Original Article

Determination of Women's Adaptation to the Pregnancy Process and Levels of Health Practices

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Abstract

Objective: This research was conducted to determine the attitudes and behavioral levels of women who come to receive health services during pregnancy and their adaptation to this process.
Methods: This study was conducted in a university hospital in a city center located in northwest Turkey between June 2020 and January 2021.The study sample consisted of 203 healthy pregnant women (who were not diagnosed with any risky pregnancy) who applied to the university hospital between the relevant dates and agreed to participate in the study. Data were collected using the "Descriptive Information Form", "Health Practices in Pregnancy Questionnaire" and using descriptive statistics (number, percentage, arithmetic mean, and standard deviation), as well as the t-test and one-way analysis of variance (ANOVA) test in independent groups.
Results: In our study, women's level of health practices during pregnancy was moderate (127.12±11.7). Despite our positive findings on the pregnancy process, the opinions about the prenatal period were negative, suggesting that pregnant women have concerns about postpartum adaptation and do not have enough information about this period. Examination of the "identification with a motherhood role" revealed that the higher the desire for pregnancy, the easier the "identification with a motherhood role
Conclusion: Health practices during pregnancy differed significantly by factors such as education and employment status, going to check-ups, and being a desired pregnancy.

Keywords:women, pregnancy, health practies, moterhood role

Introduction

Pregnancy is a period in which physiological, psychological, and social changes are experienced, and adaptation to these changes is essential (Celik & Derya 2019). A healthy pregnancy period depends on women being more attentive to their daily life activities (Beydag & Mete 2008).The practices of the pregnant women in this period are used as criteria for evaluating the growth and development of the fetus, the healthy birth process of the newborn, and the ability to carry the practices until the postpartum period (Demirbas & Kadioglu 2014) . It is the period when the well-being of the mother is directly related to the well-being of the baby. Researches have shown that a healthy prenatal period for pregnant women greatly contributes to maintaining and improving maternal and infant health during and after birth. At the same time, the support received from the social environment during this period is considered to play an important role in improving the quality of life of the pregnant woman, preventing health problems, and adapting to pregnancy (Er, 2006). The existing literature points out that the pregnancy process is significantly related to the age of the mother, the year of marriage, the number of pregnancies, the number of live children, the gestational week, the education level of the mother, the gender of the fetus, and the planning of pregnancy. It is vital that

pregnant women adapt to the changes related to these processes and cope with the problems (Er 2006 ; Koyuncu et al. 2015). Accordingly, increasing awareness and knowledge of pregnant women is crucial for them to take their own care responsibilities (Kucukkaya 2020; Uludag & Mete 2014). Maintaining a healthy pregnancy process for both the mother and the baby requires follow-up from the beginning to the end of pregnancy. The Ministry of Health states that prenatal check-ups in normal pregnant women should include at least 6 follow-ups from the beginning of pregnancy (Yilmaz & Beji 2010).

Correctly practiced health behaviors affect pregnancy and pregnant women positively in terms of early diagnosis and prevention of risks that may arise during and after delivery (Yilmaz & Karahan 2019). It is necessary to determine the factors that affect pregnant women to have healthy prenatal, delivery, and postpartum periods. The literature has shown that the health practices of pregnant women are different, and there are many factors underlying this difference (Er 2006; Kucukkaya 2020; Sezer & Sen 2020) Healthy lifestyle behaviors are essential components in taking precautions against diseases, providing early diagnosis and treatment, and maintaining and improving health (Er 2006). Nurses and midwives should define the life behaviors of pregnant women, support and reinforce healthy behaviors, and guide pregnant women with inadequate behaviors. Nurses have an important role and responsibility in helping pregnant women acquire healthy lifestyle behaviors and increase their awareness (Uludag & Mete 2014). These roles and responsibilities include a comprehensive evaluation of the daily life behaviors of pregnant women. Health personnel working in primary health care institutions aiming to protect and improve health have important responsibilities (Kucukkaya et al.2020; Uludag & Mete 2014). This research was conducted to determine the attitudes and behavioral levels of women who come to receive health services during pregnancy and their adaptation to this process.

Methods

Type of Research

This research has a descriptive and cross-sectional design.

Place and Time of Research: This study was conducted in a university hospital in a city center located in northwest Turkey between June 2020 and January 2021.

Population and Sample of the Research: The population of the study consisted of pregnant women who applied to the related university hospital. The study sample consisted of 203 healthy pregnant women (who were not diagnosed with any risky pregnancy) who applied to the university hospital between the relevant dates and agreed to participate in the study. Volunteer pregnant women were included in the study using the non-probability random sampling method.

Data Collection: Data were collected using the "Descriptive Information Form", "Health Practices in Pregnancy Questionnaire" and "Prenatal Self-Evaluation Questionnaire (PSEQ) Turkish Version".

