Original Article

Pregnant Women's Attitudes towards Complementary and Alternative Medicine and the Effect of their Superstitions on their Psychosocial Health Levels

Figen Alp Yimaz, PhD, RN
Associate Professor Prof. Alanya alaaddin Keykubat University, Faculty of Health Sciences, Department of Nursing, Antalya, Turkey

Tugba Uzuncakmak, PhD, RN
Assistant Professor Bozok University, Faculty of Health Sciences, Department of Nursing, Yozgat, Turkey

Correspondence: Dr. Figen Alp Yilmaz, Address: Alanya Alaaddin Keykubat University, Faculty of Health Sciences,.Antalya , Turkey. e-mail:efigenden@gmail.com

Abstract

Background: Pregnant women benefit from these practices in order to have a healthy pregnancy process and to give a healthy birth.

Objective: This study was designed to determine pregnant Muslim women's attitudes towards complementary and alternative medicine and the effect of their superstitions on their psychosocial health levels.

Methodology: This descriptive type study was conducted with 253 pregnant women reached using the snowball sampling method. The Sociodemographic and Obstetric Data Collection Form, Pregnancy Psychosocial Health Assessment Scale, Attitudes towards Complementary and Alternative Medicine Scale and Scale to Measure Superstition were used to collect the data.

Result: In this study, the participating pregnant women's psychosocial health levels were good whereas their levels of attitudes towards complementary and alternative medicine, and superstition were moderate. Of the variables, age, length of marriage, number of children, education level, stillbirth history were the factors affecting women's psychosocial health during pregnancy ($p<0.05$).

Conclusions: The results of the study demonstrated that the personal and obstetric characteristics of the pregnant women affected their psychosocial health status during pregnancy. It is recommended that the factors likely to affect the psychosocial health status during pregnancy should be comprehensively evaluated, and that pregnant women should be provided with necessary counseling and support.

Key words: pregnant woman, psychosocial health, complementary and alternative medicine, superstition

Introduction

Pregnancy, which is considered as a developmental crisis period, is a period in which physiological, psychological and social changes begin with conception and end with birth (Taskin, 2020). As pregnant women progress towards parenthood, they face unprecedented changes in their lives, relationships and bodies, and they feel that they have to adapt to these changes (Koyun et al., 2011). Health during pregnancy is related to the woman's biopsychosocial adaptation to pregnancy. Her being unable to achieve adaptation may affect her psychosocial health adversely (Arslan et al., 2019).

In case her psychosocial health is not good, her risk of experiencing health problems increases, especially during periods of life crises such as pregnancy (Gumusdag, 2014). Psychosocial problems experienced during pregnancy may lead to preeclampsia, preterm delivery, difficult delivery, more surgical interventions, and delivery of newborns with low birth weight or low Apgar score (Rajani ,2017; Lilliecreutz et al., 2016; Pearlstein, 2015) ; Bussières et al., 2015.) If impaired psychosocial health in pregnancy continues during the postpartum period, this may cause problems in establishing the mother-infant attachment, delays in baby's growth, and motor and language development, disorders in emotional

development, and behavioral problems (Polanska et al., 2017; Pearlstein, 2015)

Physical and psychological problems experienced during pregnancy affect the pregnant woman deeply. Therefore, expectant mothers resort to different methods to find a solution to such changes in their lives (Teskereci & Boz 2020). These methods can be not only complementary and traditional practices but also superstitions that arise under the influence of cultural factors. In the literature, it is stated that low socioeconomic status and inadequate antenatal care cause pregnant women to rely on complementary and alternative practices and superstitions (Raman et al., 2016). Turkey is very rich in terms of traditional and superstitious practices due to its location and the coexistence of individuals from different cultures. These practices have been passed down from generation to generation by the influence of culture, religious beliefs and strong family ties and have continued their effects to date (Ozsoy and Katabi 2008; Simsek et al., 2017; Geckil et al., 2009; Zeyneloglu & Kisa, 2018; Ngomane & Mulaudzi, 2012). Today, pregnant women benefit from these practices in order to have a healthy pregnancy process and to give a healthy birth. At this point, it is important for health professionals to be aware of pregnant women's traditional and complementary practices and superstitious beliefs, to plan the health care they are to provide for them, to carefully evaluate pregnant women's psychosocial health and to realize the factors affecting them (Withers et al., 2018; Ozsoy & Katabi, 2008; Geckil et al., 2009). Therefore, we expect that our study will contribute to the literature in terms of determining the attitudes of pregnant women towards complementary medicine and the effects of their superstition levels on their psychosocial health levels.

