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Examining Mental Symptoms According to Physical Health Problems in Pregnant Women: A Descriptive Study

Gebelerde Ruhsal Belirtilerin Fiziksel Sağlık Problemlerine Göre İncelenmesi: Tanımlayıcı Bir Çalışma

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This study was presented as an orally in 2nd International-20th National Public Health Congress, 13-17 November 2018, Antalya, TURKEY.

ABSTRACT Objective: Although pregnancy is a natural life crisis for every woman, physical and physiological changes specific to pregnancy, the presence of the baby in the womb, differences in family and social life can cause various psychosocial reactions during pregnancy. Although mental symptoms are quite common in pregnant women, pregnancy symptoms are generally focused on pregnancy follow-up, and the psychosocial aspect of pregnancy is ignored. The aim of this study is to examine mental symptoms in pregnant women according to physical health problems. **Material and Methods:** This study employed a descriptive design, and was conducted in the Gynecology and Obstetrics Polyclinics of the Çanakkale Onsekiz Mart University Health, Practice and Research Hospital, and Çanakkale State State Hospital, between March and December 2017 and 713 pregnant women participated in the study. The data were collected by face to face interview method using the Questionnaire Form and the Brief Symptom Inventory. Interviews with pregnant women for data collection took an average of 30 minutes. **Results:** The symptoms of anxiety, depression, negative self, somatization, and hostility were significantly higher in pregnant women with fatigue, headache, sleep problems, shoulder-neck pain, breast problems, urinary incontinence, vomiting, muscle cramps, excess-weight gain, and movement restrictions. Constipation and hemorrhoid problems did not significantly affect mental symptoms. **Conclusion:** In this study, it was determined that physical health problems in pregnant women affect the severity of symptoms of anxiety, depression, somatization, negative self, and hostility in pregnant women. The interaction of mental symptoms experienced during pregnancy with physical health problems should be considered. It is thought that evaluating pregnant women with a holistic perspective and providing care services with this approach will positively affect the health of pregnant women.

Keywords: Pregnant women; mental health services; nurse; midwife

ÖZET Amaç: Gebelik her kadın için doğal bir yaşam krizi olmakla birlikte, gebeliğe özgü fiziksel ve fizyolojik değişiklikler; anne karnındaki bebeğin varlığı, aile ve sosyal yaşamda meydana gelen farklılıklar, gebelik sürecinde çeşitli psikososyal tepkilere yol açabilmektedir. Gebelerde ruhsal belirtiler oldukça yaygın görülmesine karşın gebelik izlemlerinde genellikle gebelik belirtilerine odaklanılmakta, gebeliğin psikososyal yönü göz ardı edilmektedir. Bu çalışmanın amacı, gebelerde ruhsal belirtilerin fiziksel sağlık problemlerine göre incelenmesidir. **Gereç ve Yöntemler:** Tanımlayıcı tipteki bu araştırma, Mart ve Aralık 2017 tarihleri arasında Çanakkale Onsekiz Mart Üniversitesi Sağlık, Uygulama ve Araştırma Hastanesi ile Çanakkale Devlet Hastanesinin jinekoloji ve obstetri polikliniklerinde yapılmıştır. Çalışmaya dâhil edilme kriterlerini karşılayan gönüllü 713 gebe katılmıştır. Veriler yüz yüze görüşme yöntemi ile Anket Formu ve Kısa Semptom Envanteri kullanılarak toplanmıştır. Veri toplama amacıyla gebelerle yapılan görüşmeler ortalama 30 dk sürmüştür. **Bulgular:** Yorgunluk, baş ağrısı, uyku problemleri, omuz-boyun ağrısı, meme problemleri, idrar kaçırma, kusma, kas krampları, aşırı kilo alımı ve hareket kısıtlamaları olan gebelerde anksiyete, depresyon, olumsuz benlik, somatizasyon ve düşmanlık semptomları anlamlı olarak daha yüksekti. Kabızlık ve hemoroid sorunları, ruhsal belirtileri önemli ölçüde etkilemedi. **Sonuç:** Bu çalışmada, gebelerde fiziksel sağlık sorunlarının gebelerde anksiyete, depresyon, somatizasyon, olumsuz benlik ve düşmanlık belirtilerinin şiddetini etkilediği belirlenmiştir. Gebelik sürecinde deneyimlenen ruhsal belirtilerin fiziksel sağlık problemleri ile etkileşimleri göz önünde bulundurulmalıdır. Gebelerin holistik bir bakış açısıyla değerlendirilmesi ve bakım hizmetlerinin bu yaklaşımla sunulmasının gebelerin sağlığını olumlu yönde etkileyeceği düşünülmektedir.

