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The Relationship between Spiritual Intelligence and Emotional Intelligence among Students at Isfahan University of Medical Sciences with a Concentration on Improvement of Social Relations

Azizollah Arbabisarjou¹, Nasrin Hesabi², Reza Homaei*³, Khaled Omeidi⁴, Fereshteh Ghaljaei¹ and Nabileh Arish⁴

¹Pregnancy health Research Center, Zahedan University of Medical Sciences, Zahedan, Iran ²Health Promotion Research Center, Zahedan University of Medical Sciences, Zahedan, Iran ³Faculty Member of Payam Noor University, Isfahan province, Iran ⁴Iranshahr University of Medical Sciences, Iranshahr, Iran Corresponding Email: r.homaei@yahoo.com

ABSTRACT

Spiritual intelligence and emotional intelligence can complement each other for purification of human life. On the one hand, spiritual intelligence strengthens spiritual and religious beliefs, thus establishing good qualities. On the other hand, emotional intelligence can improve social relationships, control emotions and help individuals progress towards perfection. This was a descriptive-correlational research where the sample size was estimated to be 424 students at Isfahan University of Medical Sciences selected through multistage cluster sampling. The measurement tools involved Trait Emotional Intelligence Questionnaire (TEIQue) developed by Petrides and Furnham (2003) and self-administered questionnaire for spiritual intelligence, whose reliability levels were calculated to be 0.84 and 0.87, respectively. The data were analyzed through multiple regression analysis. According to the regression analysis, the findings suggested that there is a relationship between spiritual intelligence and emotional intelligence. This relationship was observed in various dimensions of spiritual intelligence and emotional intelligence, between which a relationship was identified by the current study. Spiritual intelligence leads to more emotional intelligence; i.e. emotional intelligence strengthens spiritual intelligence.

Keywords: students, spiritual intelligence, emotional intelligence, Isfahan University of Medical Sciences

INTRODUCTION

Bar-On (1) is another theorist arguing that emotional intelligence (EI) is a set of non-cognitive capacities, abilities and skills improving a person's ability to successfully deal with environmental requirements and pressures, and exhibition of adaptive and humanitarian behaviors[1].

Recent neurologist studies showed that certain brain activities are associated with spiritual experiences, so that spirituality is effective on some parts of the human brain, one of which is the temporal lobe located just behind the temporal area. The neuroscientists call this section *God Spot*, because its artificial stimulation reflects spiritual

matters such as meeting with God, religious dialogue, dedication, sacrifice, philanthropy and the like [2, 9, 14 and 13]. Therefore, it is believed there is spiritual intelligence in humans. Knowledge Institute of Perodio in the United States defined six skills for spiritual intelligence, including compassion for others, a sense of the divine, wisdom, ability to listen, trust in God, commitment and faith[3]. If the person has low emotional awareness and has only high IQ, they might progress in the world of science, but prove a failure in personal and social life and in relationships with others [4].

The concentration on spirituality in solving the problems of life and making human life valuable and meaningfulness was initiated by William James' *The Varieties of Religious Experience: A Study in Human Nature* (1977). James believed that spirituality makes sense in human life, to the extent that rational behaviors are followed in life [5]. The communications will become humane and faith-driven, adopting a positive attitude toward self and others. At the beginning of 2000, Zohar and Marshall (Oxford University professors) in the field of physics and philosophy coauthored a book titled *SQ: Spiritual Intelligence: The ultimate intelligence*, which proposed the concept of third intelligence discussed in the scientific community [22]. Elkins and Cavendish believed that spiritual intelligence propels humans to approach life with more compassion and make greater effort to find solutions to the problems, better withstand the hardships of life and to realize a dynamic lifestyle [5].

Vaughan believed that spiritual intelligence is one of multiple intelligences that can be developed independently. Spiritual intelligence requires different ways of understanding and unity within the mind and soul with life in the universe [20]. Spiritual intelligence can be fostered by effort, exploration and training. Humans need spiritual intelligence to achieve proper judgment in decision-making, which improves self-esteem and mental health.

Accordingly, Zohar and Marshall believed that spiritual intelligence helps individuals gain a deep insight of the life events, encounter difficulties of life with patience and meditation, deal with them and find reasonable humane solutions McSherry et al. argued that spiritual intelligence is underlying individual beliefs, leading to higher efficacy and integrating the actual life [7]. Spiritual intelligence increases flexibility and self-consciousness, so that individuals become more tolerant against difficulties and hardships of life. Such intelligence is acquired in search of answers to the fundamental questions of life and criticism of traditions and customs, turning into a capacity for inspiration and intuition through a holistic approach to the universe.

