Original article:

Relationship between Islamic Lifestyle and Mental Health in Pregnant Women: A Cross-Sectional Study

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Abstract:

Objective: Mental health problems in women during pregnancy are widely associated with the negative consequences of pregnancy. Various factors can affect the mental health improvement in pregnancy. The effects of lifestyle and especially the Islamic lifestyle on mental health are unknown. Therefore, the researcher determined to examine the correlation between the Islamic lifestyle and women's mental health in pregnancy. **Materials and Methods**: The study on 300 pregnant women referred to the clinics affiliated to Shahid Beheshti University of Medical Sciences was carried out as descriptive cross-sectional. The research tools included the Islamic lifestyle questionnaire and DASS-21. **Results**: The results showed that there is a significant negative relationship between mental health and the Islamic lifestyle. (r = -0.310). The regression test results show that the mean score of the mental health problems decreases 0.09 per unit by increasing an Islamic lifestyle **score**. **Conclusion**: Since the results show that there is a significant negative relationship between Islamic lifestyle and the women's mental health, interventional studies are suggested to increase awareness and change lifestyle in order to improve the mental health.

Keywords: Islamic lifestyle; Depression; Anxiety; Stress; Pregnancy; Mental health

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Introduction

Pregnancy and delivery are enumerated amongst the natural events in the women's life cycle; however, although pregnancy is considered as a natural function for the women, it is, in the meanwhile, a very stressful experience. These experiences are accompanied by many psychological and physical changes in pregnant mothers. Pregnancy is the most exhilarating experience of the women's lives but concerns about the status and health of the fetus, physical changes, fear of delivery, worries about receiving sufficient care during pregnancy, and lack

of energy for performing daily activities lead in emerging and intensifying the causes of depression, anxiety and stress during pregnancy.² Also, pregnancy is a critical period for women in which their mental-related problems can appear.³ Many studies have been conducted in different communities in order to investigate the stressing factors in pregnant mothers and their consequences during pregnancy. In a study conducting on 3051 pregnant women in United States of America (USA), it was showed that 7.8% of the women had unfavorable mental health.⁴ It has been showed that the prevalence of depression during

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first trimester of pregnancy is 7.4, 12.8% in second trimester and 12% for the third trimester. 5Anxiety is also another most common symptoms of pregnant mothers.6The findings of the studies carried out in Iran showed a high prevalence of pregnancy anxiety and its relationship with the emergence of postpartum depression.⁷ From the perspective of the public health, identification of the individuals suffering from psychological stress during pregnancy is important, because the psycho-social factors, in addition to the biomedical factors, may be responsible for a part of pregnancy complications.8The recent studies in this regard indicated that depression, anxiety and psychological distress of pregnant mothers in prenatal period are associated unfavorable outcomes of delivery and pregnancy such as reduction in pain tolerance, premature birth, low birth weight, intrauterine growth restriction, mothers' mental disorders in postpartum period and child's mental developmental disorders during the early years of life.9-10 Additionally, mother's stress is associated with high levels of stress hormones (epinephrine and adrenocorticotropin) in fetus' blood flow. These hormones affect the nervous system directly and raise the blood pressure, heart rate and activity level. Mothers with high anxiety levels are more likely to have children with hyperactivity disorder, irritable and with lower weight than those with lower anxiety levels.11

Physiological and psychological changes during pregnancy are more intense during early stage of pregnancy, because due to hormonal changes, many pregnant women change their attitudes towards life and evaluate skills and lifestyle. 12-13 Lifestyle is a combination of wishes, ideas, programs and ordinary examples of behaviors which determine a special type of individual's interaction.^{14, 15} On the other hand; Islamic approach towards lifestyle is based on Islamic life's meaning and philosophy. In fact, the essence of the Islamic lifestyle definition lies in performing a set of manners based on Islam and Islamic teachings. ¹⁶Living based on Islamic teachings leads in the reduction in inefficient attitudes causing depression and anxiety, because the individuals, hoping in a divine power and following the verdicts and instructions of Islam, keep themselves away from negative and ineffective attitudes which are the main factors in developing many psychological diseases. ¹⁷Feeling of attachment to a sublime source and hopefulness to the God's assistance under life's stressful conditions and enjoyment of spiritual

support are sources by the aid of which the pious individuals sustain lower damage and enjoy higher psychological health facing the difficulties.¹⁸

Considering that there are substantial evidence indicating that the religious activities and beliefs play a central role in the individual efforts for coping with stressing life changes; ¹⁹⁻²³and also considering that the lifestyle, in general, and Islamic lifestyle, in particular, is associated with the different aspects of individuals' psychological, social and physical life; ¹⁷and also paucity of evidence regarding the correlation between psychological health and Islamic lifestyle during pregnancy, the aim this study was to evaluate the relationship between Islamic lifestyle and mental health in pregnant women.