Anahtar Kelimeler: Gebe; ruh sağlığı hizmetleri; hemşire; ebe

Worldwide, about 10% of pregnant women and 13% of women who have just given birth experience a mental disorder. These numbers are even higher in developing countries, with 15.6% of pregnant women experiencing a mental disorder during pregnancy and 19.8% experiencing one after childbirth.[1] Pregnancy

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and the postpartum period are widely considered to be periods of increased vulnerability regarding psychiatric disorders.[2,3] Psychiatric disorders during this period are not only associated with negative maternal outcomes but also numerous adverse outcomes for fetal and infant growth and development.[1,4]

Depression and anxiety are common mental problems in women during pregnancy.[5] In one study, the prevalence of the psychiatric disorders were reported as 9.3% for depression, 16.9% for anxiety disorder, 24.2% for somatoform/dissociative disorder, and 11.7% for acute stress reactions.[3] Most studies assessing psychopathology in pregnant women focus on depression.[3,6-8] Consequently, depression is generally considered to be the most prevalent mental disorder associated with pregnancy.[8] In one systematic review, the prevalence rates of depressive disorders in pregnancy were reported as 7.4%, 12.8%, and 12.0% during the first, second and third trimester, respectively.[9] According to one systematic review, antenatal depression affects almost 17% of pregnant women with the highest prevalence seen during the second and the third trimesters.[6] Depression during pregnancy may result in negative outcomes for both the mother and the baby, such as preterm birth, preeclampsia, difficulty in delivery, requiring more surgical intervention during delivery, small fetus for gestational age, low birth weight, and obstetric complications.[3,8,10-12] Additionally, since depression in pregnancy has the potential to increase the risk of maternal suicide and postpartum depression, it is a problem that requires an early diagnosis and to be cured.[13,14] One out of every five mothers in developing countries experience clinical depression after childbirth.[1]

In pregnant women, anxiety disorders have been less examined compared with depression.[15] It was reported that the prevalence of anxiety disorders in perinatal period ranges from 9% to 30%.[16] According to one study that has been conducted, 40.5% of the women in the second trimester of their pregnancy experience anxiety disorders.[17] During the prepartum period, 47% of women have a high level of state anxiety and 71% had a high level of trait anxiety.[18] However, somatoform disorders are rarely examined among the previous studies in the field.[3] In their study, Wallwiener et al. report a high prevalence (24.2%) for somatoform and dissociative disorders among pregnant women.[3] However, somatic complaints, depression, and anxiety symptoms observed in pregnancy are associated with hormonal and physical changes by doctors, and are diagnosed less often; accordingly, their treatments often fail.[16] According to the literature, it was found that untreated depression and anxiety during pregnancy is related with preterm birth, low birth weight, inadequate infant development, and behavioral problems in childhood.[3]

During the pregnancy, women experience several physical problems or complaints such as fatigue, loss of energy, sleep and appetite problems, acid reflux, nauseas and vomiting, and respiratory distress.[19] These frequently observed physical symptoms in pregnancy are also observed in mental disorders such as depression and anxiety. These similar symptoms and findings may result in mental disorders being missed or misdiagnosed in pregnant women.[16] The relationships between physical symptoms, depressive symptoms, and low self-respect associated with pregnancy indicate the necessity of conducting further tests.[19,20]

Pregnant women may present to clinicians with a range of mental and physical symptoms some of which overlap with typical pregnancy complaints.[7] In Turkey, women frequently present to health institutions due to routine checks during pregnancy However, physical symptoms usually constitute the main focusing factor in pregnancy follow-ups, and mental symptoms are ignored. However, mental disorders in pregnancy may have significant outcomes that have negative effects on both the mother's and infant's health.[2,7,11,21] In Turkey, nurses are one of those healthcare professionals who interact most often with pregnant women. Therefore, nurses may play key roles in providing mental health services to pregnant women for both diagnostic and therapeutic purposes. Nurses can also evaluate pregnant women mentally as part of their routine checks, thereby enabling them to receive necessary treatment and help. Therefore, both the woman's and maternal mental health services may be integrated into general healthcare services. In Turkey, those

studies conducted on the prevalence of mental disorders among pregnant women, and those studies addressing mental disorders in pregnant women in terms of physical symptoms remain limited. Future studies concerning this subject may contribute to the development of programs to protect and intervene in mental health. The aim of this study is to examine mental symptoms of pregnant women in terms of physical health problems.