McGuire defined spiritual intelligence: the ability to act with awareness and compassion while maintaining health and inner and outer peace (tolerance), regardless of the situation [8]. In fact, spiritual intelligence is an innate human intelligence that can grow like any other intelligences, i.e. it can be described and measured. Knowledge Institute of Perodio(3) outlines the involvement of spiritual intelligence, emotional intelligence, IQ and physical intelligence within a pyramid so that the highest and the most valuable kind of human intelligence fell on top [3].

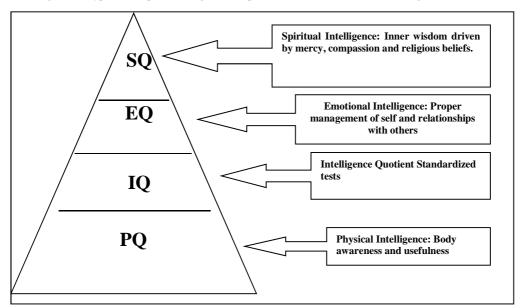


Figure (1). Types and importance degrees of importance in humans, source: Knowledge Institute of Perodio (2005)

SQ= Spiritual Quotient, EQ=Emotional Quotient, IQ=Intelligence Quotient, PQ= Physical Quotient

Figure (1) illustrates the four intelligences in order.

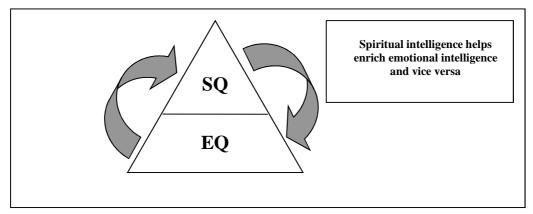
In his studies, Smith showed that spiritual intelligence is necessary for better adaptation to the environment; individuals with higher spiritual intelligence tend to better cope with life stress and exhibit a higher ability to adapt to their environment. He described ten skills originating from spiritual intelligence as follows:

- 1) Spiritual experiences: certain religious activities and experiences
- 2) Stress coping: Using religion and faith to solve the life problems
- 3) Purpose: having a specific purpose in life by considering religious issues
- 4) Worship place: Willingness to religious places and religious leadership
- 5) Living out: Evading from the tenets and stereotypes in life
- 6) Centrality: Impact of religion on behavior and performance (such as eating, drinking, wearing)
- 7) Religious practices: Compliance with laws and commands of religion and faith in life
- 8) Prayer and religious practices
- 9) Tolerance: Tolerance of other religions and correct treatment based on beliefs, principles and logic
- 10) Religious concepts: Belief in religious basic concepts (such as the Creator of the world, soul, life after death) [16].

In addition, Wolman (21) introduced extrasensory perception and socialism as two fundamental spiritual intelligence skills.

In fact, spiritual intelligence is a set of activities that bring about softness and flexibility in behavior, in addition to self-consciousness and a deep insight into the life and purpose, so that objectives are outlined beyond the material world. This process lead to proper adaptation with the environment for people's satisfaction, because such adaptation intends to gain divine satisfaction. On this basis, it can be acknowledged that there is a direct correlation between emotional intelligence and spiritual intelligence. Studies by Ross [15], Thompson [17], Oswald [11], Van Leeuwen and Cusveller [18], Elkins and Kavandesh [5] Knowledge Institute Perodio showed that there is a high correlation between spiritual intelligence and emotional intelligence and between mental health and personal qualifications [3]. Their studies indicated that spiritual intelligence helps enrich and strengthen the emotional intelligence, which in turn assists in attaining a high spiritual intelligence. Therefore, a good and happy life, coupled with physical and psychological health can be achieved essentially through the interdependence of spiritual intelligence and emotional intelligence.

Figure (2). The relationship between spiritual intelligence and emotional intelligence, source: Knowledge Institute Perodio (2005)



Emotional intelligence involves a concentration on emotions and their proper application in human relations, understanding self and others, self-control and dominating over the immediate desires, empathy with others and positive use of emotions on thinking and cognition, which can be associated with knowledge and spiritual intelligence [6]. They believed it was critical to educate through natural excitement accompanied by liberal arts and value systems. Educational programs such as art, history, citizenship, religion and religion are influential on emotional intelligence.

Studies show that emotions, like other scientific disciplines, entail certain principles and techniques, in which some are weak, some are proficient. The extent to which a person is skilled in emotional intelligence can lead to adaptation, philanthropy and success in personal and social life. Therefore, emotional intelligence plays a critical role in individual success owing to its association with other important life skills.

