The Correlation between Islamic Lifestyle and Pregnancy-Specific Stress: A Cross-Sectional, Correlational Study

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Abstract

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BACKGROUND: Pregnancy is associated with great psychological, emotional and physical stress. In addition to undergoing hormonal changes, pregnant women experience a change in their attitude toward life and learn to re-assess their skills and lifestyle. Lifestyle, in general, and Islamic lifestyle, in particular, is concerned with the different psychological, social and physical aspects of the individual's life.

AIM: This study was conducted to evaluate the correlation between Islamic lifestyle and pregnancy-specific stress in pregnant women.

MATERIAL AND METHODS: This cross-sectional, correlational study was conducted on 300 pregnant women presenting to prenatal care clinics. Data were collected using a demographic, the Islamic lifestyle and the pregnancy-related stress questionnaires.

RESULTS: The results showed a statistically significant negative correlation (r = -0.284) between Islamic lifestyle and pregnancy-specific stress (P < 0.01). The stepwise regression showed that the mean score obtained in the pregnancy-related stress questionnaire decreased by 0.75 per year of marriage and by 0.14 per point in the Islamic lifestyle questionnaire.

CONCLUSION: There was a significant negative correlation between Islamic lifestyle and pregnancy-specific stress. Training mothers, raising their awareness and encouraging them to adopt an Islamic lifestyle may play a significant role in controlling pregnancy-specific stress.

Introduction

Pregnancy is a happy and enjoyable time in women's lives in which the parents expect the arrival of a child and make plans to raise and love him. This sweet period and the natural process can be disturbed by internal and external stressors, and the routine of life can be disturbed by internal and external stressors [1]. Most pregnant women experience stress and concerns when faced with the physical symptoms of pregnancy, significant biological-biochemical changes specific to pregnancy, changes in family-personal relationships, socioeconomic problems, pregnancy-related medical-obstetric factors, infant health issues and the stages of childbirth [1] [2]. Different studies have been conducted in various societies on the causes of stress in pregnant women and its consequences. A study conducted to examine the prevalence of stress in early pregnancy in Sweden revealed that 16.5% of mothers experience stress in early pregnancy [3]. Another study in Ireland, after Europe's financial crisis, showed that 74% of pregnant women experience stress [4]. The results of a study in Iran showed moderate state anxiety in 63.3% and severe anxiety in 4.40% of the pregnant women [5]. Concerns and other stressful feelings during pregnancy can harm the mother and the fetus. Epidemiological evidence suggests that mothers' psychosocial stress is a risk factor of preterm birth, low birth weight, high-risk pregnancy, increased nausea and vomiting, intrauterine growth restriction and asphyxia, and consequently, increased cesarean sections [6] [7] [8]. Also, maternal stress is associated with high levels of stress hormones (epinephrine and adrenocorticotropic) in the fetal blood circulation. These hormones directly affect the nervous system and increase blood pressure, heart rate and degree of activity. The likelihood of hyperactive, irritable and low-weight children is higher in mothers with high

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levels of anxiety compared to mothers with low anxiety levels [9]. From a public health point of view, it is very important to identify women who suffer from mental stress during their pregnancy, because psychological and social factors may also be responsible for some of the complications of pregnancy and midwifery in addition to biomedical factors [10]. Pregnancy is associated with great psychological, emotional and physical stress and many physiological and psychological changes [11]. These changes are severe at the onset of pregnancy because pregnant women tend to change their attitude toward life and re-assess their skills and lifestyle in addition to undergoing hormonal changes [12].

Lifestyle is a set of ideas, programs and typical examples of behaviours, aspirations and desires and a method for explaining social or personal conditions and determining a particular type of personal interaction [13]. The Islamic lifestyle is focused on the meaning and philosophy of life from an Islamic point of view [14]. The essence of the Islamic lifestyle is in performing a set of behaviours based on Islam and Islamic teachings [15]. Living based on Islamic teachings reduces poor attitudes that are themselves the cause of depression and anxiety. The reason for this reduction is that people who adopt such lifestyle keep themselves away from negative and poor attitudes that are a major cause of many mental illnesses with faith in divine power and by adherence to Islamic precepts and rules [16]. Feeling of belonging to superior power and the faith in God's hand in stressful life conditions and spiritual support help religious suffer less from their life problems and enjoy better mental health [17].

Given the considerable body of evidence suggesting that religious activities and beliefs are central to the personal efforts made for coping with stressful events [18] [19] [20] [21] [22], and since lifestyle, in general, and Islamic lifestyle, in particular, are concerned with the different psychological, social and physical aspects of the individual's life [16], and since research into pregnancy-specific stresses and concerns is still scarce [23], and also considering the known complications of pregnancy-specific stress and the lack of studies on the link between pregnancy-specific stress and an Islamic lifestyle, the present study seeks to determine the correlation between Islamic lifestyle and pregnancy-specific stress.

