



RESEARCH ARTICLE / ARAŞTIRMA MAKALESİ

Prevalence of Depression and Associated Factors in Pregnant Women Attending the Emergency Obstetrics Clinic

Acil Kadın Doğum Polikliniğine Başvuran Gebelerde Depresyon Sıklığı ve Etkileyen Faktörler

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Abstract:

The goal of this descriptive study was to assess the prevalence of depression among pregnant women attending the emergency obstetrics clinic and to evaluate the relationship between sociodemographic, obstetric, and social-life characteristics and depression levels. The study was conducted at the University of Health Sciences Sarıyer Hamidiye Etfal Training and Research Hospital between June 6, 2025, and August 1, 2025. The study population comprised 720 pregnant women, and the sample consisted of 251 volunteer pregnant women selected at random. Data were collected using a researcher-developed questionnaire and the Beck Depression Inventory (BDI). The mean BDI score was 10.65 ± 7.02 . The vast majority of pregnant women exhibited mild depressive symptoms. While no significant differences were found between depression and educational level, attendance at childbirth preparation courses, or number of pregnancies, significant associations were identified between depression and economic status, type of marriage, whether the pregnancy was planned, the belief that social life would be restricted, a perceived negative impact on sexual life, deterioration in relationships with the spouse, and exposure to verbal violence ($p < 0.05$). Depression during pregnancy is a major public health problem and is shaped by multifactorial influences. It is recommended that psychosocial assessments be integrated into antenatal follow-up, that at-risk groups be identified early, and that appropriate counseling services be provided. Depression screening should be conducted during routine obstetric follow-ups, and pregnant women in high-risk groups should receive psychosocial support and social service support.

Keywords: Pregnancy, Depression, Beck Depression Inventory, Risk factors, Emergency obstetrics.

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Öz:

Bu araştırmanın amacı, acil kadın doğum polikliniğine başvuran gebelerde depresyon sıklığını belirlemek ve sosyodemografik, obstetrik ve sosyal yaşam özelliklerinin depresyon düzeyine etkisini değerlendirmektir. Tanımlayıcı tipteki çalışma, 06.06.2025–01.08.2025 tarihleri arasında SBÜ Saryer Hamidiye Etfal Eğitim ve Araştırma Hastanesi’nde yürütülmüştür. Evreni 720 gebe oluşturmuştur, örneklem ise rastgele seçilen 251 gönüllü gebeden oluşmuştur. Veriler, araştırmacı tarafından hazırlanan anket formu ve Beck Depresyon Ölçeği (BDÖ) kullanılarak toplanmıştır. Gebelerin BDÖ puanı ortalaması 10,65±7,02 olarak bulunmuştur. Gebelerin büyük çoğunluğu hafif düzeyde depresyon semptomları göstermiştir. Eğitim düzeyi, doğuma hazırlık kursuna katılma ve gebelik sayısı ile depresyon arasında anlamlı fark bulunmazken, ekonomik durum, evlenme şekli, gebeliğin planlı olup olmaması, sosyal hayatın kısıtlanacağı düşüncesi, cinsel yaşamın olumsuz etkilenmesi, eş ile ilişkilerin bozulması ve sözel şiddete maruz kalma gibi değişkenler ile depresyon arasında anlamlı farklılık saptanmıştır ($p<0,05$). Gebelikte depresyon, önemli bir halk sağlığı sorunu olup çok boyutlu faktörlerden etkilenmektedir. Antenatal izlemlerde psikososyal değerlendirmelerin yapılması, riskli grupların erken tanınması ve uygun danışmanlık hizmetlerinin sağlanması önerilmektedir. Gebelere rutin obstetrik takiplerde depresyon taraması yapılmalı, riskli gruptaki gebelere psikososyal destek ve sosyal hizmet desteği sağlanmalıdır.

Anahtar Kelimeler: Gebelik, Depresyon, Beck Depresyon Ölçeği, Risk faktörleri, Acil kadın doğum.

Introduction

Pregnancy is a period many women experience at some point in their lives, often described as a time of happiness for the mother. In recent years, however, developments in the field of mental health have made it increasingly clear that a range of psychological problems may occur frequently during pregnancy. Among these, depression and anxiety disorders are foremost (Kaya Zaman et al., 2018). Studies indicate that depression and anxiety are observed more commonly in pregnant populations than in the general population (Tekgöz et al., 2009; Arslan et al., 2011; Çakır & Can, 2012; Dağlar & Nur, 2014; Tadesse et al., 2016).