According to studies and definitions in the field of emotional intelligence and spiritual intelligence, it can be acknowledged that spiritual intelligence and emotional intelligence can affect each other. An individual enjoying both intelligences can attain a more successful worldly life and the life hereafter. The present study aimed to assess the relationship between emotional intelligence and spiritual intelligence among students at Isfahan University of Medical Sciences. Accordingly, there were four research questions formulated as follows:

- 1. What is the relative contribution of each domain of spiritual intelligence within the awareness of self and others' emotions to emotional intelligence?
- 2. What is the relative contribution of each domain of spiritual intelligence within control of emotions and excitement to emotional intelligence?
- 3. What is the relative contribution of each domain of spiritual intelligence within social skills to emotional intelligence?
- 4. What is the relative contribution of each domain of spiritual intelligence within optimism and positive attitude to emotional intelligence?

MATERIALS AND METHODS

Since the researcher intended to measure the relationship between emotional intelligence and spiritual intelligence, this was a descriptive-correlational study in terms of methodology. Additionally, the population comprised all students at Isfahan University of Medical Sciences during the academic year 2007-2008. Due to a large population, the sample size was determined by a pilot study. After estimating the population variance, a formula was adopted to select 424 subjects as sample. The students were selected through random sampling and multistage cluster sampling. For that purpose, three out of five faculties at Isfahan University of Medical Sciences were selected randomly. Then, three interdisciplinary branches at the three faculties were randomly selected. Moreover, students were selected randomly from those branches and different academic semesters. Of these, 275 were female and 149 were male students.

Measurement tools:

A) Trait Emotional Intelligence Questionnaire (TEIQue). This questionnaire was prepared by Cobb and Mayer (2003) consisting of 30 items each scored on a scale from 1 to 7 (strongly disagree to strongly agree). The questionnaire assesses emotional intelligence in four areas (1) understanding emotions of self and others (2) control of emotions (3) regulate relationships with others (social skills) and (4) optimism and positive attitude. Petrides and Farnham (2003) used the internal consistency of the questionnaire, reporting its reliability at 0.86. This figure was obtained to be 0.84 for this questionnaire through Cronbach's alpha.

B) Spiritual intelligence questionnaire: This was a self-administered questionnaire designed and inspired by the skills listed in Knowledge Institute of Perodio (2005) and Smith (2005) about spiritual intelligence. This questionnaire has 40 items assessing spiritual intellectual in eight domains: (1) centrality of faith in God for activities (2) self-awareness (3) refining daily experiences (4) reliance on God to solve the problems of life (5) religious experiences (benevolent and friendly activities), (6) prayer, (7) belief in religious concepts and (8) coping with other people. The questionnaire was scored on a 5-point scale (strongly agree, agree, no comment, disagree, strongly disagree) and the items were given 1,2,3,4 and 5, respectively. To determine the validity, the initial questionnaire along with the research objectives and the evaluation form was sent to several professors and professionals in religious sciences. They were asked to leave their comments on the questionnaire and the items within a special evaluation form. The mean score of expert evaluation was 4.41 (on a 5-point Likert scale) reflecting good reliability of the tools. Furthermore, the reliability of the tool was calculated to be 0.87 after the pilot study using Cronbach's alpha, which reflected the high reliability.

Data analysis: The data were analyzed through descriptive statistics such as frequency, percentage, mean, SD, tables, inferential statistics and multiple regression analysis.

Findings

At this point, the findings were presented based on research questions and in tables one to four:

First question: What is the relative contribution of each domain of spiritual intelligence within the awareness of self and others' emotions to emotional intelligence?

Table (1): The results of multiple regression coefficient for relative contribution of net and gross weights in each realm of spiritual intelligence concerning awareness of self and others about emotional intelligence

Source	Nonstandard coefficients	Standard error	Regression coefficients	T value	Coefficient of determination	Significance level
Centrality of belief in God for activities	0.336	0.059	0.79	5.50	0.58	0.001
Self-awareness	0.238	0.060	0.91	5.98	0.58	0.001
Refining everyday experiences	0.385	0.045	0.54	4.33	0.58	0.001
Reliance on God to solve the problems of life	1.99	0.056	0.013	0.355	0.06	0.72
Religious experiences (benevolent activities)	2.42	0.009	0.66	4.54	0.58	0.001
Prayer	4.52	0.022	0.071	1.08	0.06	0.59
Belief in religious concepts	1.31	0.034	0.41	0.63	0.06	0.41
Patience and tolerance of others	0.88	0.043	0.85	5.64	0.58	0.001

