ORIGINAL ARTICLE

Investigating the relationship between spiritual health, social factors and hypochondriasis among students at Shiraz University of Medical Sciences in Iran

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ABSTRACT

Spiritual health represents the last dimension introduced to the overall notion of health and could even be regarded as the most critical dimension. This study investigates spiritual health and social factors associated with it among students at Shiraz University of Medical Sciences (SUMS). The study was cross-sectional research in which the respondents were 400 enrolled students of different disciplines at SUMS selected through random multistage sampling. Electronic questionnaires were used to collect data. Due to COVID-19 restrictions when the study was conducted in 2021, the classes were held online, and the whole process lasted about two months. The data collected were analyzed in SPSS 19 based on such statistical procedures as mean, standard deviation, independent t-test, and one-way ANOVA. The results revealed that, the students' spiritual health was generally above average, and based on the respondents' views, the most important dimensions of spiritual health were "behavior", "orientation", and "insight", respectively. The findings also showed a significant difference in the participants' spiritual health about their marital status, place of residence, and respective school ($P<0.05$); Being married, living in rural regions, studying nursing, and having completed fewer semesters could contribute to increased spiritual health. The more semesters the students completed, the less spiritual health they experienced ($r=-0.134$; $P<0.001$). The reason for this is that increasing the levels of spiritual health would depend on an individual's ability to change his/her intellectual insights and emotional orientations. However, these two factors may decline as students begin their academic studies. The level of hypochondriasis was low, and this variable variable was not significantly associated with spiritual health ($P>0.05$). In response, policymakers must find solutions to this problem by formulating plans that could ideally enhance students' levels of spiritual health.

Key words:
spiritual health; orientation; insight; behavior; hypochondriasis

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INTRODUCTION

Health has been a significant issue in human societies throughout history. According to the World Health Organization (WHO), health involves different aspects and dimensions. The WHO primarily identified physical, psychological, and social dimensions of health and further introduced the notion of *spiritual health* in 1997[1]. Spiritual health cannot be precisely defined as a complex and broad concept. On the one hand, it shares some similarities with spiritual well-being, religious well-being, and religiosity, and on the other, it can be approached from different worldviews and paradigms. For this reason, there are different definitions of this concept.

Spiritual health is the ability to unfold and express fundamental goals in life and to act toward realizing them while managing to experience love, joy, and peace, to lead a fulfilled life, and help others to improve their spiritual health[2]. Hawks (1994) associated spiritual health with a high level of faith, hope, and commitment arising from a faith-based worldview or system that has a specific idea of life and encourages individuals to adhere to ethical values and to be connected with their own selves, others, and a higher power[3].

In Iran, some efforts have also been made to define spiritual health. The agreed-upon definition proposed by the Iranian Academy of Medical Sciences views spiritual health as a multifaceted state that, depending on every individual's capacity, provides attitudes, insights, and abilities that can bring about spiritual transcendence (i.e., having faith in God)[4]. This ultimate goal is expected to be consistently pursued by the individual and should be actualized in his/her willful behaviors and connections with God, people, society, and nature[4].

Of course, most studies concerned with spiritual health have been conducted by specialists in nursing who sought to take care of patients spiritually[5-7]. In the literature on this topic, however, few studies have explored the factors that could enhance or reduce the levels of spiritual health. This situation suggests that approaches to spiritual health have mostly followed pragmatic purposes, and instead of finding ways to increase spiritual health, they have tried to measure its functions. Some of these studies have revealed that individuals' family background, levels of hopefulness, levels of motivation in life, and patients' acceptance of their diseases could be regarded as effective factors[8,9]. Meanwhile, among the factors associated with spiritual health, hypochondriasis has been ignored in research studies[10,11]. Hypochondriasis is a psychological disorder whereby an individual falsely associates one or several symptoms in his/her body with a particular disease or fears that s/he may suffer from this disease[12].

This study aims to first investigate the relationship between spiritual health and social factors such as gender, marital status, place of birth, place of residence, academic discipline, and current semester. The second aim is to examine the relationship between spiritual health and hypochondriasis.

