

Motherhood shaped by the pandemic: Do pandemic-related anxiety and obsession play a role in postpartum parenting behavior?

¹Çiğdem GÜN KAKAŞÇI
²Dilek COŞKUNER POTUR
³Beyzanur İŞBAY AYDEMİR
⁴Yeliz DOĞAN MERİH

¹Department of Midwifery, Süleyman Demirel University, Faculty of Health Sciences, Isparta, Turkey

²Department of Nursing, Marmara University, Faculty of Health Sciences, Istanbul, Turkey

³Department of Nursing, Istanbul Aydın University, Faculty of Health Sciences, Turkey

⁴Department of Nursing, Health Sciences University, Hamidiye Faculty of Nursing, Istanbul, Turkey

ORCID ID

ÇGK : 0000-0003-1951-563X
DCP : 0000-0002-2186-4663
BİA : 0000-0002-4361-6409
YDM : 0000-0002-6112-0642



ABSTRACT

Objective: This study aimed to examine the impact of COVID-19 pandemic-related anxiety and obsessive thoughts on parenting behaviors during the postpartum period.

Material and Methods: A descriptive, cross-sectional design was employed, including 300 postpartum women, to evaluate the impact of COVID-19 pandemic anxiety and obsession on parenting behaviors. Data were collected between June and December 2020 at a tertiary hospital in the Marmara region of Türkiye. Instruments included a sociodemographic information form, the COVID-19 Anxiety Scale (CAS), the Obsession with COVID-19 Scale (OCS), and the Postpartum Parenting Behavior Scale (PPBS).

Results: Participants' mean age was 29.3±5.8 years, with an average marriage duration of 6.9±5.3 years. Over half (58%) reported that giving birth during the COVID-19 pandemic had a negative psychological impact. Statistical analyses revealed a significant interaction effect between CAS and OCS on PPBS scores ($p=0.015$).

Conclusion: The findings suggest that postpartum parenting behaviors are shaped by the complex interaction between COVID-19-related anxiety and obsessive thoughts. These psychological constructs should be understood not as isolated factors but as interrelated processes that collectively influence maternal behavioral outcomes during the postpartum period. To better understand these dynamics, future studies employing longitudinal and intervention-based designs are recommended to reveal causal pathways and underlying mechanisms. In addition, even in the post-pandemic context, the development and implementation of targeted mental health interventions for postpartum women remain essential public health priorities.

Keywords: Anxiety, COVID-19, obsession, pandemic, parenting behavior.

Cite this article as: Gün Kakaşçı Ç, Coşkuner Potur D, İşbay Aydemir B, Doğan Merih Y. Motherhood shaped by the pandemic: Do pandemic-related anxiety and obsession play a role in postpartum parenting behavior? Zeynep Kamil Med J 2025;56(4):184–189.

Received: June 28, 2025 **Revised:** July 17, 2025 **Accepted:** July 23, 2025 **Online:** October 17, 2025

Correspondence: Çiğdem GÜN KAKAŞÇI, MD. Süleyman Demirel Üniversitesi, Sağlık Bilimleri Fakültesi, Ebelik Bölümü, Isparta, Türkiye.

Tel: +90 530 077 16 84 **e-mail:** cigdemkakasci@sdu.edu.tr

Zeynep Kamil Medical Journal published by Kare Publishing. Zeynep Kamil Tıp Dergisi, Kare Yayıncılık tarafından basılmıştır.

OPEN ACCESS This is an open access article under the CC BY-NC license (<http://creativecommons.org/licenses/by-nc/4.0/>).



