



The relationship between spiritual health and birth experience among pregnant women in Eastern Iran

Hayedeh Arbabi^{1*} , Mahin Badakhsh² 

1. Department of Midwifery, School of Midwifery Nursing, Zabol University of Medical Sciences, Zabol, Iran

* Correspondence: Hayedeh Arbabi. Department of Midwifery, School of Midwifery Nursing, Zabol University of Medical Sciences, Zabol, Iran.

Tel: +989372042623; Email: Hayedearbabi@gmail.com

Abstract

Background: Pregnancy and childbirth can be considered as an opportunity to expand thoughts or renew feeling on spiritual beliefs. The present study was conducted with the aim of investigating the relationship between spiritual health and childbirth experience among Iranian pregnant women.

Methods: This is a cross-sectional study that was conducted on 250 pregnant women referred to the Labor, Delivery and Recovery Room (LDR) of Amir al-Momenin Hospital in Zabol (Eastern Iran) for childbirth. Non-random convenience sampling method was used to collect the samples. Data collection tools included a personal characteristics questionnaire, childbirth experience questionnaire (CEQ), and spiritual health questionnaire. Data analysis was conducted using statistical tests, such as Pearson correlation test, independent t-test, and One-Way ANOVA. The level of statistical significance was set at 0.05.

Results: The results of present study showed that the mean age of pregnant women was 25.66 ± 5.73 years, with their mean score of birth experience being 64.97 ± 4.62 and their mean score of spiritual health being 88.89 ± 7.1 . The results also showed a statistically significant relationship between birth experience and spiritual health ($R=1$, $P=0.007$).

Conclusion: In this study, as the score of spiritual well-being increased, the score of childbirth experience also increased. Thus, we suggest the findings of this study to be used as a basis for further research in other regions of the country and among a more diverse population of mothers with different backgrounds and cultures.

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Highlights

What is current knowledge?

The process of childbirth is considered the most unique experience in women's life and at the same time, it can be traumatic and considered an opportunity to expand thoughts or renew feelings on spiritual beliefs.

What is new here?

This study highlights the potential importance of spiritual health in shaping positive childbirth experiences and suggests that healthcare providers should consider spiritual care as part of the comprehensive maternity care they provide. Further research is recommended to deepen our understanding of childbirth experiences and also inform us about the best practices in this area.

Methods

This is a cross-sectional study that was conducted on 250 pregnant women referred to the LDR unit of Amir al-Momenin Hospital (Educational Hospital) in Zabol (Eastern Iran) between December 2022 and March 2023. The sample size was estimated to be 225 people, considering $z_{1-\alpha/2}=1.96$, $W = 0.05$ (assuming the coefficient of determining all factors related to childbirth experience of women as outcome variable), $R^2 = 0.2$ (what part of the outcome variable justifies the influential variables?), $R^2_{x_2x_j} = 0.7$ (correlation between the main influential variable and other influential variables) and $p = 20$ (number of influential variables) in the following formula:

$$n = \frac{(z_{1-\alpha/2})^2 \cdot \left(\frac{1 - R^2}{1 - R^2_{x_2x_j}} \right) \cdot P + 1}{w}$$

However, after taking into account the possibility of 10% sample drop, the data of 250 women were analyzed (13).

The criteria for entering the study included; having a normal delivery in the current pregnancy, being 15 to 40 years old, having no specific disease that can cause high-risk pregnancy, having a gestational age of 37-42 weeks, and having a singleton pregnancy. The exclusion criteria were; not completing the questionnaire fully (failure to respond to more than 5 items), having an unhealthy infant (based on the post-delivery physical examination) and not willing to continue with the study.

Data collection tools included a personal characteristics questionnaire, the Childbirth Experience Questionnaire (CEQ), and the Palutzian & Ellison's spiritual health questionnaire.

The personal characteristics questionnaire had two parts: A) Questions related to demographic information including mother's age, mother/father's education, mother's occupation, income level and place of residence. B) Questions related to fertility characteristics including number of pregnancies, birth agent, use of analgesia during labor and gender of the infant.

The Childbirth Experience Questionnaire (CEQ) was designed by Denker (2010) in Sweden (14). It includes 21 items and 4 areas (individual ability, sense of security and control, professional support and participation). Items 1 to 18 are based on 4-point Likert scale [completely true (score 4), somewhat true (score 3), not very true (score 2), and not true at all (score 1)]. Items 19 to 21, which are related to childbirth pain and feeling of security and control, are also measured based on the VAS scale (0-100). It should be noted that items 6, 11, 13, 15 and 19 are scored in reverse. A higher score in this questionnaire indicates a better birth experience. The reliability of CEQ questionnaire was confirmed by Cronbach's alpha coefficient of ≥ 0.7 (14). The Persian version of this tool has been prepared by Abbaspour et al. (2012) in Iran (15).