MATERIAL AND METHODS

STUDY SAMPLE AND PARTICIPANTS

This study employed a descriptive design, and was conducted in the Gynecology and Obstetrics Polyclinics of the Çanakkale Onsekiz Mart University Health, Practice and Research Hospital, and Çanakkale State State Hospital, between March and December 2017. No sampling selection was undertaken for this research. Since the date of the institution permission was received, 713 pregnant women who applied to the gynecology and obstetrics polyclinics, who met the inclusion criteria for this research, and who agreed to participate were included in this study. Inclusion criteria for participants of this research were: aged 18 years or older, primary school graduate level of education or higher, and not having a mental health problem that prevents communication.

INSTRUMENTS

The study data were collected by a questionnaire form developed by the researchers and with the use of the Brief Symptom Inventory (BSI).

Questionnaire Form: This comprises two sections. The first section includes questions for identifying the demographic and obstetric characteristics of pregnant women. The second section includes the questions for identifying the physical health problems of pregnant women. Questions were prepared by the researchers in accordance with commonly observed physical health problems experienced during pregnancy. Related literature was then used to determine physical health problems.[19,22-24] Physical health problems in pregnant women were evaluated according to the existence of 15 symptoms as fatigue, headache, sleep problems, shoulder/neck pain, back pain, breast problems, urinary incontinence, nauseas and vomiting, constipation, hemorrhoid, muscle cramps, edema, excess-weight gain, and movement restriction. To make the questions in the form more understandable, a pilot study was undertaken with 15 pregnant women; this pilot study is not included in the current study. After required feedbacks and corrections, final version of the form was developed for use in this study.

Brief Symptom Inventory: The BSI was developed by Derogatis, and its adaptation into Turkish was conducted by Şahin and Durak.[25] BSI is the short version of the Symptom Checklist-90-R (SCL-90-R), and was generated as a result of those studies that had been conducted using the SCL-R-90. The 90 items of the SCL-90-R are distributed across nine dimensions; those 53 items with the highest loading were then selected; a brief scale with a similar structure, and which takes 5-10 minutes to complete, was then obtained. Responses to the scale are given according to a 5-point Likert-type self-assessment scale (0: not at all, 1: slightly, 2: moderately, 3: very, 4: extremely). A higher total score indicates a greater number of symptoms experienced by the individual. The total score ranges from 0 to 212. The scale comprises five factors "anxiety", "depression", "negative self", "somatization", and "hostility", as well as three global indices: Positive Symptom Distress Index, Global Severity Index, and Positive Symptom Total.[25] The internal consistency coefficient of the BSI for the current study was found to be α=0.95.

DATA ANALYSIS

Statistical Package for Social Sciences for Windows (SPSS 16.0) was used to analyze the study data; descriptive characteristics were used for the statistical evaluation the data. Study data were also evaluated using descriptive statistical methods (frequency, percentage, mean, standard deviation, minimum maximum). The Student's t-test was used to examine participant's mental symptoms according to physical health problems. For this study, $p<0.05$ was considered to be statistically significant.

ETHICS APPROVAL

Informed consents were received from all participating pregnant women based on the latest version of the Declaration of Helsinki. The study was approved on 01/03/2017 by the Clinical Research Ethics Committee of the Deanship of Faculty of Medicine from the Rectorate of Çanakkale Onsekiz Mart University (decision number of 2017/04). Written permissions were received from those institutions in which the study was conducted. All data were collected by the researchers through the face-to-face interview method. The interviews conducted with the pregnant women to collect the study data lasted around 30 minutes. The study complies with the 2008 Declaration of Helsinki principles.

LIMITATIONS OF THE STUDY

The findings obtained from this research were generated with outpatient pregnant women using self-report based scale and questionnaire forms. Accordingly, the findings of this study share the limitations of the scale and questionnaire forms, and the information provided based on the individual's self-reporting. Furthermore, the findings only represent the sampling group used herein, and cannot be generalized to all pregnant women. Another limitation is that the sample group consists of voluntary pregnant women.