INTRODUCTION

The COVID-19 pandemic has exerted widespread biopsychosocial, spiritual, and economic effects on individuals and communities.^[1–3] While the pandemic has affected all age groups, its psychological burden has disproportionately impacted vulnerable populations, including women in the perinatal period. A growing body of evidence documents significant increases in anxiety, depression, and stress across diverse demographic groups during the pandemic. Evidence suggests that women appear more susceptible than men to psychological distress during this period.^[4] Recent studies further demonstrate that the pandemic and related public health restrictions have heightened the risk of mental health problems, particularly among vulnerable groups such as postpartum women.^[5,6] The postpartum period is a uniquely sensitive phase characterized by profound psychological, emotional, and physiological changes, as well as increased caregiving responsibilities.^[7] These challenges can increase maternal vulnerability to a range of psychopathological symptoms, indicating the need for targeted mental health support and early interventions during this critical window. In addition, psychological symptoms in mothers may be exacerbated during acute stressors such as the COVID-19 pandemic.^[8] Emerging evidence indicates that maternal mental health difficulties during crises not only impact maternal well-being but may also adversely affect cognitive, emotional, and behavioral development.^[9,10] Parenting challenges exist even under optimal conditions; the added stressors of the pandemic have intensified maternal fears and concerns related to safety and security.^[11] Previous research links maternal mental health conditions—such as anxiety, stress, and depression—with adverse perinatal outcomes, including preterm birth, low birth weight, impaired maternal perception of parenting, and difficulties in mother–infant attachment.^[9,10] In this context, exploring the relationship between pandemic-specific stressors and postpartum parenting behaviors, particularly in relation to anxiety and obsessive thoughts, is essential. Accordingly, this study was designed to examine the impact of COVID-19-related anxiety and obsessive thoughts on parenting behaviors during the postpartum period.

Research Question

To what extent do COVID-19-related anxiety and obsessive thoughts influence parenting behaviors among postpartum women?

MATERIAL AND METHODS

Study Design

This study employed a descriptive, cross-sectional design to examine the impact of COVID-19-related anxiety and obsessive thoughts on postpartum parenting behaviors.

Population and Sample

This study was conducted between June and December 2020 with postpartum women attending the obstetrics outpatient clinics of a tertiary hospital in the Marmara region of Türkiye. The sample consisted of volunteers who met the following inclusion criteria: aged 18 years or older, in the postpartum period, having delivered

a healthy singleton infant (i.e., no multiple pregnancy), self-reported good physical and mental health, literate in Turkish, and capable of completing the data collection forms independently. Only participants who completed all sections of the questionnaire were included in the final analysis. The required sample size was calculated based on a 90% confidence level and a 5% margin of error, resulting in a minimum target of 231 participants.^[12] A total of 300 postpartum women who fully completed the data collection forms and met the inclusion criteria were included in the final analysis. Data were collected through face-to-face interviews conducted by trained researchers. Participants who did not meet the inclusion criteria were excluded from the study.

Data Collection Instruments

A sociodemographic information form was developed by the researchers based on a review of relevant literature.^[13–18] This form collected participants' background characteristics, including age, educational level, self-reported mental health status, and experiences related to the COVID-19 pandemic. The COVID-19 Anxiety Scale (CAS), originally developed by Lee et al.^[19] to assess anxiety symptoms related to the COVID-19 pandemic, was used to measure participants' pandemic-specific anxiety levels. The CAS distinguishes between those experiencing dysfunctional anxiety and those experiencing no anxiety using an optimized cutoff score of 9 with 90% sensitivity and 85% specificity.^[19] The Turkish adaptation and validation of the scale were conducted by Evren et al.,^[20] confirming its cultural and linguistic appropriateness for use in the Turkish population. The internal consistency of the scale in the Turkish adaptation study was reported with a Cronbach's alpha coefficient of 0.80. In the present study, the CAS demonstrated good reliability, with a Cronbach's alpha of 0.83. Participants were asked to indicate how often they experienced the symptoms described in the scale items over the preceding two weeks. Each item is scored from 0 to 4, with total scores ranging from 0 to 20. Higher scores indicate greater severity of COVID-19-related anxiety.^[20]

The Obsession with COVID-19 Scale (OCS) was developed by Lee^[19] as a brief self-report instrument designed to identify individuals experiencing functional impairment due to persistent and intrusive COVID-19-related thoughts. This scale serves as a mental health screening instrument to assess obsessive thinking patterns specifically associated with the pandemic.^[21] The Turkish adaptation study by Evren et al.^[20] reported acceptable internal consistency with a Cronbach's alpha of 0.71. In the present study, the OCS demonstrated good reliability, with a Cronbach's alpha of 0.79. The scale consists of four items rated on a five-point Likert scale, with participants indicating the frequency of obsessive COVID-19-related thoughts over the preceding two weeks. Total scores range from 0 to 16. A total score of 7 or higher on any single item suggests the need for further clinical evaluation.^[19]

