination with the universities. The collected data were analyzed by SPSS software (version 20, IBM Corporation, Armonk, NY, USA).

**Table 1. The relationship between mean score of spiritual intelligence with gender, being native, and marital status in the students of Sanandaj universities, 2015**

Variable	n (%)	Mean $\pm$ SD	Z	P
Gender				
Male	295 (32.9)	3.93 $\pm$ 0.50	-3.720	< 0.001
Female	601 (67.1)	4.06 $\pm$ 0.56		
Marital status				
Single	739 (82.5)	4.02 $\pm$ 0.54	-1.140	0.260
Married	157 (17.5)	1.08 $\pm$ 0.45		
Being native				
Native	603 (67.3)	4.04 $\pm$ 0.54	-2.050	0.040
Non native	293 (32.7)	3.97 $\pm$ 0.54		

SD: Standard deviation

Frequency, mean, and SD were used to describe the data. Mann-Whitney and Kruskal-Wallis statistical tests were used for analytical data. Spearman correlation test was used to study the relationship between variables in the study.

## Results

Out of 920 distributed questionnaires, 896 (97.4%) ones were completed and returned completely. The mean age of the samples was  $22.27 \pm 3.19$  years old. The lowest and highest age was 18 and 45 years, respectively. The

mean score of spiritual intelligence in the studied students was  $116.43 \pm 15.65$ . 443 (49.4%) students had moderate spiritual intelligence and 453 (50.6%) had high spiritual intelligence. In tables 1-3, information about spiritual intelligence and its relationship with different variables in the studied students are presented. Spearman correlation test showed that there was a positive correlation between age and spiritual intelligence of the students ( $r = 0.02$ ,  $P = 0.61$ ), but there was no significant relationship between them.

**Table 2. The relationship between mean score of spiritual intelligence with grade, parents' education, and current location in the students of Sanandaj universities, 2015**

Variable	n (%)	Mean $\pm$ SD	$\chi^2$	P
Grade				
Assistant	7 (0.8)	3.97 $\pm$ 0.19	9.820	0.007
Bachelor	771 (86.0)	4.04 $\pm$ 0.54		
Master and higher	118 (13.2)	3.88 $\pm$ 0.53		
Father's education				
Illiterate	74 (8.3)	3.98 $\pm$ 0.39	17.550	0.002
Elementary	149 (16.6)	4.17 $\pm$ 0.51		
Middle school	150 (16.7)	3.94 $\pm$ 0.59		
High school	207 (23.1)	4.03 $\pm$ 0.54		
Academic	316 (35.3)	3.97 $\pm$ 0.54		
Mather's education				
Illiterate	142 (15.8)	4.04 $\pm$ 0.51	26.180	< 0.001
Elementary	188 (21.0)	4.15 $\pm$ 0.51		
Middle school	185 (20.6)	4.01 $\pm$ 0.54		
High school	212 (23.7)	3.98 $\pm$ 0.52		
Academic	169 (18.9)	3.87 $\pm$ 0.58		
Current location				
With family	445 (49.7)	4.04 $\pm$ 0.55	3.630	0.160
Bachelor pad	90 (10.0)	3.95 $\pm$ 0.55		
Student dormitory	361 (40.3)	4.00 $\pm$ 0.51		

SD: Standard deviation

**Table 3. Frequency, percentage, and mean scores of spiritual intelligence in the students and its relationship with university and field group of the study, 2015**

Variable	n (%)	Mean ± SD	$\chi^2$	P
University				
Kurdistan Medical Sciences	130 (14.5)	4.04 ± 0.52	19.650	< 0.001
Kurdistan	346 (38.6)	4.10 ± 0.53		
Islamic Azad	420 (46.9)	3.94 ± 0.54		
Field group of study				
Medical sciences	300 (33.5)	4.00 ± 0.57	9.950	0.020
Humanities	176 (19.6)	4.08 ± 0.53		
Basic Sciences	190 (21.2)	4.07 ± 0.51		
Engineering Sciences	230 (25.7)	3.94 ± 0.52		

SD: Standard deviation

The median score of spiritual intelligence in female students was higher than the male students. Mann-Whitney test showed that this difference was statistically significant ( $P < 0.001$ ). The median score of spiritual intelligence among single students was higher than married students, but this difference was not statistically significant ( $P = 0.260$ ). The median score of spiritual intelligence in native students was higher than non-native students, and this difference was statistically significant ( $P = 0.040$ ).

