"Predictors of Postpartum Depression: An Update" (2001), by Cheryl Tatano Beck [1]

By: Chou, Cecilia Keywords: post-partum depression [2] baby blues [3]

In her 2001 paper “Predictors of Postpartum Depression: An Update,” researcher Cheryl Tatano Beck presents the most common risk factors associated with postpartum depression in women. Postpartum depression occurs when women experience symptoms such as tearfulness, extreme mood changes, and loss of appetite for a lengthened period after giving birth. At the University of Connecticut in Storrs, Connecticut, nursing professor Beck updated a previous study of hers by analyzing literature about postpartum depression published in the 1990s. Beck found four predictors of postpartum depression that she had not included in her previous study. “Predictors of Postpartum Depression: An Update” presents risk factors that healthcare professionals can use to predict whether pregnant women are more likely to develop postpartum depression.

The postpartum period is the six-to-eight-week period following childbirth, during which the woman’s body undergoes physical changes to return to its pre-pregnancy [4] state. During that period, the woman also adjusts to a new lifestyle as she cares for her infant. While giving birth and raising a child are usually socially celebrated efforts, women can experience difficulties that include physical tiredness, interrupted sleep, and anxiety over the infant’s well-being. Women who have just given birth may experience various mood disorders ranging from postpartum blues, which last a few weeks and require no treatment, to postpartum psychosis, which is extremely rare and can require hospitalization.

Postpartum depression occurs in approximately ten to fifteen percent of women who give birth. The symptoms, which include mood swings, excessive crying, suicidal ideation, and feelings of inadequacy and inability to cope with the infant, are similar to postpartum blues. However, postpartum blues, also known as maternity blues, occur within days to weeks after delivery and last a couple days to a couple weeks after delivery. Conversely, postpartum depression can develop gradually within six months after delivery and the symptoms are more intense and long-lasting than postpartum blues. The impact of postpartum depression can be severe on the well-being of the woman, her family, and the health and development of the infant.

During the late twentieth and early twenty-first century, medical researchers have directed attention to postpartum mood disorders. Such researchers have conducted a large number of qualitative and quantitative studies on postpartum depression to determine how to anticipate and prevent its onset. Whereas qualitative studies like literature reviews are summaries of a set of literature, meta-analyses involve statistical analyses of the results of a set of literature. In both of Beck’s meta-analyses, the author analyzed how strongly different risk factors were associated with postpartum depression. In other words, Beck examined which risk factors had stronger connections to postpartum depression and which factors had less.

Many studies, including Beck’s updated study, focus on the symptoms of postpartum depression in an effort to identify and treat the disorder. According to Beck, early identification and treatment of postpartum depression is difficult because the symptoms are not obvious, though early identification and treatment can shorten the duration and severity of patient suffering. Some symptoms, such as sleep disturbance and anxiety, are common among women who have just given birth, even if they do not have postpartum depression. But when symptoms persist and expand to include severe anxiety and mood swings, tearfulness, fatigue, loss of appetite, insomnia, difficulty bonding with the infant and feelings of worthlessness, women may have postpartum depression. At that point, healthcare professionals recommend that women experiencing such symptoms contact a physician and seek treatment.

Beck argues that women experiencing postpartum depression may not seek professional help because of the social stigma associated with postpartum depression and women’s difficulties adjusting to a new role as caregiver. She states that women are often unwilling to admit to emotional disorders relating to childbirth, and their friends and families may not provide an accepting audience.

For her second meta-analysis, an update to her work on 1980s postpartum literature, Beck searched for publications between 1990 and 2000 using search terms such as postnatal depression, puerperal depression, predictors, and risk factors. That allowed her to collect many articles related to postpartum depression. Her final sample totaled eighty-four studies from over fifteen countries, including the US, Canada, the UK, and New Zealand.

Across the eighty-four studies, Beck found thirteen significant predictors of postpartum depression. The original nine predictors
were prenatal depression, childcare stress, prenatal anxiety, life stress, social support, marital relationship, history of previous depression, infant temperament, and maternity blues. Several of the predictors like prenatal depression, prenatal anxiety, life stress, and history of previous depression, related to the anxiety and stress level of the woman prior to giving birth. Several factors, such as social support, infant temperament, and maternity blues, related to the women’s postpartum experience after giving birth.

Beck found four new predictors in her updated study, which were low self-esteem, single marital status, low socioeconomic status, and unplanned or unwanted pregnancy \[4\]. Overall, the thirteen predictors related to the woman’s mental and physical health before giving birth, her life experiences after giving birth, her social interactions, and her demographic variables. According to the studies Beck analyzed, women experiencing one or more of the thirteen risk factors were more likely to develop postpartum depression.

Following the identification of thirteen factors, Beck measured the strength of each predictor, or how strongly it predicted whether a woman would develop postpartum depression. She did that by finding a statistical r number for each factor, which accounted for the number of studies, number of human subjects, and the quality of the data that was linked to that specific predictor. To judge the quality of each study, Beck scored all eighty-four studies according to eleven categories such as the sample size of subjects, the method of postpartum depression measurement, the research design, and the type of data analysis. Any factor tied to postpartum depression had an r effect size greater than zero. Larger r effect sizes indicated a larger effect, or stronger connection, between the predictor and the likelihood of developing postpartum depression. Beck interpreted the findings according to statistician Jacob Cohen’s guidelines, which specified that a small effect size is 0.10, a medium effect size is 0.30, and a large effect size is 0.50.

Using the r numbers, Beck found that the strongest predictors of postpartum depression were prenatal depression, low self-esteem, childcare stress, and prenatal anxiety. All of those predictors had r effect sizes greater than 0.40. Three of the predictors, marital status, socioeconomic status, and unplanned or unwanted pregnancy \[4\], had small r numbers below 0.30 and were thus weaker predictors of a woman developing postpartum depression. Those results meant that the marital status of the woman giving birth and her socioeconomic status were not as strong indicators of postpartum depression development as prenatal depression and low self-esteem.

In her updated meta-analysis, Beck concludes that the findings from her first meta-analysis, the original nine predictors, are still relevant. Additionally, she identifies four new risk factors for postpartum depression as low self-esteem, single marital status, low socioeconomic status, and unplanned or unwanted pregnancy \[4\]. Because two of the factors, marital status and socioeconomic status, are demographic variables, Beck presents a potential profile of women who are more likely to develop postpartum depression. The profile is of women who are unmarried with low household incomes. In the conclusion of her updated meta-analysis, Beck recommends that physicians use the thirteen predictors to identify women who may be at risk for developing postpartum depression and design specific interventions targeted at different predictors.

Since Nursing Research published “Predictors of Postpartum Depression: An Update” in 2001, the article has served as a starting point for further research into preventive methods and diagnostic tools relevant to postpartum depression. In 2004, researchers at Toronto General Hospital in Toronto, Canada, conducted a literature review of pre-birth, or antenatal, postpartum depression risk factors and included Beck’s meta-analyses from 1996 and 2001. Similarly to Beck, those authors concluded that women most likely to develop postpartum depression were women who experienced depression, anxiety, or stressful life events during their pregnancies, women with a previous history of depressive illness, and women with low levels of social support. Additionally, the Toronto researchers recommended that more research be conducted on specific groups of women, including teenage mothers and immigrant women. Specifically, they highlighted that the lack of social support is significant to immigrant women who are culturally and physically separated from their support systems.

As of 2016, “Predictors of Postpartum Depression: An Update” has been cited over 1500 times.

**Sources**

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