The Postpartum Parenting Behavior Scale (PPBS) was developed by Britton et al.^[22] to assess parental behaviors during the initial interaction with the infant immediately following birth. The Turkish adaptation was conducted by Çalışır et al.,^[23] who reported reliability coefficients ranging from 0.80 to 0.83, indicating good internal consistency. The scale is applied by observing the mother's

Table 1: Descriptive characteristics of the participants

	n	%		n	%
Age (Mean±SD)	29.3±5.8 (Min: 18–Max: 44)		General mood		
Duration of marriage (Mean±SD)	6.9±5.3 (Min: 1–Max: 22)		Poor	6	2.0
Number of pregnancies (Mean±SD)	2.5±1.4 (Min: 1–Max: 7)		Neutral	70	23.3
Educational status			Good	177	59.0
High school education or lower	235	78.3	Very good	47	15.7
University graduate	65	21.7	History of prior COVID-19 diagnosis		
Employment status			Yes	11	3.7
Unemployed	228	76.0	No	289	96.3
Employed	72	24.0	Family history of COVID-19 diagnosis		
Occupation			Yes	60	20.0
Worker	24	33.3	No	240	80.0
Government officer	39	54.2	COVID-19–related death in the family		
Self-employed	9	12.5	Yes	17	5.7
Family type			No	283	94.3
Nuclear family	225	75.0	Frequency of following news related to the COVID-19 pandemic		
Extended family	75	25.0	Never	15	5.0
Smoking behavior			Occasionally	148	49.3
Smoker	27	9.0	Often	137	45.7
Non-smoker	273	91.0	Did giving birth during the COVID-19 pandemic have a negative impact on you?		
Parity			Yes	174	58.0
Primigravida	91	30.3	No	126	42.0
Multigravida	209	69.7	Change in delivery method choice influenced by the COVID-19 pandemic		
			Yes	24	8.0
			No	276	92.0

SD: Standard deviation; Min: Minimum; Max: Maximum; COVID-19: Coronavirus disease 2019.

behavior toward her infant during the first 10 minutes after birth. Each behavior is recorded as present (+) or absent (-). Observed behaviors receive a score of 1, while unobserved behaviors receive 0. The total scale score ranges from 0 to 6 points, with higher scores indicating more positive parenting behaviors. In this study, the PPBS demonstrated good internal consistency, with a Cronbach's alpha coefficient of 0.80.

Ethical Considerations

Ethical approval for the study was obtained from the Clinical Research Ethics Committee (Decision No: 127, dated 24 June 2020). Written informed consent was obtained from all participants after they were provided with comprehensive information about the study, including their right to withdraw at any time without any penalty. Permissions for the use of all measurement scales were obtained prior to data collection. The study was conducted in accordance with the Declaration of Helsinki.

Statistical Analysis

Statistical analyses were performed using IBM SPSS Statistics for Windows, Version 16.0 (IBM Corp., Armonk, NY, USA). Descriptive statistics, including means, standard deviations, and percentages, were used to summarize participant characteristics and scale scores. Factorial ANOVA was conducted to examine the main and interaction effects of COVID-19-related anxiety and obsession on postpartum parenting behaviors. A p-value of <0.05 was considered statistically significant.

RESULTS

Table 1 presents the descriptive characteristics of the study participants. The mean age was 29.3±5.8 years (Min: 18–Max: 44), and the average duration of marriage was 6.9±5.3 years (Min: 1–Max: 22). Among the participants, 78.3% had a high school education

Table 2: Analysis of the interaction between CAS, OCS and PPBS

Reference	F	p	η²
CAS	1.02	0.314	0.003
OCS	3.22	0.074	0.010
OCS*CAS	5.94	0.015*	0.020
Error	807.58		
Total	7133.00		

*: P<0.05; CAS: COVID-19 Anxiety Scale; OCS: Obsession with COVID-19 Scale; PPBS: Postpartum parenting behavior scale.

or lower, 76.0% were homemakers, and 75.0% lived in a nuclear family structure. In addition, 91.0% reported being non-smokers, and 59.0% described their general mood as good. Regarding obstetric characteristics, the mean number of pregnancies was 2.5±1.4 (Min: 1–Max: 7), with 69.7% being multiparous. Furthermore, 58.0% reported that giving birth during the COVID-19 pandemic negatively affected them, and 8.0% stated that they had changed their decision about the mode of delivery due to the pandemic.

