



The Relationship between spiritual intelligence and academic achievement among the students of Kurdistan University of Medical Sciences, Iran, 2016

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Original Article

Abstract

BACKGROUND: Spiritual intelligence as the foundation of one's beliefs has a crucial role in different aspects of human life. The present study aimed to investigate the relationship between spiritual intelligence and academic achievement of students of Kurdistan University of Medical Sciences, Sanandaj, Iran, in 2016.

METHODS: The population of this cross-sectional research was the students of Kurdistan University of Medical Sciences. The samples were 390 students from different colleges of university. The tool of study was spiritual intelligence questionnaire of Badie et al., including 29 items. The method of the study was stratified sampling with proportional allocation. The collected data were analyzed by SPSS software.

RESULTS: The mean scores of understanding and communicating with the source of spiritual intelligence and spiritual life by relying on the inner sense of spiritual intelligence were 67.66 ± 8.32 and 49.62 ± 8.87 , respectively. The findings of the research showed that there was no statistically significant relationship between spiritual intelligence and academic achievement ($r = -0.03$, $P = 0.71$).

CONCLUSION: Organizing workshops and introducing the successful students with high level of spirituality and spiritual intelligence to encourage talented students is suggested.

KEYWORDS: Spiritual Intelligence; Academic Achievement; Relationship; Student; University

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Introduction

The term intelligence refers to a set of individual abilities that are considered to be of value and importance for solving the problem and creating new products that are in one culture. This phrase is important to humans and has been interested in the dimensions, manifestations, and features.¹ Some people

believe that intelligence involves the processing of information, while some of them consider various performance components and experience of human, including knowledge, intuition, and excitement.²

In the late twentieth century, neurological, anthropological, psychological, and cognitive sciences have shown that in addition to intelligence and emotional intelligence, there is another intelligence that is only for human being named as spiritual intelligence. The intelligence through which we focus on

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questions of fundamental and all-pervading life and through which we make changes in our lives is called spiritual intelligence. By using this intelligence, we are able to solve life problems and give meaning to our activities.³

Amram believes that there is no coherent and systematic research in identifying and exploring the characteristics of spiritual intelligence.⁴ The nature of the components and the way of expressing spiritual intelligence is influenced by cultural factors.⁵

Academic achievement in the higher education system is of particular importance and researchers are looking for ways to identify the performance of students and learners. One factor that can directly affect learners' academic achievement is their spiritual intelligence.⁶ Researchers found that the students with intellectual beliefs were stronger for learning newer experiences and less concerned with life issues and problems than the other students.⁷ The study of Molazade et al. conducted in Fasa University of Medical Sciences, Iran, has not found a meaningful relationship between spiritual intelligence and academic achievement.⁸ There was a significant correlation between spiritual intelligence and academic achievement in the study of Raisi et al., and students with higher level of spiritual intelligence were more successful and had more academic achievement.⁹

Spiritual intelligence is an important internal stimulus for balancing people; the medical students who are considered as community health caregivers are more likely to have more spiritual intelligence.

Different studies have been conducted in different fields among medical students,¹⁰⁻¹⁹ but there are few studies on spiritual intelligence.

Therefore, this study was done to determine the relationship between spiritual intelligence and academic achievement of the students of

Kurdistan University of Medical Sciences, Sanandaj, Iran, in 2016.

Materials and Methods

The present research was a descriptive-analytical study. The study population was the students in Kurdistan University of Medical Sciences. First-semester students were excluded from the study due to lack of grade. The following formula was used to calculate the sample size:

$$N = [(Z_{1-\alpha/2} + Z_{\beta})^2 \times \sigma^2] / d^2$$

Based on a previous study, the standard deviation (SD) was considered to be 2.2.²⁰ Finally, 390 people were considered as sample size. Inclusion criteria included being undergraduate student at Kurdistan University of Medical Sciences, consenting to participate in the study, and being third to eighth-semester student. Exclusion criteria included unwillingness to participate in the study and being student of the first and second semesters.

The tool of the study was spiritual intelligence questionnaire of Badie et al.²¹ The Cronbach's alpha value is 0.85.²¹ The questionnaire has 29 questions. A 5-point Likert scale was used to scan the questionnaire: score 1 for "totally disagree" to 5 for "totally agree". The lowest and highest scores of this questionnaire will be 29 and 145, respectively. A score below 59 indicates low spiritual intelligence, a score of 59 to 116 indicates moderate spiritual intelligence, and a score more than 116 indicates high spiritual intelligence.

