

A Systematic Review of the Impact of Study Methodology Upon Findings Regarding the Relationship Between Breastfeeding & Postpartum Depression

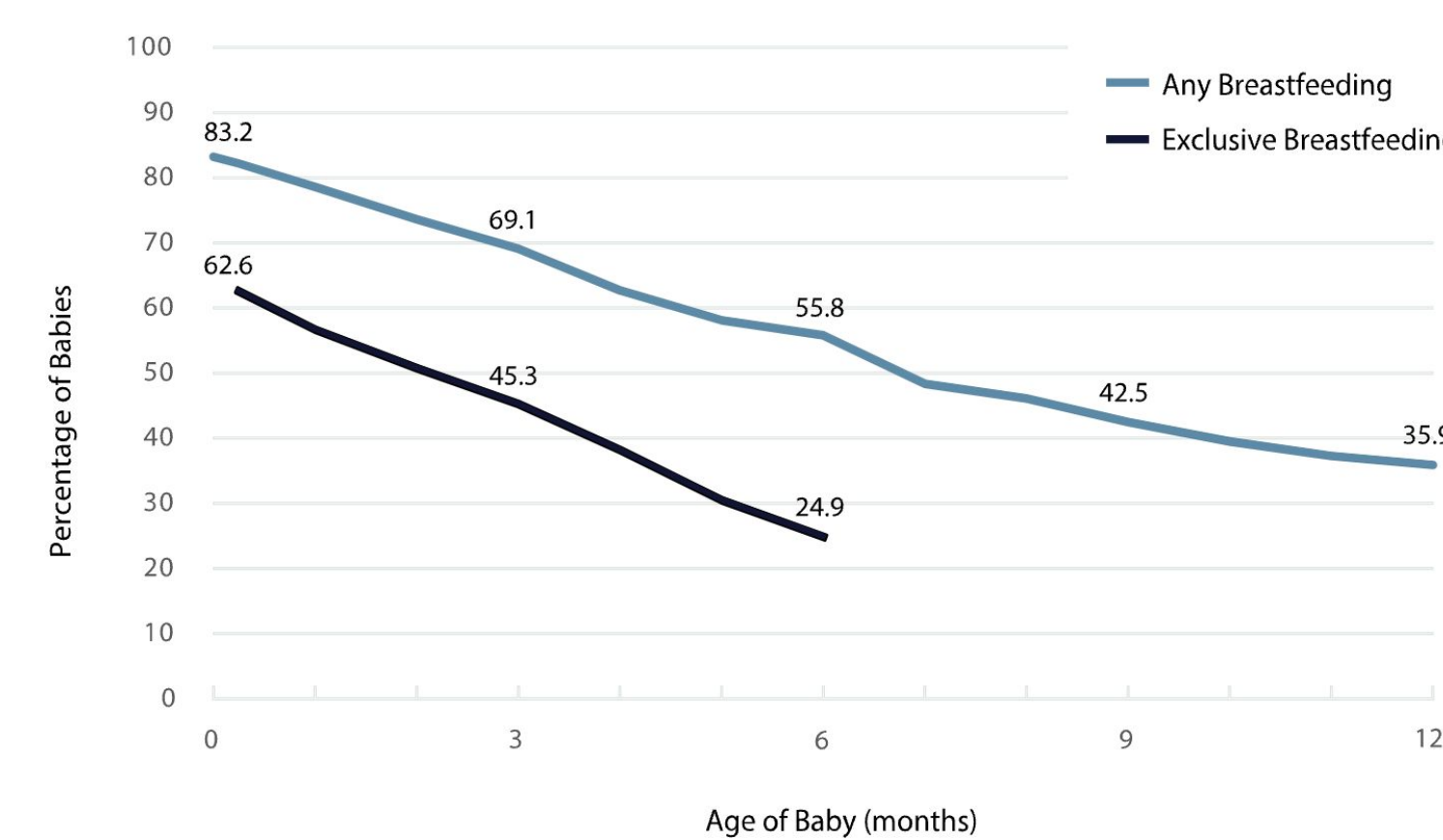
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Background

- Only 25% of infants in the U.S. are exclusively breastfed through 6 months (**Figure 1**)

Figure 1. Percentage of Babies Receiving Any and Exclusive Breast Milk During the First 12 Months, Among Children Born in 2019 (CDC, 2022)



- Risk factors for breastfeeding cessation prior to 6 months postpartum include history of depression and anxiety or depressive symptoms during pregnancy (Kehler et al., 2009)
- Existing research on the association between breastfeeding (BF) and postpartum depression (PPD) suggests a bidirectional, inverse relationship though some studies have found no association between BF and PPD

Research Questions

- How does existing research characterize the association between breastfeeding and postpartum depression?
- What patterns in methodology exist among studies that show no association between BF and PPD?