Table 2 presents the factorial ANOVA results examining the interaction between CAS, OCS, and PPBS. The analysis showed that neither CAS nor OCS individually had a statistically significant effect on postpartum parenting behavior (p=0.314 and p=0.074, respectively). The partial eta squared value (η²=0.020) indicated a small effect size based on Cohen’s (1988) criteria. However, a statistically significant interaction effect between CAS and OCS on PPBS was observed (p=0.015).

DISCUSSION

This study aimed to examine whether COVID-19-related anxiety and obsession influence parenting behavior during the postpartum period. The findings revealed a statistically significant interaction effect between the CAS and the OCS on postpartum parenting behavior, as measured by the PPBS (p=0.015). Although individual effects of CAS and OCS on PPBS were not statistically significant (p=0.314 and p=0.074, respectively), the significant interaction (p=0.015) suggests a more complex, independent relationship between these psychological factors. Specifically, the effect of one variable on parenting behavior appears to depend on the level of the other, indicating a non-linear interaction between COVID-19-related anxiety and obsessive thoughts. The significant interaction (p=0.015) supports the conclusion that certain combinations of anxiety and obsession levels differentially impact postpartum parenting behavior, rather than these factors acting independently (p=0.314 and p=0.074, respectively). This is consistent with the literature suggesting that maternal perfectionism can contribute to increased anxiety and stress, potentially triggering anxiety-related symptoms.^[24] The findings of the present study also support this result, indicating that elevated anxiety and obsessive thought patterns—potentially shaped by internalized expectations of perfect parenting—are associated with variations in postpartum parenting behavior.

The postpartum period is marked by physical recovery, the assumption of new parenting responsibilities, and adjustment to profound life changes. This transitional phase places considerable demands on a woman’s psychological health and can contribute to the emergence of anxiety symptoms.^[25] Indeed, anxiety is recognized as one of the most common psychological challenges in the postpartum period, with reported prevalence rates ranging from 13% to 40%.^[26] Postpartum anxiety has been linked to difficulties in maternal adaptation, sleep disturbances, breastfeeding challenges, and adverse maternal-infant outcomes such as depression, all of which may compromise maternal and infant health.^[26,27] Furthermore, the COVID-19 pandemic has introduced an additional layer of stress, potentially disrupting the mother-infant attachment process.^[28] It is well documented that fear of the unknown elevates anxiety levels in individuals regardless of their prior mental health history.^[29] During the pandemic, increased psychological distress—particularly anxiety and obsessive-compulsive symptoms—has been observed among pregnant and postpartum women.^[30–34]

The most common obsessive-compulsive symptoms observed during the postpartum period typically involve safety-related concerns, such as fears of harming the infant, excessive online information-seeking, and compulsive cleaning behaviors.^[35] Although pandemic-related fears and hygiene behaviors differ from clinically diagnosed germ-related obsessions, the physiological and psychological changes associated with pregnancy may increase women’s vulnerability to such symptoms. The fear of contagion, combined with heightened hygiene vigilance, may develop into obsessive thoughts and compulsive behaviors. These manifestations have been associated with adverse outcomes, including reduced breastfeeding rates and diminished maternal enjoyment of parenting.^[36] Maternal fears of inadvertently harming the infant may lead to emotional distancing, which can negatively impact both breastfeeding motivation and success.^[36,37] Previous studies have shown that breastfeeding rates are lower among mothers diagnosed with obsessive-compulsive disorder.^[37] Hormones such as oxytocin and prolactin, which are released during breastfeeding, play a vital role in fostering mother-infant attachment and promoting positive parenting behaviors.^[38] However, obsession related to COVID-19—particularly those involving fears of infection or harm—may disrupt these attachment processes and influence the mother’s engagement with her infant.^[37,39–42] Specifically, intrusive thoughts related to contamination or infant safety may cause mothers to avoid physical contact, engage in excessive cleaning, or demonstrate reduced sensitivity in their caregiving behaviors. Given the interconnected nature of obsession and anxiety, these symptoms may also extend beyond parenting to impact other aspects of maternal functioning, including sexual behavior.^[37]

The findings of the present study are consistent with the broader literature, highlighting the importance of recognizing and addressing these psychological dimensions in postpartum care.