During pregnancy, expectant mothers may undergo both physical and psychological changes. The majority of pregnant women experience increased stress during the period of preparing for childbirth and may experience symptoms of anxiety or depression; if these stressors are not effectively managed, they may lead to crises during pregnancy, childbirth, and the transition to parenthood. A decline in the mother’s mental well-being may increase the risk of postpartum depression and contribute to childbirth-related complications (Arslan et al., 2011; Dağlar & Nur, 2014). During this period, negative feelings toward one’s family and baby may become prominent. In the community, a substantial proportion of women who have given birth may interpret emotional changes as a natural process or may blame themselves for these changes. To prevent such misconceptions, regular check-ups before and during pregnancy and careful evaluation of risks that may lead to depression are of great importance (Tekgöz et al., 2009; Payne & Maguire, 2019).

Many studies have shown that depression and anxiety during pregnancy may be associated with sociodemographic characteristics such as maternal age, marital status, number of children, educational level, tobacco, alcohol, and substance use, trimester of pregnancy, and whether the pregnancy was desired (Çalışkan et al., 2007; Orr et al., 2007; Cornelius et al., 2007).

Numerous factors may compromise maternal mental health during pregnancy. These include a prior history of depression, a family history of depression, an unwanted pregnancy, a history of miscarriage and curettage, a history of stillbirth, low socioeconomic status, anxiety related to the fetus, high parenting stress, and adverse life

experiences (Çalışkan et al., 2007). Low self-esteem, a persistent tendency toward negative thinking, and insufficient social and emotional support during pregnancy have been noted as potentially influential factors (Orr et al., 2007; Cornelius et al., 2007; Çalışkan et al., 2007). Pregnant women presenting to emergency obstetric clinics were the subjects of this study. Women who attend emergency obstetric units may be more psychologically vulnerable because of heightened stress related to medical urgency and/or pregnancy complications. Depression during pregnancy is associated with several adverse maternal and fetal outcomes, including low birth weight, preterm birth, inadequate prenatal care, postpartum depression, and weakened mother–infant bonding. However, mental status assessment is often overlooked in emergency settings, which may delay the diagnosis of depression. This study is expected to contribute to health services by supporting depression screening and identifying risk factors among pregnant women presenting to emergency units.

The research questions were as follows: “What are the depression levels of pregnant women?” and “Is there a significant difference between pregnant women’s descriptive/obstetric characteristics and their depression levels?”

Method**Type of Study**

The present descriptive study was conducted to determine the prevalence of depression and the factors associated with it among pregnant women presenting to the emergency obstetrics clinic of SBÜ Saryer Hamidiye Etfal Training and Research Hospital (TRH).

Setting and Time

Between June 6, 2025, and August 1, 2025, the study was conducted at the Emergency Obstetrics Clinic of SBÜ Saryer Hamidiye Etfal Training and Research Hospital (TRH).

Population and Sample

The population comprised 720 pregnant women who presented to the SBÜ Saryer Hamidiye Etfal EAH Emergency Obstetrics Clinic in the last six months. The sample size was calculated as 251 using the Raosoft sample size calculator, with a 95% confidence interval, 5% margin of error, and an additional 10% to account for

potential data loss (19). The study included pregnant women aged 18–45 who were able to communicate in Turkish, who participated voluntarily by signing an informed consent form, and who reported experiencing depressive symptoms at least once during pregnancy.

Data Collection Tools and Materials

Data were collected using a Questionnaire Form that obtained sociodemographic and obstetric information (23 items) and the Beck Depression Inventory.

Questionnaire Form: Prepared in line with the literature, this form included 23 questions assessing participants' descriptive and pregnancy-related characteristics.

