GÖBEKLİTEPE
International Journal Of Health Sciences
e-ISSN: 2757-6221
Research Article

Arrival Date : 13.06.2024
Published Date : 30.12.2024
2024, Vol:7, Issue:18 pp: 79- 89
DOI: 10.5281/zenodo.14568803

PSYCHOSOCIAL HEALTH IN PREGNANT WOMEN AND ITS ASSOCIATION WITH FEAR OF CHILDBIRTH AND SPOUSE SUPPORT

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ABSTRACT

This study aims to investigate the psychosocial health of pregnant woman and its association with fear of childbirth and spouse support. This descriptive and cross-sectional study was conducted with 250 women who applied to the Gynecology and Obstetrics Clinics of Sivas Numune Hospital between 12.03.2019 - 18.07.2019. Pregnant Introduction Form, Pregnancy Psychosocial Health Assessment Scale (PPHAS), Wijma Delivery Expectancy Questionnaire (W-DEQ) Version A and Spouse Support Scale (SSS) were used for data collection. For the comparison, regarding the data with normal distribution, t test for two groups and ANOVA for more than two groups were employed; regarding the data with non-normal distribution, Mann Whitney U test and Kruskal Wallis for more than two independent groups were used. A significant and negative correlation was determined between the psychosocial health of the participants and their fear of childbirth ($p<0.001$), and there was a significant and positive correlation between psychosocial health and spouse support ($p<0.001$). The fear of women regarding childbirth negatively affects psychosocial health status, while a high level of perceived spouse support positively affects psychosocial health in pregnancy.

Keywords: Pregnancy, Psychosocial Health, Fear of Childbirth, Spouse Support

GEBE KADINLARIN PSİKOSOSYAL SAĞLIK DURUMUNUN DOĞUM KORKUSU VE EŞ DESTEĞİ İLE İLİŞKİSİ

Öz

Bu araştırmada gebe kadınların psikososyal sağlık durumunun, doğum korkusu ve eş desteği ile ilişkisini belirlemek amaçlanmıştır. Araştırma, 12.03.2019 - 18.07.2019 tarihleri arasında Sivas Numune Hastanesi Kadın Hastalıkları ve Doğum Kliniğine başvuran 250 gebe kadın ile tanımlayıcı ve kesitsel tipte yürütülmüştür. Verilerin toplanmasında Gebe Tanıtım Formu, Gebelikte Psikososyal Sağlığı Değerlendirme Ölçeği, Wijma Doğum Beklentisi Ölçeği A Versiyonu ve Eş Destek Ölçeği kullanılmıştır. Karşılaştırmada normal dağılıma sahip verilerde iki grubu karşılaştırmak için t testi, ikiden fazla grup için ANOVA; normal dağılım göstermeyen verilerde iki grubu karşılaştırmak için Mann Whitney U testi ve ikiden fazla bağımsız grup için Kruskal Wallis testi kullanılmıştır. Katılımcıların psikososyal sağlık durumları ile doğum korkusu arasında anlamlı ve negatif bir ilişki belirlenirken ($p<0.001$), psikososyal sağlık ile eş desteği arasında anlamlı ve pozitif bir ilişki bulunmuştur ($p<0.001$). Araştırmanın sonucunda kadınların yaşadığı doğum korkusu, psikososyal sağlık durumlarını olumsuz etkileyen bir faktör olarak değerlendirilirken eş desteğinin ise gebelikte psikososyal sağlığı olumlu yönde etkilediği söylenebilir.

Anahtar Kelimeler: Gebelik, Psikososyal Sağlık, Doğum Korkusu, Eş Desteği

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**The summary of this study was presented orally in the 14th International Istanbul Scientific Research Congress on December 26-27, 2024 in Istanbul, Turkiye

1. INTRODUCTION

Pregnancy is defined as a developmental stressor and a life experience with a potential for crisis. This is because many physiological, psychological, and social changes take place in the pregnant woman in this process, and the woman needs to adapt to these changes (1). All these experiences affect the woman's physical health as well as her psychological health (2). Psychosocial health, which is a dynamic process, can be defined as effective coping under trauma, challenging life conditions or risk factors, being in harmony with the environment, and the individual's capability to improve themselves (3). Psychosocial health of pregnant women is important for them to adapt to the pregnancy process in a healthy way and to display health behaviors required by pregnancy (4). Therefore, within the scope of prenatal care, it is necessary to evaluate pregnant women not only physically but also psychosocially, and appropriate interventions should be planned (5-7).

