Short Communication

J Babol Univ Med Sci
Vol 19, Issu 9; Sep 2017. P:26-31

The Relationship between Spiritual Intelligence and Fear of Childbirth in Low–Risk Pregnant Women

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J Babol Univ Med Sci; 19(9); Sep 2017; PP: 26-31

Received: Apr 16th 2017, Revised: Jun 19th 2017, Accepted: Jul 11th 2017.

ABSTRACT

BACKGROUND AND OBJECTIVE: Pregnancy in the lifetime of any woman sometimes comes with stress and extreme fears, despite the enjoyment of motherhood. Since spirituality can be associated with stress and fear during this period, this study was conducted to determine the relationship between spiritual intelligence and fear of delivery in low –risk pregnant women.

METHODS: This cross-sectional study was conducted among 220 pregnant women who were selected by convenience sampling method based on a two-step (cluster–convenience) technique. The data were collected using Demographic and Fertility Characteristics Questionnaire, King's 24–item Spiritual Intelligence Self-Report Inventory (score range of 0–96), and 16–item Fear of Childbirth Questionnaire (score range of 14–56).

FINDINGS: The results of this study showed that the mean score of subjects regarding the fear of childbirth was 40.5±6.73, and the overall score of spiritual intelligence was 55.40±8.33. There was a significant negative correlation between spiritual intelligence and fear of childbirth. Therefore, the higher the spiritual intelligence of the pregnant mother, the lower the fear of childbirth (p=0.025, r= -0.163).

CONCLUSION: According to the results of this study, it can be said that high spiritual intelligence in pregnant women can reduce the fear of childbirth.

KEY WORDS: *Spirituality, Intelligence, Fear, Childbirth, Pregnancy.*

Please cite this article as follows:

Mohamadirizi M, Mohebbi dehnavi Z, Torabi F, Mohamadirizi S. The Relationship between Spiritual Intelligence and Fear of Childbirth in Low–Risk Pregnant Women. J Babol Univ Med Sci. 2017;19(9):26-31.

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[DOR: 20.1001.1.15614107.1396.19.9.4.1]

[DOI: 10.22088/jbums.19.9.26]

Introduction

Pregnancy is one of the most important and most stressful periods in women's lives. Women's mental status and pregnancy stress directly or indirectly affect maternal or fetal health and fear of childbirth is one of the stressful issues of pregnancy (1, 2). If the pregnant mother had previous pregnancies without any problems, and now has no problems with the current pregnancy, she will be classified into low – risk pregnancies (3, 4). The prevalence of fear of childbirth is 5 – 25%, and in 6 – 13% of fears is severe and debilitating (6 and 5).

Personality and mental characteristics of the mother, low pain tolerance, observing and hearing the experiences of other people, concern about undesirable physical complications may cause fear of childbirth (7). High levels of fear and anxiety during pregnancy can predict postpartum depression (8). Fear, anxiety and pain are three important factors during childbirth. If fear and anxiety are resolved, mental and physical relaxation will take their place (9).

The woman who gets pregnant for the first time and expresses fear of childbirth needs special care to be able to manage pregnancy and have a pleasant experience of childbirth (10). Spiritual intelligence is a kind of adaptation and problem-solving behavior that includes the highest levels of growth in different cognitive, ethical, emotional, and interpersonal areas, and helps the individuals to coordinate with the phenomena around them and achieve internal and external integrity (11).

Nasel believes that spiritual intelligence is a combination of spiritual abilities and interests, personality traits, cognitive abilities and neurological processes (12). Macmolen et al. consider courage, integrity, intuition and compassion as components of spiritual intelligence (13). Researches have reported the relationship between spirituality and the purpose of life, life satisfaction and health (14, 15). Craft et al. found that religious beliefs enable individuals to achieve better mental ability and tolerance to endure the pain of life, to search for meaning in life, to understand the phenomena of life, to have psychological power, and the tendency toward higher levels in life (8).

Spiritual intelligence is related to the psychological components of extroversion, emotional and behavioral stability as well as coping with fear (16). A study by Lysne et al. showed that spirituality increases the resistance of individuals to pain and spiritual intelligence is related to coping with fear (17). Khodabakhshi et al. indicated that stress relief for pregnant women is related to all aspects of spiritual intelligence (18).