Beck Depression Inventory (BDI): a 21-item instrument developed by Beck and colleagues. Items are scored on a 4-point Likert format from 0 to 3. The scale comprises five dimensions: Hopelessness, Negative Feelings Toward the Self, Somatic Concerns, Feelings of Guilt, and Uninterpreted Dimensions. Total scores range from 0 to 63, with higher scores indicating higher levels of depression. Scores are classified as follows: 0–9, minimal; 10–16, mild; 17–29, moderate; and 30–63, severe depression. When the Turkish version was developed, a threshold (cut-off) point was established. The cut-off score is 17, and scores above this level were reported to require treatment for depression at a rate of 90%. Interpretation is based on the total score; subscale scores are not reported. Hisli (1989) conducted the Turkish validity and reliability study of the BDI and reported an internal consistency coefficient of 0.80 (Hisli, 1989). In the present study, the Cronbach's alpha value was 0.83.

Data Collection Procedure

All pregnant women participating in the study were given a detailed explanation of the study content. After obtaining written informed consent from each participant, data were collected in appropriate rooms within the emergency obstetrics clinic, in a manner that did not interrupt patient care, through face-to-face question-and-answer interviews. The questionnaires took approximately 10 minutes to complete.

Data Analysis

All statistical analyses were performed using SPSS version 28 (IBM Corp., Armonk, NY, USA). Categorical variables

are presented as numbers (n) and percentages (%), and continuous variables as means (M) and standard deviations (SD). Normality was assessed using the Kolmogorov–Smirnov test, the coefficient of variation, Q–Q plots, and histograms.

Categorical variables were evaluated using the Pearson chi-square test when expected counts were sufficient, and the Fisher's exact test when they were not. Because the normality assumption was not met, group comparisons used the Mann–Whitney U test for two independent groups and the Kruskal–Wallis test for three independent groups. When Kruskal–Wallis results were significant, groups were compared pairwise using the Dunn–Bonferroni correction. When both variables were continuous and not normally distributed, associations were examined using the Spearman correlation test. Statistical significance was set at $p < 0.05$.

Ethical Considerations

This study was conducted after obtaining ethics approval from the Istanbul Okan University Ethics Committee for Research in Science, Social Sciences, and Non-Interventional Health Sciences (Decision No. 185, dated 05.02.2025) and institutional permission from the Istanbul Provincial Directorate of Health, Health Services Presidency, Research–Printed Publication–Announcement Content Evaluation Commission (Decision No. 2025/07, dated 23.05.2025). Written consent was obtained from all pregnant women who participated.

Results

The mean age of the pregnant women was 30.02 ± 5.20 . The mean BDI score for the sample was 10.65 ± 7.02 . No statistically significant difference was found between age, educational status, and employment status and BDI score ($p > 0.05$) (Table 1). A statistically significant difference was found between economic status and BDI score ($p = 0.003$) (Table 1). When evaluated with a post hoc Dunn–Bonferroni correction, the BDI scores of the low-economic-status patient group were significantly higher than those of the medium ($p = 0.010$) and high ($p = 0.002$) groups. There was no difference between the medium- and high-status groups ($p = 0.100$).

Table 1. Comparison of BDI depression categories by obstetric characteristics

Socio-demographic	Sample		BDI score	Test statistic	Result
	M $\pm$ SD		M $\pm$ SD	rho	p
Age (years)	30.02 $\pm$ 5.20		10.65 $\pm$ 7.02	-0.085	0.178
Educational level					
Primary school	67	26.70	9.76 $\pm$ 7.82	H: 4.155	0.125
High school	77	30.70	11.55 $\pm$ 7.22		
University	107	42.60	10.56 $\pm$ 6.30		
Employment status					
Employed	68	27.10	10.69 $\pm$ 7.62	Z: -0.464	0.642
Unemployed	183	72.90	10.63 $\pm$ 6.80		
Economic status					
Low	63	25.10	13.06 $\pm$ 7.85	H: 11.364	0.003
Medium	154	61.40	10.16 $\pm$ 6.62		
High	34	13.50	8.41 $\pm$ 6.03		

*rho: Spearman correlation test, *H: Kruskal–Wallis test (post-hoc: Dunn–Bonferroni), n: Number, *Z: Mann–Whitney U test, BDI: Beck Depression Inventory, M: Mean, SD: Standard deviation