Descriptive Information Form: The form prepared by the researchers included 19 questions to determine the socio-demographic and obstetric characteristics of pregnant women.

Health Practices in Pregnancy Questionnaire: The questionnaire was developed by Lindgren in 2005 ,and its Turkish validity and reliability study was conducted by Er in 2006 (Er 2016).The original questionnaire includes 34 items. Due to the removal of one item during its adaptation, the Turkish version was published with 33 items. Items 1-16 are in 5-point Likert type. They are evaluated as always = 5, often = 4, sometimes = 3, rarely = 2, and never = 1 point. There are five options for items between items 17 and 33, and these options are scored between 1 and 5. Items 6, 7, 21, 22, 23, 24, 25, 26, 32 and 33 are reverse coded in the scale. The total score of the scale is calculated by summing all the items. The highest score that can be obtained from the scale is 165, and the lowest score is 33. High scores indicate good health practices.

Prenatal Self-Assessment Questionnaire (PSEQ) Turkish Version: The questionnaire was developed by Lederman in 1979 (Lederman, 1979) to evaluate prenatal women's adaptation to motherhood. It is a 4-point Likert-type scale consisting of a total of 79 items (1=not at all, 2=somewhat so, 3=moderately so, 4=very much so). The Turkish validity and reliability study of the scale was performed by Beydag and Mete in

2006. (Beydag &Mete 2008). On the scale, 47 items are reverse-oriented, hence should be scored exactly the opposite. The scale does not have any cut-off point. The Prenatal Self-Assessment Questionnaire (PSEQ) has 7 subscales that evaluate the adaptation of mothers to pregnancy. Each subscale contains 10 to 15 items. The subscales are; acceptance of pregnancy, identification with a motherhood role, relationship with her mother, relationship with her husband, preparation for labor, fear of labor and concern for the well-being of self and baby. Lower scores indicated a greater level of adaptation to pregnancy. A minimum of 79 and a maximum of 316 points can be obtained for the entire scale. Low scores indicate poor adaptation to pregnancy (Beydag &Mete 2008).

Data Analysis: The data were analyzed in SPSS 25.0 software package using descriptive statistics (number, percentage, arithmetic mean, and standard deviation), as well as the t-test and one-way analysis of variance (ANOVA) test in independent groups. Parametric tests were performed because the data were normally distributed.

Ethical Aspect of Research: Written permission from Bursa Uludag University Research and Publication Ethics Committee (2020-01) and informed consent from the pregnant women were obtained for the study. This study has been conducted in accordance with the principles set forth in the Helsinki Declaration.

Results

Of the participating pregnant women, 49.3% were between the ages of 26-32 (min: 18, max: 44), 93.6% had social security, and 32.0% were secondary school graduates. In addition, 68.5% were housewives, and 85.7% had nuclear families. The incomes of 69.5% of the pregnant women were equal to their expenses, 52.2% owned their own houses, and 93.6% had social security .

The mean scores of the Health Practices in Pregnancy Scale differed significantly according to the pregnant person's occupation and social security status ($p< 0.05$). Likewise, the total mean scores of the Prenatal Self-Evaluation Scale differed significantly by the age, housing status, and social security status of the pregnant women ($p< 0.05$) (Table 1). Of the participating pregnant women, 30.5% had their second pregnancy, 42.9% had one alive child, 60.1% had no history of abortion/miscarriage, and 68.0% had a planned and desired pregnancy. In addition, 43.8% were in the 2nd trimester, and 69.5% received prenatal care (PC) at least 5 times or more (Table 1). The participating pregnant women's total mean score on the Pregnancy Health Practices Scale differed significantly by the number of pregnancies, the number of alive children, and the desire for pregnancy ($p<0.05$). The mean Prenatal Self-Evaluation Scale total scores also differed significantly according to the presence of abortion/miscarriage and the desire for pregnancy ($p< 0.05$) (Table 1).

The mean total score of the pregnant women was 127.12±11.7 on the Health Practices in Pregnancy Scale and 259.16±23.1 on the Prenatal Self-Evaluation Scale (Table 2).

As seen in Table 3, the mean scores of the "Acceptance of Pregnancy" subscale of the Prenatal Self-Evaluation Questionnaire do not differ statistically significantly according to the pregnants' 'Descriptive and Obstetric Characteristics', including the education status, occupation, and the number of pregnancies ($p>0.05$). However, the mean scores of the 'acceptance of pregnancy' subscale increased statistically significantly in the presence of social security and in desired pregnancies ($p<0.05$).

The mean scores of the "Fear of Labor" subscale of the Prenatal Self-Evaluation Questionnaire do not differ statistically significantly according to the pregnants' 'Descriptive and Obstetric Characteristics', including the social security status, education status, occupation, number of pregnancies, and desire of pregnancy ($p>0.05$).