To collect the required data, a stratified sampling method with proportional allocation was used. Thus, in terms of the number of students in each faculty, at first, some of the classes in each faculty were randomly selected and then the required samples were examined in the classes. In each selected class, a description was first provided on the

importance of the study. Then, questionnaires were provided to students who were interested in collaborating and they were asked to carefully study the questions and then respond to them.

The collected data were entered into the computer and analyzed by SPSS software (version 21, IBM Corporation, Armonk, NY, USA). To describe the collected data, descriptive statistics including frequency, mean, and SD were used. Since the distribution of data was normal, independent t-test and one-way analysis of variance (ANOVA) were used to examine the statistical relationship between the variables.

Results

All the students completed the questionnaires and returned them. 35.4% of the respondents were undergraduate students and 64.6% of them were studying in the master's degree or higher. 83.8% of them were single and the rest (16.2%) were married. 53.1% of the studied students were native to Kurdistan Province and 46.9% of them were non-native and were from other provinces of Iran.

36.2% of them lived with their families, 10.7% lived in single houses, and 53.1% in university dormitories. 40.8% of them had an average score of below 15, 48.4% had an average score of 15 to 17, and only 10.8% of them had a score above 17. In terms of father's education, 7.7% of them had uneducated fathers, 16.1% had fathers with elementary school education, 10.8% of them had fathers with middle school education, 19.2% had fathers with high school education, and 46.2% had fathers with university education.

Regarding mother's literacy, 16.9% of mothers were illiterate, 24.6% had primary education, 11.6% had middle school education, 20% had high school literacy, and 26.9% had university literacy. In terms of their monthly income, 10% of them were families with an income below 700000 tomans, 40.8% of them

were families with an income of 700000 to 1500000 tomans, and 49.2% of them were families with an income of over 1.5 million tomans.

The average score of spiritual intelligence in the studied samples was 117.22 ± 15.18 . The mean scores of understanding and communicating with the source of the spiritual intelligence of the students were 49.62 ± 8.87 and the mean score of spiritual life, based on the internal state of spiritual intelligence of the students, was 67.66 ± 8.32 .

There was no statistically significant relationship between spiritual intelligence and academic achievement of the students ($r = -0.33$, $P = 0.71$). Of the students studied in this study, 42.3% had moderate spiritual intelligence (scores of 59-116) and 57.7% had high spiritual intelligence (scores higher than 116-145).

Other findings of this study and the relationship between the variables studied are shown in tables 1-3.

Table 1. Mean and standard deviation (SD) of the spiritual intelligence score of the students studied and its relationship with two-state variables, 2016

Variables	Mean \pm SD	T	P
Gender			0.080
Men	114.77 \pm 16.42	-	
Women	119.39 \pm 13.75	1.75	
Grade			< 0.001
Bachelor	125.09 \pm 10.73	4.72	
Master and higher	112.92 \pm 15.58		
Marital status			0.200
Single	116.47 \pm 15.55	-	
Married	121.14 \pm 12.72	1.30	
Being native			0.860
Native	117.45 \pm 15.55	0.18	
Non-native	116.97 \pm 14.87		

SD: Standard deviation

Female students had high spiritual intelligence and male students had moderate spiritual intelligence, but there was no significant difference between spiritual intelligence and gender ($P = 0.080$). There was a significant

difference between students' educational level and spiritual intelligence ($P < 0.001$).

Students with illiterate father had higher spiritual intelligence than other students and this difference was statistically significant ($P = 0.007$), and those who had mothers with elementary education had higher spiritual intelligence than others, and this difference was statistically significant ($P < 0.001$). As much as the students' educational level increased, their spiritual intelligence scores decreased.

Table 2. Mean and standard deviation (SD) of the spiritual intelligence score of the students studied and its relationship with three and more variables, 2016