METHODS

The study was cross-sectional research. The population included two groups of students at SUMS: (a) those enrolled in such BSc programs as rehabilitation sciences, health, nursing, paramedical sciences, and medical management and information; and (b) those enrolled in the first three years of medical sciences, dentistry, and pharmacy programs. The sample size, following

Cochran's formula, was 340. Cochran's formula is:

$$z2pq/e2$$

In this formula, N is the population size. The p-statistic is the percentage distribution of the trait in the society, that is, the proportion of people with the studied trait. The e-statistic is the margin of error. That is 0.05.

However, 400 students were included in the study as the respondents to make a more confident analysis. The inclusion criteria were: (a) student enrolment at one of the schools of SUMS; and (b) studying at a BSc and doctoral program at the university. Meanwhile, both male and female students were included. The exclusion criteria were as follows: (a) those in such master programs as rehabilitation sciences, health, nursing, paramedical sciences, and medical management and information; and (b) those in the last four years of medical sciences, dentistry, and pharmacy programs.

The sampling procedure was based on the random, proportionate to size multistage sampling method. As such, first, from every school, some departments were randomly selected; Second, out of each department, some students were randomly chosen as the respondents. The number of samples was determined according to the ratio of female students in the faculty. So. It was not equal for two groups; finally, a link to the questionnaire was sent. Due to COVID-19 restrictions, the classes were held online. For this reason, electronic versions of the questionnaire were designed in Porseline website to collect data, and links of it were sent to the students by mobile messages. The data collection procedure occurred in late 2021 and lasted two months.

The data collection instrument in this study was a questionnaire. The questionnaire involved three sections regarding social factors, hypochondriasis, and spiritual health. Each questionnaire is further described below:

Independent Variables

- The social factors section collected information about such variables as gender, marital status, place of birth, place of residence, the respective school, and current semester.
- The hypochondria questionnaire: was proposed by Evans in 1980 as a way of probing into hypochondriac tendencies[13]. This questionnaire was validated in Iran by Talaei and Fayazi Bordbar[14]. The questionnaire involves 36 questions measured according to a Likert scale (a sample question: "How much do you think you are exposed to various diseases, compared to people in your age group?"). The scale's reliability was confirmed through Cronbach's alpha (0.89) and its face and construct validity were also confirmed.

Dependent Variable

- Spiritual Health Inventory for Adults in the Iranian Society: The Iranian Academy of Medical Sciences developed and validated this inventory in 2014[15]. This includes 48 items extracted from authentic Islamic texts about three perspectives, namely "relationship with God", "relationship with one's self", and "relationship with the environment", and in terms of three dimensions, namely "orientation", "insight", and "behavior." Of course, "relationship with God" and

"relationship with one's self" were combined into one single perspective called "relationship with God or one's self". The items were ranked according to a five-point Likert scale (1 = "Strongly Disagree"; 2 = "Disagree"; 3 = "No Opinion"; 4 = "Agree"; 5 = "Strongly Agree"). In this sample, Cronbach's alpha of the scale was 0.98, indicating good internal consistency and desirable validity and reliability.

The data were processed in SPSS 19. The normality of the scales was checked by skewness and kurtosis, and the scores of the scales were distributed normally (see Table 1). Therefore, the data were analyzed by parametric tests. Mean, standard deviation, independent t-test, and one-way ANOVA were used for analyzing data.

Table 1. The normality of the scales by skewness and kutosis

	Spiritual health	**Insight**		**Orientation**		**Behavior**	
		God and one's self	Environment	God and one's self	Environment	God and one's self	Environment
Skewness	-0.728	-0.957	0.966	-0.964	-0.873	-0.976	-0.383
Kurtosis	0.103	0.518	0.884	0.761	0.135	0.853	-0.318

The proposal for this research was confirmed by the SUMS's Ethical Committee under number IR.SUMS.REC.1400.23. Before the data collection procedure, the participants' informed consent was obtained, and they were assured of the confidentiality of their names and responses throughout the study.

RESULTS

In total, 400 students were selected as respondents. 700 questionnaires were sent, and 400 students answered. The descriptive analysis of the respondents' information showed that 67.3% were females, and 32.8% were males. The majority of the respondents were single (89.5%), and most of them were born in the capital city of the province (48.5%) and had lived in the capital city most of their lives (53.5%).