Materials and Methods

A cross-sectional study was conducted on 300 Iranian pregnant women who had referred to the prenatal care clinics affiliated with Shahid Beheshti University of Medial Sciences, Tehran, Iran from October 2017 to May 2018. The inclusion criteria were age 15-45 years, ability to read-write, having an Iranian nationality, intended pregnancy, low pregnancy risk according to obstetricians' definitions, living with spouse, lack of known physical and psychological diseases and, being a Muslim. The information was gathered using demographic, asset index questionnaire, Islamic lifestyle inventory and depression, anxiety and stress scale containing 21 questions. The demographic questionnaire included individual and obstetrics information including age, number of children, level of education, marriage duration and living place. The asset index questionnaire which was a researchermade questionnaire evaluates 10 economic variables (having vacuum cleaner, separate kitchen, computer, washing machine, bathroom, freezer, dish-washing machine, personal car (not for earning money), mobile and television and its ratio is calculated in percentage. The obtained variable (asset index) is divided into five classes, namely 0 to 20 (poorest), 21 to 40 (poor), 41 to 60 (intermediate), 61 to 80 (rich) and 81 to 100 (richest). ²⁴⁻²⁵ Islamic lifestyle questionnaire, as well, contains 75 items to which the respondents provide answers in a four-point scale from "very low" to "very high". Each item takes a coefficient between 1 and 4 depending on its importance. The total score of the test is 141 at least and 570 at most. Ten indices constitute the subscales of the test. They are: social index (11 items); beliefs (6 items); worship-related issues (6-items), moralities (11 items), financial matters (12 items), family (8 items), health (7 items), thoughts and knowledge (5 items), security-defensive (4 items) and punctuality (5 items). The total reliability coefficient of the test is 0.71. The factor analysis results have also been indicative of the validity and proper factor structure of the questionnaire. Concurrent validity of the questionnaire was found equal to 0.64 using religious orientation test.²⁶

To gather the information, the short form of 21-question depression, anxiety and stress scale (DASS-21) was used. DASS scale was designed by Lovibond et al in 1995. The short form of DASS contains 21 questions and assesses each construct of depression, anxiety and stress based on seven questions. The questions of the short form are scored based on Likert's four-point scale as follows: "never" (0), "a little" (1), "high" (2) and "very high" (3). The minimum and maximum score of each of the constructs are 0 and 21, respectively.²⁷In Iran, DASS-21 scale's validity has been examined by Samani and Jawkar and retest validity for depression; anxiety and stress scales were found equal to 0.81, 0.74 and 0.78, respectively.²⁸

After confirming the study subject, coordination was firstly made with the officials of Shahid Beheshti's nursing and obstetrics department and Shahid Behesth Medical Sciences University and a letter of recommendation was subsequently acquired. After getting the required permits, the researcher attended the university's selected prenatal clinics with first making the required coordination, introduced himself, presented the permit to the corresponding authorities and acquired permission to perform data collection several days of the week. The study sample size was selected after matching the study participants with the specifications of the research units. Following the receipt of written consent letters indicating the participants' informed satisfaction for taking part in the study, they were informed about the study objectives and necessary explanations were provided regarding the confidentiality of the information and voluntariness of participation in the research. Next, the study participants were administered with the information collection instruments to be completed. The researcher also offered explanations to all the study participants regarding the method of answering the questions in the questionnaires. Following the gathering of the questionnaires, the information was analyzed using Statistical Package for the Social Sciences (SPSS) version 16.

Ethical clearance: This study has been approved by the ethics committee of the Shahid Beheshti Medical Sciences University, Tehran, Iran (code: IR.SBMU. PHNM.1394.228).

Results

The mean and standard deviation of the pregnant women in 300 studied participants was 28.68±5.21. The education level of the majority of the participants (44%) was diploma and most of the mothers were housewives (92%) while their husbands were predominantly self-employed (57.7%). Out of the participants, 28% were in the first trimester, 33.7% were in the second trimester and 38.3% were in the third trimester of gestation. The results obtained about the pregnancy status of the referring pregnant women are suggestive of the idea that 42% had become pregnant for the first time and 46% of the pregnant women had no children. 80.7% of the mothers had no abortion history and 97.7% of them had no still birth. The mean, standard deviation and maximum and minimum age as well as the scored obtained in the aspects investigated in the present study have been given in table (1).

Table 1: mean, standard deviation, maximum and minimum age, and the scores obtained in the studied aspects

Variable	Mean (year)	Standard deviation	Maximum	Minimum
Age	28.68	5.21	45	16
Spouse age	33.07	5.72	51	21
Total score of asset index	69.70	18.42	100	0
Total score of Islamic lifestyle	440.30	37.57	542	316
Total score of depression, anxiety and stress	16.31	11.16	55	0

According to Pearson correlation coefficient, there is a positive and significant relationship between spouse age and the total asset index. No significant correlation was found between the individual's age and spouse's age with the Islamic lifestyle. Moreover, no significant correlation was observed between the Islamic lifestyle and depression, anxiety and stress with asset index. A negative and significant correlation was found between Islamic lifestyle and depression, anxiety and stress (table 2).

