

## Correlation between Spiritual Health and Health Locus of Control in Nursing and Midwifery Students of the Islamic Azad University of Urmia, Iran

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### Abstract

**Background and Objectives:** In today's world, the role of spirituality and its components in the prevention and treatment of public health and health issues is being taken into consideration. Given the importance of nursing and midwifery, this study was conducted to determine correlation between spiritual health and health locus of control in nursing and midwifery students.

**Methods:** This descriptive-analytical study was conducted on 300 nursing and midwifery students in 2015. Spiritual health was measured by Paloutzian and Ellison's Spiritual Well-Being Scale and locus of control measured by Walston's Multidimensional Measure of Health Locus of Control. Data were analyzed by ANOVA and Pearson correlation coefficient in SPSS 16.

**Results:** The students' mean score for spiritual health was  $92.28 \pm 16.35$  of total score 120. The mean score for religious and existential well-being was 48.54 and 43.74, respectively. There was a significant and positive correlation between spiritual health and internal health locus of control, and a significant and negative correlation between spiritual health and external health locus of control.

**Conclusion:** Spiritual health was significantly correlated with health locus of control. Therefore, planners are recommended to take necessary measures to promote nursing and midwifery students' spiritual health so that their health loci of control can be improved.

**Keywords:** Health Locus of Control, Spiritual Health, Student.

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## Introduction

Spiritual health represents an important and prominent dimension of a healthy life that turns material life into spiritual life (1). Spiritual health determines individual integrity and is a single force that makes necessary coordinations among physical, mental, and social dimensions. In fact, spiritual health refers to human's spiritual experiences in two dimensions: Religious health that is concerned with perception of health in spiritual life and Physical health that focuses on people's social and mental concerns. Physical health addresses approaches to coping with self, community, or environment (2).

Regarding the concept of spiritual health in Islam, the Iranian Academy of Medical Sciences states that spiritual health is a

condition at different levels and degrees in which essential tendency and abilities, tailored to individual potential, are available for the excellence of the spirit, i.e. becoming closer to God, so that all internal facilities are employed in a coordinated and balanced manner to achieve this general purpose; as a result, internal and external voluntary behaviors, appropriate to them, towards God, people, community, and nature are manifested (3).

Locus of control is considered one of the important issues in different health dimensions that is associated with spiritual health and is a determinant of individual motives to behave in different ways (4). Rotter was first to propose locus of control and derived it from social-learning theory (5). Locus of control refers to

certain factors that one considers them to be effective on his/her life. These factors may be internal, i.e. one holds him/herself responsible for his/her actions and behaviors, or external, i.e. one thinks that events are determined by chance, others' forces, and unknown and uncontrollable agents (5-7).

Health locus of control theory that has attracted the attention of researchers, including Walston, for over 30 years (7) was proposed, developed, and revised after locus of control (8) and widely used in studies (9,10). Multidimensional health locus of control theory consists of internal health locus of control (IHLC) that represents the degree of one's belief in internal factors and responsible behaviors towards his/her own illness and health. IHLC causes a sense of control (11). External (perceived) health locus of control (PHLC) reflects the degree of one's belief in external determinants, such as physician and family, by which his/her health is determined. External (chance) health locus of control (CHLC) reflects the degree of one's belief in chance or luck to which he/she attributes his/her health (12).

Khoshnood et al. study on nursing students demonstrated that internal religious orientation, happiness, internal locus of control, and problem-oriented strategies were significantly and positively associated with spiritual health and external locus of control was significantly and inversely correlated with spiritual health, and these factors could predict spiritual health (13). It has been demonstrated that people with internal locus of control experience greater levels of life satisfaction than those with external locus of control (14,15). Hedari Tafreshi argued that people with internal orientation were more popular, had higher self-esteem levels and better social relationship, and coped with stress more efficiently compared to those with external orientation (6). Regarding the significance of spiritual health and locus of control in all people especially students that are the active and future-making workforce of the community, this study was conducted to investigate correlation between spiritual health and health locus of control in nursing and midwifery

students of the Islamic Azad University of Urmia.

## Methods

This descriptive-analytical study was conducted on 300 nursing and midwifery students in 2015. The study population consisted of 600 students 309 of whom were nursing students. First, the samples were selected according to random stratified sampling from the students of both fields of study in a way that 50% of the students were selected. Accordingly, proportionate to the number of students of each field of study, 154 nursing students and 146 midwifery students were selected. Then, students with inclusion criteria (living in dormitories, suffering from no physical and mental disorders, and volunteering to participate in the study) were selected from both fields of study according to random, convenience sampling. The exclusion criteria were lack of cooperating with the study and suffering from physical and/or mental disorders. Ethical considerations such as voluntary nature of participation in the study and keeping the participants' information private and anonymous were observed.