As Table 2 shows, in terms of importance, the three dimensions of spiritual health were ranked as follows: "behavior", "orientation", and "insight." More specifically, "relationship with God or one's self" in the "insight" (M= 38.34) and "orientation" (M= 47.13) dimensions showed higher levels than "relationship with the environment."

Conversely, in the case of the "behavior" dimension, "relationship with the environment" (M= 64.4) showed a score higher than that of "relationship with God or one's self" (M= 37.91). From another viewpoint, one could infer that "relationship with God or one's self" showed its highest level in "orientation", followed by "insight" and "behavior." "Relationship with the environment" exhibited its highest measure (M= 64.4) in

terms of "behavior", while "relationship with the environment" (M= 21.37) showed considerably lower scores about "orientation" and "insight" (M= 12.84), compared to "behavior."

Table 2. The descriptive percentages of the respondents' spiritual health levels for each dimension

Spiritual health		Number of Items	Mean	Mean (percentage out of 100 based on the number of items)	SD	Min.	Max.
Spiritual health (total)		48	203.99	100	29.22	105	240
Insight	Relationship with God or one's self	9	38.24	15.89	6.35	13	45
	Relationship with the environment	3	12.84	5.35	2.13	4	15
Orientation	Relationship with God or one's self	11	47.13	19.64	7.32	19	55
	Relationship with the environment	5	21.47	8.90	3.5	12	25
Behavior	Relationship with God or one's self	9	37.91	15.80	6.79	12	45
	Relationship with the environment	11	46.4	26.83	6.53	22	55

As Table 3 shows, there is no significant difference between the respondents' spiritual health regarding their gender (P>0.05). However, the marital status displayed a significant difference (t=0.538; P<0.001). More specifically, the spiritual health levels of married people in terms of "relationship with God or one's self" in the "insight" (M= 41.5) and "orientation" (M= 50.6) dimensions and in terms of "relationship with the environment" in the "insight" (M= 14.1) and "behavior" (M= 49.6) dimensions, were higher than those of single individuals.

Table 2 further suggests that differences in the students' places of birth (rural regions, counties, capital cities) were only significant in the case of "relationship with God or one's self" in the "behavior" dimension (F=3.45; P<0.001). Meanwhile, the spiritual health measures of students who mostly resided in rural regions, counties, or capital cities were different both in terms of the total scores (F=4.82; P<0.001) and in terms of "relationship with God or one's self" in the "insight" dimension (F=5.104; P<0.001), "relationship with God or one's self" in the "behavior" dimension (F=4.88; P<0.001), and "relationship with God or one's self"

(F=4.57; P<0.001) and "relationship with the environment" (F=5.397 P<0.05) in the "orientation" dimension.

Table 3. Tests of difference of the respondents' spiritual health levels in the light of the demographic variables

			Spiritual health	**Insight**		**Orientation**		**Behavior**	
				God and one's self	**Environment**	**God and one's self**	**Environment**	**God and one's self**	**Environment**
Gender	Female	Mean	204.9	38.36	13.2	47.7	21.57	38.6	46.6
	Male	Mean	202.13	38.27	13.2	46.8	21.27	37.7	46.7
	t -test		0.928	0.890	0.451	1.43	0.752	1.144	0.289
Marital status	Single	Mean	202.36	38.04	13.2	47.7	21.31	37.6	46.6
	Married	Mean	217.88	40.8	14.1	50.6	22.88	41.5	49.6
	t-test		-3.83**	-3.49**	-60.93**	-3.93**	-2.77*	-3	-2.78**
Place of birth	Rural regions	Mean	203.65	38.46	13.2	47.9	21.27	38.7	46.7
	Counties	Mean	207.50	38.86	13.2	48.7	21.95	39.6	47.6
	Capital city	Mean	200.78	37.84	13.2	46.7	21.06	37.7	46.6
Place of residence	Rural regions	Mean	216.22	41.28	13.2	50.6	22.69	40.6	48.6
	Counties	Mean	205.84	38.37	13.2	47.7	21.88	38.7	47.6
	Capital city	Mean	200.63	37.82	13.2	46.7	20.98	37.7	46.6
	F-test		4.96**	5.104**	2	4.57**	5.397*	4.88**	2.74

*p < .05; **p < .001

Table 4 shows the difference as far as the respective school is concerned. The findings revealed that the respondents' total score on spiritual health was significantly different regarding the respective school factor. Students of the School of Nursing expressed the highest degree of spiritual health (M= 210.26), whereas those of the School of Medicine had the lowest level of spiritual health (M= 196.35).