RESULTS

Of the pregnant women who participated in this study, the mean age was 28.10 (SD=5.25), and the mean years of marriage was 2.33 (SD=0.93). Of these women, 45.6% were in their first pregnancy, 33.9% were in their second pregnancy, 13.6% were in their third pregnancy, and 6.7% were in their fourth pregnancy.

Of the pregnant women comprised the study group, 12.8% were in the first trimester, 26.6% were in the second trimester, and 60.6% were in the third trimester of pregnancy. Overall, 85% of the women got pregnant willingly, and 73.1% wanted normal delivery. Of the study participants, 96.5% had regular check-ups during their pregnancy.

TABLE 1: Physical health problems of pregnant women.

	Yes		No	
	n	%	n	%
Fatigue	559	78.4	154	21.6
Backache	453	63.5	260	36.5
Sleep problems	428	60.0	285	40.0
Nausea	354	49.6	359	50.4
Headache	311	43.6	402	56.4
Edema	272	38.1	441	61.9
Movement restriction	267	37.4	446	62.6
Shoulder, neck pain	263	36.9	450	63.1
Vomiting	260	36.5	453	63.5
Muscle cramps	257	36.0	456	64.0
Constipation	157	22.0	556	78.0
Excess-weight gain	156	21.9	557	78.1
Breast problems	146	20.5	567	79.5
Urinary incontinence	121	17.0	592	83.0
Hemorrhoid	76	10.7	637	89.3

TABLE 2: Brief Symptom Inventory and three global indices sub-scale scores of the pregnant women.

	Mean	SD	Minimum-Maximum
Anxiety	8.40	7.96	0-47
Depression	10.33	8.43	0-44
Negative self	6.09	7.01	0-40
Somatization	7.38	5.49	0-28
Hostility	5.04	4.73	0-28
Positive symptom distress index	1.64	0.57	1-3.80
Global severity index	0.70	0.57	0-3.42
Positive symptom total	21.20	12.53	0-53

SD: Standard deviation.

Physical health problems experienced by pregnant women are presented in Table 1.

It was determined that, of the pregnant women, 78.4% had fatigue, 63.5% had backache, 60% had sleep problems, 49.6% had nausea, 43.6% had headaches, 38.1% had edema, 37.4% had restricted movement, 36.9% had shoulder–neck pain, 36.5% had vomiting, 36% had muscle cramps, 22% had constipation, 21.9% had excess-weight gain, 20.5% had breast problems, 17% had urinary incontinence, and 10.7% had a hemorrhoid problem.

The mean scores, standard deviation and minimum-maximum values that the pregnant women received from the BSI sub-scales and indices are presented in Table 2.

Concerning the mental symptoms of pregnant women according to their physical health problems, the prevalence of symptoms of anxiety, depression, negative self, somatization, and hostility were found significantly higher among those pregnant women who experienced fatigue, headache, sleep problems, shoulder-neck pain, breast problems, urinary incontinence, vomiting, muscle cramps, excess-weight gain, and limitations of movement ($p<0.05$) (Table 3).

The prevalence of the symptoms somatization and hostility were found to be significantly higher among those pregnant women with back pain; furthermore, somatization was found to be significantly higher among those pregnant women with nausea, while the severity of depression and somatization symptoms were found to be higher among those pregnant women with edema ($p<0.05$) (Table 3).

No significant difference was found in terms of mental symptoms between those pregnant women who had constipation and hemorrhoid problems, and those pregnant women who did not have these problems ($p>0.05$) (Table 3).

DISCUSSION

Pregnancy is a process that physiologically, psychologically, and socially affects women. It is necessary for both physical and emotional security are provided for pregnant women in order to maintain a healthy pregnancy and a healthy newborn. Changes occur in pregnancy can sometimes cause deterioration in general health and experience unexpected problems. In this study, it was determined that physical health problems are commonly observed in pregnant women, and that the most frequently observed problems experienced during pregnancy include fatigue, back pain, sleep problems, and nausea-vomiting. Furthermore, it was found that edema, movement restriction, shoulder-neck pains, vomiting, constipation, excess-weight gain, breast problems, urinary incontinence, and hemorrhoid problems are less prevalently observed problems during pregnancy. The study by Özçelik and Karaçam, which was conducted with pregnant women, found that frequent urination, nausea-vomiting, and acid reflux are the most frequently reported complaints.[23]