Psychosocial health in pregnant women can be affected by age, family structure, educational status, duration of marriage, previous childbirth experience, and number of pregnancies; for this reason, evaluating psychosocial health in various dimensions in the prenatal period and determining the psychosocial risk factors are an important component of prenatal care (8, 9). In the pregnancy process, all women's psychosocial health should be evaluated, and the pregnant women who are under more risk and need more interventions should be determined (9, 10).

One of the significant reasons that affect psychosocial health negatively in pregnancy is the fear of childbirth. Pregnant women usually abstain from expressing their fear as they believe that their fear of childbirth is not understood (11). This situation may cause them to feel alone and experience emotional problems (12). In fact, in a research conducted by Dursun et al. psychosocial health in pregnant women who had high levels of fear of childbirth was determined to be poorer (13). Similarly, in a research carried out by Tan et al. pregnant women who had good psychosocial health were found to have experienced less fear of childbirth (14). These results suggest a need for more research on the correlation of fear of childbirth with psychosocial health in different populations.

Physical and psychological changes experienced in pregnancy have been reported to substantially affect mothers' perception of orientation towards social support (15, 16). This is because the support provided to the pregnant woman by her spouse, family, and friends facilitates her adaptation to the changes brought about by pregnancy, and enables her to experience a healthy pregnancy period (17). It has been reported that women who do not receive enough spouse support have poorer psychosocial health (18). In the systematic compilation conducted by Fan et al. spouse support was found to positively affect psychosocial health status in pregnancy (19). In a study by Bedaso et al. low spouse support was found to be associated with poor psychosocial health status in pregnancy (20). In the study they conducted, Hall et al. determined that the spouse's interest in the pregnant woman improved her psychosocial health (21).

The aim of this work was to examine fear of childbirth as a factor that could negatively affect psychosocial health in pregnant women and the level of spouse support as a factor that could positively affect it, and to reveal the correlation between psychosocial health status and spouse support and fear of childbirth. We believe that the results that will be obtained from the study can constitute a guide for the content of prenatal care services.

2. MATERIAL AND METHODS

2.1 Study Group

This study, which was conducted with a descriptive and cross-sectional design, was conducted at the Gynecology and Obstetrics Clinics of Sivas Numune Hospital between 12.03.2019-18.07.2019. The population of the study included women in their third trimester of pregnancy (27 and above weeks of pregnancy). The number of pregnant women to be included in the sample was calculated by power analysis. Based on previous studies, the minimum sample size required for the study was found to be 250 participants in a 95% confidence interval by estimating the standard deviation of the main body as 1.5 and impact size as 0.35 (22). Those who had previously been diagnosed with a chronic disease or psychiatric disorder, and those who would give birth through cesarean section due to a medical indication or previously had C-section were excluded from the study. In order to reach the determined sample size, 405 pregnant women were contacted, and 250 women who satisfied the criteria for inclusion in the study were included. The study excluded 43 pregnant women with a gestational age of less than 27 weeks, 14 pregnant women who did not volunteer for the study, and 98 pregnant women who did not meet the inclusion criteria.

2.2. Measures

2.2.1. Pregnant Woman Identifying Information Form

The form which was developed by the researchers included 19 items which collected information about the sociodemographic characteristics of the pregnancy (e.g., age, educational status, family type, income level), their obstetric features (e.g., pregnancies, living children), and their characteristics associated with their current pregnancy (e.g., the month of pregnancy, sex of the fetus).

2.2.2. Pregnancy Psychosocial Health Assessment Scale (PPHAS)

The scale which was created by Yıldız evaluates psychosocial health as a whole. The 5-point Likert-type scale consists of 46 items under six subscales. The subscales show whether problems exist regarding the factors that have an impact on psychosocial health. The first subscale evaluates “features related to pregnancy and spouse relations”, the second subscale involves “features regarding anxiety and stress”, the third subscale assesses “features regarding domestic violence”, the fourth subscale includes “features related to the need for psychosocial support”, the fifth subscale is about “familial features”, and the sixth subscale evaluates “features regarding the pregnancy-related physical-psychosocial changes.” The items of the scale are scored with a value between 1-5 (1=None, 2=Little, 3=Moderate, 4=Much, 5=Too much). 29 items of the scale are reversely scored. The minimum score to be obtained from the scale is 46, while the maximum possible score is 230. When evaluating the scale, the mean score of the respondent is determined by dividing the total scores obtained from the scale and the subscales by the number of items, and the result is shown as a value ranging from 1 to 5. The scale’s Cronbach’s alpha internal consistency coefficient, indicating reliability, was reported as 0.93 (23).