Table 4. Tests of difference of the respondents' spiritual health levels in the light of their respective schools

		Spiritual health	Insight		Orientation		Behavior	
			God or one's self	Environment	God or one's self	Environment	God or one's self	Environment
Health	Mean	205.47	38.14	13.2	48.8	21.28	38.5	47.5
Nursing	Mean	210.55	39.97	13.2	48.7	22.31	39.6	47.7
Medicine	Mean	196.66	37.02	12.2	45.9	20.78	36.8	45.7
Paramedical Sciences	Mean	208.53	38.86	13.2	48.6	21.91	39.6	48.6
Rehabilitation Sciences	Mean	203.81	39.45	13.2	47.6	20.91	37.6	46.7
Pharmacy	Mean	203.20	36.8	12.08	47.8	22.2	37.5	47.7
Dentistry	Mean	204.56	38.64	12.3	48.6	21.5	38.7	46.7
Medical Management and Information	Mean	201.70	37.7	13.2	47.6	21.10	39.6	45.5
F-test		**1.97***	**1.87**	**1.56**	**1.85**	**1.59**	**1.95**	1.5

*p < .05; **p < .001

Table 5 shows the relationship between spiritual health and current semester and hypochondriasis (R=-0.133; P<0.001). The findings clarified that the number of semesters completed could be effective, as finishing more semesters could reduce students' spiritual health. As an independent variable, hypochondriasis did not show any significant association with spiritual health (P>0.05).

Table 5. The relationship between spiritual health and current semester and hypochondriasis

		Spiritual health	God or one's self	Environment	God or one's self	Environment	God or one's self	Environment
Current semester	**r**	-0.133**	-0.141**	-0.055	-0.154**	-0.098	-0.11*	-0.106*
Hypochondriasis	**r**	0.028	0.009	0	0	0.038	0.0.23	0.079

Note. R=Pearson correlation coefficient test.
*p < .05; **p < .001

DISCUSSION

This study explored the relationships between spiritual health and a group of sociodemographic factors and hypochondriasis among students at the SUMS, Iran. Spiritual health was examined based on three dimensions (orientation, insight, behavior) and three perspectives (relationship with God, relationship with oneself, and relationship with the environment). The results of the investigation revealed that "behavior" was the most important dimension of spiritual health, followed by "orientation" and "insight."

This observation suggested that even a slight change in an individual's life conditions could change the behavioral aspects of his/her spiritual health (as more specifically explained below). In the extant literature, the measurement scales used in

research on spiritual health did not address orientation, insight, and behavior as separate variables16-18. Thus, their findings could not be directly compared to the results of the present study. The scale used in this study was already employed in research conducted by the original developers of the scale, whose findings were not compatible with those of the present study as they observed a reverse order of importance of the spiritual health dimensions: "insight", "orientation", and "behavior"15.

The impacts of innate characteristics on spiritual health were not as strong as acquired characteristics. As such, the findings showed that gender and place of birth did not significantly affect spiritual health. In contrast, place of residence and marital status were more impactful. A place of residence is where an individual stays most of his/her life, including rural regions, counties, or capital cities. The mere fact that an individual was born in a rural region, a county, or a capital city across the country would not significantly affect his/her spiritual health. However, the place where a person lives most of his/her life can be impactful. As such, the students who stayed most of their lifetime in rural regions and capital cities showed more effect, with lower levels of spiritual health, respectively.

Some other studies suggested that individuals who lived most of their lives in rural areas also showed higher levels of other forms of health, including psychological and physical health19. This difference, of course, could also stem from social causes. Still, one of the major ones is the difference between rural and urban inhabitants in terms of their lifestyles and the relationships they perceive between themselves and their environment.

Another acquired variable affecting spiritual health was marital status, underscored in other investigations addressing spiritual health. As such, married people experience high levels of spiritual health17. Married life brings about some changes and spiritual health could be one of them. Such changes include a more stable life situation and increased hopefulness, motivation, and peace. Marriage and marital satisfaction could foster more peace and spiritual health. However, studies have shown that if a marriage fails to engender marital satisfaction, peace, and motivation, it can lower the health level of a married individual than that of a single individual. For this reason, a divorced person's health levels are usually lower than those of married and single people20-22.

