

Medical Faculty Members' Spiritual Intelligence/Quotient (SQ): A Descriptive Cross-sectional Study in Iran

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ABSTRACT

Introduction: Recently, promotion of SQ has been introduced as a factor in improving the quality of working life and performance of employees. Since faculty members are the greatest resource of universities; recognition of the SQ and its effectiveness would be the shortcut route to improve their overall performance. Finding and applying all factors affecting the educational organizations promotion is the main approach in improving the quality of higher education. This study aimed to determine the demographic of faculty members, the level of spiritual intelligence and its dimensions in medical faculty members. **Methods:** This descriptive cross-sectional study with the participant of 160 medical faculty members (32 basic science faculty members, 128 clinical science faculty members) conducted through stratified probability sampling in one of the medical universities in Iran. King's modified Spiritual intelligence questionnaire was used. The data were analyzed using SPSS 11.0. **Results:** The mean score of faculty members' SQ was 63.0 ± 1.2 , which was moderate. There was no significant difference between faculty members' SQ scores ($p=0.7$) considering the minimum score of 28.0 and maximum score of 87.0; ($t=0.4$). In dimensions of SQ: the highest score was for critical existential thinking and the lowest one was for transcendental awareness. There was significant difference between dimensions of SQ among the participants ($p<0.001$). **Conclusion:** Since we found a significant difference between dimensions of SQ among participants, the studies exploring the nature of this difference were warranted. It seems that proper training for promotion of SQ can be an important step for the development of universities educational organization.

Introduction

According to the evidence, faculty members are the greatest resources of universities and trainers of manpower in health, treatment and medical education organization.¹ Faculty members at universities have three main functions: teaching, doing research, and management. Special competencies are required to perform these tasks.² Regarding to Alabama University Quality Teaching Standards, these competencies are: Preparation for instruction, Presentation of organized Instruction, Assessment of student performance, Classroom management, Positive learning climate, Communication, Professional development and leadership, and Performance of professional responsibilities.³ Finding and applying all factors affecting the ability of teachers, is the main approach in improving the quality of higher education. Today, in addition to scientific predomination, other factors such as knowledge of psychology is also needed for education and training.⁴ In this article we focus on the

spiritual intelligence of faculty members as the evidence to show it as the effective factor in improving competencies. By knowing the level of SQ scores of faculties we can promote their SQ by correct programs and improve the quality of working life of the faculties, and improve the efficiency of the whole organization. Faculty members must use technical and communication skills, knowledge, reasoning, emotions and values in the environment wisely and constantly.⁵ Faculty members' competencies are the set of knowledge, attitudes and skills that the teacher with achieving them can help students' development physically, mentally, emotionally, socially and spiritually.⁶ Recently, the World Health Organization defines human beings as biological, psychological, social and spiritual ones.⁷ Spiritual Intelligence/quotient (SQ) is defined as, "The intelligence with which we address and solve problems of meaning and value, can place our actions and our lives in a wider, richer, meaning-giving context, can assess that one course of action or one life-path that is more

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meaningful than any other." SQ essentially integrates IQ (the traditional Intelligence Quotient) and EQ (Emotional Quotient). SQ helps us extend and change the boundaries, question our assumptions and formulate new meaning.⁸ Those with higher SQ have better relationships with others (students and colleagues), which will improve the quality of education.^{9,10} Emmons R, the psychologist, defines SQ as "a framework for identifying and organizing skills and abilities needed for deep understanding and insight into critical questions for the multiple levels of awareness".^{11,12} Spiritual values in addition to improving the quality of working life of the employees, improve the efficiency of the whole organization.¹³

King D.B, Trent University, defines SQ as the mental capacities of people which are getting involved with knowledge, integrity, and application of transcendental and spiritual aspects. His model with four main components of SQ is: critical existential thinking, personal meaning production, transcendental awareness, conscious state expansion.¹⁴ American Medical Education Committee knows the process of achieving the educational performance capabilities as the part of accreditation.¹⁵ In Iran in recent years, the necessity of competency is intended.¹⁶ According to research in Malaysia (2009), if, considered to be balanced in promoting of all types of intelligence in education, trained capable people.¹⁷

Many researches showed the spiritual intelligence effectiveness in improving the quality of working life of the employees.¹³ In this research; we focused on spiritual intelligence and its effectiveness, among several ways, for improving teaching competencies. Our aim in this study included the level of SQ scores based on its effective factors and demographic characteristics among medical faculty members in one of the medical universities in Iran.

