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Psychosocial Risk Factors for Depression in Pregnant Adolescents

Adölesan Gebelerde Depresyonun Psikososyal Risk Faktörleri

Ayşegül ÖKSÜZOĞLU[1]
0000-0003-0042-0307
Burcu TİMUR[2]
0000-0001-8769-5949

[1]Department of Obstetrics and Gynecology, Zekai Tahir Burak Women's Health Training and Research Hospital, Ankara, Turkey
[2]Department of Obstetrics and Gynecology, Ordu University Training and Research Hospital, Ordu, Turkey

Corresponding Author
Sorumlu Yazar
Ayşegül ÖKSÜZOĞLU
oksuzoglua@yahoo.com

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ABSTRACT

Aim: Pregnancy in adolescence can negatively affect psychological, physical, and social development, and depression is more common in these pregnancies. This study aimed to investigate frequency of antenatal depression, and its psychological and social antecedents, in adolescent pregnancies.
Material and Methods: This cross-sectional survey study included 272 pregnant adolescents admitted to the antenatal outpatient clinic in a tertiary hospital between May and August 2019. The Edinburgh Postpartum Depression Scale (EPDS) and a structured questionnaire about demographic and psychosocial characteristics, and obstetric history, were used.
Results: The mean age of the pregnant adolescents was 17.2±0.8 (range, 14-19) years, 232 (85.3%) of them were married, and their mean age at first marriage was 16.6±1.3 years. The mean total EPDS score was 8.7±6.2, and 58 (21.3%) of them had depressive symptoms. As education level decreased, the frequency of depressive symptoms increased (p=0.001). In total, 36 (62.1%) of the 58 pregnant adolescents with an EPDS score ≥13 had a history of depression; the other 22 (37.9%) had no history. The prevalence of depression symptoms was significantly higher in pregnant adolescents with a history of depression (p=0.001). In total, 17 pregnant adolescents with a depression risk score ≥13 were diagnosed with depression, and psychiatric support and counseling were provided.
Conclusion: In pregnant adolescents, low educational status and a previous history of depression were closely associated with antenatal depression. Effective antenatal screening should be performed in all pregnant adolescents, especially those with risk factors, to check for antenatal depression and identify those who need psychological support.
Keywords: Adolescent pregnancy; antenatal depression; Edinburgh Postpartum Depression Scale.

ÖZ

Amaç: Adölesan gebelikleri bireyin psikolojik, bedensel ve sosyal gelişimini olumsuz etkiler ve bu gebeliklerde depresyona daha sık rastlanır. Bu çalışmada, adölesan gebelerde antenatal depresyonun yaygınlığı ile psikolojik ve sosyal nedenlerinin araştırılması amaçlanmıştır.
Gereç ve Yöntemler: Kesitsel tipteki anket çalışması, Mayıs 2019 ve Ağustos 2019 tarihleri arasında üçüncü basamak bir hastanenin antenatal polikliniğine başvuran 272 adölesan gebe ile yapıldı. Gebelere, demografik ve psikososyal özellikler ile obstetrik öykünün sorgulandığı yapılandırılmış anket formu ve Edinburgh Postpartum Depresyon Ölçeği (EPDÖ) uygulandı.
Bulgular: Adölesan gebelerin yaş ortalaması 17,2±0,8 (aralık, 14-19) yıl olup 232 (%85,3)'si evli ve ortalama evlilik yaşı 16,6±1,3 yıl idi. EPDÖ toplam puan ortalaması 8,7±6,2 bulundu ve gebelerin 58 (%21,3)'inde depresif semptomlar tespit edildi. Eğitim düzeyi azaldıkça, depresif semptomların görülme sıklığı artmaktaydı (p=0,001). EPDÖ skoru ≥13 olan 58 adolesan gebenin, 36 (%62,1)'sında depresyon öyküsü bulunurken, diğer 22 (%37,9)'sinde depresyon öyküsü yoktu. Geçirilmiş depresyon öyküsü veren gebelerde depresyon semptomlarının görülme sıklığı anlamlı şekilde daha yüksek bulundu (p=0,001). Depresyon riski puanı ≥13 olan toplam 17 gebeye depresyon tanısı konularak, psikiyatrik yardım ve danışmanlık verildi.
Sonuç: Adölesan gebelerde, düşük eğitim seviyesi ve geçirilmiş depresyon öyküsü antenatal depresyon ile yakından ilişkilidir. Antenatal depresyonun tanınması ve psikolojik desteğe ihtiyacı olan adölesanların belirlenmesi için etkin antenatal tarama tüm adölesan gebelere, öncelikle risk faktörü taşıyan gebelere yapılmalıdır.
Anahtar kelimeler: Adölesan gebelik; antenatal depresyon; Edinburgh Postpartum Depresyon Ölçeği.