Table 2. Comparison of BDI depression categories by social life characteristics

Obstetric characteristics		Sample (n=251)		BDI depressive symptom categories				Test statistic	Result
		n	%	Minimal	Mild	Moderate	Severe	Chi-square	p
Age at marriage	18–24 years	132	52.58	73 %55.3	37 %28.0	17 %12.9	5 %3.8	8.626	0.196
	25–30 years	98	39.04	40 %40.8	39 %39.8	16 %16.3	3 %3.1		
	31 years and up	21	8.38	14 %66.7	6 %28.6	1 %4.8	0 %0.0		
History of abortion	Yes	70	27.89	35 %50.0	26 %37.1	7 %10.0	2 %2.9	1.536	0.674
	No	181	72.10	92 %50.8	56 %30.9	27 %14.9	6 %3.3		
Consanguineous marriage	Yes	27	10.80	14 %51.9	10 %37.0	3 %11.1	0 %0.0	1.283	0.733
	No	224	89.20	113 %50.4	72 %32.1	31 %13.8	8 %3.6		
Number of pregnancies	1	100	39.84	50 %50.0	30 %30.0	18 %18.0	2 %2.0	4.503	0.609
	2	78	31.08	38 %48.7	28 %35.9	8 %10.3	4 %5.1		
	3+	73	29.09	39 %53.4	24 %32.9	8 %11.0	2 %2.7		
Gestational week	1-13	30	11.95	11 %36.7	14 %46.7	5 %16.7	0 %0.0	6.033	0.420
	14-26	76	30.28	40 %52.6	26 %34.2	8 %10.5	2 %2.6		
	27-41	145	57.77	76 %52.4	42 %29.0	21 %14.5	6 %4.1		
Pregnancy planning status	Planned	163	64.90	90 %55.2	50 %30.7	19 %11.7	4 %2.5	4.534	0.209
	Unplanned	88	35.10	37 %42.0	32 %36.4	15 %17.0	4 %4.5		
IVF or insemination procedure status	Yes	7	2.80	1 %14.3	6 %85.7	0 %0.0	0 %0.0	9.283	0.026
	No	244	97.20	126 %51.6	76 %31.1	34 %13.9	8 %3.3		
Regular obstetrician follow-up status	Yes	178	70.90	91 %51.1	59 %33.1	25 %14.0	3 %1.7	4.520	0.211
	No	73	29.10	36 %49.3	23 %31.5	9 %12.3	5 %6.8		
Number of follow-up visits	1	9	3.60	4 %44.4	5 %55.6	0 %0.0	0 %0.0	5.392	0.495
	2-4	47	18.70	22 %46.8	19 %40.4	5 %10.6	1 %2.1		
	5+	195	77.70	101 %51.8	58 %29.7	29 %14.9	7 %3.6		
Childbirth course Attendance status	Yes	31	12.40	15 %48.4	14 %45.2	2 %6.5	0 %0.0	4.165	0.244
	No	220	87.60	112 %50.9	68 %30.9	32 %14.5	8 %3.6		

*Chi-square test , BDI: Beck Depression Inventory , n: Number

Conceiving via IVF or insemination was associated with a statistically significant difference across BDI depression categories ($p < 0.05$) (Table 2).

Table 3. Comparison of BDI depression categories by social life characteristics

Social life characteristics		Sample (n=251)		BDI depressive symptom categories				Test statistic	Result
		n	%	Minimal	Mild	Moderate	Severe	Chi-square	p
Research/reading about pregnancy	Yes	209	83.30	101 48.3	71 %34.0	32 %15.3	5 %2.4	7.272	0.064
	No	42	16.70	26 61.9	11 %26.2	2 %4.8	3 %7.1		
Social life will be restricted	Yes	105	41.80	33 31.4	37 %35.2	29 %27.6	6 %5.7	43.484	<0.001
	No	146	58.20	94 64.4	45 %30.8	5 %3.4	2 %1.4		
Sexual life	Positive	18	7.20	11 61.1	5 %27.8	1 %5.6	1 %5.6	26.612	<0.001
	Not affected	164	65.30	97 59.1	49 %29.9	14 %8.5	4 %2.4		
	Negative	69	27.50	19 27.5	28 %40.6	19 %27.5	3 %4.3		
Relationship with spouse was affected	Positive	154	61.40	85 55.2	51 %33.1	15 %9.7	3 %1.9	14.943	0.021
	Not affected	75	29.90	37 49.3	23 %30.7	12 %16.0	3 %4.0		
	Negative	22	8.80	5 22.7	8 %36.4	7 %31.8	2 %9.1		
Verbal violence exposure	Yes	29	11.60	2 %6.9	11 %37.9	13 %44.8	3 10.3	41.610	<0.001
	No	222	88.40	125 56.3	71 %32.0	21 %9.5	5 %2.3		

Statistically significant associations were identified between BDI depression categories and agreement with the idea that social life would be restricted, changes in sexual life, changes in the relationship with the spouse, and exposure to verbal violence ($p < 0.05$) (Table 3).