Materials and methods

Sampling methods and respondents

This descriptive cross-sectional study with the participant of 160 medical faculty members (32 basic science faculty members, 128 clinical science faculty members) conducted through stratified probability sampling in one of the medical universities in Iran. All of the 160 faculties participated in our study and completed the questionnaire.

Instruments

King's modified Spiritual intelligence questionnaire was used. Naseri formulated the questionnaire for his master thesis, based on the belief and all ethics of the community (Islamic principles and Koran values). Scoring was based on Likert scale with four options including: "almost always", "often", "seldom" and "never". At the end of each questionnaire, sum of the scores showed SQ level such as: (0-24=Low), (24-48=Lower than moderate), (48-72=moderate), (72-96=higher than moderate). In Naseri's study; its validity and reliability were evaluated by Cronbach's alpha coefficient. Its reliability coefficient was 0.95.¹⁸

Self assessment is one of the best ways to assess.¹⁹ Spiritual

intelligence was self-assessed with a questionnaire defined above. The instrument and the translation, the back translation, edited and validated with more than 10 specialists in research issue.

Statistical analysis

The data was analyzed using SPSS11.0. Descriptive and inferential statistical techniques such as t-test, two way ANOVA, and regressions were applied to analyze. Assumptions for each statistical measure were met and an alpha level of 0.05 was established.

Results

Demographic

Most of participants were male (n=121, 78.0%) with age ranging from 30 to 40 (n=53, 48.2%). Most were married (n=146, 91.2%) and were satisfied with their work (n=154, 96.2%). Most of them were assistant professor (n=93, 58.1%). Some of the subjects were trained teaching competencies (n=67, 42.0%) (Table 1).

Descriptive statistics mean and standard deviation were used. Results showed that the total mean score of SQ was 63.0 ± 1.2 , which was moderate. Minimum score of SQ was 28.0 and maximum of it was 87.0. There was no significant difference between SQ scores of basic and clinical faculty members ($p=0.7$), ($t=0.4$) (Table 2).

The comparison of mean scores of subjects' dimensions of SQ (Critical existential thinking, Transcendental awareness) showed that there was no significant difference between SQ scores of basic and clinical faculty members (Table 3).

The comparison of mean scores of subjects' dimensions of SQ (Personal meaning production, Conscious state expansion) showed that there was no significant difference between SQ scores of basic and clinical faculty members (Table 4). In dimensions of SQ, because of the difference in scores range; Friedman test was used. Results showed that maximum score was for critical existential thinking, and the minimum was for conscious state expansion. There was significant difference between subjects' dimensions of SQ ($p=0.001$).

Discussion

The results of this study showed that SQ level of faculty members was moderate, in dimensions of SQ, maximum score was for critical existential thinking, and the minimum was for conscious state expansion. George, et al found that employees with maximum score of spiritual intelligence had better performance in their work environment, and provide better service. In other words, employees who seek a higher meaning in their work, typically will have a positive attitude and less influenced with severe environmental stress.²⁰ Sisk and Torrance have suggested two types of educational planning for nurturing SQ.²¹ Because of spiritual intelligence positive effects and its attainment nature, we can promote it with proper educational planning. Proper educational planning for promotion of other teaching competencies is necessary.