INTRODUCTION

Depression during pregnancy is an important health problem because it adversely affects maternal and child health, and leads to postpartum depression (1,2). In one-third of women with postpartum depression, depressive symptoms begin during pregnancy; when left untreated, approximately 20% of cases progress to chronic depression (3). Because untreated perinatal depression and other mood disorders may have devastating effects on the mother, newborn, and family, recognition, and treatment of depression in pregnant women is extremely important (4,5).

Adolescent pregnancies adversely affect psychological, physical, and social development, and pose a serious threat to mental well-being. Depression symptoms are also common in adolescent pregnant women, who frequently experience emotional stress and social problems (6,7). Previous studies reported an increased risk of perinatal depression in adolescent pregnant women and many factors that increase the risk of depression in these pregnancies have been reported (8-11). Young maternal age, maternal anxiety, previous history of depression, insufficient social support, low income and education levels, marital incompatibility, domestic violence, unintended pregnancy, inadequate antenatal care, and substance abuse have all been identified as risk factors for the development of depression in adolescent pregnant women (12,13).

It is important to screen for psychological and social risk factors for the development of antenatal depression in adolescent pregnant women, and to identify pregnant adolescents at risk of developing depression, to allow for early psychological support and prevention of the development of postpartum depression. In this study, we investigated the frequency and psychosocial causes of antenatal depression in adolescent pregnant women.

MATERIAL AND METHODS

This cross-sectional study was conducted in the antenatal outpatient clinic at the University of Health Sciences Zekai Tahir Burak Women's Health Care Training and Research Hospital, Ankara between May and August 2019. The study protocol was approved by the local ethics committee (ethics committee number: 36/2018), and all subjects provided written informed consent before enrollment.

A questionnaire consisting of 20 questions, which was developed by the study researchers based on the literature, was completed by adolescent pregnant women. The questionnaire collected data on sociodemographic characteristics (age, body mass index (BMI), marital status, marriage duration, family type, work status, income, education, planning for pregnancy, and smoking status) and obstetric history (gestational week, gravidity, parity, and history of depression in the last 5 years). A history of depression in pregnant women was defined as a diagnosis of depression following psychiatric evaluation, use of antidepressants, or receiving psychotherapy within the last 5 years. We excluded adolescent pregnant women who were currently being followed up with a diagnosis of depression or use of antidepressant medication, multiple pregnancies, or a history of any chronic disease. After obtaining informed consent from all of the adolescent pregnant women who agreed to participate in the study, the questionnaire data and the Turkish versions of the Edinburgh Postnatal Depression Scale (EPDS) were administered by the researcher.

Edinburgh Postpartum Depression Scale (EPDS)

The EPDS is the most commonly used questionnaire for screening for depression during pregnancy and the postnatal period. This scale was developed in Edinburgh in 1987 by Cox et al. (14). It is a self-report scale consisting of 10 items, in a 4-point Likert format. The answers consisting of four options are scored between 0-3, the lowest score that can be obtained from the scale is 0 and the highest score is 30. Each item has a different scoring. The total score of the scale is obtained by summing the scores for each item; a high total score indicates more severe depressive symptoms. The validity and reliability study for the Turkish version of the scale was performed by Engindeniz et al. (15).

In this study, the Turkish version of the EPDS has been used and, a total score of ≥13 was taken as the cut-off point for the presence of depressive symptoms. The participants were classified into two groups according to the scores on the EPDS, i.e., a group with depressive symptoms (EPDS≥13) and a group without depressive symptoms (EPDS<13). The groups were compared in terms of age, BMI, gravidity, parity, gestational age, marital status, family type, employment status, income, education, previous history of depression, and smoking status. Those with an EPDS score ≥13 were referred for detailed psychiatric evaluation.

