Psychosomatics 2018:59:211–219

Review Article

Postpartum Depression Screening Tools: A Review

Nneamaka Ukatu, B.A., Camille A. Clare, M.D., M.P.H., Mary Brulja, D.O.

Objective: *The purpose of this study was to analyze the accuracy of screening tools in detecting postpartum depression (PPD).* **Methods:** *A review of the literature was conducted using PubMed, Clinical Key, and Google Scholar from the years 2001–2016 with a modified PRISMA method. The keywords, "postnatal depression screening," "antenatal depression screening," and "maternal depression" were used in the search. Sixty-eight articles were reviewed, and 36 further analyzed.* **Results:** *The accuracy of screening tools was dependent upon a number of factors. The studies reviewed differed in the types of screening tools tested, the combination of screening tools administered, the timing in which screening tools were administered, the geographic location of patients screened, and the reference standard(s) used.* **Conclusions:** *No tool could be deemed best at accurately detecting PPD on the basis of sensitivity and specificity. Additionally, there was no recommended time duration in which screening should be done. Thus, further research is needed to elucidate the accuracy of PPD screening tools, and the best criteria to determine this.*

(Psychosomatics 2018; 59:211–219)

Key words: postpartum screening, antenatal screening, maternal depression, postpartum depression.

INTRODUCTION

Postpartum depression (PPD) is characterized by depressive episodes occurring in the period after childbirth. It is estimated that the disorder occurs in up to 20% of all women.[1] Although the exact causes of PPD remain unknown, several risk factors have been identified. Women who have history of psychiatric illness,[2] with limited partner support, in abusive relationships, and a history of substance abuse are at increased risk of PPD.[3] Other special groups of patients at risk include adolescent mothers, immigrant women, those with low socioeconomic status, racial and ethnic minorities, and fathers.[4]

Postpartum depression can cause grave consequences for both the mother and the child. Women who suffer from postpartum depression have been found to have decreased maternal/neonatal bonding. Neonates born to women with PPD were more likely to be in the foster care system.[5] Furthermore, the children of depressed mothers have higher rates of mood disorders and overall decreased general levels of functioning when compared to children born to nondepressed mothers. Additionally, women experiencing depression have poorer health outcomes and lower quality of life than nondepressed women.[6]

Despite the severe consequences that PPD has on both the mother and the child, up to 50% of these cases will go undiagnosed.[7] This illustrates the need for effective screening methods to ensure that all women with PPD will be identified. There are several screening

Received September 13, 2017; revised November 15, 2017; accepted November 16, 2017. From the School of Medicine (N.U.), New York Medical College, Valhalla, NY; Department of Obstetrics and Gynecology (C.A.C., M.B.), New York Medical College, Valhalla, NY. Send correspondence and reprint requests to Camille A. Clare, M.D., M.P.H., New York City Health + Hospitals/Metropolitan, 1901 First Avenue, Room 4B5, New York, NY 10029; e-mail: Camille_clare@nymc.edu

tools that have been developed to diagnose PPD. Those specific to detect maternal depression in the peripartum or postpartum period include the Edinburg Postpartum Depression Scale (EPDS), the Postpartum Depression Screening Scale (PDSS), and the Pregnancy Risk Questionnaire (PRQ). General depression screening tools have also been used to screen for PPD in new mothers. They include the Beck Depression Inventory-II (BDI-II), the General Health Questionnaire-12 (GHQ-12), the Center for Epidemiological Studies Depression (CES-D), and the Patient Health Questionnaire versions 2, 8, and 9. Additionally, these tools have been the most validated and are commonly used in detecting PPD.

There has not been a consensus among the medical community regarding which tool is most accurate for the screening of PPD. An accurate screening tool is one that is able to distinguish between healthy and unhealthy patients.[8] Sensitivity is the ability of the tool to correctly identify women who are at risk of postpartum depression. Whereas, specificity is the ability of the tool to correctly identify women who are not at risk of postpartum depression. As such, there is no universal policy in place for when and how to screen women for postpartum depression. Thus, we conducted a review of the literature to examine the accuracy of the listed screening tools and to determine which special considerations are needed to evaluate women for PPD.

METHODS

A comprehensive review of the literature was performed using PubMed, Clinical Key, and Google Scholar from the years 2001–2016 to reflect the most up-to-date literature. The keywords, "postnatal depression screening," "antenatal depression screening," and "maternal depression" were utilized in the search. A modified PRISMA method was used.[9] The accuracy of current postnatal depression screening tools was reviewed. Specific screening tools were analyzed, and an assessment of the current literature concerning the methods of postpartum depression screening was performed.

A total of 140 articles were identified from the literature search. After the removal of duplicates, 119 articles remained for review. Articles were eliminated if they did not focus on the analysis of screening tools. Additionally, only articles that were written in English were selected. A total of 68 articles were left for further screening. Further elimination of articles was done if the analysis was not primarily based on the sensitivity and specificity of the tools. From the 68 articles left for review, 36 were analyzed further. Figure 1 illustrates the modified PRISMA format which was utilized.

From the 36 items analyzed, 16 articles were validated surveys using psychiatric diagnostic interviews. Six articles used surveys without psychiatric interviews, of which 1 article was a retrospective review. Two articles were randomized control trials. There were 12 review articles; 2 of which were retrospective reviews, while the remaining 10 were systematic reviews. The focus of our analysis was limited to tools that have been widely validated, or frequently used by clinicians.

RESULTS

The screening tools tested included the Postpartum Depression Screening Scale (PDSS), Pregnancy Risk Questionnaire (PRQ), Beck Depression Inventory-II (BDI-II), Edinburg Postpartum Depression Scale (EPDS), General Health Questionnaire-12 (GHQ-12), Center for Epidemiological Studies Depression Scale

FIGURE 1. Modified PRISMA flowchart.