In this study, fatigue was the most frequently observed problem among the pregnant women. Mbada et al. found that pregnancy related fatigue is dominant in the third- trimester, and report that a significant relationship was found between physical activity and fatigue.[26] Chou et al. associated nausea, vomiting, and fatigue in the early pregnancy with psychosocial factors.[27] Çoban and Yanıkkerem found a correlation between sleep quality and fatigue levels among pregnant women and determined that almost half of the pregnant women who participated in their study have bad sleep quality.[28] These findings may indicate that healthcare professionals should provide continuous training and consultancy to the pregnant women during the prenatal care.

Sleep disorders are another commonly observed complaint among the pregnant women who participated in this study. Stress-related sleep disturbance during pregnancy is associated with an increase in the prevalence of psychiatric disorders.[29] Eichler et al. reported that sleep problems during pregnancy are associated with mental health problems during pregnancy.[30] Ulman et al., associated sleep problems and eating disorders in pregnancy.[31] Another study emphasizes that physical symptoms and sleep disorders related with pregnancy may be associated with depressive symptoms.[20]

Physical and mental changes during pregnancy can negatively affect the life quality of pregnant women. Almost half of pregnant women feel back pain in the pelvic area.[32] In this study, low back pain was found to be one of the most frequently observed physical problems among the pregnant women. The study by Özçelik and Karaçam reports that back pain is one of the most frequently observed complaints in pregnant women.[23] Furthermore, Yıldırım et al., associated pregnancy-related low back pain with the underlying psychological factors.[32] Accordingly, the findings of this study confirm those of other studies in the literature.

During early pregnancy, nausea, breast sensitivity, and other physical changes may cause fluctuations in the psychological balance of the affected women.[23] Beyazit and Sahin state that psychological factors may play a role in advanced nausea and

TABLE 3: Brief Symptom Inventory sub-scale scores received by pregnant women according to physical health problems (n=713).