Keshavarzi et al. showed that there is a significant positive correlation between spiritual intelligence, emotional intelligence and stress relief (19). Nowadays, attention to psychology and variables such as fear and anxiety have grown as one of the important structures affecting mental health and compatibility, especially during pregnancy. Spiritual intelligence is one of the factors of personality that affect fear (20). Considering that pregnant mothers have unsteady and sensitive psychological conditions during pregnancy, which may affect the embryo and the infant, the importance of recognizing these psychological factors in the field of midwifery as health – care providers for 80% of the society (21, 22), and lack of research on the relationship between spiritual intelligence and fear of childbirth, this study was conducted to investigate the relationship between spiritual intelligence and fear of delivery in low – risk pregnant women.

Methods

After obtaining permission from the Ethics Committee of Isfahan University of Medical Sciences in 2016, this cross-sectional correlation study (with ethical code 2.054) was conducted among 220 pregnant women referring to the clinics of Shahid Beheshti and Alzahra hospitals in Isfahan through cluster and convenience sampling. Of the four public hospitals affiliated to Isfahan University of Medical Sciences, two hospitals were randomly selected as cluster and samples were obtained from all low-risk pregnant women in each hospital using convenience sampling method.

Due to the lack of a relevant study, the final sample size was calculated to be 240 women after conducting a guideline study on ten low – risk pregnant women and after determining the correlation coefficient between the variables and acceptable error of 5% and accuracy of 95%. Iranian women, Muslims, residents of Isfahan, having physical and psychological desire and ability to participate in the study, with written consent, first childbirth, gestational age of 28 weeks and above, age of 18 – 35 years and without history of infertility were included in the study.

Women who used psychiatric drugs, women who experienced unpleasant, distressing or stressful

[DOR: 20.1001.1.15614107.1396.19.9.4.1]
[DOI: 10.22088/jbums.19.9.26]

incident (death of first-degree relatives, severe family and marital conflicts, financial problems, divorce) during pregnancy and afterwards, people with medical condition (thyroid, diabetes, hypertension, and cardiovascular, kidney, and nervous diseases and etc.) were excluded.

Data were collected using Demographic and Fertility Characteristics Questionnaire (10 questions including age of mother and her husband, mother's weight and height, gestational age, mother and her husband's education level, mother and her husband's occupation and place of residence), whose validity was determined by content validity method. King's 24 – item Spiritual Intelligence Self-Report Inventory (score range of 0 – 96), which was graded from zero to four according to the five-point Likert scale, and its content validity and reliability were confirmed using Cronbach's alpha coefficient 0.91 by Khodabakhshi Koolaee et al. (23), was used along with Harman's Childbirth Attitude Questionnaire (CAQ) (16 questions), which was specified by four-point Likert scale (one to four), with a minimum score of 14 and a maximum of 56, and the content validity and reliability of the questionnaire were confirmed by Tanglakmankhong in Taiwan (r = 0.83) (24). Taheri et al. also assessed the validity and reliability of Childbirth Attitude Questionnaire in Iranian society and confirmed the correlation coefficient of 0.8 (25). At the end of the study, 220 women out of 240 participants completed their questionnaire completely and the data were entered into SPSS 16 software. Data were analyzed using ANOVA, central indices, Pearson correlation coefficient and linear regression and $p<0.05$ was considered significant.

Results

The results showed that the mean age of the participants was 26.95±6.04 years and the mean age of their husband was 32.5±6.33 years and the mean gestational age was 28.5±1.33 weeks. Their mean weight was 61.39±1.31 and the mean height was 160±6 cm. 75% of the participants had a high school diploma and a pre-high school diploma, and family income was average. 80% of the mothers were housewives and their husband was an employee, and 60% of them were homeowners. The results of this study showed that the mean score of subjects in terms of fear of childbirth was 40.5±6.73, and the overall score of spiritual intelligence was 55.48±8.33. The scores of subsets of spiritual intelligence including existential critical thinking, personal meaning production, expansion of consciousness and transcendental consciousness were 14.3±2.63, 12.4±2.8, 11.80 ± 2.22 and 16.60 ± 2.63, respectively. In addition, the results showed that there is a correlation between the fear of childbirth and spiritual intelligence scores (Table 1). The results of regression analysis of fear of childbirth based on the spiritual intelligence showed that fear of childbirth can predict components of critical thinking, personal meaning production and transcendental consciousness (table 2).