Methods

- PubMed search strategy included key terms of breastfeeding AND depression AND postpartum period
- Articles were screened based on title and abstract
- Data on PPD and BF variables, timepoints, study participant characteristics, covariates, and outcomes were extracted

Results

- Out of the 82 articles that met inclusion criteria, 17 showed no association between BF and PPD
- Overview of Studies (n=17)
 - Most common study types included prospective (n=8) and cross-sectional (n=6)
 - Independent variables included BF (n=10) vs. PPD (n=6) vs. reciprocal (n=1)
 - PPD was most commonly operationalized by the EPDS (**Figure 2**)
 - There was high heterogeneity in operationalization of BF variables (**Figure 3**)
- Common factors associated with loss of statistical significance included:
 - Changing mode of statistical analysis (Zubaran & Foresti, 2013)
 - Adjusting for covariates - maternal education (Farias-Antunez et al., 2020), appreciation of bodily function (Rosenbaum et al., 2020), absence of comorbid anxiety (Ramakrishna et al., 2019)
 - Changing scales to operationalize PPD (Sharifi et al., 2016)

Figure 2. Distribution of PPD scales

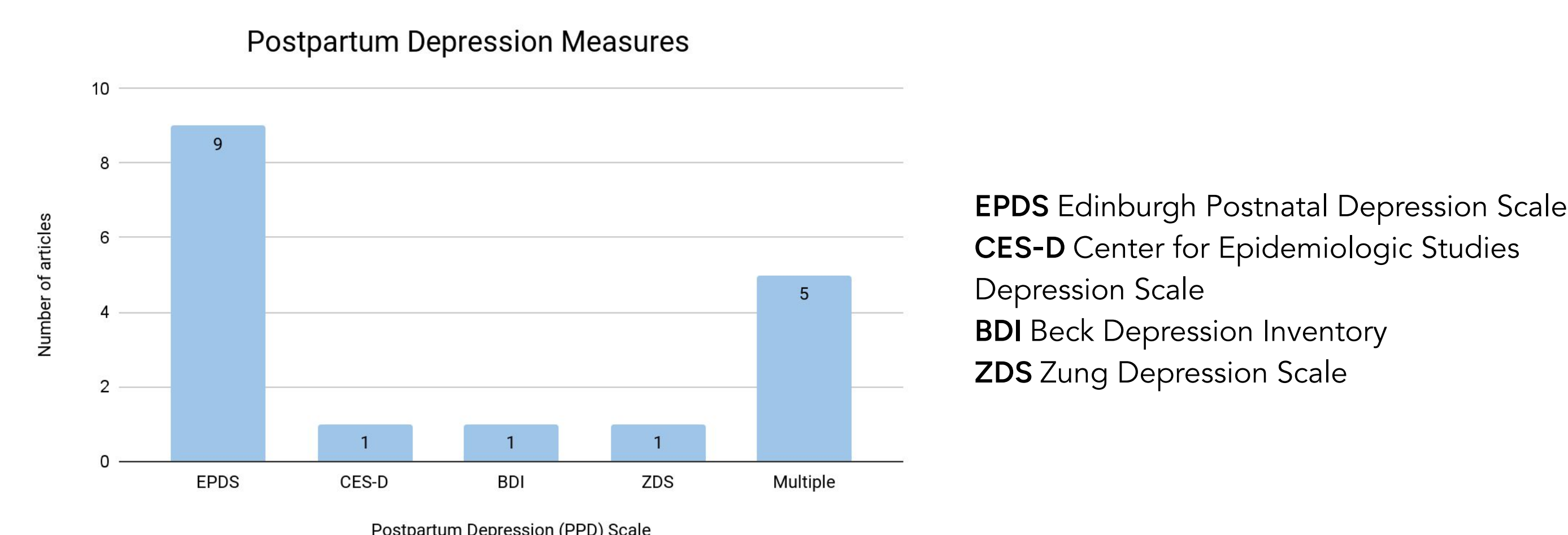


Figure 3. Distribution of BF variables

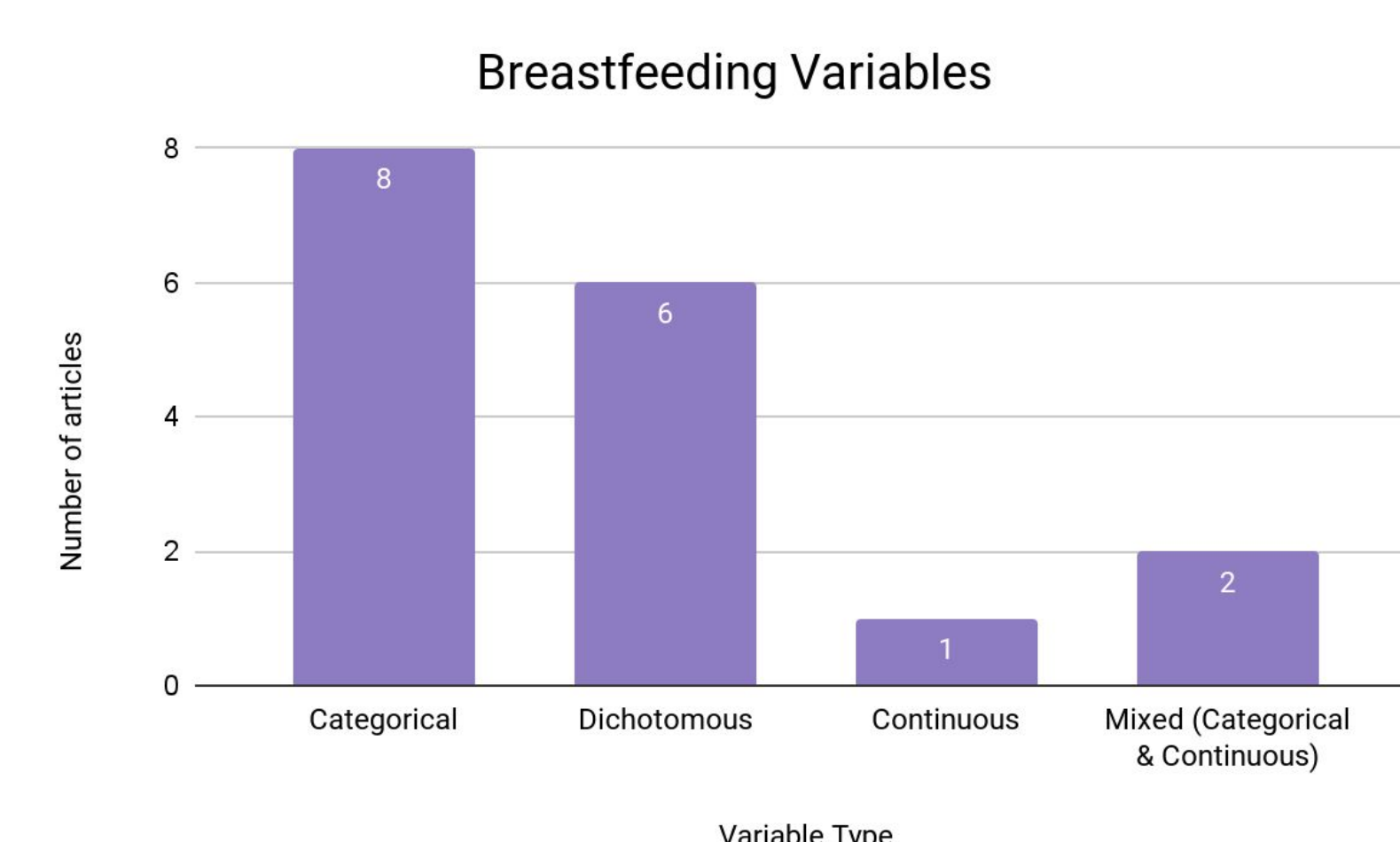


Figure 4. Included Articles



Conclusion & Next Steps

- There is significant methodological heterogeneity in investigating postpartum experiences
- Majority of studies that reveal no association between BF and PPD have counterparts with similar methodologies and variables that do demonstrate an association
 - Next steps include a comparative analysis between similar studies in the remaining 65 articles to highlight nuances of studies revealing no association between BF and PPD
- Among the prospective studies, several were cross-sectional in nature; even in many longitudinal studies, analysis of BF and PPD was conducted cross-sectionally across timepoints
- There is a need for prospective studies that clearly examine the temporal relationship between BF and PPD

Acknowledgments

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