Statistical Analysis

Statistical analysis was performed using SPSS for Windows software (version 21.0; SPSS Inc., Chicago, IL, USA). The Kolmogorov-Smirnov test was used to assess the normality of the distribution of the data. Continuous and normally distributed variables are expressed as mean±standard deviation, and intra-group differences were investigated using Student's t-test. Continuous variables with non-normal distributions are expressed as median (minimum-maximum), and differences between variables were analyzed using the Mann-Whitney U test. Categorical variables are expressed as numbers (percentages) and were analyzed using the chi-square test. Two-sided p values were considered statistically significant at <0.05.

RESULTS

We enrolled 272 adolescent pregnant women who presented at the antenatal clinic of our hospital. Their mean age was 17.2±0.8 (range, 14-19) years. Their mean age at first marriage was 16.6±1.3 years and 232 (85.3%) of them were married; 126 (46.3%) of them had a nuclear family. Consanguineous marriage was identified in 46 (16.9%) of the participants. The mean EPDS score was 8.7±6.2, and 58 (21.3%) of the women had an EPDS score ≥13 (indicating antenatal depression).

The pregnant adolescent women with EPDS scores ≥13 and <13 are compared in Table 1. The groups were similar in terms of age, BMI, gravidity, parity, gestational age, marital status, work status, family type, income, and smoking status. Whereas 32 (55.2%) participants who had only graduated from primary school had an EPDS score ≥13, only 4 (6.9%) who were educated to a high school

level or above had such a score. As education level decreased, the presence of depressive mood became more common (p=0.001), and 48 (17.6%) of the participants had a history of depression. In total, 36 (62.1%) of the 58 adolescent pregnant women with an EPDS score ≥13 had a history of depression; the other 22 (37.9%) had no such history. The incidence of depressive symptoms was significantly higher in participants who were previously diagnosed with depression (p=0.001). Psychiatric evaluations of the 58 (21.3%) pregnant women with an EPDS score≥13 were conducted, and 17 (29.3%) of them were diagnosed with depression and given psychiatric support and counseling.

DISCUSSION

Depression is the most common psychiatric disorder in pregnancy, affecting more than 13% of pregnant women (16). In this study, the incidence of depressive symptoms in adolescent pregnant women was 21.3% (n=58), and 6.3% (n=17) of the participants were diagnosed with depression. Also, we identified two sociodemographic and psychological risk factors for antenatal depression: a low education level and previous history of depression.

Psychosocial health is poorer in adolescent pregnant women compared to older age groups. Many studies have concluded that the risk of depression is increased in adolescent pregnant women (17,18). Osok et al. (17) reported that 32.9% of such individuals showed clinical symptoms of depression and 15.9% of them had features of severe depression. In a study comparing the development of depression between pregnant women aged ≥18 and <18 years, the risk of depression was 18.2 times higher in the adolescent group (18). In another study, depressive symptom scores were significantly higher in 40% of pregnancies under the age of 20 years compared to those in women aged ≥20 years (19). In a study comparing pregnant women aged ≥20 years with adolescent pregnant women, the rate of depression requiring medical treatment was 9.8% in the adolescent group (20). The results varied among these studies due to the inclusion of different age groups, and the use of different scales and cut-offs therefor.

Table 1. Sociodemographic and clinical characteristics of pregnant adolescents according to EPDS scores

	EPDS ≥13 (n=58)	EPDS <13 (n=214)	p
Age (years)	17.3±0.6	17.1±0.9	0.111
BMI	25.3±4.2	26.4±5.7	0.171
Gravidity	1 (0-3)	1(0-2)	0.356
Parity	1 (0-2)	0 (0-1)	0.187
Gestational age			
1st trimester	20 (34.5)	64 (30.0)	
2nd trimester	16 (27.6)	72 (33.6)	0.652
3rd trimester	22 (37.9)	78 (36.4)	
Marital status			
Married	48 (82.8)	184 (86.0)	0.539
Single	10 (17.2)	30 (14.0)	
Family type			
Nuclear family	24 (41.4)	102 (47.7)	0.395
Extended family	34 (58.6)	112 (52.3)	
Work status			
Employed	8 (13.8)	22 (10.3)	0.449
Unemployed	50 (86.2)	192 (89.7)	
Income			
More than expense	20 (34.5)	70 (32.7)	
Equal to expense	28 (48.3)	110 (51.4)	0.913
Less than expense	10 (17.2)	34 (15.9)	
Education status			
Primary school	32 (55.2)	46 (21.5)	
Middle school	22 (37.9)	146 (68.2)	**0.001**
High school and above	4 (6.9)	22 (10.3)	
History of depression			
Yes	36 (62.1)	12 (5.6)	**0.001**
No	22 (37.9)	202 (94.4)	
Smoking			
Yes	12 (20.7)	34 (15.9)	0.387
No	46 (79.3)	180 (84.1)	