Table 1. Relationship between fear of childbirth and spiritual intelligence components

Fear of childbirth Spiritual intelligence components	Pearson Correlation Coefficient	P-value
The overall score of spiritual intelligence	- 0.163	0.025
Existential Critical Thinking	- 0.198	0.006
Production of personal meaning	- 0.053	0.440
The expansive state of consciousness	- 0.127	0.012
Transcendental consciousness	- 0.066	0.034

Table 2. Linear regression analysis between predictive variables (spiritual intelligence and its components) and the criterion (fear of childbirth)

Regression coefficients of fear of childbirth *	T	Coefficient β	B	P-value
The overall score of spiritual intelligence**	7.868	0.232	21.753	0.001
Existential Critical Thinking **	2.573	0.277	0.896	0.011
Production of personal meaning**	3.258	0.282	1.144	0.001
The expansive state of consciousness **	1.078	0.079	0.294	0.282
Transcendental consciousness **	0.471	0.300	0.851	0.001

*** Dependent variable (criterion), ** independent variables (predictor)**

[DOR: 20.1001.1.15614107.1396.19.9.4.1]
[DOI: 10.22088/jbums.19.9.26]

In addition, there was no significant relationship between fear of childbirth and any of the quantitative variables including age, weight and height of the pregnant mother and age of the husband. The results of statistical tests including Pearson correlation for maternal age, husband's age, mother's weight and height, and age of pregnancy and fear of childbirth were not significantly correlated (p=0.236, p=0.089, p=0.112, p=0.329 and p=0.414, respectively). Moreover, the results of ANOVA test showed that there is no significant relationship between mother's education level, husband's education level, family income level and fear of childbirth (p=0.094, p=0.589 and p=0.625, respectively).

Discussion

The results showed that there is a significant positive correlation between spiritual intelligence and fear of childbirth, and the higher the spiritual intelligence of the pregnant mother, the lower the frequency of fear of childbirth. The study of Keshavarzi et al. indicated a significant positive correlation between spiritual intelligence, emotional intelligence and stress resilience (18). Khodabakhshi et al. showed that stress resilience is higher in pregnant women with higher spiritual intelligence, and pregnant women with higher spiritual intelligence tend to have more normal childbirth (17).

In the study of Baleghi et al., relaxation also decreased fear of childbirth and increased natural birth (26). These results were also consistent with the results of McCusker and Jowkar et al. (27, 28). In dealing with stress, the production of personal meaning (the component of spiritual intelligence) allows an individual to create a new condition that, even if it is stressful and disturbing, finds meaning or purpose in it, and can adapt to the new conditions and, this way, they change the stressor and reduce its negative effects. Similarly, when faced with a tough situation, the production of personal meanings may lead the person to a meaning-oriented solution and act as an effective problem-solving method.

Lysne et al. found that beliefs, words and images that require a source of love, protection, and comfort reduce stress and have a beneficial effect on the body's specific mechanisms, and possibly with this mechanism, the components of spiritual intelligence for stress resilience increase (17). The results of a study by Bush et al. showed that the search for meaning in life provided the opportunity to receive the necessary psychological forces from infinite transcendental resources, and individuals thereby gain more positive emotions and feelings (29).

Glaver Craf et al. also found that spiritual intelligence in religious beliefs enable individuals to achieve better mental ability and tolerance to endure life's pains (8). Misconceptions about childbirth pain and fear of unknown cases increase pain, and women who are less fearful have more confidence in those who are caring for them, and can tolerate childbirth pain more effectively. The results of this study showed that there is a significant relationship between spiritual intelligence and fear of childbirth in low – risk pregnant women.

Acknowledgments

Hereby, we express our deepest sense of gratitude Hereby, we express our deepest sense of gratitude and indebtedness to Research Deputy of Isfahan University of Medical Sciences and Nursing and Midwifery Research Center for their financial support and all pregnant women who participated in this study.

[DOR: 20.1001.1.15614107.1396.19.9.4.1]
[DOI: 10.22088/jbums.19.9.26]

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[DOR: 20.1001.1.15614107.1396.19.9.4.1]

[DOI: 10.22088/jbums.19.9.26]