Limitations

The single-center design of this study represents a limitation, as the sample may not be fully representative of the broader postpartum maternal population. Consequently, the generalizability of the findings may be restricted.

CONCLUSION

This study examined the interactive effects of COVID-19-related anxiety and obsessive thoughts—measured using the COVID-19 Anxiety Scale (CAS) and the Obsession with COVID-19 Scale (OCS), respectively—on postpartum parenting behaviors, assessed using the Postpartum Parenting Behavior Scale (PPBS). The findings revealed that while CAS and OCS scores individually did not significantly affect parenting behaviors, their interaction produced a statistically significant effect. This suggests that specific combinations of anxiety and obsession levels may jointly impact maternal behaviors during the postpartum period. Although the observed effect size was small, the statistical significance of the interaction underscores the importance of considering these psychological constructs as interrelated, rather than isolated, impacts on maternal behavior. These findings point to the need for a more nuanced understanding of postpartum mental health, particularly in contexts of heightened stress such as the COVID-19 pandemic.

Future research should expand on these results by incorporating additional psychological variables—such as fear of infection, adaptability to life changes, and sociodemographic factors—to explore more complex interaction models. Longitudinal and intervention-based studies are especially recommended to establish causality and identify effective prevention and support strategies. The statistically significant interaction found in the study ($p=0.015$) indicated that postpartum parenting behaviors in the context of the COVID-19 pandemic are shaped by a complex combination of anxiety and obsession. While the study findings point to the complex role of anxiety and obsessive thoughts on postpartum parenting behaviors, the reported effect size of $\eta^2=0.020$ suggests that the significance of this effect may be limited.

These findings suggest that future researchers should consider and include in the model other variables that may influence parenting behaviors, in addition to anxiety and obsession, such as cultural factors, environmental stressors, birth experience, self-efficacy, spousal support, and coping strategies. In addition, even in the post-pandemic context, the development and implementation of targeted mental health interventions for postpartum women should remain a public health priority to support maternal well-being and foster healthy parenting behaviors.

Statement

Ethics Committee Approval: The by Zeynep Kamil Women and Children Diseases Training and Research Hospital Clinical Research Ethics Committee granted approval for this study (date: 24.06.2020, number: 127).

Informed Consent: Written informed consent was obtained from all participants after they were provided with comprehensive information about the study, including their right to withdraw at any time without any penalty.

Conflict of Interest: The authors have no conflict of interest to declare.

Financial Disclosure: The authors declared that this study has received no financial support.

Use of AI for Writing Assistance: Not declared.

Author Contributions: Concept – ÇGK; Design – ÇGK; Supervision – ÇGK, DCP, BİA, YDM; Resources – ÇGK, DCP, BİA, YDM; Materials – ÇGK, DCP, BİA, YDM; Data Collection and/or Processing – ÇGK, DCP, BİA, YDM; Analysis and/or Interpretation – ÇGK, DCP, BİA, YDM; Literature Search – ÇGK, DCP, BİA, YDM; Writing – ÇGK, DCP, BİA, YDM; Critical Reviews – ÇGK, DCP.

Peer-review: Externally peer-reviewed.