Methods

This cross-sectional, correlational study was conducted in 2017 on 300 pregnant Iranian women presenting to select hospitals for prenatal care services. The sample size was determined using the following equation, where r is the correlation between

Islamic lifestyle and pregnancy-specific stress and was set as 0.20 due to the novelty of the subject matter and the unavailability of similar studies, α is type-I error and equals 0.05, β is type-II error and equals 0.10, and the test power is 90%.

$$n \geq \left[\frac{\left(z_{1-\alpha/2} + z_{1-\beta}\right)}{0.5 \times \ln\left[(1+r)/(1-r)\right]} \right]^2 + 3$$

The inclusion criteria consisted of age 15-45, reading and writing literacy, Iranian nationality, wanted pregnancy, no high-risk pregnancy based on obstetric definitions, living with the husband, no known physical and psychological diseases and being a Shiite Muslim. Data were collected using a demographic form, the Asset Index Scale, the Islamic Lifestyle Questionnaire and the Pregnancy-Related Anxiety Questionnaire. The demographic questionnaire inquired about the subjects' personal and obstetric data, including age, number of children, education, and duration of marriage and place of residence. The asset index scale assesses ten economic variables (owning a vacuum cleaner, a separate kitchen, a computer, a washing machine, a bathroom, a freezer, a dishwasher, a car [not for work or to make money], a cell phone and colour TV) and is calculated in percentage. The obtained variable (asset index) is classified into five categories, including 0-20 (poorest), 21-40 (poor), 41-60 (medium), 61-80 (wealthy) and 81-100 (wealthiest) [24] [25]. The Islamic Lifestyle Questionnaire consists of 75 items answered by the participants concerning their current living status and based on a 4-point scale from "very little" to "very much". Each item is given a point from 1-4 based on its significance. The total score ranges from 141 to 570. This questionnaire consists of ten subscales, including social (11 items), beliefs (6 items), religious and worshipping (6 items), ethical (11 items), financial (12 items), familial (8 items), health (7 items), science and contemplation (5 items), security-defense (4 items) and timeliness (5 items). The reliability coefficient of the entire scale was 0.71. The results of the factor analysis also showed a favourable validity and factor structure for the scale. The concurrent validity of the scale with the Religious Orientation Test was obtained as 0.64 [26].

The pregnancy-related anxiety questionnaire combines the 10-item questionnaire developed by Huizink et al. in 2004 (the short form of van den Bergh's 55-item scale) and some personal-familial factors also addressed in van den Bergh's original tool. This questionnaire consists of 25 items within six subscales, including maternal health (6 items), infant health (5 items), childbirth and the experience of motherhood (4 items), maternal-fetal attachment (2 items), personal-familial (5 items) and personal-occupational (3 items). It is scored based on a 5-point Likert scale (Never = 0, Seldom = 1, Sometimes = 2, Often = 3, and Always = 4) from zero to 100. Navidpour et al. reported a favourable validity and

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reliability for this scale. The reliability coefficient and content validity of the entire scale were reported as 0.89 and 0.94, respectively [27].

Once the title of the study was approved, arrangements were made with the authorities of Shahid Beheshti Nursing and Midwifery School and Shahid Beheshti University of Medical Sciences and reference letters were obtained. After receiving permission from the presidents of Tehran and Iran universities of medical sciences, the researcher visited the prenatal care clinics of select hospitals with prior arrangements, introduced herself, presented the reference letters to the authorities and obtained their permission, and then visited the study settings a few days during the week and selected eligible candidates. After submitting their informed written consent, the participants were briefed on the study objectives, ensured the confidentiality of their information and the voluntary nature of participation. They were then given the data collection instruments to fill out. The researcher instructed the participants on how to answer the questionnaires. Data collected through the questionnaires were then analysed.

Results

The mean age of the 300 women under study was 28.68 ± 5.21, and the mean age of their husbands was 33.07 ± 5.72 years. Most of the participants had a high school diploma (44%) and were a housewife (92%). The husbands were mostly self-employed (57.7%). A total of 28% of the participants were in their first trimester, 33.7% in their second trimester and 38.3% in their third trimester. The results showed that 42% of the women had become pregnant for the first time, 46% had no other children, 80.7% had no history of abortion, and 97.7% had no history of stillbirth. Table 1 shows the maximum and minimum scores obtained in the measurement instruments.

Table 1: The maximum and minimum scores obtained in the measurement instruments

Variable	Mean	SD	Minimum	Maximum
Age	28.68	5.21	16	45
Husband's Age	33.07	5.72	21	51
Asset Index	69.70	18.42	0	100
Total Stress	31.72	19.81	0	100
Total Lifestyle	440.30	37.57	316	542
Total Depression	16.31	11.16	0	55

According to Pearson's correlation coefficient, there was a significant negative correlation between the participant's age and pregnancy-specific stress. There was also a significant negative correlation between the husband's age and pregnancy-specific stress. A significant positive correlation was observed between the husband's age and the total asset index. The Islamic lifestyle did not correlate with the participant's and the husband's age. The Islamic lifestyle and pregnancy-specific stress also did not correlate with the asset index. Meanwhile, there was a significant negative correlation between Islamic lifestyle and pregnancy-specific stress (Table 2).