EPDS: Edinburgh Postpartum Depression Scale, the values were presented as mean±standard deviation, median (minimum-maximum), or number (percentage)

The EPDS is the most commonly used depression screening tool in perinatal care. Although the optimal cut-off value for screening is unknown, cut-off values of 10 or higher and 13 or higher are most often used to identify women who might have depression, in all periods of pregnancy (21). A cut-off point of 13 for the risk of depression was used in this study.

Antenatal depression is influenced by many factors, most of which are detectable during pregnancy, such as psychological factors. Many studies have reported that risk factors such as a lack of social support, previous history of depression, perceived stress, presence of a mental disorder before pregnancy, low economic and educational status, and physical and sexual violence often cause perinatal depression in pregnancy. Other risk factors include attitude to pregnancy, substance use, parental stress, low self-esteem, low self-efficacy, and social isolation (17,20,22).

A history of depression, discontinuation of treatment in an individual with a history of depression, a history of postpartum depression, and a family history of depression are among the risk factors for antenatal depression in adolescents. In this study, adolescents with a previous history of depression had higher EPDS scores and a higher risk of depression than those who had no such history. A previous history of depression is an important risk factor for antenatal depression; therefore, it is crucial to question adolescent pregnant women to determine if there is a history of depression.

Adolescent pregnancies are more common in individuals with low income and educational levels. While there is an inverse relationship between the level of education and the likelihood of having children at an early age, the risk of depression increases as the level of education decreases. Lancaster et al. (13) identified a low education level as a risk factor for depression symptoms during perinatal screening. In our study, the risk of antenatal depression increased significantly as the education level of adolescent pregnant women decreased, and we found no relationship between income level and depression risk.

While adolescent pregnancies in developed countries typically occur in unmarried young people, and due to inadequate contraception methods, they mostly occur in association with marriage under social pressure, cultural reasons, and traditional family structures in developing countries. In this study, the rate of marriage was found to be 232 (85.3%), and 244 (89.7%) of the adolescent pregnant women stated that they wanted their pregnancy.

The incidence of depressive symptoms during pregnancy varies by trimester, and anxiety and depression are seen more often in the first trimester. Low or no social support during pregnancy, inadequate nutrition and self-care, a negative attitude during antenatal follow-up, fear of childbirth, and concerns about the baby's health all increase the risk of depression during the last trimester of pregnancy. In a study conducted by Miguez et al. (23), the prevalence of depression was 23.4%, 17.0%, and 21.4% in the first, second, and third trimesters of pregnancy, respectively. In this study, the risk of depression was similar among all three trimesters, and no significant difference in depression score was observed according to gestational age.

There were some limitations to our study. Depression is a multifactorial psychiatric disease, i.e., many factors may affect its development. However, we only investigated demographic and psychosocial factors. Also, we did not investigate the relationship between anxiety and depression risk in this study. Another limitation was the small sample size. Strengths of our study included the use of the EPDS, which is widely applied for depression screening, and the collection of data by a physician in a face-to-face interview setting.

Diagnosing depression is difficult in adolescent pregnant women because depressive signs and symptoms of depression are similar to physiological changes and common complaints during pregnancy. Effective routine screening for antenatal depression is essential for the early identification of depressive symptoms in pregnant adolescent women. To recognize antenatal depression, identify adolescents who need psychological support, and provide counseling, effective screening of all adolescent pregnant women should be performed using standard tests with established validity and reliability. Starting from the first pregnancy visit, screening with the EPDS at least once during the second and third trimesters will help identify adolescent pregnant women at risk of depression.

CONCLUSION

A low education level and previous history of depression are closely associated with antenatal depression in adolescent pregnant women. Such women should be closely followed throughout their pregnancy, with psychological support provided when necessary. In this way, chronic depression continuing throughout the postpartum period can be prevented.

Ethics Committee Approval: The study was approved by the Ethics Committee of Zekai Tahir Burak Women's Health Training and Research Hospital (17.07.2018, 36).

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