In this study, this coefficient was determined to be 0.89.

2.2.3. Wijma Delivery Expectancy Questionnaire (W-DEQ) Version A

The scale which was prepared by Klaas and Barbro Wijma measures the severity of prenatal (Version A) and postnatal (Version B) fear of childbirth in women (24). In the present study, W-DEQ Version A was used. The 33-item scale is scored with a 6-point Likert-type system between 0 and 5 (0- Totally, 5-Never). 14 items of the scale are reversely scored. The lowest score on the scale is 0, while the highest possible score is 165. A higher total score on the scale shows a higher fear level. Fear at a clinical level is indicated by a score of 85 and above. The adaptation of the scale into Turkish and its validity and reliability analyses were performed by Korukcu et al. (25). The Cronbach’s alpha coefficient of the scale was identified as 0.89, and its split-half reliability coefficient was reported to be 0.91.

In this study, the scale's Cronbach's alpha coefficient was calculated as 0.90.

2.2.4. Spouse Support Scale (SSS)

The scale developed by Yıldırım is used for measuring the level of support that spouses get from one another. The scale consists of 27 questions, there of which are reversely scored. The scale has a 3-point Likert type scoring system (Suitable For Me=3, Partially Suitable For Me=2, Not Suitable For Me=1). The scale has four subscales, which are "Emotional Support", "Financial Help and Knowledge Support", "Appraisal Support", and "Social Interest Support." The score to be obtained from the scale ranges between 27-81 points. A high score is indicative of high level support. The Cronbach alpha internal consistency coefficient of the scale was found to be 0.95 (26).

In this study, Cronbach's alpha coefficient was identified as 0.94.

2.3. Data Collection

The researcher obtained the data in face-to-face interviews. After the pregnant women who came to the health center for pregnancy follow-up were briefly informed about the study, they were administered a preliminary evaluation form, and the interview was terminated for the women who would not be included in the study due to not meeting the inclusion criteria. Individuals who satisfied the criteria for inclusion were informed about the study process in detail, and those who gave their oral and written consent regarding their participation in the study were involved in the study sample. The administration of data collection tools took 20-30 minutes on average.

2.4. Data Analysis

In the analysis of the study data, SPSS 22 software was used. In the analysis of some sociodemographic and obstetric characteristics of the participants, descriptive statistics such as frequency, percentage, mean, interval, standard deviation, and maximum-minimum values were used. The normality of the distributions of the data on the variables was determined through the Kolmogorov-Smirnov test. For the comparison made in order to determine the presence of a significant difference between the mean scores in independent groups, regarding the data with normal distribution, t test for two groups and ANOVA for more than two groups were employed; regarding the data with non-normal distribution, Mann Whitney U test and Kruskal Wallis for more than two independent groups were used. The difference between the groups in the variance analysis was examined through Tukey Post Hoc test and Tamhane's T-2 test. In order to reveal the relationship between the variables in the study, regarding the variables with normal distribution, Pearson Correlation Coefficient analysis was employed. In determining whether fear of childbirth and spouse support had any effect on psychosocial health in pregnancy, linear regression analysis was performed. In the assessment of the results, the level of statistical significance was accepted as $p<0.05$.

2.5. Ethical Approval

Prior to the study, approval from the Scientific Research and Publication Ethics Board (2019-02/21) and permission for the study from hospital (2019-03/11) were obtained. The principles of the Helsinki Declaration were observed throughout all the stages of the study.

