



# Association Between Women's Marital Satisfaction and Anxiety During Pregnancy

Fariba Salehi,<sup>1</sup> and Zohreh Shahhosseini<sup>2,3,\*</sup>

<sup>1</sup>Mazandaran University of Medical Sciences, Sari, Iran

<sup>2</sup>Department of Reproductive Health and Midwifery, Nasibeh Nursing and Midwifery Faculty, Mazandaran University of Medical Sciences, Sari, Iran

<sup>3</sup>Sexual and Reproductive Health Research Center, Mazandaran University of Medical Sciences, Sari, Iran

\*Corresponding author: Zohreh Shahhosseini, Department of Reproductive Health and Midwifery, Sexual and Reproductive Health Research Center, Mazandaran University of Medical Sciences, Sari, Iran. E-mail: zshahhosseini@yahoo.com

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## Abstract

**Background:** Anxiety during pregnancy is one of the major women's health concerns all over the world. Marital satisfaction is a common factor affecting women's anxiety.

**Objective:** The aim of this study was to investigate the association between marital satisfaction and anxiety in women during pregnancy.

**Methods:** In this cross-sectional study, 147 nulliparous women in the second trimester of pregnancy were selected using a single stage cluster sampling from Sari city, Iran, between March and July 2015. Data were collected using the demographic checklist, Spielberger anxiety inventory and enrich marital satisfaction questionnaire. Data were analyzed using descriptive and inferential statistics (ANOVA, t-test, Pearson coefficient correlation and liner regression) by the SPSS v.18 software. The P value less than 0.05 was considered as statistically significant.

**Results:** The mean scores of state anxiety, trait anxiety and marital satisfaction of the participants were  $39.01 \pm 8.71$ ,  $39.12 \pm 8.42$ , and  $176.61 \pm 27.38$ , respectively. According to the results of regression analysis, marital satisfaction could predict 21% and 17% of variations of state anxiety and trait anxiety of the pregnant women, respectively ( $P < 0.001$ ).

**Conclusion:** The assessment of marital satisfaction should be considered during the evaluation of pregnant mothers who suffer from anxiety and vice versa. When marital dissatisfaction exists, the psychological assessment of maternal status is recommended.

**Keywords:** Anxiety, Marital Satisfaction, Pregnancy

## 1. Background

Anxiety during pregnancy is one of the major women's health concerns all over the world that if not controlled appropriately, it can become a long lasting crisis accompanied with unpleasant complications and consequences (1). The prevalence of anxiety disorders during pregnancy is between 11 and 75 percent and with a prevalence rate between 18 and 30 percent among Iranians (2, 3). This wide difference in prevalence of anxiety may be due to use of different measures of anxiety, use of different cut-off points on screening tools and socio-demographic characteristics of participants (4).

Marital satisfaction is a predictive factor of anxiety during pregnancy (5). Couples' marital satisfaction has an important role in women's mental health. A woman who has a healthier mental health can develop an appropriate interaction with her life experiences and have control over life's anxiety and depression (5, 6).

A bilateral relationship is available between marital satisfaction and mental problems during the perinatal period. It is believed that women with lower marital satisfaction experience a greater amount of anxiety during pregnancy (7, 8). Moreover, hormonal, physical and mental changes during pregnancy can affect women's sexuality and partnership characteristics. In this way, it is stated that women's sexual problems increase in the early months of pregnancy and return to the normal level during the postpartum period (9). However, there are inconsistencies in the studies' results with regard to the relationship between marital satisfaction and anxiety during pregnancy. Some studies showed that those pregnant women who suffer from the anxiety disorder in pregnancy or after giving birth may experience no further sexual problems compared to healthy women (10, 11).

## 2. Objectives

As few studies have investigated the relationship between marital satisfaction and anxiety during pregnancy, especially in Iranian context, this study was conducted to investigate the association between marital satisfaction and anxiety in women during pregnancy referred to health care centers in Sari city in 2015.

## 3. Materials and Methods

### 3.1. Sampling

A cross-sectional study was conducted from March to July 2015 in Sari city, Mazandaran province. Using a single stage cluster sampling method, 147 obstetrically and medically low-risk nulliparous women with a gestational age ranging from 13 to 26 weeks were recruited.

To recruit the samples, four healthcare centers were chosen by using the table of random numbers (as main clusters) and according to the estimated sample size based on the following measures: correlation coefficient of 0.45 between marital satisfaction and anxiety during pregnancy reported in a study (7), the confidence level of 95% and the power of 90% and design effect of 2. Then, according to the estimated quota and by using convenient sampling, in each center eligible nulliparous mothers were invited by phone to go to the healthcare centers for filling out the self-administered questionnaires.

### 3.2. Instruments

Data were collected through the demographic checklist, Spielberger anxiety inventory and enrich marital satisfaction questionnaire. The Spielberger anxiety inventory was composed of 40 questions measured the state and trait anxiety on a 4-point Likert scale (12). The psychometric properties of this questionnaire have been evaluated in different context with the reliability scores of 0.79 and 0.94 for state and trait anxiety, respectively (13).

Marital satisfaction was assessed by using the 47-question form of Enrich marital satisfaction questionnaire (on a 5-point Likert scale) that was validated in Iranian culture (14). It was consisted of four domains: 'idealistic distortion' (5 questions), 'marital satisfaction' (16 questions), 'conflict resolution' (12 questions) and 'communications' (14 questions).