REFERENCES

1. Tanhan A, Arslan G, Yavuz F, Young JS, Çiçek İ, Akkurt MN, et al. A constructive understanding of mental health facilitators and barriers through Online Photovoice (OPV) during COVID-19. *ESAM Ekon Sos Arastirm Derg* 2021;2:214–49.
2. Tanhan A, Strack RW. Online photovoice to explore and advocate for Muslim biopsychosocial spiritual wellbeing and issues: Ecological systems theory and ally development. *Curr Psychol* 2020;39:2010–25.
3. Tanhan A. COVID-19 sürecinde Online Seslifoto (OSF) yöntemiyle biyopsikososyal manevi ve ekonomik meseleleri ve genel iyi oluş düzeyini ele almak: OSF'nin Türkçeye uyarlanması. *Electron Turk Stud* 2020;15:1029–86. [Article in Turkish]
4. Liu N, Zhang F, Wei C, Jia Y, Shang Z, Sun L, et al. Prevalence and predictors of PTSS during COVID-19 outbreak in China hardest-hit areas: Gender differences matter. *Psychiatry Res* 2020;287:112921.
5. Baran J, Leszczak J, Baran R, Biesiadecka A, Weres A, Czenczek-Lewandowska E, et al. Prenatal and postnatal anxiety and depression in mothers during the COVID-19 Pandemic. *J Clin Med* 2021;10:3193.
6. Liu CH, Erdei C, Mittal L. Risk factors for depression, anxiety, and PTSD symptoms in perinatal women during the COVID-19 pandemic. *Psychiatry Res* 2021;295:113552.
7. Keepanasseril A, Singh S, Bharadwaj B. Postpartum mental health status & role transition to mother in Primigravid women: A cross-sectional study. *J Reprod Infant Psychol* 2023;41:43–52.
8. Harville E, Xiong X, Buekens P. Disasters and perinatal health: A systematic review. *Obstet Gynecol Surv* 2010;65:713–28.
9. Kimmel MC, Bauer A, Meltzer-Brody S. Toward a framework for best practices and research guidelines for perinatal depression research. *J Neurosci Res* 2020;98:1255–67.
10. Abu Sabbah EA, Eqylan SB, Al-Maharma DY, Thekrallah F, Safadi RR. Fears and uncertainties of expectant mothers during the COVID-19 pandemic: Trying to reclaim control. *Int J Qual Stud Health* 2022;17:2018773.
11. United Nations Population Fund. Motherhood during coronavirus. Available at: <https://www.friendsofunfpa.org/motherhood-during-coronavirus/>. Accessed Aug 4, 2025.
12. Cameron EE, Joyce KM, Delaquis CP, Reynolds K, Protudjer JLP, Roos LE. Maternal psychological distress & mental health service use during the COVID-19 pandemic. *J Affect Disord* 2020;276:765–74.
13. Wang Y, Chen L, Wu T, Shi H, Li Q, Jiang H, et al. Impact of Covid-19 in pregnancy on mother's psychological status and infant's neurobehavioral development: A longitudinal cohort study in China. *BMC Med* 2020;18:347.
14. Farewell CV, Jewell J, Walls J, Leiferman JA. A mixed-methods pilot study of perinatal risk and resilience during COVID-19. *J Prim Care Community Health* 2020;11:2150132720944074.
15. Stamu-O'Brien C, Carniciu S, Halvorsen E, Jafferany M. Psychological aspects of COVID-19. *J Cosmet Dermatol* 2020;19:2169–73.
16. Ahlers-Schmidt CR, Hervey AM, Neil T, Kuhlmann S, Kuhlmann Z. Concerns of women regarding pregnancy and childbirth during the COVID-19 pandemic. *Patient Educ Couns* 2020;103:2578–82.
17. Yassa M, Birol P, Yirmibes C, Usta C, Haydar A, Yassa A, et al. Near-term pregnant women's attitude toward, concern about and knowledge of the COVID-19 pandemic. *J Matern Fetal Neonatal Med* 2020;33:3827–34.
18. Stepowicz A, Wencka B, Biełkiewicz J, Horzelski W, Grzesiak M. Stress and anxiety levels in pregnant and post-partum women during the COVID-19 pandemic. *Int J Environ Res Public Health* 2020;17:9450.

