

The Psychometric Properties of the Barkin Index of Maternal Functioning

Jennifer L. Barkin, Katherine L. Wisner, and Stephen R. Wisniewski

Correspondence

Jennifer L. Barkin, PhD,
Mercer University School
of Medicine,
Department of Community
Medicine,
1550 College Street,
Macon, GA 31207.
barkinj@gmail.com

Keywords

postpartum functioning
maternal functioning
postpartum health
motherhood

ABSTRACT

Objective: To evaluate the psychometric properties of the Barkin Index of Maternal Functioning (BIMF).

Design: Principal component factor rotation was used to conduct an exploratory factor analysis of the BIMF to determine if more concise versions exist.

Setting: Patients were recruited from a large, urban medical center in the Northeast.

Participants: The BIMF was administered at an initial home visit along with several other self-report and clinical assessments to women who scored ≥ 10 on the Edinburgh Postnatal Depression Scale during the 4- to 6-week postpartum period.

Methods: The BIMF was administered between October 2008 and September 2010. The distribution of BIMF item responses was examined along with interitem correlations. To establish construct validity, correlation coefficients were produced for the BIMF in relation to several other variables or assessments. A factor analysis was performed using principal component factor rotation.

Results: The factor analysis revealed a two-factor solution. The items that loaded on factor 1 gauged the mother's perception of her own competency in the maternal role and the items that made up factor 2 focused on the mother's needs. Items related to judgment from others and anxiety did not load on either factor.

Conclusions: The BIMF may be administered in its 18-item version, as two separate subscales, or in its original 20-item format. A clinical threshold should be developed to facilitate accurate identification of mothers who are struggling with functioning during the postpartum period.

JOGNN, 43, 792-802; 2014. DOI: 10.1111/1552-6909.12505

Accepted July 2014

Jennifer L. Barkin, PhD, is an assistant professor in the Department of Community Medicine, Mercer University, Macon, GA.

Katherine L. Wisner, MD, is the Norman and Helen Asher Professor of Psychiatry and Behavioral Sciences and Obstetrics and Gynecology at the Feinberg School of Medicine, Northwestern University, Chicago, IL.

Stephen R. Wisniewski, PhD, is a professor of epidemiology, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA.

The authors report no conflict of interest or relevant financial relationships.



Postpartum depression (PPD) is the most common complication of childbearing with available, proposed screening strategies (Gaynes et al., 2005). In a recent study of 10,000 mothers, 1396 (14.0%) screened positive for PPD (Wisner et al., 2013). Despite an impressive prevalence rate of one in seven women experiencing PPD, not all are receptive to depression assessment and treatment due to the stigma associated with mental illness (Sit et al., 2009; Vesga-Lopez et al., 2008). Additionally, women often present for treatment with the goal of improved daily life function rather than to specifically reduce their depression scores as they desire more efficient performance individually and in the maternal role. These observations highlight the need for additional tools and interventions to address maternal wellness during the postpartum period. Ware, Kosinski, and Keller (1996) determined that the goal of medical care for most patients is to obtain a more effective life and to preserve functioning and well-being. More specifically, researchers

have shown that new mothers are concerned with their functioning across seven domains, including (a) self-care, (b) infant care, (c) mother/child interaction, (d) psychological well-being, (e) social support, (f) management, and (g) adjustment (Barkin et al., 2010b). These researchers conducted focus groups with 31 new mothers and asked them to explain the circumstances around their low and high functioning periods. Women described peak or optimal performance in the maternal role as times where they were able to take care of themselves (self-care), take care of their infants (infant care), bond with their infants (mother/child interaction), and manage their households (management). During these times they also felt generally emotionally healthy (psychological well-being), well supported (social support), and as if they were adjusting to their added responsibilities (adjustment). Due to this interest in maternal competency and overall daily performance, it is likely that new mothers would be more receptive to assessments and, ultimately, to

interventions that are focused on improved functioning during the postpartum period.