Variables	Mean \pm SD	T	P
Father's education		3.66	0.007
Illiterate	125.40 \pm 8.86		
Elementary	121.76 \pm 13.93		
Middle school	124.00 \pm 10.44		
High school	117.80 \pm 13.86		
Academic	112.45 \pm 16.47		
Mother's education		6.72	<0.001
Illiterate	124.27 \pm 11.48		
Elementary	124.53 \pm 11.63		
Middle school	117.00 \pm 12.28		
High school	111.58 \pm 14.57		
Academic	110.40 \pm 17.23		
Family monthly income (toman)		2.89	0.060
< 700000	124.69 \pm 13.21		
700000-1500000	118.64 \pm 12.83		
> 1500000	114.53 \pm 16.80		
Average score		0.09	0.920
< 15	117.62 \pm 16.17		
15-17	117.22 \pm 13.55		
> 17	115.71 \pm 19.05		
Semester		8.48	<0.001
2-3	124.36 \pm 11.09		
4-5	113.57 \pm 16.64		
6 \leq	113.25 \pm 14.39		
Current location		0.32	0.720
With family	115.85 \pm 16.44		
Single house	117.14 \pm 18.89		
Student dormitory	118.17 \pm 13.57		
Age (year)		0.60	0.550
18-20	117.24 \pm 17.50		
21-23	116.02 \pm 13.60		
24 \leq	119.82 \pm 15.03		

SD: Standard deviation

Table 3 shows that there was a negative correlation between the spiritual intelligence of the studied students and their academic

achievement; that is, by improving their academic status and scores, their spiritual intelligence decreased.

Table 3. Relationship between spiritual intelligence and academic achievement in the students of Kurdistan University of Medical Sciences, Iran, 2016

Spheres of spiritual intelligence	R	P
Understanding and communicating with the source of being	-0.03	0.700
Spiritual life by relying on the inner being	-0.02	0.790
Total spiritual intelligence	-0.03	0.710

Discussion

This study which investigates the relationship between spiritual intelligence and academic achievement of the students in Kurdistan University of Medical Sciences in 2016 indicates that the mean score of spiritual intelligence of the studied students was high, so that about 58% of studied students had high spiritual intelligence and the spiritual intelligence of all students was moderate and high, and a student with poor spiritual intelligence was not found in this study.

The study of Farahangpoor et al. has shown that there is no significant difference between spiritual intelligence of girls and boys and there is a positive and significant relationship between spiritual intelligence and academic achievement of the studied samples,²⁰ while the findings of this study shows a difference between spiritual intelligence of girls and boys and there is no significant relationship between spiritual intelligence and academic achievement of the studied students in this study. The relationship between them is negative. The findings of this study indicated that the mean spiritual intelligence of the studied students in this study was higher than the studied students in Qom University of Medical Sciences. Their findings suggest that there is a positive and significant relationship between spiritual intelligence and academic achievement, but the findings of the present study indicated that

there is no significant and positive correlation between spiritual intelligence and academic achievement. The findings of this study showed that there is a significant difference between spiritual intelligence scores of male and female students, and spiritual intelligence score of female students was higher than spiritual intelligence score of male students.⁹ The findings of this study also show a difference between the score of spiritual intelligence among girls and boys, and the female students had higher spiritual intelligence scores than boys. This finding is also consistent with the findings of Dehshiri et al.²² and Khazaei et al.,²³ but it is not consistent with the findings of Lavasani et al.²⁴ which indicated that there was no relation between spiritual intelligence and gender. In another study, Sahraian et al. indicated that there was no significant difference between the two sexes in terms of religious attitude,²⁵ which is not consistent with the findings of this study. In our society, which emphasizes on religious and spiritual principles women may value religious beliefs and religious practices more because of features such as dependency, submissiveness, riskiness and more talent for feeling guilty, and thus get higher scores on spirituality. The findings of this study showed that there was a significant relationship between parental education and spiritual intelligence scores of the students studied, but this relationship is negative, that is, students with less educated parents had a higher spiritual intelligence score than those with higher parental education. This finds more reflection, and it seems that today, unfortunately, educated people spend their time more on material matters and less on spirituality, but people with lower education are more interested in spirituality.

The strengths of this study are: 1) students of different disciplines and different educational levels have been studied and 2) the relationships between different variables and spiritual intelligence have been investigated. Among the limitations of this research, there are such things as being a cross-

sectional study, completing the questionnaires and reporting the mean of the university's average as self-report, and the differences in individual and psychological characteristics, spiritual health level, and cultural and social life of respondents that the management of these factors has been beyond the control of the researchers. We suggest that in future research, the impact of cultural and environmental factors, family, instructors, friends, and the type of religion that a person adheres to on spiritual intelligence be examined.

Conclusion

Our results showed a negative relationship between academic achievement and spiritual intelligence of the students studied. This finding is alarming and there is a great deal of concern. Organizing workshops and introducing successful school patterns with a high level of spirituality and spiritual intelligence is recommended to encourage students who are prone to curriculum.

Conflict of Interests

Authors have no conflict of interests.

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