3. RESULTS

When PPHAS score was analyzed, it was determined that mean PPHAS score of the participants was 4.11±0.42. It was also found that the PPHAS subscale mean scores of the participants were 4.25±0.59 from pregnancy and spouse relations, 3.40±0.72 from anxiety and stress, 4.73±0.35

from domestic violence, 3.94±0.66 from need for psychosocial support, 4.33±0.63 from familial characteristics, and 3.96±0.71 from pregnancy-related physical and psychosocial changes. When the psychosocial health levels of the participants were examined, it was found that 47.6% had very good levels of psychosocial health in pregnancy, 47.2% had good levels of psychosocial health in pregnancy, 3.6% had moderate levels of psychosocial health in pregnancy, and 1.6% had poor levels of psychosocial health in pregnancy.

When W-DEQ score was analyzed, it was found that the mean W-DEQ score of the participants was 54.20±24.23. When the distribution of the pregnant women's levels of fear of childbirth was examined, it was seen that 43.6% had moderate levels of fear of childbirth, 23.6% had mild levels of fear of childbirth, 20.8% had severe levels of fear of childbirth, and 12% had fear of childbirth at clinical levels.

When SSS score was analyzed, it was found that the mean SSS mean score of the pregnant women was determined as 72.50±9.37. As for the basic scores obtained by the individuals on the SSS subscales, they obtained a mean score of 24.64±3.29 from the emotional support subscale, 18.92±2.54 from the financial help and knowledge support subscale, 21.07±2.93 from the subscale of appraisal support , and 7.85±1.39 from the subscale of social interest support.

The relationships among the pregnant women's mean Pregnancy Psychosocial Health Assessment Scale (PPHAS), Spouse Support Scale (SSS), Wijma Delivery Expectancy Scale (W-DEQ) Version A and subscale scores are presented in Table 1. When the relationships between PPHAS and subscale mean scores and W-DEQ mean scores of the participants were examined, a negative, moderate, and statistically significant relationship (r=-0.516; p<0.001) was found between the pregnant women's PPHAS total mean score and W-DEQ total mean score (p<0.001). It was also detected that a negative and statistically significant relationship existed between the pregnant women's PPHAS total subscale mean score and W-DEQ total mean score (p<0.001).

When the relationship between the pregnant women's SSS total mean score and PPHAS total mean score was examined, it was found that there was a positive, moderate (r=0.537; p=0.000), and statistically significant association between the pregnant women's SSS total mean score and PPHAS total mean score. Also, a positive and statistically significant relationship was determined between SSS total subscale mean score of the participants and their mean total PPHAS score (p<0.001) (Table 1).

Table 1. The relationships between the mean PPHAS, W-DEQ and SSS total and subscale scores of the participants

PPHAS and Subscales	W-DEQ		SSS and Subscales								SSS Total	
			Emotional Support		Financial Help and Knowledge Support		Appraisal Support		Social İnterest Support			
	r[a]	p	r[a]	p	r[a]	p	r[a]	p	r[a]	p	r[a]	p
Pregnancy and Spouse Relationship	-0.381	**<0.001**	0.643	**<0.001**	0.603	**<0.001**	0.588	**<0.001**	0.523	**<0.001**	0.652	**<0.001**
Anxiety and Stress	-0.346	**<0.001**	0.181	**<0.001**	0.154	**<0.001**	0.208	**<0.001**	0.127	**<0.001**	0.190	**<0.001**
Domestic Violence	-0.204	**<0.001**	0.247	**<0.001**	0.254	**<0.001**	0.322	**<0.001**	0.200	**<0.001**	0.286	**<0.001**
Need for Psychosocial Support	-0.409	**<0.001**	0.321	**<0.001**	0.285	**<0.001**	0.331	**<0.001**	0.247	**<0.001**	0.331	**<0.001**
Familial Features	-0.251	**<0.001**	0.375	**<0.001**	0.368	**<0.001**	0.332	**<0.001**	0.281	**<0.001**	0.378	**<0.001**
Pregnancy-Related Physical and Psychosocial Changes	-0.474	**<0.001**	0.248	**<0.001**	0.199	**<0.001**	0.274	**<0.001**	0.142	**<0.001**	0.248	**<0.001**

PPHAS Total	-0.516	**<0.001**	0.522	**<0.001**	0.479	**<0.001**	0.522	**<0.001**	0.499	**<0.001**	0.537	**<0.001**

[a]*Pearson correlation analysis was applied.*

The conclusions of the linear regression analysis applied to identify the effects of the fear of childbirth levels of the participants on their psychosocial health status in pregnancy are presented in table (Table 2). When the table was analyzed, it was defined that the participating women's fear of childbirth had a significant effect on their scores of psychosocial health in pregnancy and that their fear of childbirth explained 30.1% of the total variance of their psychosocial health status in pregnancy. In other words, the pregnant women's fear of childbirth significantly affected 30.1% of their psychosocial health status in pregnancy ($p<0.05$) (Table 2).