			Mean (SD)		
Physical health problems (n)	**Anxiety**	**Depression**	**Negative Self**	**Somatization**	**Hostility**
Have fatigue (559)	8.84 (8.34)	10.84 (8.71)	6.38 (7.29)	7.95 (5.53)	5.30 (4.82)
Do not have fatigue (154)	6.77 (6.16)	8.44 (7.00)	5.00 (5.79)	5.29 (4.79)	4.07 (4.21)
t/p	2.875/0.004	3.146/0.002	2.162/0.031	5.424/0.000	2.876/0.004
Have backache (453)	8.85 (8.48)	10.67 (8.76)	6.32 (7.34)	7.89 (5.80)	5.37 (5.00)
Do not have backache (260)	7.59 (6.89)	9.71 (7.78)	5.66 (6.39)	6.48 (4.76)	4.43 (4.13)
t/p	2.042/0.042	1.463/0.144	1.201/0.230	3.344/0.001	2.569/0.010
Have sleep problems (428)	9.40 (8.43)	11.51 (8.89)	6.93 (7.47)	8.25 (5.70)	5.42 (4.75)
Do not have sleep problems (285)	6.88 (6.93)	8.54 (7.33)	4.80 (6.04)	6.06 (4.86)	4.44 (4.63)
t/p	4.200/0.000	4.689/0.000	4.025/0.000	5.319/0.000	2.720/0.007
Have nausea (354)	8.81 (8.29)	10.92 (8.72)	6.49 (7.33)	8.35 (5.65)	5.14 (4.75)
Do not have nausea (359)	7.98 (7.60)	9.74 (8.09)	5.68 (6.66)	6.42 (5.14)	4.92 (4.70)
t/p	1.402/0.161	1.868/0.062	1.536/0.125	4.751/0.000	0.619/0.536
Have headache (311)	10.10 (8.69)	11.81 (8.75)	7.00 (7.56)	8.95 (5.58)	5.80 (4.88)
Do not have headache (402)	7.07 (7.08)	9.18 (7.99)	5.37 (6.47)	6.16 (5.09)	4.44 (4.52)
t/p	5.135/0.000	4.177/0.000	3.080/0.002	6.954/0.000	3.850/0.000
Have edema (272)	9.13 (8.30)	11.36 (8.50)	6.43 (7.529	8.37 (5.81)	5.20 (4.55)
Do not have edema (441)	7.94 (7.72)	9.69 (8.32)	5.87 (6.68)	6.77 (5.19)	4.93 (4.83)
t/p	1.946/0.052	2.578/0.011	1.041/0.312	3.818/0.000	0.735/0.463
Have movement restriction (267)	10.08 (9.34)	12.16 (9.45)	7.54 (7.97)	9.08.(6.09)	5.88 (5.19)
Do not have movement restriction (446)	7.39 (6.82)	9.23 (7.54)	5.21 (6.21)	6.35.(4.81)	4.52 (4.35)
t/p	4.425/0.000	4.554/0.000	4.346/0.000	6.622/0.000	3.737/0.000
Have shoulder, neck pain (263)	9.62 (8.80)	11.56 (8.71)	6.79 (7.65)	8.40 (5.73)	5.62 (4.92)
Do not have shoulder, neck pain (450)	7.68 (7.34)	9.60 (8.17)	5.67 (6.58)	6.78 (5.25)	4.69 (4.57)
t/p	3.170/0.002	3.016/0.003	2.068/0.039	3.836/0.000	2.562/0.011
Have vomiting (260)	9.61 (8.78)	11.79 (9.37)	7.17 (8.09)	8.96 (5.73)	5.69 (5.23)
Do not have vomiting (453)	7.69 (7.37)	9.48 (7.72)	5.46 (6.23)	6.47 (5.13)	4.66 (4.37)
t/p	3.120/0.002	3.542/0.000	3.156/0.002	5.994/0.000	2.820/0.005
Have muscle cramps (257)	10.22 (8.609	12.26 (9.08)	7.31 (7.81)	9.31 (5.87)	5.89 (5.06)
Do not have muscle cramps (456)	7.36 (7.39)	9.23 (7.83)	5.39 (6.42)	6.29 (4.94)	4.55 (4.45)
t/p	4.676/0.000	4.672/0.000	3.542/0.000	7.319/0.000	3.672/0.000
Have constipation (157)	8.82 (8.42)	11.22 (9.37)	6.56 (7.77)	8.01 (5.62)	5.64 (4.90)
Do not have constipation (556)	8.27 (7.83)	10.07 (8.13)	5.95 (6.78)	7.20 (5.44)	4.86 (4.66)
t/p	0.765/0.444	1.518/0.129	0.961/0.337	1.634/0.103	1.825/0.068
Have excess-weight gain (156)	10.85 (8.61)	12.93 (9.24	7.67 (7.55)	9.43 (6.07)	6.49 (5.53)
Do not have excess-weight gain (557)	7.70 (7.64	9.59 (8.04)	5.63 (6.79)	6.80 (5.17)	4.62 (4.39)
t/p	4.422/0.000	4.429/0.000	3.332/0.000	5.393/0.000	4.412/0.000
Have breast problems (146)	10.56 (9.10)	12.78 (9.05)	8.02 (8.28)	9.54 (5.75)	6.16 (5.14)
Do not have breast problems (567)	7.84 (7.55)	9.69 (8.15)	5.58 (6.56)	6.82 (5.28)	4.74 (4.57)
t/p	3.713/0.000	3.995/0.000	3.786/0.000	5.438/0.000	3.255/0.001
Have urinary incontinence (121)	10.91 (9.52)	13.36 (9.99)	8.39 (8.69)	9.33 (6.15)	6.34 (5.23)
Do not have urinary incontinence (592)	7.88 (7.51)	9.70 (7.93)	5.61 (6.52)	6.98 (5.25)	4.76 (4.57)
t/p	3.855/0.000	4.403/0.000	4.020/0.001	4.360/0.000	3.371/0.001
Have hemorrhoid (76)	9.50 (7.91)	11.72 (9.47)	7.26 (7.20)	8.05 (5.65)	6.06 (5.41)
Do not have hemorrhoid (637)	8.26 (7.96)	10.16 (8.289	5.94 (6.98)	7.30 (5.46)	4.91 (4.62)
t/p	1.276/0.202	1.528/0.127	1.550/0.122	1.128/0.260	2.013/0.045

SD: Standard deviation; t: Student t-test.

vomiting, and hyperemesis gravidarum in pregnancy.[33] Pepe and Ege found that nausea and vomiting during early pregnancy have an effect on anxiety levels.[34] The literature supports the findings of this

study, and it can therefore be recommended that healthcare professionals should be more careful regarding anxiety among pregnant women who are experiencing nausea and vomiting, and they should enforce supporting factors.

