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Review

The birth experience and maternal caregiving attitudes and behavior: A systematic review

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Introduction

Birth represents a seminal transitional moment in women's lives that can be an empowering or traumatic experience to prime or shatter the emergence of maternal caregiving with long lasting consequences [1–3]. Population studies in Sweden, Canada, and the United States report 7–10% of women have a negative birth experience [4–6]. The birth experience (BE) encompasses objective birth events such as mode of birth, induction, pain medication, and complications, and women's subjective feelings about their lived experience. Women's satisfaction with their BE is strongly influenced by the quality of interpersonal provider care during childbirth, which includes respect, privacy, being involved in decision-making, and feeling cared for and supported [7–11]. Additional factors that affect women's satisfaction with their BE are antenatal BE expectations and the level of trust in one's abilities [7–12]. Importantly, research on the association between maternal satisfaction with birth and women's long-term birth memories shows that feeling supported and nurtured by providers during childbirth can supersede the negative effects of a difficult or complicated birth [7,13–16].

Studies have shown that experiencing a traumatic birth has profound consequences on maternal well-being, including symptoms of post-traumatic stress, feelings of maternal failure, and disconnection with their infants [1,17]. There is a need to further examine the association between a range of birth experiences and their association with maternal caregiving because the quality of maternal caregiving is a strong predictor of infant attachment and influences children's subsequent physical, cognitive, and emotional development [18–20]. Maternal caregiving is a well-studied construct referring to how a mother feels about and behaves with her infant. This broad definition has resulted in wide variation in how it is assessed. Maternal caregiving attitudes have included self-report measures of maternal self-esteem, identity, confidence, sensitivity, representations, self-efficacy, and perceptions of the infant [21–24]. Maternal caregiving behaviors have included observation measures of protective and affectionate behaviors, responsiveness to infant cues, and reciprocal, synchronous mother-infant interaction (i.e., the give and take of mutual gaze, affect, touch, and speech) [18,20,25–27]. Modifiable risk factors to improve maternal caregiving may include the BE, but further understanding of this relationship is warranted [2].

The objective of this systematic review is to present the state of the science on the association between women's postnatal perspective of their birth experience (BE) and maternal caregiving attitudes and behaviors towards their infant. We sought to answer the following research question "What is the association between women's birth experience and maternal caregiving attitudes and behaviors?"

Methods

We utilized the Matrix Method [28] as a practical guide in managing the systematic review that uses summary tables and electronic folders for clear organization throughout the review process. We used the PRISMA statement [29] to guide our evaluation and reporting process. This 27-item checklist addresses major components of a research report: title, abstract, introduction, methods, results, discussion, and funding. PRISMA recommends evaluating and reporting potential risks of bias rather than reporting quality assessments found in other approaches.

Search strategy

In November 2016, we conducted a search of four electronic databases PubMed, CINAHL via EBSCO, PsychINFO via ProQuest, and EMBASE. In consultation with a university reference librarian we selected the keyword "birth experience" and the subject headings unique to each database: maternal attitude, maternal behavior, mother child relations, mother infant relations, parenting, birth, childbirth, and parturition. Maternal caregiving was not an available subject heading. These search terms were used to capture as many articles as possible.

Eligibility criteria

Eligibility criteria consisted of primary research from peer-reviewed journals, human data, and full text availability in English. To maximize

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the likelihood of identifying relevant studies, we did not impose a restriction on study design or publication year.

Study selection process

The study selection screening process began with three investigators independently reviewing titles and abstracts, followed by evaluation of full text articles for determination of eligibility. Consensus of agreement between investigators was met at each step of the screening process. Studies were excluded if birth variables were limited to only birth events (e.g., mode of birth, medical interventions, complications) without including women's postnatal perspective of their BE. Reference lists of included articles were searched to identify studies not identified in the initial electronic search.

Results

Study selection

The selection process initially identified 1696 records: 277 from PubMed, 306 from CINAHL, 532 from EMBASE, and 581 from PsycINFO. After removing 181 duplicates, 1515 titles were screened for relevancy. Due to a majority of titles clearly not meeting inclusion criteria, 369 abstracts remained for review. A total of 37 articles warranted full text review for eligibility (34 from the 369 abstracts and three from a manual search of references lists). Fifteen articles met the study criteria and were included in the review. See Fig. 1 for the selection process PRISMA flow.