To determine if any existing maternal assessments adequately addressed maternal functioning during the 12 months following childbirth, Barkin, Wisner, Bromberger, Beach, and Wisniewski (2010a) evaluated eight of the most commonly used instruments to determine if any of the existing instruments addressed all seven domains of functioning identified in the Barkin et al. (2010b) study. Using the terms *maternal instrument*, *maternal measure*, *maternal questionnaire*, and *maternal survey*, database searches were conducted in Health and Psychosocial Instruments (1985 – 2008), CINAHL (1982 – 2008), PsycINFO (1967 – 2008), and MEDLINE (1970 – 2009). Only self-report measures and those measures intended for use during the child's first 12 months of life were considered. Each of the eight selected instruments was referenced at least 17 times in the research literature, had some published psychometric properties, and had been utilized in research studies, primary care settings, or both. The selected instruments had also been featured in systematic reviews performed by Beck (1998) and Fowles and Horowitz (2006). The eight selected measures included the following: (a) the Gratification Checklist (Mercer, 2004; Russell, 1974), (b) the Infant Care Survey (Froman & Owen, 1989), (c) How I Feel About My Baby Now Scale (Leifer, 1977), (d) Parenting Sense of Competence Scale (PSOC) (Gibaud-Wallston & Wandersmann, 1978), (e) Myself as Mother Scale (Walker, Crain, & Thompson, 1986), (f) My Baby Scale (Walker et al., 1986), (g) What Being the Parent of a New Baby is Like-Revised (WPL-R) (Pridham & Chang, 1989), and (h) Inventory of Functional Status After Childbirth (IFSAC) (Fawcett, Tulman, & Myers, 1988). After evaluation of these tools by these authors, it was found that none of the selected instruments addressed all seven components of postpartum functioning.

When comparing the instruments, the IFSAC provided the most comprehensive coverage of the reviewed instruments, addressing six of the seven domains to varying degrees. This result was as expected; the IFSAC is the only selected instrument that was designed specifically for assessment of postpartum maternal functioning. The mother's psychological well-being and feelings about her life postchildbirth are not included as part of the IFSAC. Additionally, the IFSAC focuses on resumption of woman's pre-birth activities and does not adjust for the natural

The Barkin Index of Maternal Functioning was created to address the need for a patient-centered measure of postpartum maternal functional status.

reprioritization that takes place as the result of having a child. The results of this study confirmed the need for a new, more inclusive tool for the assessment of postpartum functional status.

The Barkin Index of Maternal Functioning (BIMF) (Barkin et al., 2010b) was created to address the aforementioned need by employing a comprehensive, patient-centered approach to development. The goal of the development process was to design a measure that addressed all seven domains of maternal functioning, was viable in research and clinical settings, and had favorable psychometric properties. Initial item development for the BIMF was based on the qualitative data derived from three focus groups of new mothers ($N = 31$). Because the 20-item BIMF was based on the experiences of women experiencing new motherhood, it is inherently patient centered.

The BIMF was included as one of the assessment tools used in the Identification and Therapy of Postpartum Depression Study (Wisner et al., 2013) and was analyzed in a subset of participants for internal reliability and construct validity. Content validity had already been ensured by using qualitative data from new mothers to inform initial item development. The initial psychometric analysis revealed a Cronbach's alpha of 0.87 and adequate construct validity was observed (Barkin et al., 2010b). The initial psychometric properties were promising, and the BIMF has been requested by various individuals or groups who are interested in a patient-centered alternative or complement to depression screening. These groups of providers comprise pediatricians who have frequent access to new mothers via well-child visits, obstetricians, organizations with home visiting programs, and nurse researchers. All these professionals are interested in capturing maternal functional status as a primary maternal health outcome. Due to the level of interest in the BIMF as a clinical tool and an outcomes measure, the developers deemed a broader psychometric evaluation a necessary next step. In 2011, 346 completed baseline assessments from postpartum women were available for an extensive examination of the BIMF's psychometric properties. The following research

Download English Version:

<https://daneshyari.com/en/article/2632640>

Download Persian Version:

<https://daneshyari.com/article/2632640>

[Daneshyari.com](https://daneshyari.com)