Methods

Study Design and Participants

This descriptive, cross-sectional and correlational study was conducted in a city in Turkey between September 2020 and May 2021. Because the study data were collected during the pandemic, the snowball sampling method, one of the non-probability sampling methods, was used in the selection of the sample. The sample size was calculated using the statistical analysis software GPOWER 3.1.0. Multiple regression analyses were performed at a 0.05 significance level, 99% power, and medium effect size ($f_2=0.15$). The

minimum sample size was determined as 161 pregnant women. The study sample included 253 pregnant Muslim women who volunteered to participate in the study and met the inclusion criteria. Inclusion criteria; (a) being over 18 years old, (b) her or the fetus's not having any health risk (c) being pregnant and (d) willing to participate in the study. Exclusion criterion: declining to participate in the study.

Measures

The study data were collected with the Sociodemographic and Obstetric Data Collection Form, Pregnancy Psychosocial Health Assessment Scale, Attitudes towards Complementary and Alternative Medicine Scale and Scale to Measure Superstition.

Sociodemographic and Obstetric Data Collection Form: The form developed by the researchers consists of two parts. In the first part, the participants' such characteristics as age, education level, economic status, family type, presence of chronic disease etc. are questioned. In the second part, their obstetric characteristics such as gestational age, abortion, curettage history, the number and frequency of prenatal follow-ups are questioned.

Pregnancy Psychosocial Health Assessment Scale: The scale developed by Yildiz (2011) to assess psychosocial health as a whole during pregnancy consists of 46 items and 6 sub-dimensions. The minimum and maximum possible scores that can be obtained from the scale are 46 and 230 respectively. The sum of the scores obtained from the six sub-dimensions yields the overall score for the Pregnancy Psychosocial Health Assessment Scale. Then this score is divided by the number of the items (46) yielding an average score ranging between 1 and 5. While "1" indicates that the person's psychosocial health is very poor, "5" indicates that the person's psychosocial health is very good. The Cronbach's Alpha coefficient of the scale was 0.93 in Yildiz's study (2011) and 0.83 in the present study.

Attitudes towards Complementary and Alternative Medicine Scale: The scale was developed by Hyland et al. The validity and reliability study of the Turkish version of the scale was conducted by Erci (2007). The scale is used to assess individuals' attitudes towards complementary and alternative medicine. The lowest and highest possible scores to be obtained from the scale are 11 and 66 respectively. While a low score indicates a positive attitude towards complementary and alternative medicine, a high score indicates a negative attitude towards

complementary and alternative medicine. The Cronbach's Alpha value of the scale was 0.72 in Hyland et al.'s study and 0.90 in the present study.

Scale to Measure Superstition: The scale was developed by Huque M. and Chowdhury AH. in 2007. The validity and reliability study of the Turkish version of the scale was conducted by Akin et al. in 2014. The scale consists of 20 items. Responses given to the items are rated on a 4-point Likert type scale. While the lowest possible score that can be obtained from the scale is 20, the highest possible score is 80. A low score indicates that the level of superstition is low, whereas a high score indicates the level of superstition is high. The Cronbach's Alpha coefficient of the scale was 0.93 in Huque M. and Chowdhury AH's study and 0.76 in the present study.

Data analysis: The SPSS package program was used to analyze the data. Numbers, arithmetic mean and standard deviation were used in the analysis of descriptive data. Kolmogorov Smirnov test was used to find out whether the variables were distributed normally. Mann-Whitney U test was used to compare data that did not show normal distribution in paired groups. If there were three groups, then the Kruskal Wallis test was used to compare the non-normally distributed data, and the One Way ANOVA test was used to compare the normally distributed data. To determine from which groups the differences stemmed in those three groups, Tukey test results were taken into account because the variances were homogeneous. Spearman's correlation was used to analyze the relationship between the scales. P-values less than 0.05 were considered statistically significant.