Table 2: correlation between the demographic variables, depression, anxiety and stress and Islamic lifestyle

Variables	Age	Spouse age	Total score of Islamic lifestyle	Total score of depression, anxiety and stress	Total score of asset index
Age	1	0.694**	0.053	0.026	0.098
Spouse age		1	0.051	0.016	0.115*
Total score of Islamic lifestyle			1	-0.310**	0.074
Total score of depression, anxiety and stress				1	-0.067
Total score of asset index					1

^{**}correlation is significant at 0.01 level (2-tailed)

To investigate the effect of Islamic lifestyle and demographic variables on psychological health, stepwise regression was utilized and the results can be seen in table (3).

Table 3: regression analysis for the psychological health in pregnant women participating in the study according to demographic variables and Islamic lifestyle

Model		Unstandardized co	Unstandardized coefficients		t	p-value
		В	Std. Error	Std. error		
1	Fixed amount	0.882	7.234		863	< 0.001
	Islamic lifestyle	-0.902	0.016	-0.310	-5.628	< 0.001
2	Fixed amount	53.271	7.345		7.253	< 0.001
	Islamic life style	0.090	0.016	-0.304	-5.551	< 0.0001
	Number of pregnancies	1.469	0.629	0.128	2.336	0.20

According to table (3), amongst the Islamic lifestyle and the other demographic variables, only the lifestyle and number of pregnancies were found significant and the other demographic variables were eliminated from the model. As the number of pregnancies increase per unit, the psychological health mean score increases by 1.47; and as the Islamic lifestyle score increases per unit, the mean score of the mental health reduces by 0.09 per every unit.

Discussion

The present study was conducted in order to investigate the correlation between Islamic lifestyle and mental health in pregnant women. The results indicated that there is a negative and significant correlation between Islamic lifestyle and pregnant women's mental health in such a way that the more the Islamic lifestyle's score is increased, the more the depression, anxiety and stress scores in pregnant women is decreased.

As one of the most important periods in women's lives, pregnancy is a very vulnerable course of life despite of being considered as a natural status. Pregnancy

exposes women to incompatible mental, social and physical conditions in which mental disorders may occur; ²⁹the mentioned finding is in compliance with the studies showing that Islamic lifestyle facilitates improvement of social and psychological health, happiness and satisfaction. 30-31The results of the studies by Bodaghi et al demonstrated that there is a negative and significant relationship between spirituality and anxiety, depression and stress symptoms in pregnant women. 32It can be stated in elaborating the aforesaid assumption that the religious individuals are healthier than the other individuals because they tend to have healthier behavior and that the mental health is related to the inherent and internal religiosity of the individuals. ³³Religion has a central role in human life. ³⁴The role of the religious beliefs in controlling psychological damages has been underlined in psychological theories and studies. For example, Spilka et al made use of psychological researches to deal with the positive effects of religion on the mental and ethical health. Some beliefs and behaviors such as resort to the God, patience, saying prayers, going on

^{*}correlation is significant at 0.05 level (2-tailed)

pilgrimage trips and so forth can result in internal tranquility in the individuals via inducing hope and positive attitudes. Having meaning and goal in life, feeling attached to a sublime source, being hopeful in the God's grace in the problematic life situations, enjoyment of social and spiritual supports and so forth are all amongst the practices enabling the pious individuals to suffer from lower damages facing with the life's pressure and difficulties. 35The more the individuals are inclined towards religious deeds, the more their mental health will be increased.³⁶ The results of the studies indicated that the interventions based on Islamic lifestyle can significantly improve lifestyle, psychological wellbeing, spiritual wellbeing and healthy behaviors in the individuals at risk of heart diseases.^{37, 38} These studies is are line with what has also been found herein because living based on Islamic teachings causes diminish in ineffective attitudes that are origin of depression and anxiety. Trusting in a divine power and following the verdicts and orders of Islam, individuals can practically stay away from negative and ineffective attitudes that are the essential factors in the creation of psychological ailments. 17, 39 Furthermore, the results of the present study indicated that only "number of pregnancies", amongst the demographic characteristics, influences the mental health in such a manner that depression, anxiety and stress are reduced with the increase in the number of pregnancies. In our society, religion is enumerated amongst the most effective psychological support capable of bestowing a lifelong purport to the life hence saving an individual from meaninglessness; moreover, it is deemed as an important help when in difficult and critical situations. The results of the present study indicated that the more an individual gets closer to the Islamic lifestyle, the less the amount of depression, anxiety and stress s/he will tolerate; because believing in that there is a God controlling the situations and overseeing the servants, decreases the situation-related anxiety to a large extent in such a way that the majority of the believers describe their relationship with the God like a very amicable relationship and believe that via relying and resorting to the God that the effect of uncontrollable situations can be somehow controlled. ⁴⁰Finally, it can be stated that the scarcity of the prior research regarding Islamic lifestyle has been a constraint of the current research paper. Due to the idea that no research was found related to the present study and also as a research innovation, it is suggested that more similar researches be performed in this regard.

Conclusion

The results of this study showed that there is a negative relationship between Islamic lifestyle and depression, anxiety and stress in pregnant women. As Islamic lifestyle's score increases, depression, anxiety and stress are reduced in pregnant women. So, to control depression, anxiety, stress and the resulting consequences, Islamic lifestyle can be improved in pregnant women. Further studies are recommended in this regard.

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Conflict of Interest:

All authors declare no conflict of interest

Authors' contribution:

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