

The Potential Correlation Between Postpartum Hemorrhage and Postpartum Depression: A Retrospective Cohort Study

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Introduction. Postpartum depression is a major cause of maternal morbidity and mortality that affects an estimated 10-15% of people within one year of delivery. As postpartum depression can have detrimental effects on both the mother and the child, the identification of potential risk factors is crucial. Several previous studies have had varying results when investigating the potential connection between postpartum hemorrhage and postpartum depression. This study sought to further investigate if postpartum hemorrhage increases the risk for the development of postpartum depression.

Methods. This retrospective study analyzed data from women who delivered and received postpartum care at The University of Kansas in the years 2020-2022. Multivariable logistic regression was used to determine if there is an association between postpartum hemorrhage (blood loss greater than 1000ml at the time of delivery) and postpartum depression (EPDS of 7 or greater) while controlling for pre-existing mental health diagnoses.

Results. Of the 2,338 women included in the study, 17% experienced a postpartum hemorrhage and 30% met criteria for postpartum depression. There was no statistically significant difference in the prevalence of postpartum depression between those with and without postpartum hemorrhage (29.8% vs 29.6%, respectively; $p = 0.93$). There was also no association found between postpartum depression and postpartum hemorrhage in a multivariable model controlling for age, smoking status, drug use, insurance, race, ethnicity, and preexisting mental health conditions (aOR 0.98, 95% CI 0.76-1.25).

Conclusions. Women who experience a postpartum hemorrhage are not at an increased risk for the development of postpartum depression. The findings of this study do not support the need for additional measures to increase follow-up and screening in patients who have experienced a postpartum hemorrhage.