Discussion

In this study, depression levels among pregnant women presenting to an emergency obstetrics clinic were examined using the Beck Depression Inventory (BDI), and the findings were evaluated both in terms of mean BDI

scores and BDI depression categories (minimal, mild, moderate, severe). The mean BDI score was 10.65 ± 7.02 , and most pregnant women fell into the mild depression group. Meta-analyses conducted worldwide have reported prevalence estimates for depression during pregnancy ranging from 10% to 30% (Smith et al., 2019). In our study, approximately one-third of pregnant women were in the mild group, while a smaller proportion fell into the moderate-to-severe range. This pattern is lower than that reported in some studies conducted in our country, yet comparable to that reported in others.

Possible reasons for variability in reported prevalence include sample size, the instrument used, timing of assessment during pregnancy, and sociocultural differences. For example, some studies indicate that depression rates rise notably in the third trimester, particularly as childbirth approaches and anxiety increases (Lancaster et al., 2010). Because a large proportion of our sample was at 27 weeks and beyond, relatively higher mean scores may be related to this distribution.

Economic status was significant both for mean scores and categorical distributions. In the low-income group, BDI means were clearly higher, and the proportions of moderate and severe depression were greater. In the literature, economic hardship is frequently described as one of the strongest determinants of depression during pregnancy (Kozhimannil et al., 2011). Women with lower income may experience difficulty accessing health services, may have more limited social support, and may face heightened stress levels. Economic hardship can raise anxiety, which may negatively affect psychological well-being, and our findings are consistent with previous evidence that economic conditions play an important role in mental health. Mean BDI scores also differed significantly by type of marriage, and scores were higher among women who married by mutual consent ("love marriage"); however, depression categories did not differ significantly between groups, which contrasts with some reports in the literature. Lower BDI scores among women in arranged marriages may reflect the potentially protective role of extended family support. Support from elders and relatives may reduce feelings of isolation during pregnancy and, in turn, lower depression risk. Although some studies have reported arranged marriage as a stress-related factor, the direction of this association may vary depending on sociocultural context (Nemati et al., 2021).

Mean BDI scores were also significantly higher among women with unplanned pregnancies, even though categorical distributions were not significantly different. Many studies have reported that there is a greater risk of depression when the pregnancy is unplanned. For instance, Orr et al. (2002) reported a twofold higher risk of depression in cases of unplanned pregnancy. In the present study, mean BDI scores were significantly higher in women with unplanned pregnancies, but the categorical classifications were not significant. In the present study, this pattern was observed in the means but not in the categories. Psychological distress, economic burden, and relationship conflict regarding an unplanned pregnancy can raise the risk of depression. In support of this argument, national and international studies have shown that unplanned pregnancy is a risk factor for depression (Lin et al., 2017).

Significant differences in mean BDI scores and categorical distributions were observed in women who agreed with the

statement "My social life will be restricted". This was one of the strongest correlates of depression. The literature also supports this; negative expectations regarding social life may facilitate the emergence of depression. The expectation of social restriction may heighten feelings of helplessness and, consequently, increase the risk of depression. Concerns about social exclusion and uncertainty about the future may also act as triggers (Fisher et al., 2012). Women who reported that their sexual life was affected had significantly higher mean BDI scores and more severe categorical distributions.

Previous studies have reported that pregnancy may negatively affect sexual life, which can, in turn, result in relationship problems and depressive symptoms (Connolly et al., 2005). In several cultures, sexuality becomes a taboo during pregnancy, which can inhibit discussion and intensify feelings of loneliness. Women who reported deterioration in their relationship with their spouse/partner had higher mean scores and greater categorical severity. The onset or worsening of depressive symptoms has been associated with inadequate partner support, emotional loneliness, and conflict with one's partner. According to Bennett et al. (2004), partner support may help women manage challenges related to antenatal depression and may therefore be protective; these results are consistent with that view. The study also found that those who reported verbal violence had significantly higher mean BDI scores and greater categorical severity. Studies have consistently reported a link between domestic violence and depression during pregnancy (Lukasse et al., 2014). Psychological violence, in particular, is associated with a major increase in risk. According to WHO (2022), verbal violence can deepen depression through reduced self-esteem, heightened stress responses, and social withdrawal, which coincides with these findings.