Table 2. The effect of the participants' fear of childbirth on their psychosocial health status in pregnancy

	B	**Std. Error**	**Beta**	**t**	**p**
Constant	142.498	17.984		7.924	<0.001
Pregnancy and Spouse Relationship	-0.188	0.236	-0.187	-0.795	0.427
Anxiety and Stress	0.258	2.986	0.008	-0.086	0.931
Domestic Violence	9.027	4.731	0.133	1.908	0.058
Need for Psychosocial Support	-1.918	3.497	-0.053	-0.548	0.584
Familial Features	0.006	3.311	0.000	0.002	0.998
Pregnancy-Related Physical and Psychosocial Changes	-7.019	2.889	-0.206	-2.430	0.016*
PPHAS Total	-23.490	11.159	-0.412	-2.105	0.036*
$F(6,243) = 17.470$, $R= 0.549$, $R^2= 0.301$, **p= <0.001**					

*- Linear Regression Analysis was applied, *p<0.05.*

The conclusions of the linear regression analysis applied to analyze the effects of the perceived spouse support levels of the participants on their psychosocial health status in pregnancy are presented in Table 3. Linear regression analysis was applied in order to determine the predictive power of the pregnant women's perceived spouse support on their psychosocial health status in pregnancy. When the table was analyzed, it was interpreted that the participating pregnant women's perceived spouse support had a significant impact on their psychosocial health status in pregnancy, and that perceived spouse support in pregnancy explained 43.3% of the total variance of their psychosocial health status in pregnancy. In other words, perceived spouse support in pregnancy significantly affected 43.3% of psychosocial health status in pregnancy (<0.001) (Table 3).

Table 3. The effect of the perceived spouse support of the participants on their psychosocial health status

	B	**Std. Error**	**Beta**	**t**	**p**
Constant	22.295	6.266		3.558	<0.001
Pregnancy and Spouse Relationship	-4.125	0.236	-0.387	-2.795	0.005*
Anxiety and Stress	-6.164	1.040	-0.480	-5.925	<0.001
Domestic Violence	-4.633	1.648	-0.177	-2.811	0.005*
Need for Psychosocial Support	-6.526	1.218	-0.462	-5.357	<0.001
Familial Features	-4.104	1.154	-0.278	-3.558	<0.001
Pregnancy-Related Physical and Psychosocial Changes	-5.010	1.006	-0.379	-4.977	<0.001
PPHAS Total	38.061	3.888	1.726	9.789	<0.001

$F(6,243) = 30.921$, $R= 0.658$, $R^2= 0.433$, **p= <0.001**

*- Linear Regression Analysis was applied, *p<0.05.*

4. DISCUSSION

Pregnancy is a time when a woman has to cope with many stressors. This is a serious phase that affects a woman's psychosocial health as well as her physical health. Psychosocial health, which is a dynamic process, is affected positively or negatively by many factors. This study was conducted to determine the effect of fear of childbirth and partner support on psychosocial health during pregnancy and the information was discussed in the light of the literature.

It was determined that the pregnant women who participated in the study received an average score of 4.11±0.42 on the PPHAS and when the cut-off points of the scale were taken into consideration, no pregnant women with very poor psychosocial health were found. When compared with other studies evaluating psychosocial health in pregnancy, in the study conducted by Korukcu et al. with 227 pregnant women, the mean score of the PPHAS was 3.02±0.29 and the psychosocial health status of the pregnant women was found to be moderate (22). In a study conducted by Aksay et al. with 150 pregnant women, the mean score of PPHAS was 3.13±0.33 and the psychosocial health status of pregnant women was found to be moderate (27). In a study conducted by Ozsahin et al. with 564 pregnant women, the mean score of PPHAS was 3.20±0.50 and the psychosocial health status of pregnant women was moderate. has been found (28). The reason for the better psychosocial health status of pregnant women in our study may be related to the individual and obstetric characteristics of the sample.