The spiritual health questionnaire developed by Palutzian & Ellison (1982) has 20 items, 10 of which measure religious health and other 10 measure

Introduction

Childbirth is a multidimensional, complex and unique process, which significantly affects various aspects of women's life (1). It can also be traumatic and create negative experiences in women (2). An unpleasant birth experience can lead to postpartum depression and/or a preference for cesarean delivery in the future (3).

In recent years, it has been emphasized that pregnancy and childbirth are among spiritual experiences (4). Ignoring spirituality, as an aspect of childbirth, negatively affects the childbirth experience. Therefore, paying attention to this issue is an important duty of any midwife (5).

Spiritual health, alongside other aspects of health (physical, mental and social aspects), is one of the basic concepts in health-related issues such as how to face problem and stress caused by illness (6). Nowadays, scholars in the educational centers of different countries, especially universities, have recognized the importance of spiritual health and its impact on different aspects of health (7).

Pregnancy and childbirth can be considered as an opportunity to expand thoughts or renew feelings on spiritual beliefs (8). Birth experience is affected by individual factors, birth environment, and midwife's support (9). In general, experiences related to a specific phenomenon are unique for each person (10), and people's beliefs and expectations in regard to childbirth play a major role in the formation of these experiences (11). However, as the cultural, personal, social and financial characteristics of different societies vary, it is necessary to study human experiences in each society separately (12). Considering the importance of women's birth experience and its impact on their subsequent pregnancies, and also since no study has been done on this topic in Iran (to the best of our knowledge), the researcher in this study decided to investigate the relationship between spiritual health and birth experience among Iranian pregnant women.

existential health. The score of religious and existential health ranges from 10 to 60. The score of spiritual health is calculated by summing up the scores of religious and existential health, and it ranges from 20 to 120. Items of this questionnaire are based on a 6-option Likert scale [completely disagree (score 6), disagree (score 5), somewhat disagree (score 4), somewhat agree (score 3), agree (score 2), and completely agree (score 1)]. The option of “completely disagree” receives the score of 2 in the questions 7, 8, 10, 11, 14, 15, 17, 19 and 20, and in the questions 1, 2, 5, 6, 9, 13, 16 and 18, it receives the score of 6. According to the guideline of this questionnaire, a score of between 20 and 53 indicates low level of spiritual health, a score of between 54 and 87 indicates medium level of spiritual health, and a score of between 88 and 120 indicates high level of spiritual health (16). The validity and reliability of Iranian version of this questionnaire have been measured in several studies, and the Cronbach's alpha coefficient of 0.82 has been calculated for this tool (17). In the present study, the reliability of birth experience and spiritual health questionnaires was examined, using the internal consistency method, and Cronbach's alpha of 0.89 and 0.76 was calculated for them, respectively.

The participants received full explanation on the method and objectives of the study and informed consent was obtained from those who met the inclusion criteria. Non-random convenience sampling method was utilized in this study. All questionnaires were completed 2 hours after the delivery, and sampling continued until the final sample size was reached.

Data analysis was done by SPSS software version 18. Pearson correlation test was used to examine the relationship between spiritual health and birth experience. Independent t-test and One-Way ANOVA were also used to determine the relationship between spiritual health, birth experience and demographic information. The statistical significance level was set at 0.05.

Results

The results of present study showed that the mean age of pregnant women was 25.66 ± 5.73 years. High school education level had the highest frequency among the participants and 76% of them had an adequate level of income. Also, 87.6% of the participants were housewives, with 37.6% of them experiencing their first pregnancy and 62.4% experiencing their second or subsequent pregnancy (20.4% second pregnancy, 17.7% third pregnancy, 13.7% fourth pregnancy and 10.6% fifth pregnancy).

The mean score of birth experience was 64.97 ± 4.62 and the mean score of spiritual health was 88.89 ± 7.1 among the participants. The results showed a statistically significant relationship between childbirth experience and spiritual health ($R=1.0$, $P=0.007$), so that as the score of spiritual health increased, the score of childbirth experience also increased.

There was no statistically significant relationship between demographic characteristics, spiritual Health and birth experience (Table 1). No statistically significant relationship was also found between spiritual health, birth experience and number of pregnancies.