Table 1. Distribution of Pregnants' Obstetrics Characteristics and Comparison of Mean Scores of the Health Practices in Pregnancy Questionnaire (HPQ) and the Prenatal Self-Evaluation Questionnaire (PSEQ) by Obstetric Characteristics

Obstetric Characteristics	N	%	HPQ (X±SS)	PSEQ (X±SS)
Number of pregnancies				
First pregnancy	56	27.6	130.85±11.02	264.23±20.99
2	62	30.5	125.50±12.61	258.14±23.72
3	48	23.6	126.62±10.29	258.95±21.17
4	22	10.8	123.31±12.43	252.40±25.68
5 and above	15	7.4	127.06±11.31	255.06±29.19
Test and P Value			**F: 2.389; p<0.05**	F: 1.296; p>0.05
Number of live children				
None	66	32.5	130.57±11.01	263.77±21.21
1	87	42.9	126.24±11.91	257.64±23.90
2	36	17.7	125.41±10.71	254.47±23.19
3	9	4.4	120.66±13.49	257.22±20.74
4	5	2.5	120.80±11.88	262.20±35.54
Test and P Value			**F: 2.905; p<0.05**	F: 1.159; p>0.05
Abortion/Miscarriage				
Yes	81	39.9	126.41±10.83	254.59±23.06
No	122	60.1	127.59±12.27	262.20±22.78
Test and P Value			t: 0.697; p>0.05	**t: 2.320; p<0.05**
Desire of pregnancy				
Planned desired	138	68.0	129.10±11.45	260.86±20.98
Unplanned desired	58	28.6	122.55±11.42	257.48±27.11
Unplanned undesired	7	3.4	125.85±9.1	239.57±21.24
Test and P Value			**F: 6.820; p<0.05**	**F: 3.099; p<0.05**
Gestational week				
1st trimester (week 0-13)	50	24.6	128.02±10.17	258.40±25.52
2nd trimester (week 14-26)	89	43.8	127.28±11.30	257.16±23.19
3rd trimester (week 27-42)	64	31.5	126.20±13.36	262.54±21.01
Test and P Value			F: 0.350; p>0.05	F: 1.042; p>0.05
Number of PCs				
1	17	8.4	126.76±9.4	254.35±17.37
2	12	5.9	121.66±11.94	248.91±28.04

3	12	5.9	127.83±12.58	265.08±23.26
4	21	10.3	128.19±13.16	255.42±25.78
5 and above	141	69.5	127.41±11.67	260.67±22.80
Test and P Value			F: 0.728; p>0.05	F: 1.261; p>0.05

Table 2. Pregnants' Mean Scores on the Health Practices in Pregnancy Questionnaire (HPQ) and Prenatal Self-Evaluation Questionnaire (PSEQ)

Scale	Highest and Lowest Scores Possible	Highest and Lowest Scores Received	X±SD
Health Practices in Pregnancy Questionnaire	165-33	151-90	127.12±11.7
Prenatal Self-Evaluation Questionnaire	316-79	314-186	259.16±23.1

Table 3. Prenatal Self-Evaluation Questionnaire "Acceptance of Pregnancy" Subscale Scores by Pregnants' Demographic and Obstetric Characteristics

Demographic and Obstetric Characteristics	n	Acceptance of pregnancy subscale	
		Mean±SD	Test*
Social security status			
Yes present	190	48.62±5.57	**T:2.776**
No absent	13	44.07±7.64	**p=0.006**
Education status			
Illiterate	24	47.83±5.46	
Secondary education	65	48.66±5.48	F:0.722
High school	63	47.60±6.58	p=0.540
University	51	49.05±5.36	
Occupation			
Housewife	139	48.02±5.65	
Civil servant	18	48.16±4.46	F:0.995
Self-employment	11	51.00±2.75	p=0.396
Other	35	48.82±7.44	
Number of pregnancies			

First pregnancy	56	49.71±4.94	F:1.388 p=0.239
Second pregnancy	62	48.03±5.34	
Third pregnancy	48	48.06±5.64	
Fourth pregnancy	22	46.59±6.69	
Fifth and above pregnancy	56	47.86±8.89	
Desire of pregnancy			
Planned desired	138	49.44±4.67	**F:12.285** **p=0.000**
Unplanned desired	58	46.62±6.97	
Unplanned undesired	7	40.71±7.11	

** T-test and One-way analysis of variance test were used in independent groups.*

Discussion

Lifestyle behaviors of women during pregnancy affect maternal and infant health both during pregnancy and the postpartum period. During this period, practices such as healthy nutrition, physical activity, and training about birth and postpartum affect the quality of the pregnancy process. Our study identified certain factors affecting the health practices of pregnant women. In our study, women's level of health practices during pregnancy was moderate (127.12±11.7). Another study conducted in our country also found the health practices of pregnant women (111.76±18.53) at a similar level (Yilmaz & Beji 2010).