### 3.3. Statistical Analysis

Data were analyzed using ANOVA, t-test, Pearson coefficient correlation and liner regression by the SPSS v.18 software. The P value less than 0.05 was considered as statistically significant.

### 3.4. Ethical Consideration

The participants were ensured about the confidentiality of the collected data. All of them were provided with written informed consent before the beginning of the study.

## 4. Results

The mean age of the participants was  $26.04 \pm 41.65$  years (age range, 16 - 30 years). Most of the participants (48.3%) had diploma or associate degree. The mean scores of state and trait anxiety were  $39.01 \pm 8.71$  (ranges between 23 and 60) and  $39.12 \pm 8.42$  (ranges between 24 and 60), respectively.

The mean score of marital satisfaction was  $176.61 \pm 27.38$ , with a range from 96 to 225. Table 1 shows the mean and standard deviation of marital satisfaction scores based on each domain. It was found that the women's score of anxiety had relationships with their age, gestational age and marital satisfaction scores.

To predict the variation of anxiety based on the marital satisfaction score, linear regression analysis was conducted (Table 2). Accordingly, the total regression for state anxiety was  $0.45 (P \leq 0.001)$  and for trait anxiety was  $0.41 (P \leq 0.001)$ . Also, marital satisfaction could predict 21% and 17% of variations of state anxiety and trait anxiety of the pregnant women, respectively.

## 5. Discussion

In line with the other studies (15, 16), it found that there was a reverse relationship between marital satisfaction and anxiety. In some people, marital conflicts are manifested through psychological signs and symptoms such as aggressive behaviors, and the feeling of anxiety. Furthermore, low marital satisfaction disturbs the development of an appropriate emotional relationship between couples, which in turn increases the level of anxiety (17). It seems providing counseling programs for pregnant mothers through health care system and establishing a safe marital environment and appropriate couples' relationship can help pregnant women deal with mental pressures during pregnancy.

The presence of a reverse relationship between the participants' age and trait anxiety scores ( $P = 0.015$ ) in accordance with other studies (7, 18) means that with increasing the age and psychological-social growth, women adapt more easily with life conditions and their level of anxiety is reduced.

Moreover, the results of the present study showed that the women experienced more state anxiety by increasing

**Table 1.** Mean Score and Standard Deviation of Marital Satisfaction and Its Domains

Marital Satisfaction	Mean $\pm$ SD	Range	95% Confidence Interval
Total marital satisfaction	176.61 $\pm$ 27.38	96 - 225	172.14 - 181.07
Ideal distortion	19.03 $\pm$ 3.62	6 - 25	18.44 - 19.62
Marital satisfaction	61.74 $\pm$ 10.34	29 - 79	60.06 - 63.43
Conflict resolution	44.14 $\pm$ 7.45	25 - 60	42.92 - 45.35
Communications	51.68 $\pm$ 8.42	32 - 67	50.31 - 53.06

**Table 2.** Predictive Variables in the Linear Regression Model With Anxiety as the Criterion Variable

Anxiety	Variable	Non-Adjusted Coefficient		Adjusted Coefficient	t	P Value	R/R <sup>2</sup>
		B	SE	Beta			
State	Age	-0.297	0.144	-0.154	-2.060	0.401	0.45/0.21
	Gestational age	0.297	0.156	0.143	1.907	0.059	
	Marital satisfaction	-0.128	0.024	-0.389	-5.217	< 0.001	
Trait	Age	-0.337	0.136	-0.188	-2.467	0.015	0.41/0.17
	Gestational age	0.059	0.147	0.030	0.398	0.691	
	Marital satisfaction	-0.111	0.023	-0.366	-4.809	< 0.001	

the gestational age of pregnancy ( $P = 0.059$ ). Some studies have shown that anxiety in pregnant mothers is more frequent in the first trimester of pregnancy and then diminished during the second trimester. However, in the third trimester and by approaching the time of delivery, it reached the primary level (19). Nevertheless, some researches could not find any differences in the severity of anxiety in pregnant women in the various trimesters of pregnancy (7, 20).

### 5.1. Conclusions

Pregnant women with marital dissatisfaction who are referred to healthcare centers must be assessed for anxiety during pregnancy. In addition, the women with a history of anxiety during pregnancy are assessed for marital satisfaction. Taking into account the predictive role of marital satisfaction on anxiety during pregnancy, prenatal care services including the screening of pregnant mothers based on marital satisfaction are suggested. On the basis of study findings, it seems that partner relationships should be a key focus for health care providers and particularly midwives in the perinatal period. As this study is conducted in healthy nulliparous women, generalizability of our findings is limited.

### 5.2. Limitations

The relationship found between marital satisfaction and anxiety during pregnancy could not show the pres-

ence of a cause and effect relationship as the cross-sectional design of this study. Also, it should be considered that data were collected using the participants' self-report in the Iranian society that description of marital relationships by women is embarrassing. Therefore, qualitative studies need to explore the experiences of pregnant mothers with low marital relationships.

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### Footnotes

**Authors' Contribution:** Zohreh Shahhosseini and Fariba Salehi conceived and designed the study. Fariba Salehi collected the data. Zohreh Shahhosseini and Fariba Salehi performed the statistical analysis, analyzed the data, and drafted the manuscript. Both authors read and approved the final manuscript.

**Declaration of Interest:** None declared.

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