



The Relationship between Spiritual Health and Spiritual Intelligence of Midwives and Midwifery Students and Satisfaction of Clients with Vaginal Childbirth

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Background: Maternity is one of the most important events in women's lives, and satisfaction with it has a significant impact on the health of women and their relationship with their neonates. On the other hand, characteristics of midwives such as health and spiritual intelligence can affect the satisfaction of women.

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Objective: This study aimed to determine the correlation between spiritual health and intelligence of the staff and midwifery students and the satisfaction of the patients with vaginal childbirth.

Methods and Materials: This descriptive-correlational study was carried out on 200 subjects including midwives and patients with vaginal childbirth. Stratified sampling was used as the sampling technique. Research instruments were a demographic questionnaire, Ellison's and Paluotzian Spiritual Health Questionnaire, and King Spiritual Intelligence Questionnaire for the personnel and midwifery students, Mackey Childbirth Satisfaction Rating Scale, and a demographic questionnaire for patients. The data were analyzed using SPSS software version 24, Pearson correlation and linear regression. A P value less than of 0.05 was considered significant.

Results: In this study, half of mothers were younger than 26 years of age and most of them were nulliparous with wanted pregnancy. Furthermore, half of personnel and students had moderate spiritual intelligence and about half had moderate spiritual health. The satisfaction of the patients had a positive correlation with spiritual health and spiritual intelligence. The lowest score was related to the flexibility component and the highest score was related to the component of stress tolerance.

Conclusion: Since the health and spiritual intelligence correlate with the satisfaction of patients with vaginal childbirth, it is suggested that spiritual characteristics be taken into account as a part of the selection process for midwifery students and staff.

Keywords: Spiritual health; spiritual intelligence; satisfaction; delivery; midwife.

1. INTRODUCTION

The birth of a healthy baby is one of the most important events in the life of women accompanied by maternity; it is considered as a fundamental change in the life of women [1,2].

A satisfactory childbirth experience leads to the development of a positive and attractive relationship between mother and child, in which is essential for the formation of the mother's identity, and increases the capacity of mother's satisfaction to evolve in her maternal identity [3]. Mothers with a pleasant experience of childbirth has a higher degree of self-esteem, a better relationship with their baby, and a better understanding of their next birth [4]. In contrast, dissatisfaction with childbirth can have negative effects on the health of women and their relationship with children [1] and cause post-partum depression, anxiety [5-8] post-traumatic stress disorder (PTSD), fear of subsequent delivery [1], and creates a problem in lactation and taking care of the baby and themselves [1].

Maternity satisfaction includes the satisfaction of a woman with delivery experiences, and the beginning of postpartum period, and is measured by the mother's perception of received care [9]. As an old definition of satisfaction, it is an individual assessment of both care services and service providers [10] and reflects the quality of the health services provided [11].

Evidence show the role of the relationship between mother and midwife in the formation of women's satisfaction, individual communication, information retrieval, emotional support received from health care providers [12-15]. All dissatisfaction are related to the lack of support when it is most needed and more often refers to care providers including nurses, gynecologists and midwives [16-18], and shows the need for professional care givers, especially midwives [19]. There are four factors increasing the satisfaction of women including good support from care providers, quality communication with health care providers, engaging in decision making about care and having a better experience than what they have been waiting for [20]. Spiritual intelligence is one of the dimensions of intelligence [21]. Spiritual intelligence is defined as a set of flexible mental abilities that relate to non-subjective and transcendental aspects of reality and is related to the existential nature of a person and personal meaning [22].

Spiritual health is taken from the two concepts of health and spirituality [23] and characterized by the stability in life, peace, fit and harmony, a sense of close relationship with Lord, society, environment and self-determination consisting of religious health that focuses on the quality and understanding of one's health in life, when it is associated with superior strength as well as the existence health that focuses on social and psychological concerns and how people interact

with God, their community, and their environment. Disruption of spiritual health can cause mental disturbances and loss of meaning in life [24].

Given the importance of satisfaction with delivery in mental and physical health reducing the amount of elective cesarean section and improving the relationship between mother and child, as well as lack of adequate research in the field of identification of factors affecting the mothers' satisfaction with vaginal childbirth, the researcher aimed to identify the role of spiritual health and spiritual intelligence on women's satisfaction with vaginal childbirth.