Table 2: The correlation between the demographic variables, pregnancy-specific stress and Islamic lifestyle

	Age	Husband's Age	Total Lifestyle	Total Pregnancy-Specific Stress	Total Asset Index
Age	1	0.694[*]	0.053	-0.127[*]	0.098
Husband's Age		1	0.051	-0.115[*]	0.115[*]
Total Lifestyle			1	-0.284[**]	0.074
Total Pregnancy-Specific Stress				1	-0.074
Total Asset Index					1

** The correlation is significant at the 0.01 level (2-tailed); * The correlation is significant at the 0.05 level (2-tailed).

The stepwise regression was used to examine the effect of the Islamic lifestyle score and the demographic variables on the score of pregnancy-specific stress; Table 3 presents the results.

Table 3: The regression analysis of pregnancy-specific stress in the participating pregnant women by demographic variable and Islamic lifestyle*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Significance Level
		B	Std. Error	Beta		
1	Constant	97.692	12.944		7.547	0.000
	Islamic Lifestyle	-0.150	0.029	-0.284	-5.115	0.000
2	Constant	99.691	12.756		7.815	0.000
	Islamic Lifestyle	-0.143	0.029	-0.271	-4.951	0.000
	Duration of Marriage	-0.749	0.230	-0.178	-3.253	0.001

* Dependent variable: Pregnancy-specific stress.

Based on the results presented in Table 3, only the duration of marriage had a significant effect on pregnancy-specific stress and the other demographic variables were eliminated from the model. The results also revealed a significant correlation between Islamic lifestyle and the duration of the marriage, such that the mean score of pregnancy-specific stress decreased by 0.75 per year of marriage and by 0.14 per point in the Islamic lifestyle questionnaire.

Discussion

This study was conducted to evaluate the correlation between Islamic lifestyle and pregnancy-specific stress in pregnant women presenting to the prenatal care clinics of hospitals affiliated to universities of medical sciences in Tehran in 2017. The results showed a statistically significant negative correlation between Islamic lifestyle and pregnancy-specific stress; pregnancy-specific stress decreased as the score obtained in the Islamic lifestyle questionnaire increased. Pregnancy is considered an important stage in a woman's life, and although a natural condition, it makes women vulnerable because

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they are exposed to inconsistent physical, psychological and social conditions that predispose them to psychological disorders [28]. This result is in line with the results of studies that showed that an Islamic lifestyle promotes social health, mental health, happiness and satisfaction [29] [30].

This hypothesis can be explained by arguing that religious people are healthier than others because they adopt healthy behaviours, and mental health is associated with inherent religiosity [31]. Psychological theories and research have emphasised the role of religious beliefs in preventing psychological damage. For instance, Spilka et al. studied the positive effect of religion on mental health and morality using psychological studies. Beliefs and behaviours such as the trust in God, patience, praying, pilgrimage, etc., can make people inwardly peaceful by fostering hope and positive attitudes. Having meaning and purpose in life, the feeling of belonging to supreme power, the faith in God's hand in times of difficulty and enjoying social and spiritual support are some of the means by which religious people can potentially suffer less in the face of adverse life events and pressures [32]. Living by Islamic teachings reduces inefficient attitudes that are the cause of depression and anxiety because such people have faith in the divine power and obey Islamic precepts and rules and thus keep themselves away from negative and poor attitudes that are a major cause of psychological disease [16]. The results also showed that of all the demographic variables assessed, only the duration of marriage affected pregnancy-specific stress; that is, pregnancy-specific stress decreased with an increase in the duration of the marriage.

In the Iranian society, religion is one of the most effective sources of psychological support that can give meaning to life as long as one lives and can thus save lives from being meaningless. Religion can be a particularly important source of help in difficult and critical conditions [33].

The results showed that when participants' life was more in tune with the Islamic lifestyle, they experienced less pregnancy-specific stress, because the faith in a God who controls the situation and overlooks the people reduces situation-specific anxiety to a significant degree, such that most religious people define their relationship with God as the relationship with a very close friend and believe that they can somehow control the impact of uncontrollable situations by relying on God [34]. A limitation of the present study is that there were no similar studies on Islamic lifestyle and there were no relevant references for comparison. Given the novelty of the research subject, more studies are recommended to be conducted on this issue.

In conclusion, a negative correlation was observed between Islamic lifestyle and pregnancy-specific stress, as pregnancy-specific stress decreased with an increase in the score obtained in the Islamic lifestyle questionnaire. By encouraging the pregnant women to adopt an Islamic lifestyle, pregnancy-specific stress and its complications can be controlled in pregnant women. Further studies are recommended on this subject.

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