



Prevalence, Symptoms, and Factors Associated with Postpartum Depression during the COVID-19 Pandemic; A Systematic Review

Dr. Tabareeh Seif aldin*

***Correspondence to:** Dr. Tabareeh Seif aldin.

Copyright

© 2024 **Dr. Tabareeh Seif aldin**. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Received: 7 November 2024

Published: 26 November 2024

DOI: <https://doi.org/10.5281/zenodo.14222120>

Background

Postpartum depression includes various depressive symptoms that affect mothers during the first year after delivery. The COVID-19 pandemic resulted in negative psychological impacts on all individuals, including women. There are several risk factors for postpartum depression, including the previous history of depression and lack of social support. The pandemic resulted in social distance and increased the of risk factors for depression.

Objectives

To determine the Prevalence, symptoms, and factors associated with postpartum depression during the COVID-19 pandemic; A systematic review.

Methodology

The medical literature was explored PubMed and Google scholar databases starting from 2020 till 2021. The included searching terms were a combination of "Postpartum and COVID-19, depression and COVID-19, PPD prevalence and COVID-19, PPD associated factors and COVID-19." The inclusion criteria were full-text, original articles that reported the prevalence and associated factors with postpartum depression during the COVID-19 pandemic.

Results

- The prevalence of postpartum depression ranged between 11.9% to 60.7%
- There were several risk factors and predictors for postpartum depression reported, and they included age, history of abortion perceived stress , older age, single status, unemployed, losing jobs due to pandemic, dissatisfaction with the household income , staying in COVID-19 suspect zone and COVID- 19 suspect status, concerns about the lack of hospital beds, absence of a partner, anxiety symptoms, educational level, visiting the doctor during quarantine, .Regarding COVID-19 impact, the studies reported similar impacts of COVID-19; one study reported there was a significant difference in the prevalence of depression between women with positive and those with negative COVID-19 test.
- Another study concluded that COVID-19 resulted in a high level of postpartum depression , the risk of nonpsychotic postpartum mood including postpartum depression was increased during the pandemic , the COVID-19 pandemic increased the prevalence of postpartum depression ,

• Another study also reported that the prevalence of postpartum depression was higher during COVID-19 pandemic compared to before the pandemic.

Discussion

- The outbreak of COVID-19 had many influences on humans; one of these effects is the impact of COVID-19 on mothers. Many maternal health challenges have been observed during the outbreak of COVID-19, with a higher prevalence of mental health problems reported among women.
- The COVID-19 pandemic has affected various maternal mental problems such as fear, irritability, loneliness, refusal to breastfeed, post-traumatic stress disorders, and mother-child attachment.
- So, it was necessary to investigate the impact of the COVID-19 pandemic on the prevalence and associated factors of PPD among women.
- It was found that the COVID-19 pandemic had a significant impact on the prevalence of PPD; this impact could be observed and confirmed by the findings reported by the studies, including the higher prevalence of PPD among women with positive COVID-19 test compared to the prevalence of PPD among women with negative COVID-19 test (42% Vs. 28%, respectively).
- The prevalence of PPD among women was higher in the COVID-19 pandemic compared with the prevalence during the duration before the pandemic.
- Moreover, the COVID-19 pandemic resulted not only in increased prevalence of PPD but also affected the psychological state of women, where the risk of nonpsychotic postpartum mood and anxiety disorders was increased among postpartum women during the pandemic.
- Although all the studies used one tool (EPDS) for assessing the risk of PPD and reported that the COVID-19 pandemic affects the psychological status of postpartum women negatively increased the risk and prevalence of PPD, it should be noted that studies determined variant Cut off for the risk of PPD; the cut off was determined at ≥ 9 , ≥ 10 , ≥ 12 , and some studies didn't even report the cut off they determined for assessing the risk of PPD.
- A study from Ethiopia reported a prevalence of 23.3% before the pandemic in 2016. Although the prevalence rate reported from Ethiopia was in the prevalence range reported in our studies, it should be noted that the prevalence of a certain condition varies between countries, and the prevalence of PPD in Ethiopia may exceed the previous rates reported before the pandemic, and this may require a further investigation. Studies included in our review reported a significant increase in the prevalence of PPD due to the pandemic based on the previous rates reported from their countries of the studies.

- Regarding the factors associated with PPD or predictors of PPD among women during the COVID-19 pandemic, there were several factors reported in the included studies, including age, history of abortion, perceived stress, unemployed, losing a job due to pandemic, dissatisfaction with household income, staying in COVID-19 suspected zone, concern about lack of hospital beds, absence of a partner, anxiety symptoms, immigration, persistent fever, poor social support, marital status, concerns about contracting COVID-19, certain precautionary measures, education level, visiting the doctor during quarantine, diagnosis with depression, family history, and difficulties during childbirth during the pandemic.
- However, it is obvious in our studies of this review that there were other factors associated with the risk of PPD and were more related to the COVID-19 pandemic, and they represented the majority of PPD predictors, whereas the risk factors of PPD that previously reported and known as predictors for PPD before the pandemic were less reported and prevalent among women. This indicates that COVID-19 added other risk factors for developing PPD
- other factors involved losing a job due to pandemic, staying in COVID-19 suspected zone, concern about lack of hospital beds, persistent fever, concerns about contracting COVID-19, certain precautionary measures, visiting the doctor during quarantine, and difficulties during childbirth during the pandemic.