19. Lee SA. Coronavirus Anxiety Scale: A brief mental health screener for COVID-19 related anxiety. *Death Stud* 2020;44:393–401.
20. Evren C, Evren B, Dalbudak E, Topcu M, Kutlu N. Measuring anxiety related to COVID-19: A Turkish validation study of the Coronavirus Anxiety Scale. *Death Stud* 2022;46:1052–8.
21. Lee SA. How much “thinking” about COVID-19 is clinically dysfunctional? *Brain Behav Immun* 2020;87:97.
22. Britton HL, Gronwaldt V, Britton JR. Maternal postpartum behaviors and mother-infant relationship during the first year of life. *J Pediatr* 2001;138:905–9.
23. Çalışır H, Karaçam Z, Akgül F, Kurnaz D. Doğum sonrası ebeveynlik davranışı ölçeği'nin Türkçe formunun geçerliği ve güvenirliği. *J Anatolia Nurs Health Sci* 2009;12:1–8. [Article in Turkish]
24. Wardrop AA, Popadiuk NE. Women's experiences with postpartum anxiety: Expectations, relationships, and sociocultural influences. *Qual Rep* 2013;18:6.
25. Zappas MP, Becker K, Walton-Moss B. Postpartum anxiety. *J Nurse Pract* 2021;17:60–4.
26. Field T. Postnatal anxiety prevalence, predictors and effects on development: A narrative review. *Infant Behav Dev* 2018;51:24–32.
27. Bingöl FB, Bal MD. Doğum sonrası maternal anksiyete ve bağlanmayı etkileyen faktörler. *Sürekli Tıp Eğitim Derg* 2021;30:60–8. [Article in Turkish]
28. Alvanou M, Orovou E, Dagla M, Iliadou M, Antoniou E. The impact of COVID-19 pandemic on mother-infant bond: a systematic review. *J Biosci Med* 2024;12:109–22.
29. North CS, Pfefferbaum B, Vythilingam M, Martin GJ, Schorr JK, Boudreaux AS, et al. Exposure to bioterrorism and mental health response among staff on Capitol Hill. *Biosecur Bioterror* 2009;7:379–88.
30. Brooks SK, Webster RK, Smith LE, Woodland L, Wessely S, Greenberg N, et al. The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *Lancet* 2020;395:912–20.
31. Hossain MM, Sultana A, Purohit N. Mental health outcomes of quarantine and isolation for infection prevention: A systematic umbrella review of the global evidence. *Epidemiol Health* 2020;42:e2020038.
32. Yassa M, Yassa A, Yirmibeş C, Birol P, Ünlü UG, Tekin AB, et al. Anxiety levels and obsessive compulsion symptoms of pregnant women during the COVID-19 pandemic. *Türk J Obstet Gynecol* 2020;17:155–60.
33. Saccone G, Florio A, Aiello F, Venturella R, De Angelis MC, Locci M, et al. Psychological impact of coronavirus disease 2019 in pregnant women. *Am J Obstet Gynecol* 2020;223:293–5.
34. Wu Y, Zhang C, Liu H, Duan C, Li C, Fan J, et al. Perinatal depressive and anxiety symptoms of pregnant women during the coronavirus disease 2019 outbreak in China. *Am J Obstet Gynecol* 2020;223:240.e1–e9.
35. Garcia K, Mancuso A, Le HN. Mothers' experiences of perinatal obsessive-compulsive disorder. *J Reprod Infant Psychol* 2023;41:445–55.
36. Kurt A, Söyler HÇ. Covid-19 döneminde doğum yapan kadınlarda maternal bağlanma, obsesif kompulsif bozukluk ve perinatal anksiyete ilişkisi. *Sosyal Beseri İdari Bilim Derg* 2022;5:225–35. [Article in Turkish]
37. Challacombe FL, Salkovskis PM, Woolgar M, Wilkinson EL, Read J, Acheson R. Parenting and mother-infant interactions in the context of maternal postpartum obsessive-compulsive disorder: Effects of obsessional symptoms and mood. *Infant Behav Dev* 2016;44:11–20.
38. Strathearn L, Mayes LC. Cocaine addiction in mothers: potential effects on maternal care and infant development. *Ann N Y Acad Sci* 2010;1187:172–83.
39. Fernandes DV, Canavarro MC, Moreira H. Postpartum during COVID-19 pandemic: Portuguese mothers' mental health, mindful parenting, and mother-infant bonding. *J Clin Psychol* 2021;77:1997–2010.
40. Dib S, Rougeaux E, Vázquez-Vázquez A, Wells JCK, Fewtrell M. Maternal mental health and coping during the COVID-19 lockdown in the UK: Data from the COVID-19 New Mum Study. *Int J Gynaecol Obstet* 2020;151:407–14.
41. Goldstein E, Brown RL, Lennon RP, Zgierska AE. Latent class analysis of health, social, and behavioral profiles associated with psychological distress among pregnant and postpartum women during the COVID-19 pandemic in the United States. *Birth* 2023;50:407–17.
42. Diamond RM, Brown KS, Miranda J. Impact of COVID-19 on the perinatal period through a biopsychosocial systemic framework. *Contemp Fam Ther* 2020;42:205–16.