In our study, the mean W-DEQ score of pregnant women was found to be 54.20±24.23 and it was determined that pregnant women experienced moderate fear of childbirth. Compared to other studies examining fear of childbirth during pregnancy, Gulec et al. conducted a study with 214 pregnant women and found that the mean W-DEQ score was 46.4±31.2 and the fear of childbirth was found to be moderate (29). In a study conducted by Erkaya et al. with 184 pregnant women, the mean W-DEQ score was 63.83 ± 20.13. level was found (30). In the study conducted by Barut and Uçar with 291 pregnant women, the mean W-DEQ score was 73.31±16.84 and the fear of childbirth was found to be severe (31). In a study conducted by Erdemoğlu et al. with 416 pregnant women, it was found that the mean W-DEQ score was 68.39±23.60 pregnant women had severe fear of childbirth (32). In a study conducted by Mortazavi and Agah with 525 pregnant women, the mean W-DEQ score was 67.6 ± 23.5 and it was found that pregnant women had severe fear of childbirth (33). In a study conducted by Korukcu et al. with 226 pregnant women, it was found that the mean W-DEQ score was 79.95±17.33 pregnant women experienced severe fear of childbirth (22). It is noteworthy that the level of fear of childbirth is different among pregnant women.

In the present study, an inversely proportional and moderate relationship was found between psychosocial health status and fear of childbirth in pregnancy. As the fear of childbirth levels of the participants of this study decreased, their psychosocial health levels increased, or as their psychosocial health status improved, their level of fear of childbirth became lower. In various studies conducted, it was found that there was a relationship between fear of childbirth and psychosocial health status in pregnancy, and the participants with lower levels of fear of childbirth had a better psychosocial health status (13, 34-37). In the study that was performed by Tan et al. pregnant women who had better psychosocial health were found to feel less fear of childbirth (14). In a study conducted by Korukcu et al. no relationship was determined between psychosocial health status in pregnancy and the variable of fear of childbirth (22).

In our study, the mean partner support score of pregnant women was 72.50±9.37 and it was determined that pregnant women perceived a high level of partner support. In the present study, a

directly proportional and moderate correlation was detected between psychosocial health status in pregnancy and spouse support. When studies conducted on the associations between psychosocial health status in pregnancy and spouse support or social support were examined, it was found that in some studies, pregnant women with better psychosocial health status had a higher level of spouse support (38, 39). Parys et al. found that pregnant women who received low spouse support had poorer psychosocial health status (40). In the compilation study by Bedaso et al. low spouse support was found to be related with poor psychosocial health status in pregnancy (20). In the compilation study they conducted, Fan et al. found that spouse support positively affected psychosocial health status in pregnancy (19). In the study by Hall et al. spouse's interest in pregnant women was found to improve the women's psychosocial health (21). When studies investigating the relationship between psychosocial health in pregnancy and perceived social support in pregnancy were examined, it was determined that the pregnant women who had greater levels of perceived social support had better psychosocial health (41, 42). We believe that the good psychosocial health of the pregnant women in our study is due to the high level of perceived spousal support.

4.1. Limitations

This study has certain limitations. The findings obtained from this study include pregnant women in their third trimester. The results cannot be generalized to all pregnant women. It is recommended that further studies be conducted on larger and different samples.

5. CONCLUSION

The results of this study, which was carried out with a descriptive and cross-sectional design in order to determine the relationship between the psychosocial health status of pregnant women in their third trimester with fear of childbirth and spouse support, show that experiencing fear of childbirth negatively affects psychosocial health status in pregnancy, while a high level of perceived spouse support positively affects psychosocial health status in pregnancy. Hence, integrating interventions aimed at reducing fear of childbirth in the pregnancy period into prenatal care services and increasing spouse support by involving father candidates in the process will improve pregnant women's psychosocial health status.

5.1. Recommendations

Evaluating the grade of fear of childbirth in pregnancy and incorporating initiatives to prenatal care services to lower these fear levels are considered critical in terms of the psychosocial well-being of expectant women. Increasing the support received by the pregnant woman from her spouse by encouraging fathers to be involved in all processes and activities in pregnancy will contribute positively to the psychosocial health of the woman. Moreover, fear of childbirth in pregnant women should be evaluated from this perspective by health workers.

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