The respective school and academic discipline were strongly tied to spiritual health. The findings revealed that students at the School of Nursing experienced the highest level of spiritual health, whereas students at the School of Medicine expressed the lowest levels. The reason for this difference in nursing students goes back to the nature of the nursing job and providing maternal care to patients. Spiritual health is the insight, tendency, and behavior of a person about himself, God, and the environment, and those who choose to pursue their future career in the maintenance and care of disabled and sick people, are perhaps better than the students of other disciplines, as such people are able to communicate spiritually and adjust their inner selves. Another study exploring happiness also reported similar results as students of the School of Nursing of a university expressed higher levels of happiness23. One of the reasons for this phenomenon was that within the hierarchy of the medical science system, nurses are in a position where some issues related to the problems of patients are involved. They are less likely to be proud of their position as doctors. (Such as doctors have been placed) In all these cases, it can be seen that this

group of students has more happiness in comparison.

Some students at the School of Medicine may develop a sense of narcissism rooted in the Iranian medical system. This problem, as a systemic issue, encourages students and graduates of medical schools to feel they are more qualified than those of other academic disciplines. Although communities usually believe that academic studies, particularly top in-demand majors, can enhance students' awareness and understanding of their selves and their surrounding world, this idea was not observed in the sample investigated in this study. In fact, the more semesters the students finished, the lower levels of spiritual health they reported.

Finally, the hypochondriasis variable was not significantly associated with spiritual health. In other words, the level of hypochondriasis cannot increase or decrease the student's spiritual health. The students in this study expressed low levels of hypochondriasis, which was why the relationship was not significant. Older adults, especially the elderly and middle-aged people, tend to suffer from hypochondriasis more. In contrast, young people from the most recent generations, due to the more careless lifestyle they have adopted, are less likely to experience hypochondriasis. Previous research has not paid attention to the relationship between spiritual health and hypochondriasis. Still, studies have been conducted on the relationship between spiritual health and some mental disorders, such as stress, anxiety, and depression, and it shows a non-linear and inverse relationship between them24,25.

One of the limitations of this study was that it could not include the students of medicine, dentistry, and pharmacy fields who were studying in the fourth to seventh years because these students are not easily available as they are required to enter the hospital environment and complete clinical courses and have less opportunity to complete the questionnaire. Another limitation of this study was that the questionnaire was designed electronically. The students did not answer the questionnaire in front of the interviewer, and it was impossible to ask more questions as it could lead to boredom and increase the tendency to abandon the questionnaire halfway. Hence, no further questions were asked about the selected variables.

CONCLUSION AND RECOMMENDATIONS

This study focused on spiritual health among university students in Iran. Although the students' spiritual health was generally above average, most of them depended on the "behavior" dimension, which could be changed even by slightest changes in life and lead to an insecure and unstable situation. From the perspective of social factors, being married, living in rural regions, studying nursing, and having completed fewer semesters could contribute to increased spiritual health. The level of hypochondriasis was low, and this variable could not decrease or increase spiritual health. Given the findings of this study, further investigations should examine spiritual health in other groups of students as well as other strata of society.