The median score of spiritual intelligence was higher in undergraduate students than the other students, and this difference was statistically significant ( $P = 0.007$ ). The median level of spiritual intelligence among the students living with the family was higher and more than the other students, but this difference was not statistically significant by Kruskal-Wallis test ( $P = 0.160$ ). The median score of spiritual intelligence among the students whose parents had elementary education was higher and more than the other students, and this difference was statistically significant ( $P < 0.002$ ).

The spiritual intelligence in Kurdistan University students was more than the students from Islamic Azad University and Kurdistan University of Medical Sciences. The results of the study indicated that humanities students had a higher spiritual intelligence score than the other students (Table 3).

The median score of spiritual intelligence among students studying in humanities was higher than the other students, and this difference was statistically significant ( $P = 0.020$ ). The median score of spiritual intelligence among students of Kurdistan University was more than the other students. There was significant statistical difference between spiritual intelligence and university ( $P < 0.001$ ).

## Discussion

This research which studied the spiritual intelligence of the students in Kurdistan University of Medical Sciences, Kurdistan University, and Islamic Azad University of Sanandaj indicated that more than 50% of the studied students had a high spiritual intelligence score. The results of the study showed that the mean score of spiritual intelligence among female students was higher than male students. This finding was not consistent with the results of Heravi-Karimooi *et al.*<sup>5</sup> The results of Mohebi *et al.* study on 220 nursing students as well as the results of study by Ghana *et al.* on the students of Golestan University of Medical Sciences, Gorgan, Iran, showed that the spiritual intelligence score of the studied students was high.<sup>30,31</sup> The findings are consistent with this study.

The findings of the present study showed that there was a significant difference between gender and spiritual intelligence, but this finding is not consistent with the findings of

Hamidi and Sedaghat,<sup>32</sup> Ghana et al.,<sup>31</sup> Khorshidi and Ebadi,<sup>33</sup> Ebrahimi et al.,<sup>34</sup> Hosseinchari and Zakeri,<sup>35</sup> and Raghieb et al.,<sup>36</sup> who stated that there was no relation between gender and spiritual intelligence. In the findings of George, it was also found that there was a statistically significant difference between the spiritual intelligence of boys and girls,<sup>37</sup> which is consistent with the findings of this study. The findings of the present study indicated that most of the studied students had a high score of spiritual intelligence. This finding indicates that spirituality is very important for the surveyed students, which is consistent with the results of the other studies.<sup>31-37</sup>

The results of this research showed that there was a significant difference between the students' age and their spiritual intelligence. This finding is not consistent with the results of the studies by Heravi-Karimooi et al.,<sup>5</sup> Ghana et al.,<sup>31</sup> and Bagheri et al.,<sup>18</sup> but there was a significant statistical difference between age and spiritual intelligence in the findings of Raqib and Siyadat,<sup>38</sup> that is consistent with the findings of the present study.

The results of the present study showed that the score of spiritual intelligence of the students living with family was higher and better than the other students. This finding can also indicate the important role of families in creating and institutionalizing spirituality in the community. This group of the students can have higher spirituality for the sake of family support and companionship; in other groups, there may be no support and consequently a feeling of spiritual disability may develop in the students. One of the interesting findings of this research is that the score of spiritual intelligence among students of humanities department was higher and better than the other students, and this difference was statistically significant. This finding reflects the fact that, given that humanities students are more closely involved with spiritual topics that

may be in some of the disciplines of this group, there are many units in the field of spirituality and communication with God and the world. This group of the students is expected to enjoy a high level of spirituality. This expectation is somewhat satisfied in this study.

## Conclusion

Considering the results of the study and the high score of spiritual intelligence in most of the studied students, it seems that paying attention to the humanistic and spiritual capacities of the students as a strong point can make the future of their professional career more successful and desirable.

## Conflict of Interests

Authors have no conflict of interests.

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