2. MATERIALS AND METHODS

2.1 Study Setting

This was a cross-sectional descriptive-correlation study conducted on the three hospitals of Zanjan city (Ayatollah Mousavi, Social Welfare and a private hospital) during 2017-18. The study population consisted of all pregnant women who referred to the hospitals for vaginal delivery, all midwives working in the hospitals mentioned in the three shifts of morning, evening and night, and all midwifery students attending a course in hospitals.

2.2 Inclusion Criteria

- For mothers: Being Iranian, having a normal pregnancy course, having at least elementary level of education and not having any history of illness and mental disorders.
- For midwives: Having work experience for at least 3 months; not having any kind of history of illness and mental disorders.
- For midwifery students: spending at least one practical course at the desired hospitals.

2.3 Data Collection Tools

In the present study, we had two sets of tools for clients, staff and students that are as following:

2.4 Tools for Patients

2.4.1 Form midwives

Demographic form: Including items about age, number of pregnancies, education, occupation, monthly income, wanted pregnancy, the desired

sex of the infant and the presence of abnormalities in the neonate. No other data in this regard were collected.

Mackey Childbirth Satisfaction Rating Scale:

consisting of 18 questions, which were taken from McKay Satisfaction Questionnaire (34-items). These eighteen questions consist of four subsets including six items about the person herself, one option about the spouse, two about the newborns and eight ones about the midwives, representing the behavior of the main participant in childbirth. Research subjects get a score for each item in a five-point Likert rating of between 0 and 4 points with regard to satisfaction or dissatisfaction. (Very dissatisfied = 0, dissatisfied = 1, no idea = 2, satisfied = 3, very satisfied = 4), and at the end, the rates are calculated as a percentage of 100, and the individuals in terms of their satisfaction with childbirth are divided into four groups (0-24 = very dissatisfied, 25-50 = dissatisfied, 51-75 = Satisfied, 76-100 = very satisfied). The scale was previously translated into Farsi and used in the same studies in our country. Its validity has been confirmed by content validity method and its reliability has been confirmed by Cronbach's alpha coefficient of 0.92 [25].

2.4.2 For midwifery students

Demographic form: Including variables of age, work record, employment status, level of education, college and ethnicity, in which were designed to midwives and students separately.

Ellison's and Paluotzian Spiritual Health Questionnaire:

It is composed of twenty items and measures two dimensions of spiritual well-being [26], including 10 items about religious health and 10 other questions indicating existential health and that spiritual health score is the sum of the two groups i.e. between 20-120 and its response is a 6-point Likert from totally disagree to totally agree, and the spiritual health of the people is divided into three groups of 20-40 as low, from 41 to 99 as moderate, and 100-120 as high. This tool has been used by Iranian researchers frequently, whose Cronbach's alpha has been reported as between 0.82-0.87 and is indicative of the desired reliability [27].

Spiritual Intelligence Questionnaire: Including 24 points containing four components of 24 items (critical existential thinking, personal meaning production, transcendental awareness, and developing higher consciousness) which were

scored 0-4 [28], each of the subscales have 7, 5, 7, and 5 items respectively. The higher the individual score in this questionnaire, the more spiritual intelligence they have. In the study by Khodabakhshi and his colleagues, the Cronbach's alpha of 0.91 was obtained. Reliability of the questionnaire of King in the present study was calculated using Cronbach's alpha and for the whole questionnaire, 0.921 was obtained [29].

2.5 Statistical Analysis

The data were statistically analyzed using SPSS software version 24. In this research, descriptive statistics, Pearson correlation to investigate the correlation between spiritual health and spiritual intelligence and the clients' satisfaction with vaginal childbirth as well as linear regression was used to predict the effect of spiritual health, spiritual intelligence and emotional intelligence of midwives and midwifery students.

