

Predictive Factors in Postpartum Depression: A Literature Review to Develop a Tool to Aid Nurses in a Preventative Role

Eleanor Pringle, 2018 BSN Student and Tyler Doumaney, 2018 BSN Student, Loretto Heights School of Nursing Regis University, Denver, CO

Purpose

- Identify risk factors for postpartum depression (PPD) in order to initiate evidence-based research into the nurse's role in preventing undiagnosed or late diagnosed mothers with PPD.

Background

- An estimated 10-15% of new mothers will develop PPD.
- There is evidence that postpartum depression is largely underdiagnosed and undertreated.
- The Edinburgh Postpartum Depression Scale (EPDS) has been demonstrated to be an effective screening tool for PPD
- Current American College of Obstetricians and Gynecologists (ACOG) recommendations include screening one time through the perinatal period, which poses the risk for too few women to get diagnosed with, and therefore treated for, PPD.

Results

- Risk factors were identified and compared based on their corrected relative risk, all of which are listed in the screening tool below.
- The significance of factors were weighted against each other using the relative risk to create an item score; identifying a mother's risk of developing PPD.

| Item | Significance | Item Score | Patient Score |
|------------------------------------------------------------------------------------------------------|--------------|------------|---------------|
| Low BMI (<18.5) | RR 1.52 | 1 | |
| Depression | RR 21.03 | 3 | |
| 35-39 Years Old | RR 1.21 | 1 | |
| Greater than 40 Years Old | RR 1.38 | 1 | |
| Gestational weeks less than 32 weeks | RR 1.36 | 1 | |
| Gestational diabetes | RR 1.70 | 1 | |
| Young age (15-24) | RR 2.14 | 2 | |
| Instrument Assisted | RR 1.23 | 1 | |
| Cesarean Section | RR 1.64 | 1 | |
| Physical Disability | RR 1.60 | 1 | |
| History of partner violence | RR 2.36 | 2 | |
| Postpartum complications (ex: sphincter rupture, parents of sick babies with extended hospital stay) | RR 2.00 | 2 | |
| Unwanted or Unplanned Pregnancy | RR 4.0 | 2 | |

Explanation and Rationale:
Scoring: 1=0-3.99% 2=4.000-9.99% 3=10.00-99.99%
Low risk: 0-6 Medium Risk: 7-13 High Risk: 14-19

Scale Definitions:

Low BMI: Women with a current low BMI, defined as a score <18.5, are more likely to develop PPD

Depression: Women with a history of depression at any time prepartum are more likely to develop PPD

Increased Age: Women of increased age (>35 y/o) are more likely to develop PPD, with an increased risk >40 y/o (RR 1.21, 1.38). Conversely, women of a young age (15-24 y/o) have also been shown to be at an increased risk

Gestational age < 32 weeks: Women with preterm delivery (gestation <32 weeks) are more likely to develop PPD

Instrument assisted: Women who undergo an assisted delivery (forceps, vacuum) are more likely to experience PPD

Cesarean section: Women who undergo cesarean birth are more likely to experience PPD

Physical disability: Women with physical disabilities are at a greater risk of developing PPD when compared to other women

History of partner violence: Women who report a history of physical abuse from their partner are more likely to develop PPD

Postpartum Complications: Women who experience complications postpartum (sphincter rupture, sick baby, extended hospital stay) are more likely to develop PPD

Unwanted or unplanned pregnancy: Women who reported an unintended pregnancy (found through CDC's Pregnancy Risk Assessment and Monitoring System (PRAMS)) are more likely to develop PPD at 12 months

Methods

- A variety of psychosocial and biological factors that impact the risk of new mothers developing PPD were identified.
- The search strategy included articles found in PubMed database that screened with the EPDS between 2013-2018 in English using the search terms of "predictors", "risks", "postpartum depression", and "depression in new mothers."

Recommendations

- Further development of the evidence-based screening tool, which can then be assessed for validity and reliability and piloted by postpartum nurses in order to identify mothers at higher risk of developing PPD.
- The tool would ensure that further diagnostic methods and protective factors would be utilized with the hope of treating more mothers experiencing PPD.