Although pregnancy is a physiological process, the biological and social changes that occur during pregnancy are reflected in the women's mental state, and various mental disorders may occur among these women.[8] Pregnant women are an at-risk group in terms of anxiety and depression development.[13] On examination of the literature, it can be seen that there are studies indicating that anxiety and depression increase during pregnancy.[12,35]

In the last phases of pregnancy, social withdrawal and high levels of anxiety can be observed in expectant mothers preparing for the birth and care of their child.[8] One study shows that anxiety and pregnancy complications particularly may be related. Women who experience intense anxiety in early pregnancy have an almost three times higher risk of pregnancy-related hypertension and preeclampsia.[13]

The prevalence of depressive symptoms in pregnant women is around 36%; depression and anxiety in pregnancy may not be distinguishable from pregnancy-related physiological changes and somatic complaints. Furthermore, it is reported that women usually complain of lassitude and loss of energy during pregnancy.[13] Additionally, somatic complaints and symptoms of depression and anxiety observed during pregnancy are usually associated with pregnancy-related hormonal and physical changes, and are less frequently diagnosed and cured. Considering that those mental disorders whose treatments are neglected lead to serious deterioration of the mother–child relationship, it is clear that this issue should be sensitively approached.[8] In this study, health problems of pregnant women participants were evaluated in terms of anxiety, depression, negative self, somatization, and hostility; in the study it was found that, according to the physical health problems experienced during the pregnancy process, symptoms of anxiety, depression, negative self, somatization, and hostility showed significant difference. As it is known that mental symptoms during pregnancy are risky in terms of developing postpartum mental disorders, defining prenatal mental symptoms is not only important for the health of pregnant women, but also for maternal and infant health.

CONCLUSION

Considering the results of this study, it was determined that physical health problems of pregnant women affected their psychological symptom levels. In particular, pregnant women with fatigue, sleep, pain, limitation of movement, vomiting, muscle cramps, excessive weight gain, urinary incontinence, and breast problems had higher levels of anxiety, depression, negative self-perception, somatization and hostility.

Therefore, the fact that health professionals working with pregnant women take a holistic approach to pregnant women and consider the physical and psychological areas and their interactions with each other in all interventions for pregnant women will positively affect the health of the mother and fetus.

The results of this study may help professionals to better articulate physical and mental symptom experiences in pregnant women and to better assess the risks of anxiety, depression, somatization, negative self-perception, anger, and aggression. Early diagnosis and treatment of mental symptoms during pregnancy can reduce the development of psychiatric disorders in women in the postpartum period. It is important for women to be aware of potential psychological symptoms that may adversely affect the health of the mother and baby during pregnancy, since it indicates the necessity of starting psychological treatment and care services from the beginning of pregnancy.

In particular, it may be suggested that midwives/nurses working in primary health care services should make a holistic assessment through the consideration of the mental symptoms of pregnant women, and provide training and consultancy accordingly. Pregnant women should also be supported by training programs which aim to protect and improve mental health in pregnancy schools.

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: *Aysun Babacan Gümüş, Eda Cangöl, Seda Sögüt;* ***Design:*** *Aysun Babacan Gümüş, Eda Cangöl, Seda Sögüt;* ***Control/Supervision:*** *Aysun Babacan Gümüş, Eda Cangöl, Seda Sögüt;* ***Data Collection and/or Processing:*** *Eda Cangöl, Seda Sögüt;* ***Analysis and/or Interpretation:*** *Aysun Babacan Gümüş;* ***Literature Review:*** *Aysun Babacan Gümüş, Eda Cangöl, Seda Sögüt;* ***Writing the Article:*** *Aysun Babacan Gümüş, Eda Cangöl, Seda Sögüt;* ***Critical Review:*** *Aysun Babacan Gümüş, Eda Cangöl, Seda Sögüt;* ***References and Fundings:*** *Aysun Babacan Gümüş, Eda Cangöl, Seda Sögüt;* ***Materials:*** *Aysun Babacan Gümüş, Eda Cangöl, Seda Sögüt.*

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