Ethical Considerations: Before the study was conducted, the approval was obtained from the Ethics Committee (decision date: December 18, 2019, decision number: 05-03). After they were informed of the objectives and procedures of the study, the women to participate in the study gave their written informed consent. The authors have complied with ethical standards in producing this article and received informed consent from all study participants

Results

The mean age of the pregnant women who participated in our study was 27.75 ± 5.21 years, and their mean age at marriage was 22.13 ± 4.0 years. Of the participants, 48.6% had 1 or 2 children, 62.8% had an income equal to their expenses, 41.1% were high school graduates and 85.8% did not work at a paid job. (Table1).

The mean scores the participants obtained from the Scale to Measure Superstition, Attitudes towards Complementary and Alternative Medicine Scale, and Pregnancy Psychosocial Health Assessment Scale were 28.32, 26.41 and 4.08 respectively.

Distribution of the mean scores the participating pregnant women obtained from the Pregnancy Psychosocial Health Assessment Scale according to some of their characteristics is given in Table 4. Of the participants, those who were in the 25-31 age group, whose length of marriage ranged between 1 and 10 years, who were primiparae, who were university graduates, or who did not have a history of stillbirth had higher levels of psychosocial health than did the other participants (Table 4, $p < 0.05$).

There was a negative, weak and statistically significant relationship between the Pregnancy Psychosocial Health Assessment Scale and the Scale to Measure Superstition Scale ($r=-0.127$, $p<0.05$) whereas there was no statistically significant relationship between the Pregnancy Psychosocial Health Assessment Scale, and the Attitudes towards Complementary and Alternative Medicine Scale ($r=0.057$, $p>0.05$).

Table 1. Distribution of the participating pregnant women's sociodemographic characteristics (n = 253)

Sociodemographic characteristics	Min-Max.	Mean±SD
Age (years)	18-43	27.75±5.21
Age at first marriage (years)	17-37	22.13±4.0
Duration of marriage (years)	1-23	5.63±5.10
The number of children	0-7	1.11±1.19

	n	%
Age group		
18-24 years	73	28.9
25-31 years	119	47.0
≥31 years	61	24.1
Age at first marriage		
17-20 years	107	42.3
21-24 years	85	33.6
≥25 years	61	24.1
Duration of marriage		
1-10 years	206	81.4
≥11 years	47	18.6
The number of children		
None	98	38.7
1-2	123	48.6
≥3	32	12.6
Income status		
Income less than expenses	53	20.9
Income equal to expenses	159	62.8
Income more than expenses	41	16.2
Education status		
Elementary school	22	8.7
Junior high school	59	23.3
Senior high school	104	41.1
University	68	26.9
Employment status		
Employed	36	14.2
Unemployed	217	85.8
Family structure		
Nuclear	180	71.1
Extended	73	28.9
Having a chronic disease		
Yes	31	12.3
No	222	87.7

Table 2. Distribution of the participating pregnants' obstetric characteristics (n=253)

Obstetric characteristics	Min-Max.	Mean±SD
Gestational age (weeks)	2-40	21.75±9.49
Antenatal visits	1-20	6.89±4.43
	n	%
Trimester		
1st trimester	49	19.4
2nd trimester	108	42.7
3rd trimester	96	37.9
Previous experience of curettage		
Yes	40	15.8
No	213	84.2
Previous experience of stillbirth		
Yes	15	5.9
No	238	94.1
Antenatal visit frequency		
Once a week	37	14.6
Twice a month	106	41.9
Once a month	110	43.5
Antenatal visits		
1-10	212	83.8
≥11	41	16.2

Table 3. Minimum, Maximum and Mean Scores the Participants Obtained from the Scale to Measure Superstition, Attitudes towards Complementary and Alternative Medicine Scale, and Pregnancy Psychosocial Health Assessment Scale (n=253)

Scales	Min.-Max. possible scores to be obtained from the scales	Min.-Max. scores obtained from the scales	Mean	Standard Deviation
Scale to Measure Superstition	20-80	20.0-77.0	28.32	9.39
Attitudes towards Complementary and Alternative Medicine Scale	11-66	11.0-66.0	26.41	10.53
Pregnancy Psychosocial Health Assessment Scale	1-5	2-5	4.08	0.78