Demographic characteristics were gathered by a demographic questionnaire. Spiritual health was measured by 20-item Paloutzian and Ellison's Spiritual Well-Being Scale (1982). Of the 20 items, 10 (odd-numbered) items have been developed to measure Religious health and the remaining (even-numbered) ones investigate Physical health. Sum of the scores for these two subscales represents the score for spiritual health that ranges from 20 to 120. The items are rated by a 6-point Likert scale from absolutely disagree to absolutely agree. This questionnaire has already been used in studies conducted in Iran and its validity and reliability have been confirmed (16,17). In the current study, the Cronbach's alpha coefficient of this questionnaire was derived 80%. To gather data on the locus of control, Walston's Multidimensional Measure of Health Locus of Control was used. This instrument was first translated into Persian and nativized to Iranian respondents by Moshki et al. (17). This

measure consists of 18 items on three subscales (internal belief, perceived external belief, and chance external belief).

Each subscale is measured by six items that are rated by 6-point Likert scale ranging from absolutely disagree (scored 1) to absolutely agree (scored 6). Accordingly, the minimum and maximum possible score for each subscale is 6 and 36, respectively. Besides that, the score for each subscale is calculated separately (18). In the present study, the Cronbach's alpha coefficient of this measure was derived 80%.

After the research purposes were explained to the participants and they provided informed consent to participate in the study, they filled out the questionnaires as the researcher was present to provide them with instructions on how to do so if necessary. The data were analyzed by ANOVA and Pearson correlation coefficient in SPSS 16. The level of significance was considered 0.05.

### Result

The mean age of the participants was 21.47±2.12 years. Two hundred and forty seven (82.3%) participants were female. The majority of the participants were 20-25 years (62.3%) and had an moderate economic status (73.7%). Two hundred and fifty five (85%) participants were single (Table 1).

Table 1. Demographic characteristics of students and their association with spiritual health

Demographic characteristics	Frequency (%)	spiritual health Mean± SD	p-value	
gender	Woman	247(82.3)	93.17±16.49	0.02
	Man	53(17.7)	88.13±15.17	
Marital status	Single	255(85)	92.78±16.41	0.09
	Married	45(15)	89.93±15.71	
Age (years)	< 20	99(33)	94.08±17.16	0.12
	20 to 25	187(62.3)	91.23±15.86	
	>25	14(4.7)	93.64±17.01	
grade point average	< 14	51(17)	88.06±17.54	0.01
	14-16	110(36.7)	93.82±16.20	
	16-18	106(35.3)	95.68±13.02	
field of study	18-20	33(11)	94.88±13.25	0.4
	Nursing	154(51.3)	92.90±17.1	
conomic status	Midwifery	146(48.7)	91.63±15.56	0.01
	good	61(20.3)	95.32±15.72	
	moderate	221(73.7)	91.91±16.39	
	weak	16(5.3)	89.43±15.47	

The findings indicated that the students' mean score for spiritual health was 92.28±16.35 of total score 120. Regarding spiritual health

level, 59.3% of the students had moderate levels of spiritual health and the rest had high levels of spiritual health. None of the samples had a low level of spiritual health. Regarding spiritual health subscales, the mean score for Religious health (48.54±8.85) was higher than that for Physical health (43.74±8.83). Association between demographic characteristics and spiritual health was investigated by one-way ANOVA and independent t-test. According to the results, spiritual health was significantly associated with gender, grade point average (GPA), and economic status (p<0.05) such that spiritual health was higher among the female students, students with higher GPA, and those with higher economic status. In addition, the mean score for IHLC, PHLC, and CHLC was 26.96±3.96, 22.76±4.6, and 19.36±4.31, respectively (Table 2).

Table 2. Mean scores for spiritual health and health locus of control among studied students

Spiritual health dimensions		Mean (SD)	Domain
Spiritual Health	Religious health	48.54±8.85	23-60
	Physical health	43.74±8.83	15-60
	Spiritual health	92.28±16.35	51-120
Health Locus of Control	Internal control	26.96±3.96	14-36
	External control (other people)	22.76±4.6	11-34
	External control (Chance)	19.36±4.31	8-31

According to Pearson correlation coefficients, spiritual health dimensions (Religious health and Physical health) were significantly and positively correlated with IHLC, and significantly and negatively correlated with PHLC and CHLC (Table 3).