Study characteristics

Fourteen sources of data informed the 15 studies (Table 1), with one investigative team publishing two studies from the same dataset [30,31]. Studies originated from Australia, Canada, Finland, United Kingdom, or the United States. Sample sizes in quantitative studies ranged from 46 to 863 women. Samples sizes in the three studies with qualitative methods were four women [32], six women [33], and 48 women [34]. There was inconsistent reporting of education level and race/ethnicity; however, samples were primarily well-educated White women. The majority of studies included a high proportion of women who were either married or living with their partner, and three studies did not report marital status [34–36]. In 12 studies, primiparas ranged from 25% to 61% of the sample. Two studies included only primiparas [27,37], and one study did not report parity [33]. Only two studies restricted their sample to women with either elevated symptoms or diagnosis of post-traumatic stress [32,33]. Twelve studies reported modes of birth with cesarean rates that ranged from 16% to 29%, one study only included vaginal births [38], and two studies did not report mode of birth [33,36].

All of the 12 quantitative studies used a correlational design, with five using a cross-sectional approach [23,38–41], and the remaining seven using a prospective approach for the variables of interest in this review. Each of the three studies using qualitative methods collected data during a one-time interview and each employed a different

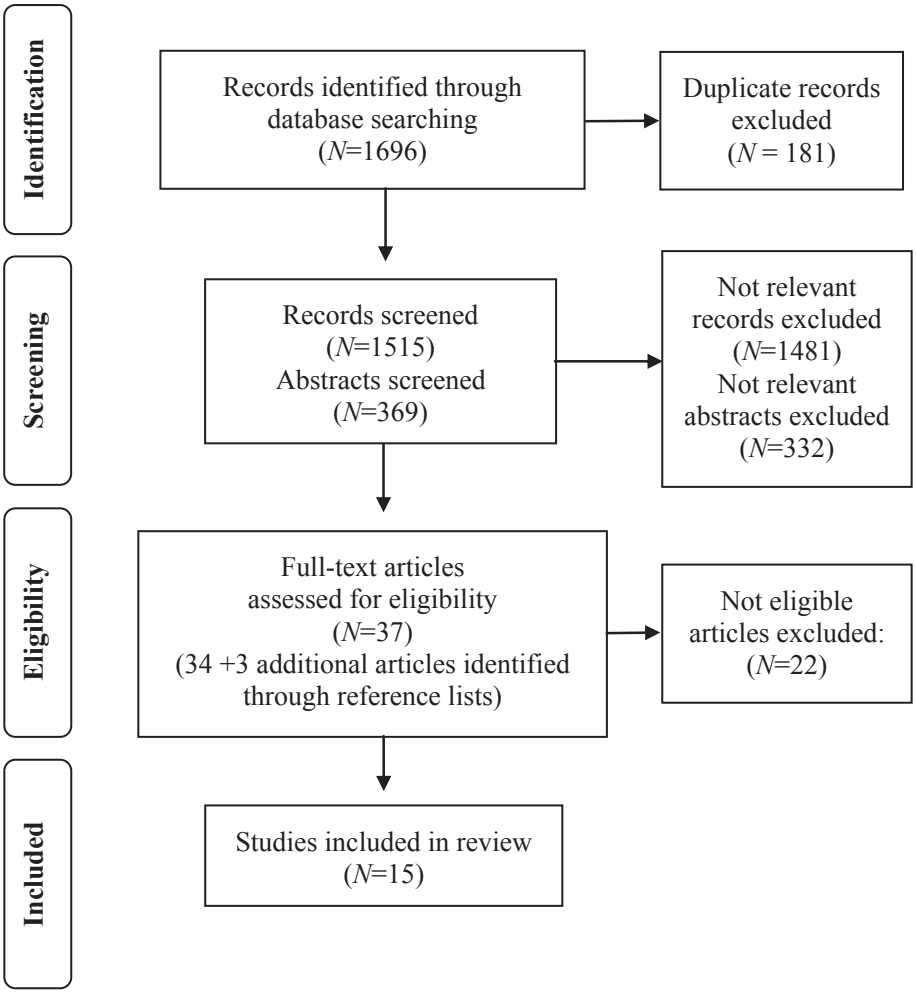

Fig. 1. PRISMA flow of the selection process.