Table 4. Distribution of the Mean Scores Obtained from the Pregnancy Psychosocial Health Assessment Scale according to Some Characteristics of the Participating Pregnant Women (n=253)

		Pregnancy Psychosocial Health Assessment Scale	KW/ MU/f*	p
Age group	18-24 years	3.90±0.54	12.981	0.002
	25-31 years	3.92±0.48		
	≥31 years	3.64±0.54		
Duration of marriage	1-10 years	3.88±0.52	2.428	0.015
	≥11 years	3.71±0.51		
The number of children	None	3.92±0.53	7.759*	0.001
	1-2	3.88±0.50		
	≥3	3.52±0.48		
Income status	Income less than expenses	3.77±0.52	0.825*	0.440
	Income equal to expenses	3.88±0.53		
	Income more than expenses	3.85±0.51		
Education status	Elementary school	3.60±0.55	2.713*	0.046
	Junior high school	3.80±0.47		
	Senior high school	3.86±0.55		
	University	3.95±0.50		
Employment status	Employed	3.86±0.55	0.482	0.630
	Unemployed	3.85±0.52		
Family structure	Nuclear	3.86±0.54	-1.177	0.239
	Extended	3.81±0.47		
Trimester	1st trimester	3.82±0.57	0.113*	0.893
	2nd trimester	3.86±0.53		
	3rd trimester	3.86±0.50		
Previous experience of stillbirth	Yes	3.56±0.57	-2.017	0.044
	No	3.87±0.52		

Table 5. **Correlation between the Pregnancy Psychosocial Health Assessment Scale, and the Scale to Measure Superstition and Attitudes towards Complementary and Alternative Medicine Scale (n=253)**

	Pregnancy Psychosocial Health Assessment Scale	
	r	p
Scale to Measure Superstition	-0.127	0.044
Attitudes towards Complementary and Alternative Medicine Scale	0.057	0.370

Discussion

Psychosocial health's being negatively affected during pregnancy is an important issue because it adversely affects the mother's, fetus's and newborn's health. (Maxton, 2016). In the present study, the mean score the participants obtained from the overall Pregnancy Psychosocial Health Assessment Scale was 4.08±0.78, and their psychosocial health status was at a good level. In several studies conducted on this issue, the mean score the pregnant women obtained from the overall Pregnancy Psychosocial Health Assessment Scale ranged between 3.02 and 4.54 (Ozsahin et al., 2018; Bakir & Sarizayim, 2020; Derya et al., 2018; Korukcu et al., 2017). The comparison of the results demonstrated that the effect of pregnancy on psychosocial health varied from one study to another. In our country, Turkey, pregnancy is an event that is expected and happily welcomed by couples and all other family members. The fact that the pregnant women were in a welcomed process may have positively affected the level of their psychosocial health.

Pregnancy is a period during which women experience hormonal and psychosocial lifestyle changes affecting their adaptation to the environment (Koyuncu et al., 2011). Expectant mothers may resort to superstitions that arise under the influence of cultural factors in order to find a solution to many changes. Pregnant women's superstition levels differ from one woman to another in this period. In the present study, the mean score the participating pregnant women obtained from the Scale to Measure Superstition was 28.32 ±9.39. In this respect, it can be said that in the present study, the pregnant women's superstitious belief levels were moderate. Not only the cultural values, attitudes

and behaviors of the society in which the pregnant women live but also their superstitious beliefs shape their lifestyle and affect their health (Raman et al., 2016). Therefore, superstitions practiced during pregnancy can affect the mother's health. In the present study, there was a negative relationship between the levels of superstition and psychosocial health. Our search for studies in which the effects of pregnant women's superstition levels on their psychosocial health were investigated revealed a gap in the literature. Therefore, it is important to identify superstitions that adversely affect psychosocial health. The findings of this study are important because it was aimed at determining the effect of pregnancy on women's psychosocial health, and it can be said that its results will shed light on future studies.