Table 1. Description of subjects' demographic characteristics

characteristics	n (%)		Characterics	n (%)		characteristics	n (%)	
Age			Maritlstatus			Degree		
30-40	53	48.2	Mared	146	91.2	Professor	19	11.9
41-50	43	39.1	Single	14	8.8	Assistant pro.	93	58.1
51-70	14	12.7	Job satisfy ction			Associate pro.	43	26.9
Sex			Yes	154	96.2	Teaching competency training		
Male	121	78.0	No	6	3.8	Yes	67	42.0
Female	34	22.0				No	93	58.0

Table 2. Description of subjects' SQ

Faculty membes	Basic sciences	clinic sciences	total	t-test
	mean±SD	mean±SD	mean±SD	
Spiritual intelligence	63.41±1.2	62.4±1.2	63.0±1.2	P=0.7 t=0.4

Table 3. Description of subjects' dimensions of SQ (Critical existential thinking, Transcendental awareness)

Faculty members	Basic sciences	clinical sciences	total	t-test
	mean±SD	mean±SD	mean±SD	
Critical existential thinking	18.6±3.8	18.5±43.4	18.5±4.2	P=0.9 t=0.1
Transcendental awareness	18.0±43.0	18.2±4.0	18.2±4.0	P=0.8 t=0.3

Table 4. Description of subjects' dimensions of SQ (Personal meaning production, Conscious state expansion)

Faculty members	Basic sciences	clinical sciences	total	Man Whitney
	Median(Max-Min)	Median(Max-Min)	Median(Max-Min)	
Personal meaning production	15 (19-10)	15 (20-7)	15 (20-7)	P=1.0 z=0.01
Conscious state expansion	12 (19-1)	11 (18-1)	12 (19-4)	P=0.3 z=1.05

As results of descriptive study by Hamdan, et al in Malaysia, teachers must promote their teaching competencies in classroom management and educational planning.²² In a descriptive research in Iran , features of a powerful master from the medical school students' perspectives were communication, preparation for presentation and so on.²³ From students' perspectives, communication competencies

must be promoted because of its importance . Based on the findings of Am ram's , there is a high correlation between SQ and effective professional leadership. Spiritual intelligence has been referred as a key of success in business and leadership in many papers, books and magazines.²³ As professional leadership is one of the teaching competencies, therefore, we can conclude that

Spiritual intelligence can promote the teachers' abilities.

It seems that with promotion of SQ in faculty members, their competencies will automatically increase by better transcendental awareness, critical thinking, conscious state expansion, personal meaning production. This will empower faculty members as scientific problem solvers. Transformation of complex issues to simple ones can be possible with critical thinking (one of SQ dimensions). Simplification is one necessary competency for each successful teacher. Promoting SQ of faculty members can help them achieve communication and other teaching skills, provide positive climate for learning, and totally teach better.

One important limitation of this study was the use of only one tool (questionnaire) for spiritual intelligence assessment. For achieving better conclusion, another assessment system should be provided containing multiple data collection tools such as Oral or Written Structured Interview (with document review). The other limitation was faculty members' misunderstanding of spiritual intelligence concepts.

Spiritual people contribute to the flourishing of individuals in any system, especially educational systems. As shown in other studies, spiritual people are likely to be effective people. Such individuals are likely to be of significant benefit to their organizations. Then spiritual intelligence can affect competencies, maybe with provision of the background for one's improvement.

Finally, according to the present study, since there was a significant difference between dimensions of SQ among participants, the studies exploring the nature of this difference are warranted. Factors that affected SQ scores such as marital status, gender, age and degree, also need further studies.

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Ethical issues

Participants' information was kept confidential.

Conflict of interest

The authors declare no conflict of interest.