Table 3. Correlation of spiritual health with health locus of control and its dimensions

	Internal control	External control (other people)	External control (Chance)
Religious health	r=0.42 p=0.001	r=0.31 p=0.04	r=0.41 p=0.001
Physical health	r=0.44 p=0.001	r=0.28 p=0.05	r=0.39 p=0.001
Spiritual health	r=0.43 p=0.001	r=0.30 p=0.03	r=0.40 p=0.001

### Discussion

In the current study, the mean score for religious well-being, existential well-being, and spiritual health was derived 48.54±8.85,

43.74±8.83, and 92.28±16.35, respectively. This finding represents that most students obtained moderate and high scores for spiritual health. Consistently, Asarrodi et al. study on nurses' spiritual health reported that none of the nurses had poor spiritual health and most of them had moderate levels of spiritual health (19). In addition, Hsiao et al. study to measure students' spiritual health found that the students' spiritual health was moderate (20). Consistent with the present study, Safayi Rad et al. reported that students' levels of spiritual health were acceptable (21).

In the present study, there was a significant difference in spiritual health score between male and female students such that female students' score for spiritual health was higher than male students, which is in agreement with Jafari study (22). This finding can be explained by women's different roles and features as well as higher levels of adjustment with spiritual principles. However, Sanagoo et al. reported that gender and spiritual health were not associated (23). In addition, Alahbakhshian et al. reported that there was no significant difference in spiritual health between male and female nurses (24).

In addition, the present study indicated a significant association between the students' GPA and spiritual health scores. In fact, it can be argued that the better the students' academic conditions are, the higher levels of spiritual health they have. More clearly, in this study, the higher levels of spiritual health the students had, the better academic scores they obtained.

In this study, spiritual health score was significantly associated with economic status. Therefore, it can be argued that the higher economic status the students had, the higher levels of spiritual health they had, which is in agreement with Mostafazadeh et al. study on midwifery students (25).

The findings of this study demonstrated that spiritual health scores of different age groups were not significantly different, which is in agreement with Asarrodi et al. study (19) but in disagreement with Ya-Chu et al. study that found age to be a predictor of spiritual health (26).

Furthermore, no significant association between marital status and spiritual health was seen in the current study. The other finding of this study was that the students' field of study and the mean score for spiritual health were not significantly associated, i.e. midwifery and nursing students had equal levels of spiritual health, which is in agreement with Rahimi et al. study (2).

According to the findings, spiritual health and locus of control were significantly correlated among male and female participants, which is consistent with Naghibi et al. study (27). Spirituality is associated with health, well-being, and recovery; more clearly, gaining strength from religion, promoted mental health, and therefore increased healthy behaviors, positive emotions, optimism, and life satisfaction represent the first outcome of spiritual health promotion. High level of spiritual health can bring about a sense of hopefulness, purposefulness, peace, positive attitude toward the world and lead to high levels of ability to adjust as well as increased ability to do things and even less emotional attachment to others. In addition, attributing positive events to internal causes and negative events to external causes, i.e. optimism, is being taken into account.

Furthermore, the findings indicated that spiritual health dimensions (Religious health and Physical health) were positively and significantly correlated with IHLC, and negatively and significantly correlated with external health locus of control (both PHLC and CHLC), which is in agreement with a number of studies (13-15,28,29). This finding can be explained by Cassidy and Long study according to which people with IHLC had higher levels of self-esteem, self-efficacy, and problem-solving that caused a more positive self-concept and therefore higher levels of spiritual health (30).

Consistent with the present study, Greenhous and Kovenkioglu reported that successful students had IHLC while unsuccessful students had external health locus of control(31). Given the findings of the present study and other studies, it can be argued that locus of control is highly effective on the characterization of

people in a community. Education centers have the main contribution to people's Education in the community, which should be paid further attention in different levels of education. Accordingly, Iran's Education Organization should seek to foster and develop creative talent and raise self-esteem as well as to internalize the locus of control.

## Conclusion

This study demonstrated that spiritual health was significantly correlated with health locus of control. Therefore, planners are recommended to take necessary measures to promote nursing and midwifery students' spiritual health so that their health loci of control can be improved. To promote spiritual health, planners in clinical settings should first take into account the signs of the above mentioned variables and then develop certain plans to promote spiritual health among nursing and midwifery students. As a result, health locus of control can be promoted, which causes students to hold themselves responsible for their actions and behaviors and view success and failure as the outcome of their own performance and effort.

## Conflict of interest

The authors declare no conflict of interest.

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