According to Table (1), five domain of spiritual intelligence, including centrality of belief in God, self-awareness, refining everyday experiences, religious experiences (benevolent activities) and belief in tolerance of others, affected consciousness about the emotion of self and others (emotional intelligence). They can remain in the regression equation, while the other three areas including reliance on God to solve life's problems, belief in religious concepts and prayer were not effective on emotional intelligence. The coefficient of determination showed that 0.58 of the observed variance in scores of self and others emotions were explained by belief in God, self-awareness, refining everyday experiences, religious experiences (benevolent activities) and spiritual intelligence.

Second question: What is the relative contribution of each domain of spiritual intelligence within control of emotions and excitement to emotional intelligence?

Table (2): The results of multiple regression coefficient for relative contribution of net and gross weights in each realm of controlling emotions of self and others about emotional intelligence

Source	Nonstandard coefficients	Standard error	Regression coefficients	T value	Coefficient of determination	Significance level
Centrality of belief in God for activities	2.53	0.051	0.52	0.85	0.08	0.74
Self-awareness	0.156	0.050	0.28	3.17	0.47	0.001
Refining everyday experiences	0.22	0.035	0.55	6.36	0.47	0.001
Reliance on God to solve the problems of life	8.05	0.008	0.075	1.07	0.08	0.29
Religious experiences (benevolent activities)	0.91	0.052	0.48	4.26	0.47	0.001
Prayer	0.12	0.037	0.20	3.39	0.47	0.001
Belief in religious concepts	3.38	0.036	0.41	2.62	0.47	0.04
Patience and tolerance of others	0.36	0.040	0.62	6.77	0.47	0.001

According to the results in Table (2), six out of eight domains of spiritual intelligence namely, self-awareness, refining everyday experiences, religious experiences (philanthropy and friendship of God), prayer, belief in religious concepts and patience and tolerance of others were effective on emotional control (emotional intelligence). They remained in the regression equation and the only two domains of spiritual intelligence, including belief in God and reliance on God to solve life's problems were ineffective on emotional intelligence. Hence, emotional control and among students were affected by six areas of spiritual intelligence. The more spiritual intelligence is fostered, there will be more chances of emotional control. The coefficient of determination showed that 0.47 of the observed variance in the scores of emotional control and spiritual intelligence was explained by these six areas, which was significant.

Third question: What is the relative contribution of each domain of spiritual intelligence within social skills to emotional intelligence?

Table 3 The results of multiple regression coefficient for relative contribution of net and gross weights in each realm of in social skills concerning awareness of self and others about emotional intelligence

Source	Nonstandard coefficients	Standard error	Regression coefficients	T value	Coefficient of determination	Significance level
Centrality of belief in God for activities	0.38	0.048	0.84	7.93	0.74	0.001
Self-awareness	0.106	0.032	0.43	3.26	0.31	0.004
Refining everyday experiences	0.14	0.045	0.80	3.95	0.74	0.002
Reliance on God to solve the problems of life	0.33	0.042	0.08	1.02	0.05	0.51
Religious experiences (benevolent activities)	0.21	0.039	0.35	3.11	0.31	0.005
Prayer	1.54	0.052	0.014	0.45	0.05	0.64
Belief in religious concepts	0.38	0.055	0.43	3.74	0.31	0.003
Patience and tolerance of others	0.31	0.044	0.79	5.66	0.74	0.001

According to the results in Table (3), six out of eight domains of spiritual intelligence namely, centrality of faith in God, self-awareness, refining everyday experiences, religious experiences (benevolent activities), belief in religious concepts, patience and tolerance of others were effective on the areas of social skills (emotional intelligence). They can remain in the regression equation and only two domains of spiritual intelligence namely, relying on God to solve the problems of life and prayer leaving no effect on areas of social skills in emotional intelligence. Hence, the social skills of the students were affected by six areas of spiritual intelligence. The more spiritual intelligence is fostered among the subjects, there will be greater development of social skills. The coefficient of determination indicated that between 0.31 to 0.74 of the observed variance in the scores of students' social skills was explained by six areas of spiritual intelligence (centrality of belief in God, self-awareness, refining everyday experiences, religious experiences, belief in religious concepts and patience and tolerance of others).

Fourth question: What is the relative contribution of each domain of spiritual intelligence within optimism and positive attitude to emotional intelligence?