3. RESULTS

The results showed that in total, of 200 participants who had vaginal childbirth, 47.7% were nulliparous; 51.5% of mothers were younger than 26 years of age, in such a way that most of them had diploma degree (Table 1). Pearson correlation showed a significant correlation between the spiritual health of midwives and midwifery students and the clients' satisfaction with vaginal childbirth ($r=0.408$). Furthermore, there was a correlation between spiritual intelligence of midwives and midwifery students and the clients' satisfaction with vaginal childbirth ($r=0.239$) (Table 2). Results of linear regression analysis indicated that spiritual intelligence and spiritual health of midwives and

midwifery students had a protective effect on mothers' satisfaction with increasing spiritual health, the satisfaction increased 0.231 points and with increasing spiritual intelligence, the satisfaction increases by 0.088 points. Also diploma education has effect on regression model (Table 3).

4. DISCUSSION

The results of this study showed that there is a positive and significant correlation between the spiritual health of midwives and midwifery students and clients' satisfaction with vaginal childbirth in Zanjan hospitals in 2017. Several studies have examined the spiritual health of midwives. Chiang et al. conducted a study entitled "The Effect of Nurses' Spiritual Health on Their Attitude toward Spiritual Care, Professional Commitment and Nursing Care". They found that spiritual health is statistically correlated with professional duties and nursing care, and also increasing spiritual health increases the level of professional commitment and nursing care. They suggested that spiritual health should be considered an important value and that belief system can affect professional performance and that educational planners must be aware of the role of spirituality and take into account the spirituality of nurses within educational period [30].

In this study, as in the present study, the spiritual health of the staff was considered and that spiritual health has been able to affect professional performance and since professional performance can lead to satisfaction of the clients; the results of this study are in line with those of the present study. Similar studies were found in the field of nursing among them,

Table 1. Demographic characteristics of subjects participating in the study

Variable		N (%)	Satisfaction	r	P value
Age (Year)	< 26	111(55.5%)	52.27 ± 0.91	-	0.833
	27-35	77(38.5%)	52.15 ± 0.92	0.091	
	>36	12(0.6%)	51.75 ± 1.14		
Monthly income (Toman)	>600,000	20(10%)	52.05 ± 1.94	0.111	0.119
	600,000-1.5 million	87(43.5%)	51.22 ± 0.89		
	1.5 - 3 million	72(36%)	54.56 ± 0.96		
	< 3 million	21(10.5%)	47.77 ± 2.72		
Education	Elementary	51(25.5%)	50.92 ± 1.22	0.249	0.001
	Under diploma	36(18%)	48.36± 1.47		
	Diploma	78(39%)	53.20 ± 0.98		
	Associate	9(4.5%)	56.33 ± 2.35		
	Bachelor' and higher	26(13%)	55.57 ± 1.57		

Table 2. Correlation between satisfaction and spiritual health and intelligence

Variables		N (%)	Mean \pm SD	Satisfaction	Correlation	P value
Spiritual health	Medium	110(55%)	89.56 \pm 0.89	49.38 \pm 0.81	0.408	00.00
	High	90(45%)	108.03 \pm 0.6	53.06 \pm 0.61		
Spiritual Intelligence	Low	65(32.5%)	22.47 \pm 0.82	49.76 \pm 0.92	0.239	0.001
	Medium	100(50%)	48.06 \pm 0.83	50.55 \pm 0.77		
	High	35(17.5%)	76.20 \pm 20.01	54.8 \pm 1.11		

Table 3. Prediction of satisfaction score in the presence of studied factors

Variables	Unstandardized β	Standardized β	P value
Spiritual Intelligence	0.088	0.147	0.030
Spiritual health	0.231	0.366	0.001
Age	0.100	0.083	0.256
Income	-0.014	-0.192	0.778
Education (Under diploma)	2.247	0.112	0.155
Education (Diploma)	3.376	0.233	0.007
Education (Associate Degree)	1.398	0.038	0.579
Education (Bachelor's degree and higher)	2.137	0.091	0.222

a. Dependent Variable: satisfaction

Khandan and colleagues showed that there was a significant relationship between the level of nurses' spirituality and their occupational performance, and the spirituality of nurses was high and there was a positive and significant relationship between nursing spirituality and occupational performance [31]. A similar result was found in the study by Taylor et al., in which 64% of the patients stated that surgeons with a religious and spiritual background would be more trustworthy [32]. According to Kaur et al., entitled "The Impact of Emotional Intelligence and Spiritual Intelligence on the Caring Behavior of Nurses", the mean spiritual intelligence of nurses was average and there was a correlation between spiritual intelligence of nurses and their caring behaviors [33]. Based on these studies, spiritual intelligence can improve the job performance and the caring behaviors of the personnel, and the better the services the staff provides, the better they can achieve the satisfaction of the clients and improve their level of satisfaction with health care.