It couldn't find a significant association between participants' age and mean BDI scores, though BDI category distributions across the age groups differed significantly ($p = 0.007$). Among the youngest cohort (18–24 years), women were more likely to fall into the severe depression category. Several studies have shown that younger age may be a risk factor for depression during pregnancy (Gavin et al., 2005), particularly in early (and especially first) pregnancies, possibly because younger mothers may find it more difficult to adapt to the maternal role and may have limited social support. Others have found no connection between age and depression (Rahman et al., 2003). The restricted age span of our sample likely contributed, at least in part, to the absence of any difference in mean scores. Correspondingly, BDI mean scores and BDI category distributions showed no significant associations with education level either. Although mean BDI scores were not associated with employment status, categorical analysis showed a significant association; women with severe depression were more likely to be unemployed. Some studies have indicated that employed women may be at higher risk of depression when job demands are combined with household responsibilities (Da Costa et al., 2000). In the present study, however, significance was only reached at the category level; unemployment may be related to more severe strata of depression but not necessarily to a shift in mean scores.

Certain studies have found that multiparity can increase the risk of depression due to a higher caregiving workload

(Miranda et al., 1998). However, this pattern was not observed in the present study. There were no significant differences in BDI scores by number of pregnancies or gestational week, and there were no significant associations in the categorical distributions. The absence of differences may be attributed to comparable trimester distribution and relatively similar obstetric characteristics. Nonetheless, some studies have reported higher rates of depression in the third trimester (Field et al., 2010).

Conclusions and Recommendations

Most pregnant women included in the study were in the mild depression group. Depression scores were significantly higher among women with low income, those experiencing an unplanned pregnancy, those who believed their social life would be restricted, those reporting a negative impact on sexual life, those experiencing deterioration in their relationship with their spouse, and those reporting exposure to verbal violence. Depression scores were significantly lower among pregnant women in arranged marriages.

Based on the findings, it is recommended that depression screening be integrated into routine obstetric follow-ups; that pregnant women with low income and inadequate social support receive psychosocial support and social service support; and that group training and couples counseling services aimed at strengthening spousal and family communication be expanded.

Limitations

The data obtained in this study are limited to participants' self-reported responses. The findings are applicable to the study sample. Because the study was conducted at a single center, it is difficult to state with certainty whether the same conclusions would apply to pregnant women in other regions. Since data relied on participants' statements, recall bias and socially desirable responding are possible. In addition, because the study included only pregnant women presenting during particular weeks, it may not

fully capture differences across trimesters. Finally, as a cross-sectional study, it cannot establish cause-and-effect relationships; it presents only the current situation.

Declarations

Ethical Approval and Consent to Participate

This study was conducted after obtaining ethics approval from the Istanbul Okan University Ethics Committee for Research in Science, Social Sciences, and Non-Interventional Health Sciences (Decision No. 185, dated 05.02.2025) and institutional permission from the Istanbul Provincial Directorate of Health, Health Services Presidency, Research-Printed Publication-Announcement Content Evaluation Commission (Decision No. 2025/07, dated 23.05.2025).

Publication Permission

Not applicable.

Availability of Data and Materials

Not applicable.

Conflict of Interest

The authors declare no conflict of interest.

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Author Contributions

ÖA, KDB, and NAD made major contributions to the writing of the Methods and Discussion sections and to drafting the Turkish and English abstracts; they also contributed to the overall writing and review of the manuscript. ÖA and KDB analyzed and interpreted the research data and contributed to the overall writing and review of the manuscript. ÖA, KDB, and NAD made major contributions to writing the Introduction and Discussion sections. ÖA made major contributions to data collection. All authors read and approved the final version of the manuscript.