Table 4 The results of multiple regression coefficient for relative contribution of net and gross weights in each realm of in optimism and positive attitude concerning awareness of self and others about emotional intelligence

Source	Nonstandard coefficients	Standard error	Regression coefficients	T value	Coefficient of determination	Significance level
Centrality of belief in God for activities	0.47	0.080	0.58	3.55	0.35	0.001
Self-awareness	1.88	0.071	0.095	0.66	0.05	0.62
Refining everyday experiences	2.22	0.009	0.086	0.51	0.05	0.74
Reliance on God to solve the problems of life	0.25	0.043	0.90	3.86	0.35	0.001
Religious experiences (benevolent activities)	0.51	0.029	0.95	4.12	0.35	0.001
Prayer	4.14	0.077	0.094	0.56	0.05	0.69
Belief in religious concepts	0.55	0.082	0.85	3.82	0.35	0.003
Patience and tolerance of others	2.14	0.029	0.050	0.88	0.05	0.33

According to the results in Table (4), four out of four domains of spiritual intelligence namely centrality of faith in God, reliance on God to solve life's problems, religious experiences (benevolent activities) and a belief in religious concepts were effective on the domain of optimism and positive attitude (emotional intelligence). They can remain in the regression equation, while the four dimensions of awareness, refining everyday experiences, prayer and patience and tolerance of others in the field of optimism and positive attitude left no effects on emotional intelligence. Hence, optimism and positive attitudes among students were affected by four areas of centrality of belief in God, reliance on God to solve the problems of life, religious experiences and belief in religious concepts. The more these four areas of spiritual intelligence are fostered there will be more chances of positive attitudes and behaviors towards self and others. The coefficient of determination showed that 0.35 of the observed variance in scores of optimism and positive attitude were explained by four domains (centrality of belief in God, reliance on God to solve the problems of life, religious experiences and belief in religious concepts).

DISCUSSION AND CONCLUSION

The findings regarding the relative contribution of each area in the domains of emotional intelligence and spiritual intelligence showed that five out of eight domains of spiritual intelligence namely the centrality of faith in God, self-awareness, refining everyday experiences, religious experiences (benevolent activities) and the patience and tolerance of others can affect the self and others' awareness of emotional intelligence. The six areas of spiritual intelligence, self-awareness, refining everyday experiences, religious experiences (benevolent activities), prayer, belief in religious concepts affect the six areas, namely centrality of faith in God, self-awareness, refining everyday experiences, religious experiences (benevolent activities), belief in religious concepts, and patience and tolerance on the areas of social skills in emotional intelligence as well as centrality of belief in God, reliance on God to solve life's problems, religious experiences (benevolent activities) and belief in the religious concepts of spiritual intelligence on the field of optimism and positive attitude. The majority of the domains of emotional intelligence affect spiritual intelligence, and can improve and increase it. Based on the findings, it can be acknowledged that if human actions and worldly affairs involve reliance on God and focus on His commands, help others in difficult situations, there can be a pious, God-fearing person who acts on the basis of religious orders. Thus, reinforcement of spiritual intelligence, or obedience to God, can improve social behavior and respect for the feelings and rights of others, or in other words, emotional intelligence can be improved and strengthened.

Based on these findings, it is possible to realize an interactive relationship between spiritual intelligence and emotional intelligence. As the survey by Knowledge Institute of Perodio revealed, there is an interactive relationship between spiritual intelligence and emotional intelligence, and both influence each other directly. In other words, the growth in one will lead to growth in the other[3]. The findings of this study were confirmed by the survey of the Knowledge Institute of Perodio[3] and based on Ross [15], Thompson [17], Oswald [11], Van Livni and Kasvler [18], Elkins and Kavandesh [5]. This indicated a direct positive relationship between spiritual intelligence and emotional intelligence.

Prayers was the only domain of spiritual intelligence leaving no effects on the three areas of awareness of self and others' emotions, social skills and optimism and positive attitude. The reason could be the fact that prayer was a completely personal action, were people pray based on their attitude and awareness of the emotions. The prayer alone cannot raise awareness of self and others' emotions, because even pessimistic people resort to prayer.

As the person puts God first in everyday activities and carries them out based on knowledge and understanding, there will be greater patience against the inappropriate behavior of others, the daily tasks are ruminated at the time of rest and relaxation, terrible experiences are put aside and there can be background for dynamic growth in emotional intelligence. Accordingly, it can be concluded that with the strengthening of spiritual intelligence even at school ages (preschools), we can bring students to foster emotional intelligence and ultimately realize more appropriate behavior consistent with the values of society.

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