Structural and functional changes during pregnancy can adversely affect the health and quality of life of women (Sen et al., 2020). Many women avoid taking medications during pregnancy due to their side effects, or they may resort to complementary therapy methods such as herbal therapies, vitamin and mineral support, relaxation exercises and aromatherapy to cope with these changes (Teskerici & Boz 2020). In the present study, the mean score the pregnant women obtained from the overall Attitudes towards Complementary and Alternative Medicine Scale was 26.41±10.53. According to this score, we can say that the level of attitudes they displayed towards complementary medicine was moderate. The frequency of the use of complementary therapies during pregnancy varies between 20% and 60% (Melissa et al., 2018). Although the frequency of the use of complementary therapies during pregnancy has increased in recent years, most women hide their use of complementary

therapies from health personnel. However, what pregnant women should keep in mind is that healthcare personnel play a key role in ensuring a healthy pregnancy for them (Teskerici & Boz 2020). Therefore, counseling provided by healthcare personnel is very important in prenatal follow-ups in order to improve the psychosocial health levels of pregnant women.

The analysis of the factors affecting pregnant women's psychosocial health demonstrated that the psychosocial health level of the participants who were in the 25-31 age group or were university graduate was higher than was that of the other participants. In the literature, there are studies stating that the psychosocial health levels of young pregnant women are low (Bakir & Sarizayim 2020; Ozsahin et al., 2018; Kucukkaya et al., 2018). Young age may adversely affect psychosocial health during pregnancy because young pregnant women may not feel that they are ready for pregnancy yet, or they may not be able to cope with the changes that occur during pregnancy. In several studies in which psychosocial health levels of women during pregnancy were investigated, it was determined that as the education level of women increased, so did their psychosocial health levels (Kubo et al., 2017; Yilmaz & Kucuk 2015; Bakir & Sarizayim 2020). This result can be explained by the fact that as the woman becomes more aware of the changes that occur during pregnancy as her education level increases, and thus she can cope with the changes related to pregnancy more effectively.

The analysis of the factors related to psychosocial health, which is the other dimension of the study, revealed that the length of marriage affected psychosocial health, and that the psychosocial health levels of pregnant women whose length of marriage was between 1 and 10 years were higher. Similarly, in previous studies, women whose length of marriage was shorter have been reported to have better psychosocial health (Cakir & Can 2012; Akbas et al., 2008). The fact that the pregnant women whose length of marriage was shorter had a higher perception of spousal support and better adapted to pregnancy may have contributed to the increase in their psychosocial health levels.

One of the variables affecting psychosocial health during pregnancy is the number of children the pregnant woman has. In the present study, the psychosocial health levels of the primiparous women were higher than were those of the other pregnant women. In the literature, there are a limited number of studies whose findings indicate that psychosocial health levels of primiparae are higher (Bakir & Sarizayim 2020; Ozsahin et al., 2018), which suggests that more studies should be conducted to better understand psychosocial health in pregnancy

One of the leading variables affecting the psychosocial health level of pregnant women is the history of stillbirth. Psychosocial health levels of pregnant women who did not have a stillbirth history were higher. Pregnant women who have had prenatal loss experience intense ambivalent feelings on the one hand and fear of re-experiencing pregnancy loss on the other hand (Yilmaz & Beji 2010). It is stated that the pregnancy-related emotional states of women after prenatal loss should be investigated and that they should be enabled to make use of effective coping techniques (Korukcu & Kukulu 2010). If pregnant women who are in the at-risk group due to the history of stillbirth are to complete the pregnancy process in a healthy way, monitoring them in terms of their psychosocial health status is of great importance.

Conclusion and Recommendations: In the present study, the participating pregnant women had a good level of psychosocial health, and variables such as age, length of marriage, the number of children, education level, and stillbirth history affected their psychosocial health during pregnancy. There was a correlation between the levels of psychosocial health and superstition during pregnancy, but there was no correlation between psychosocial health and attitudes towards complementary and alternative medicine.

Inclusion of the physical assessments of pregnant women within the scope of prenatal care services and assessments of their psychosocial health performed with measurement tools, determination of individual, environmental and cultural factors that may affect their psychosocial health, and provision of counseling to them regarding these factors will be beneficial.

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