References

- Arslan, B., Arslan, A., & Kara, S. (2011). Gebelik anksiyetesi ve depresyonunda risk faktörleri: 452 olguda değerlendirme. *Tepecik Eğitim Hastanesi Dergisi*, 21(2), 79–84. <https://doi.org/10.5222/terh.2011.45398>
- Bennett, H. A., Einarson, A., Taddio, A., Koren, G., & Einarson, T. R. (2004). Prevalence of depression during pregnancy: Systematic review. *Obstetrics & Gynecology*, 103(4), 698–709. <https://doi.org/10.1097/01.AOG.0000116689.75396.5f>
- Connolly, A., Thorp, J., & Pahal, L. (2005). Effects of pregnancy and childbirth on postpartum sexual function: A longitudinal prospective study. *International Urogynecology Journal*, 16(4), 263–267. <https://doi.org/10.1007/s00192-005-1293-6>
- Comelius, M. D., Goldschmidt, L., DeGenna, N., & Day, N. L. (2007). Smoking during teenage pregnancies: Effects on behavioral problems in offspring. *Nicotine & Tobacco Research*, 9(7), 739–750. <https://doi.org/10.1080/14622200701416971>
- Caliskan, D., Oncu, B., Kose, K., Ocaktan, M. E., & Ozdemir, O. (2007). Depression scores and associated factors in pregnant and non-pregnant women: A community-based study in Turkey. *Journal of Psychosomatic Obstetrics & Gynecology*, 28(4), 195–200. <https://doi.org/10.1080/01674820701450649>
- Çakır, L., & Can, H. (2012). Gebelikte sosyodemografik değişkenlerin anksiyete ve depresyon düzeyleriyle ilişkisi. *The Journal of Turkish Family Physician*, 3(2), 35–42. <https://doi.org/10.15511/tjtfp.12.00235>
- Dağlar, G., & Nur, N. (2014). Gebelerin stresle başa çıkma tarzlarının anksiyete ve depresyon düzeyi ile ilişkisi. *Cumhuriyet Tıp Dergisi*, 36, 429–441. <https://doi.org/10.7197/cmj.v36i4.5000076793>
- Dagher, R. K., Bruckheim, H. E., Colpe, L. J., Edwards, E., & White, D. B. (2021). Perinatal depression: Challenges and opportunities. *Journal of Women's Health*, 30(2), 154–159. <https://doi.org/10.1089/jwh.2020.8862>
- Da Costa, D., Larouche, J., Dritsa, M., & Brender, W. (2000). Psychosocial correlates of prepartum and postpartum depressed mood. *Journal of Affective Disorders*, 59(1), 31–40. [https://doi.org/10.1016/S0165-0327\(99\)00128-7](https://doi.org/10.1016/S0165-0327(99)00128-7)
- Field, T., Diego, M., & Hernandez-Reif, M. (2010). Prenatal depression effects and interventions: A review. *Infant Behavior and Development*, 33(4), 409–418. <https://doi.org/10.1016/j.infbeh.2010.04.005>