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REFERENCES

1. Hashempour-Sadeghian M, Movahed M, Tabiee M, Fatehi F. Study of the Relationship Between Core Discussion Network and Demographic Factors With the Spiritual Health of Young and Middle-aged Men and Women. Health Spiritual Med Ethics. 2021;8(4):235-42.
2. Chapman LS. Developing a useful perspective on spiritual health: love, joy, peace and fulfillment. Am J Health Promot. 1987;2(2):12-7.
3. Hawks SR. Spiritual health: definition and theory. Wellness Perspectives. 1994;10(4):3-10
4. Azizi F. Encyclopedia of Islamic spiritual health. Tehran: Shahid Beheshti Medical university. 2018.
5. Jaberi A, Momennasab M, Yektatalab S, Ebadi A, Cheraghi MA. Spiritual Health: A Concept Analysis. J Relig Health. 2019;58(5):1537-60.
6. Torabi F, Rassouli M, Nourian M, Borumandnia N, Shirinabadi Farahani A, Nikseresht F. The Effect of Spiritual Care on Adolescents Coping With Cancer. Holist Nurs Pract. 2018;32(3):149-59.
7. Speck P. Spiritual Care in Health Care. Health and Social Care Chaplaincy. 2013;7:21-5. doi: https://doi.org/10.1558/hscc.v7i1.21
8. Mishra B, Baghel AS, Paliwal D, Chauhan DS. Study of Spiritual Health Determinants in Indian Saints (Sadhus) at Ujjain Kumbh Mela (Simhast) 2016. Journal of Religion and Health. 2020;59(3):1233-57.
9. Zhang Y, Xue G, Chen Y, An K, Chen L. Factors related to spiritual health in Chinese haemodialysis patients: A multicentre cross-sectional study. Nurs Open. 2020;7(5):1536-43.
10. Mehdizadeh MS, Chargchian Khorasani E, Abedian Kasgari K. Factors related to spiritual health in Iran: a systematic review. The twelfth conference of new health sciences of the country; Tehran. 2018.
11. Ashori J‘, Safariyan MR, Yousofi NAA. The Relationship of Religious Orientation, Optimism and Spiritual Intelligence with the Spiritual Well-being of Instructors of the Quran. Psychology & Religion. 2014;7(2):125
12. Salkovskis PM, Rimes KA, Warwick HM, Clark DM. The Health Anxiety Inventory: development and validation of scales for the measurement of health anxiety and hypochondriasis. Psychol Med. 2002;32(5):843-53.
13. Evans C. Understanding yourself. India: Signet. 1980.
14. Talaei A, Fayazi Bordbar M. Hypochondrias in Resident Students of Mashhad University of Medical Sciences. JIUMS. 2009;17(1):8-18.
15. Amiri P, Abbasi M, Gharibzadeh S, Abadi M, Hamzavi Zarghani N, Azizi F. Designation and psychometric assessment of a comprehensive spiritual health questionnaire for Iranian populations. J Medical Ethics. 2014;8:25-55.
16. Bufford R. The Spiritual Well-Being Scale. Journal of Psychology and Theology. 1991; 19(1):56-70.
17. Daaleman TP, Frey BB. The Spirituality Index of Well-Being: a new instrument for health-related quality-of-life research. Ann Fam Med. 2004;2(5):499-503. doi: 10.1370/afm.89.
18. Dasti R, Sitwat A. Development of a multidimensional measure of Islamic spirituality (MMS). Journal of Muslim Mental Health. 2014;8:47-67.
19. Teckle P, Hannaford P, Sutton M. Is the health of people living in rural areas different from those in cities? Evidence from routine data linked with the

Scottish Health Survey. BMC Health Serv Res. 2012;12:43.
20. Salehi M, Hoseini Dronkolaei S, Alamian Gavzan S, Motevalian S. Relationship between Spiritual Health with Marital Satisfaction. J Babol Univ Med Sci. 2017;19(3):47-52.
21. Lawrence EM, Rogers RG, Zajacova A, Wadsworth T. Marital Happiness, Marital Status, Health, and Longevity. J Happiness Stud. 2019;20(5):1539-61.
22. Gallo LC, Troxel WM, Matthews KA, Kuller LH. Marital status and quality in middle-aged women: Associations with levels and trajectories of cardiovascular risk factors. Health Psychol. 2003;22(5):453-63. doi: 10.1037/0278-6133.22.5.453.
23. Parhizkar H, Riasaty A, Hashempour-Sadeghian M. Youth and Happiness: Studying the Relationship between Socio-Demographic Determinants and Happiness among Students of Shiraz University of Medical Sciences. Culture in the Islamic University. 2020;10(34):85-102.
24. Leung CH, Pong HK. Cross-sectional study of the relationship between the spiritual wellbeing and psychological health among university Students. PLOS ONE. 2021;16(4):e0249702. doi: 10.1371/journal.pone.0249702.
25. Najafi K, Khoshab H, Rahimi N, Jahanara A. Relationship between spiritual health with stress, anxiety and depression in patients with chronic diseases. International Journal of Africa Nursing Sciences. 2022;17:100463