It seems that people with high spiritual health in their daily lives use methods such as amnesty, forgiveness, search for spiritual communication with God, friendship with religious people, hope for God, and prayer, and can better keep calm and target their own behavior. These skills come with the midwife in midwifery to help them with more patience and more tolerant response to stressful situations and thus have better morale, performance, behavior, and increased

satisfaction of women with childbirth. Moreover, according to the results of Pearson correlation coefficient, linear regression and level of significance, there was a positive relationship between the spiritual intelligence of midwives and midwifery students and the satisfaction of clients with vaginal childbirth in Zanjan hospitals in 2017. As already mentioned, according to Wiggles Worth, people with high spiritual intelligence are caring, kind, generous, peaceful, daring, honest, and promising [34], all of which, if they are in an obstetrician, can define the correlation. According to Hodge et al. [35], meeting the spiritual needs of women is effective in satisfaction with giving birth, and helping to support and resolve spiritual needs can lead to increased satisfaction, and individuals with higher spiritual intelligence can better recognize the spiritual needs of mothers and help meet their spiritual needs.

In general, spiritual intelligence is associated with clients' satisfaction. Individuals with high spiritual intelligence have an overview of life and have a better ability to solve problems and adaptations by virtue of positive moral virtues, and since midwives face many problems and tensions daily, spiritual intelligence can improve their performance as well as the quality of care. Also, based on the studies, using and enhancing spiritual intelligence in the workplace, in addition to improving work performance [21,36], reduces stress and strengthens job satisfaction, relaxation, mutual understanding and

adaptability, increased flexibility and patience, happiness and action, organizational commitment and communication improvement [31]. These characteristics help midwives in maternity and childbirth departments, in order to better respond to the needs of women; to have better functioning and to increase the satisfaction of clients with vaginal childbirth.

To explain the findings of this research, we can use a stress-relieving mechanism. This mechanism is generally used to describe the relationship between spirituality and health-related outcomes. From the point of view of the mechanism of coping with stress, spirituality can be understood as knowledge of the power that encourages people to face stressful situations as an opportunity to grow or challenge a person, and people try to mean the stressful events that the meaning of the concept is known to help them overcome stress. So, although perceived stress is high in personnel workloads and they suffer a lot of stress, they are willing to maintain their profession [30]. This mechanism helps midwives to better perform in severe labor conditions such as high workload, exposure to stressful situations and consider these conditions as an opportunity for spiritual growth, and as a result, they will take better care of mothers and be able to obtain their satisfaction.

5. CONCLUSION

Spiritual health and spiritual intelligence of midwives and midwifery students are correlated with the satisfaction of clients with vaginal childbirth. Midwives who have higher spiritual health intelligence health scores are able to manage their emotions and excitements, more tolerance of work problems, and better communication with their clients. One of the effective ways to increase the satisfaction of clients with vaginal childbirth is the enhancement of spiritual health and spiritual intelligence of personnel and midwifery students. The results of this research and other research can give weight to the significance of spiritual health and spiritual intelligence of midwives as a valuable tool to predict the satisfaction of clients with vaginal childbirth.

6. STUDY LIMITATIONS

In the present study, data gathering was done using self-report method to assess spiritual health and spiritual intelligence. The precision of responding to questions is one of the limitations

of the present study. Of course, this study, like other studies, has been subject to limitations, including the fact that in this study only self-reporting was used to examine spiritual health and spiritual intelligence.

CONSENT AND ETHICAL APPROVAL

The research followed the tenets of the Declaration of Helsinki. After obtaining the necessary permissions and the code of ethics from Shahid Beheshti University of Medical Sciences, Tehran, Iran (Code: IR.SBMU.PHNM1396.743), the researcher began to sample the midwifery personnel and students by referring to the hospitals after obtaining consent from the authorities. The clients were also selected from among patients who were in contact with the midwives and students in order to receive the services. The researcher received the written consent from the participants after their introduction and the objectives of the research and the permission of the participants. Finally, the researcher completed the questionnaires.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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