Table 1: The relationship between demographic characteristics, spiritual health and birth experience among Iranian pregnant women

Variable	Frequency (%)	Spiritual Health	Birth experience	
Age (years)	Less than 20 (age of onset:16)	60 (24)	F = 0.7 **p = 0.82	F = 1.33 **p = 0.25
	20-25	69 (27.6)		
	25-30	58 (23.2)		
	30-35	60 (24)		
	More than 35	3 (1.2)		
Mother's education	Reading and writing	1 (1.6)	F = 1.24 **p = 0.13	F = 1.17 **p = 0.12
	Elementary school	46 (18.4)		
	High school	79 (31.6)		
	Diploma	79 (31.6)		
	University	42 (16.8)		
Spouse's education	Reading and writing	3 (2.1)	F = 1.01 **p = 0.44	F = 1.11 **p = 0.34
	Elementary school	11 (4.4)		
	High school	79 (31.6)		
	Diploma	74 (29.6)		
	University	83 (33.2)		
Mother's occupation	Housewife	219 (87.6)	t = -1.32 df = 236 *p = 0.18	t = -0.636 df = 226 *p = 0.52
	Employed	31 (12.4)		
Level of income	Optimal	190 (76.0)	F = 1.80 **p = 0.27	F = 2.91 **p = 0.05
	Relatively adequate	53 (21.2)		
	Undesirable/adequate	7 (2.8)		
Place of residence	City	175 (70.0)	t = 2.59 df = 236 *p = 0.97	t = 0.018 df = 226 *p = 0.98
	Village	75 (30.0)		

*The independent-sample t-test; ** One-Way ANOVA

Discussion

In the same way that the physical, mental, and social aspects of health influence each other, the spiritual aspect of health also influences other aspects of health.

Therefore, attention should be paid to spiritual health in order to provide and promote holistic health care. The results of Zamani et al. (2019) study, that investigated the birth experience and its individual-social factors in hospitalized mothers, showed that the childbirth experience of mothers was at moderate level (18). These results are similar to what we found in our study. Khalife-Ghaderi et al. (2020) in their study also found a moderate level of birth experience among the participants (13), which is similar to the present study. Haji Rafiei et al. (2018) in a study examined spiritual health and its related factors in women and showed that 69.5% and 30.5% of the women had high and moderate level of spiritual health, respectively (19), which is consistent with the findings of present study. Zareipour et al. (2015) in their study investigated the relationship between women's spiritual health and self-efficacy and found that the score of women's spiritual health was 43.4% (moderate level), while 56.6% of the women had high level of spiritual health. They also found a positive and significant relationship between spiritual health and self-efficacy in pregnant women (20). These results which are consistent with the findings of present study. A medium to high level of spiritual health has been reported for Iranian women in most studies. For instance, Rezaei and colleagues (16), and Mahrabi and colleagues (21) have found a moderate to high level of spiritual health among Iranian women.

Bilgiç et al. (2021) in a study examined the relationship between fear of childbirth and mental-spiritual health and showed a significant and negative correlation between fear of childbirth and mental-spiritual health ($p < 0.001$). In this study, an increase in the score of spiritual health led to a decrease in the score of fear of childbirth (22). Zadeh Ahmad and colleagues in a study found a positive and significant relationship between the tendency to have children and spiritual health ($P = 0.003$), so that with the increase in spiritual health, the tendency to have children also increased (23). Meanwhile, Rahimnejad et al. (2020) in a cross-sectional study, that aimed to examine the relationship between spiritual health and anxiety, revealed no statistically significant relationship between spiritual health and anxiety (24). In this regard, it can be said that samples in this study were in their third trimester of pregnancy, while in the present study, samples were evaluated two hours after the delivery. Also, Dr. Azizi's spiritual health questionnaire was used in the aforementioned study, while Palutizian & Ellison's spiritual health questionnaire was utilized in the present study. Therefore, the discrepancy between the results of present study and above study can be attributed to these differences. In a literature review that we carried out, we found no study similar to the present study. In recent years, it has been emphasized that pregnancy and childbirth are among spiritual experiences, and it is necessary to meet the spiritual needs of pregnant women (4). Therefore, listening to the childbirth experience of women with different cultural backgrounds can be considered the most important spiritual intervention, because childbirth experience is considered as an important experience in a woman's life (25).

The reluctance of mothers to cooperate with us and answer our questions created a challenge in this study. Nonetheless, efforts were made to secure their cooperation by explaining the significance of this study and its potential outcomes.

Conclusion

The majority of women who participated in this study exhibited a high level of spiritual health. The results also showed that an increase in the score of spiritual health led to the increase in the score of birth experience. Thus, we suggest the results of this study to be utilized as a basis for further research in other areas of the country and among a more diverse population of mothers with various regions and cultures.

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Ethical statement

This study is part of a research project with the ethics code (IR.ZBMU.REC.1401.086) obtained from Zabol University of Medical Sciences.

Conflicts of interest

The authors declare that there is no conflict of interest to report.

Author contributions

All authors have actively contributed to the design and implementation of this study and prepared the draft and final version of the manuscript for publication.

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