Most of the pregnant women participating in our study were housewives, and the health practices of the employed women during pregnancy were better ($p< 0.05$) (Table 1). The lowest employment rate among women in our country is among those living in the Central and Eastern regions. In our study, it was observed that the rate of unemployed women in Bursa, a province of the Marmara region, is similar to that of the central and eastern regions. Less than half of the participants received training on the subject in order to have a safe pregnancy process. Another study in the literature reported that as the educational status of pregnant women increased, factors such as receiving prenatal education and therefore health practices increased(Sezer &Sen,2020). A study conducted abroad also reported positive results that pregnant women receiving relevant training had a healthier pregnancy period (Wilkins et al. 2015). Of the pregnant women in our study, 69.5% received prenatal care (PC) at least 5 times or more. In a study similar to ours, the rate of women who applied to a health institution for 5 or more controls during pregnancy was 60.6% (Yilmaz & Beji 2010). In Turkey, the rate of receiving prenatal care is 90% (Turkey Demographic and Health Survey 2018). Although there has been an increase in the rate of women receiving prenatal care in recent years, this rate is not at the desired level. The Ministry of Health of the Republic of Turkey emphasized that the total number of prenatal visits being at least 6 is an important indicator in assessing the adequacy of healthy delivery and having a smooth postpartum (Ministry of Health 2019). Again, another study revealed that the pregnant women's choice of hospital for control, as well as education and employment status, had a positive effect on health practices during pregnancy (Er 2006). Other studies in the literature have also reported that planned pregnancy is influential in having a qualified and meticulous pregnancy period (Gariepy et al.2017). The same

study reported that women's scores on taking their own health responsibilities were high, while social support and nutrition scores were moderate, and physical activity and stress management scores were low (Gariepy et al.2017). In another study conducted in Turkey, self-care ability score averages were found to be higher in the case of desired pregnancies (Tortumluoglu, Okanli & Erci 2003) Another study with similar results also reported that desired pregnancies ensure a better quality of (Can et al.2019). Despite our positive findings on the pregnancy process, the opinions about the prenatal period were negative, suggesting that pregnant women have concerns about postpartum adaptation and do not have enough information about this period. Examination of the "identification with a motherhood role" revealed that the higher the desire for pregnancy, the easier the "identification with a motherhood role". It has been accepted in the literature that it is important to internalize this role in the establishment of the "motherhood role". It is seen that the mother's perception of her baby and the development of the mother-infant relationship begin during the pregnancy period. Some of the developed countries (Japan, Sweden, Germany) emphasized the "role of motherhood" and the importance of prenatal attachment on the health of the mother and the child (Salehi & Kohan 2017). In developing countries like ours, the concept of prenatal attachment has been on the agenda for the last 10 years and has gained momentum with studies on this subject (Ranjbar,Warmelink& Gharacheh 2020). These studies evaluated the adaptation scores of women in the sub-dimensions of accepting pregnancy and identifying with the motherhood role and showed that many factors are effective in adapting to the role of motherhood. Societies often see and impose "motherhood" as a duty to be fulfilled (Ozcalkap & Yigit 2020; Laxton & Slade 2002; Rosa, Scholl & Ferreira 2021; Yildirim & Gokyildiz 2004). Therefore, women are socially prepared for this task after marriage. The literature points out that factors such as the pregnant women's age, gestational week, the sensation of fetal movements, and the desire for pregnancy play a role in internalizing the motherhood role(Mercer 2006). Another study emphasized that the role of motherhood is affected by personal factors, the individual's beliefs and background, and may also be affected by environmental and cultural factors, mental state, and social support and that more in-depth studies are needed on this subject (Atashi et al.2018). In our study, the scores of pregnant women in the prenatal self-evaluation questionnaire differ significantly according to their relationship status with their spouses, suggesting that women who receive support from their spouses have less anxiety about the prenatal period. It is thought that as the experiences of pregnant women increase, the relationships between the spouses become stronger. Another study emphasized that preparation for the motherhood role begins during pregnancy, and this process will affect childhood, future family, and their commitment to their spouse (Wilkins et al.2015). It has been revealed that family ties are strengthened during this period, there is a positive relationship between self-confidence in adapting to the mothering role and social support that starts in the prenatal period, and women who are approved by their spouses and who can share their problems with their spouses have fewer problems. A study conducted in Germany also emphasized the importance of parental bonds and showed that having positive experiences with parental practices can be positively associated with the construction of the mothering role (Bussel & Spitz 2008).

Conclusion: Health practices during pregnancy differed significantly by factors such as education and employment status, going to check-ups, and being a desired

pregnancy. In addition, we believe that it is of great importance to disseminate education programs for pregnant women and increase the awareness of pregnant women on the subject.

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