Conclusion

The prevalence of PPD was increased due to the COVID-19 pandemic, as the pandemic resulted in additional risk factors for developing PPD. This shows the negative impact of COVID-19 on the psychological health of mothers that may, in turn, negatively affect their infant. So, continuous monitoring of the risk of PPD and diagnosis should be done to improve the outcomes of the mothers and their infants.

References

- 1-Austin, M.-P.; Lumley, J. Antenatal screening for postnatal depression: A systematic review. *Acta Psychiatr. Scand.* 2003, 107,10–17.
- 2-Thurgood S, Avery DM, Williamson L. Postpartum depression (PPD). *Am J Clin Med.* 2009;6(2):17–22.
- 3-Verkerk GJ, Pop VJ, Van Son MJ, Van Heck GL. Prediction of depression in the postpartum period: a longitudinal follow-up study in high-risk and low-risk women. *J Affect Disord.* 2003;77(2):159–166.
- 4-Sheeder J, Kabir K, Stafford B. Screening for postpartum depression at well-child visits: is once enough during the first 6 months of life? *Pediatrics.* 2009;123(6):e982–e988.

- 5-World Health Organization. Maternal mental health;2020 March 18. [int/mental_health/maternal_child/maternal_mental_health/en/](https://www.who.int/mental_health/maternal_child/maternal_mental_health/en/).
- 6-Alharbi, A. and Abdulghani, H.M. Risk Factors Associated with Postpartum Depression in the Saudi Population. *Neuropsychiatric Disease and Treatment*;2014;10, 311-316.
- 7-Peindl KS, Wisner KL, Hanusa BH. Identifying depression in the first postpartum year: guidelines for office-based screening and referral. *J Affect Disord.* 2004;80(1):37–44.
- 8-Villegas, L., McKay, K., Dennis, C.L. and Ross, L.E. Postpartum Depression among Rural Women from Developed and Developing Countries: A Systematic Review. *The Journal of Rural Health*;2011: 27, 278-288.
- 9-Turkcapar, A.F., Kadioğlu, N., Aslan, E., Tunc, S., Zayıfoğlu, M. and Mollamahmutoğlu, L. Sociodemographic and Clinical Features of Postpartum Depression among Turkish Women: A Prospective Study. *BMC Pregnancy Childbirth*;2015: 15, 108.
- 10-Fiala, A.; Švancara, J.; Klánová, J.; Kašpárek, T. Sociodemographic and delivery risk factors for developing postpartum depression in a sample of 3233 mothers from the Czech ELSPAC study. *BMC Psychiatr.* 2017, 17, 104.
- 11-Gavin, N.I., Gaynes, B.N., Lohr, K.N., Meltzer-Brody, S., Gartlehner, G. and Swinson, T. Perinatal Depression: A Systematic Review of Prevalence and Incidence. *Obstetrics & Gynecology*;2005: 106, 1071-1083.
- 12-Oztora, S.; Arslan, A.; Caylan, A.; Dagdeviren, H.N. Postpartum depression and affecting factors in primary care. *Niger. J. Clin. Pract.* 2019, 22, 85–91.
- 13-Murray, L.; Sinclair, D.; Cooper, P.; Ducournau, P.; Turner, P.; Stein, A. The socioemotional development of 5-year-old children of postnatally depressed mothers. *J. Child Psychol. Psychiatr.* 1999, 40, 1259–1271.
- 14-Agnafors S, Bladh M, Svedin CG, Sydsjö G. Mental health in young mothers, single mothers and their children. *BMC Psychiatr*; 2019;19:112.
- 15-Koyuncu, K., Alan, Y., Sakin, O., Aktaş, H.A. and Angın, A.D. Conditions Affecting Postpartum Depression in the Covid-19 Pandemic. *Medical Science and Discovery*;2020: 7, 611-616.
- 16-Liu N, Zhang F, Wei C, et al. Prevalence and predictors of PTSS during COVID-19 outbreak in China hardest-hit areas: Gender differences matter. *Psychiatry Res* 2020;287:112921
- 17-Doyle FL, Klein L. Postnatal depression risk factors: an overview of reviews to inform COVID-19 research, clinical, and policy priorities. *Frontiers in Global Women's Health.* 2020:14.
- 18- Liberati A, Altman DG, Tetzlaff J, Mulrow C, Gøtzsche PC, Ioannidis JP, et al. The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions:

explanation and elaboration. *PLoS medicine*. 2009;6(7):e1000100.