- Fisher, J., Cabral de Mello, M., Patel, V., Rahman, A., Tran, T., Holton, S., & Holmes, W. (2012). Prevalence and determinants of common perinatal mental disorders in women in low- and lower-middle-income countries: A systematic review. *Bulletin of the World Health Organization*, 90(2), 139–149. <https://doi.org/10.2471/BLT.11.091850>
- Gavin, N. I., Gaynes, B. N., Lohr, K. N., Meltzer-Brody, S., Gartlehner, G., & Swinson, T. (2005). Perinatal depression: A systematic review of prevalence and incidence. *Obstetrics & Gynecology*, 106(5), 1071–1083. <https://doi.org/10.1097/01.AOG.0000183597.31630.db>
- Hisli, N. (1989). Beck Depresyon Envanteri'nin geçerliliği üzerine bir çalışma [Internet]. *Psikoloji Dergisi*, 6(22), 118–126.
- Kaya Zaman, F., Özkan, N., & Toprak, D. (2018). Gebelikte depresyon ve anksiyete artar mı? *Konuralp Medical Journal*, 10(1), 20–25. <https://doi.org/10.18521/ktd.311793>
- Kozhimannil, K. B., Trinacty, C. M., Busch, A. B., Huskamp, H. A., & Adams, A. S. (2011). Racial and ethnic disparities in postpartum depression care among low-income women. *Psychiatric Services*, 62(6), 619–625. https://doi.org/10.1176/ps.62.6.pss6206_0619
- Lancaster, C. A., Gold, K. J., Flynn, H. A., Yoo, H., Marcus, S. M., & Davis, M. M. (2010). Risk factors for depressive symptoms during pregnancy: A systematic review. *American Journal of Obstetrics and Gynecology*, 202(1), 5–14. <https://doi.org/10.1016/j.jog.2009.09.007>
- Liu, C. H., Giallo, R., Doan, S. N., Seidman, L. J., & Tronick, E. (2017). Racial and ethnic differences in prenatal life stress and postpartum depression symptoms. *Archives of Women's Mental Health*, 20(1), 89–98. <https://doi.org/10.1016/j.apnu.2015.11.002>
- Lukasse, M., Schroll, A. M., Ryding, E. L., Campbell, J., Karro, H., Kristjansdottir, H., ... Steingrimsdottir, T. (2014). Prevalence of emotional, physical, and sexual abuse among pregnant women in six European countries. *Acta Obstetrica et Gynecologica Scandinavica*, 93(7), 669–677. <https://doi.org/10.1111/aogs.12392>
- Marcus, S. M., Flynn, H. A., Blow, F. C., & Barry, K. L. (2003). Depressive symptoms among pregnant women screened in obstetrics settings. *Journal of Women's Health*, 12(4), 373–380. <https://doi.org/10.1089/154099903765448880>
- Miranda, J., Chung, J. Y., Green, B. L., Krupnick, J., Siddique, J., Revicki, D. A., & Belin, T. (1998). Treating depression in predominantly low-income young minority women: A randomized controlled trial. *JAMA*, 280(6), 547–553. <https://doi.org/10.1001/jama.280.6.547>
- Nemati, M., Behmanesh, F., Kheirkhah, F., Geraili, Z., & Pasha, H. (2022). Marital commitment and mental health in different patterns of mate selection: A comparison of modern, mixed, and traditional patterns. *Iranian Journal of Psychiatry*, 17(4), 418–427. <https://doi.org/10.18502/ijps.v17i4.10691>
- Orr, S. T., James, S. A., & Blackmore Prince, C. (2002). Maternal prenatal depressive symptoms and spontaneous preterm births among African-American women in Baltimore, Maryland. *American Journal of Epidemiology*, 156(9), 797–802. <https://doi.org/10.1093/aje/kwf131>
- Orr, S. T., Blazer, D. G., James, S. A., & Reiter, J. P. (2007). Depressive symptoms and indicators of maternal health status during pregnancy. *Journal of Women's Health*, 16(4), 535–542. <https://doi.org/10.1089/jwh.2006.0116>
- Payne, J. L., & Maguire, J. (2019). Pathophysiological mechanisms implicated in postpartum depression. *Frontiers in Neuroendocrinology*, 52, 165–180. <https://doi.org/10.1016/j.yfrne.2018.12.001>
- Rahman, A., Iqbal, Z., & Harrington, R. (2003). Life events, social support, and depression in childbirth: Perspectives from a rural community in the developing world. *Psychological Medicine*, 33(7), 1161–1167. <https://doi.org/10.1017/S0033291703008286>
- Raosoft Inc. (n.d.). *Sample size calculator*. Retrieved April 29, 2025, from <http://www.raosoft.com/samplesize.html> (Erişim tarihi: 20.01.2025)
- Smith, M. V., Shao, L., Howell, H., Lin, H., & Yonkers, K. A. (2019). Perinatal depression and birth outcomes in a Healthy Start project. *Maternal and Child Health Journal*, 23(3), 408–414. <https://doi.org/10.1007/s10995-010-0595-6>
- Tadesse, A. A., Azale, T., & Alemu, K. (2016). Prevalence and associated factors of antenatal depression among women attending antenatal care service at Gondar University Hospital, Ethiopia. *PLOS ONE*, 11(5), e0155125. <https://doi.org/10.1371/journal.pone.0155125>
- Tekgöz, İ., Sunay, D., & Çaylan, A. (2009). Gebeliğin son üç ayında anksiyete bozukluğu ve ilişkili faktörlerin değerlendirilmesi. *Türk Aile Hekimliği Dergisi*, 13(3), 132–136. <https://doi.org/10.2399/tahd.09.132>
- World Health Organization. (2022). *Violence against women prevalence estimates, 2018*. Retrieved May 15, 2025, from <https://www.who.int/publications/i/item/9789240022256>