References

1. Ul Hassan M, ZafarYaqub M. Strategic role of human resource development as boundary spanner. *European Journal of Economics- Finance and Administrative Sciences* 2010;19:146-54.
2. MazloomiMahmood Abad S, Rahaei Z, Ehrampoush MH, Soltani T. [The characteristics of an expertfaculty member based on view points of medical students- Yazd , Iran-2008]. *Hormozgan Medicine Journal* 2010;14(3):226-33.
3. Morton JB. Professional education personnel evaluation program of Alabama. Self assessment form, teacher system. Alabama state department of education, edited by Alabama. 2008:107-113.
4. Hossein KM, Fatemeh D, Fatemeh OS, Katri VJ, Tahereh B. Teaching style in clinical nursing education: a qualitative study of Iranian nursing teachers' experiences. *Nurse Educ Pract* 2010;10(1):8-12.
5. Parsayekta Z. Comments about the clinical competencies of nursing students and their achievement level. *Nursing Research* 2006;1(3):14-7.
6. Maleki H. Teacher professional competence. 2nd ed. Tehran: Publication of Madrese (school); 2001.
7. Krauss SE, Hassan A, Jalil HA, Rahman FA, Ismail IA. Influence of Emotional and Spiritual Intelligence from the National Education Philosophy towards Language Skills among Secondary School Students. *European Journal of Social Sciences* 2009;9(1):61-71.
8. Narayanasamy A. The impact of empirical studies of spirituality and culture on nurse education. *J Clin Nurs* 2006;15(7): 840-851.
9. Sisk D. Engaging the spiritual intelligence of gifted students to build global awareness in the classroom. *Academic research library* 2008;30(1):24-30.
10. GhobariBonab B, Salami M, Salyani L, Noorimoghadam N. Spiritual intelligence. *Andishe-e-novin-e-dini* 2007;3(10):125-46.
11. Emmons R. Is spirituality intelligence? Motivation, cognition and the psychology of the ultimate concern. *International Journal for the Psychology of Religion* 2000; 10(1): 26-30.
12. Emmons R. Spirituality and intelligence: Problems and prospects. *International Journal for the Psychology of Religion* 2000; 10(1): 57-64.
13. Hoover D. How "Whole" is Whole person learning? An examination of spirituality in experimental learning. *Developments in Business Simulation and Experiential Learning* 2007;34: 84-90.
14. King DB. Rethinking claims of spiritual intelligence: a definition, model, and measure [dissertation]. Canada :Trent University;2008.
15. LCME Accreditation Guidelines for New and Developing Medical Schools. Liaison Committee Medical Education. Association of American Medical Colleges. [Cited 2012 Dec 30]. Available from: www.lcme.org
16. Memarian R.[Effective clinical competence achievement factors in nursing]. *Journal of Zanzan University of Medical Sciences Health* 2006;14:56.
17. Aminoddin H. Emotional and spiritual intelligences as a

- basis for evaluating the national philosophy of education achievement. Department of foundations of education. Faculty of educational studies, university of Putra Malaysia. *Research Journal of International Studies* 2009;12:59-66.
18. Naseri E, Sohrabi F. The study of the conception and components of spiritual intelligence and developing an instrument to assess it. *Journal of Research in Psychological Health* 2009;3(4):1-9.
 19. Seif AA. Measurement, assessment and educational evaluation. Tehran: Publication of Dooran;2004.
 20. George L, Larson D, Koenig H, McCullough M. Spirituality and health: What we know, what we need to know. *Journal of Social & Clinical Psychology* 2000;19(1):102-16.
 21. Halama P, Strizenec M. Spiritual, existential or both? Theoretical considerations on the nature of higher intelligences. *StudiaPsychologica* 2004;43:239-53.
 22. Hamdan AR, Teaching competency testing among Malaysian school teachers. *European Journal of Social Sciences* 2010;12(4): 610-17.
 23. MazloomiMahmoodabad S.S, Rahaie Z, Ehrampoosh M.H. [features of a powerful master from the Yazd Sadoughi Martyr medical school students' perspective]. *Hormozgan Medical Journal* 2010; 14(3): 226-33.
 24. Vasconcelos AA. Spiritual Development in Organizations: A Religious-based Approach. *Journal of Business Ethics* 2010;93:607-22.