- 19- Suárez-Rico BV, Estrada-Gutierrez G, Sánchez-Martínez M, Perichart-Perera O, Rodríguez-Hernández C, González-Leyva C, Osorio-Valencia E, Cardona-Pérez A, Helguera-Repetto AC, Espino y Sosa S, Solis-Paredes M. Prevalence of depression, anxiety, and perceived stress in postpartum Mexican women during the COVID-19 lockdown. *International journal of environmental research and public health*. 2021 Jan;18(9):4627.
- 20- An R, Chen X, Wu Y, Liu J, Deng C, Liu Y, Guo H. A survey of postpartum depression and health care needs among Chinese postpartum women during the pandemic of COVID-19. *Archives of Psychiatric Nursing*. 2021 Apr 1;35(2):172-7.
- 21- Stojanov J, Stankovic M, Zikic O, Stankovic M, Stojanov A. The risk for nonpsychotic postpartum mood and anxiety disorders during the COVID-19 pandemic. *The International Journal of Psychiatry in Medicine*. 2021 Jul;56(4):228-39.
- 22- Puri M, Kukreti P, Chhapola V, Kanwar D, Tumpati A, Jakhar P, Singh G. Postpartum Depression in Covid-19 Risk-Stratified Hospital Zones: A Cross-Sectional Study From India. *Journal of Affective Disorders Reports*. 2021 Oct 27:100269.
- 23- Galletta MA, Oliveira AM, Albertini JG, Benute GG, Peres SV, de Lourdes Brizot M, Francisco RP, HC-FMUSP-Obstetric COVID19 Study Group. Postpartum depressive symptoms of Brazilian women during the COVID-19 pandemic measured by the Edinburgh Postnatal Depression Scale. *Journal of affective disorders*. 2022 Jan 1;296:577-86.
- 24- Tarabay AI, Boogis D, Tabbakh AT, Kemawi RA, Boogis LA, Tabbakh AT, Al-Hadrami MM, Al-Hadrami MM. Prevalence and Factors Associated with Postpartum Depression during the COVID-19 Pandemic among Women in Jeddah, Saudi Arabia: A Cross-Sectional Study. *Open Journal of Obstetrics and Gynecology*. 2020 Nov 30;10(11):1644.
- 25- Liang P, Wang Y, Shi S, Liu Y, Xiong R. Prevalence and factors associated with postpartum depression during the COVID-19 pandemic among women in Guangzhou, China: a cross-sectional study. *BMC psychiatry*. 2020 Dec;20(1):1-8.
- 26- Peng S, Zhang Y, Liu H, Huang X, Noble DJ, Yang L, Lu W, Luo Y, Zhu H, Cao L, Liu C. A multi-center survey on the postpartum mental health of mothers and attachment to their neonates during COVID-19 in Hubei Province of China. *Annals of translational medicine*. 2021 Mar;9(5).
- 27- Vieira LG, Camargo ELS, Schneider G, et al. Repercussions of the COVID-19 Pandemic on the Mental Health of Pregnant and Puerperal Women: A Systematic Review. *medRxiv* 2020. Available online: <https://www.medrxiv.org/content/10.1101/2020.08.17.20176560v1>. Epub 2020 Aug 21.

- 28- Fantahun A, Cherie A, Deribe L. Prevalence and factors associated with postpartum depression among mothers attending public health centers of Addis Ababa, Ethiopia, 2016. *Clinical practice and epidemiology in mental health: CP & EMH.* 2018;14:196.
- 29- Shitu, S.; Geda, B.; Dheresa, M. Postpartum depression and associated factors among mothers who gave birth in the last twelve months in Ankesha district, Awi zone, North West Ethiopia. *BMC Pregnancy Childbirth* 2019, 19, 435.
- 30- Alsayed, N.A.; Altayyeb, J.F.; Althuniyyan, L.S.; Alzubaidi, S.K.; Farahat, F. Prevalence of Postpartum Depression and Associated Risk Factors Among Women in Jeddah, Western Saudi Arabia. *Cureus* 2021, 13, 14603.
- 31- Anokye, R.; Acheampong, E.; Budu-Ainooson, A.; Obeng, E.I.; Akwasi, A.G. Prevalence of postpartum depression and interventions utilized for its management. *Ann. Gen. Psychiatr.* 2018, 17, 18. [
- 32- Mousavi, F.; Shojaei, P. Postpartum Depression and Quality of Life: A Path Analysis. *Yale J. Biol. Med.* 2021, 94, 85–94.
- 33- Suhitharan, T., Pham, T.P., Chen, H., Assam, P.N., Sultana, R., Han, N.L., Tan, E.C. and Sng, B.L. Investigating Analgesic and Psychological Factors Associated with Risk of Postpartum Depression Development: A Case-Control Study. *Neuropsychiatric Disease and Treatment*; 2016:12, 1333-1339.



Medtronic