SYSTEMATIC REVIEW PROTOCOL

REVIEW TITLE:
The experience of new mothers who are separated from their newborn infants: a qualitative systematic review.

Reviewers
Sara Stelfox BNurs GDipMid MMid\(^1\) and Cate Nagle PhD, MPH, BAppS(Adv Nurs)\(^2\)

\(^1\) Lecturer, School of Nursing and Midwifery, Deakin University (Burwood Campus): a JBI collaborating centre. Contact: sara.stelfox@deakin.edu.au
Phone +61 3 92446990

\(^2\) Lecturer, School of Nursing and Midwifery, Deakin University (Waterfront Campus) and the Deakin Centre for Quality and Risk Management in Healthcare: a JBI collaborating centre. Contact: cate.nagle@deakin.edu.au
Phone: +61 3 522 78401

Associate reviewer
Professor Bridie Kent
The Deakin Centre for Quality and Risk Management in Healthcare: a JBI collaborating centre.
Contact: bridie.kent@deakin.edu.au

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REVIEW OBJECTIVES/QUESTIONS:
The objective of this review is to explore the experience of separation for mothers and their term newborn infants in order to understand the effect this has on the mother and infant couple. This knowledge will be used to enhance the care experience and minimise harm for
mothers and infants when there is or has been an admission to special care nursery within 72 hours of birth.

This review aims to answer the following specific question:

What is the experience of mothers who are separated from their term infants within 72 hours of birth?

BACKGROUND:

The routine practice of separating mothers and babies after birth, which became popular when birth entered the hospital system in the mid 20th century, has largely been replaced by mother and newborn skin-to-skin contact and rooming-in in many parts of the world. Skin to skin contact refers to placing the naked baby on the mothers bare chest immediately following birth or soon afterwards. Rooming in is defined as the constant close presence of the infant remaining in the same room as the mother from the time of birth and continuously during the postnatal stay. The postnatal length of stay for uncomplicated normal births in countries such as Australia, Canada, the United States, the United Kingdom and Sweden is between 48 and 72 hours after birth. An increasing understanding of the innate behaviours present in the newborn at birth that assist with the establishment of breastfeeding and with mother and infant bonding, has led to immediate skin-to-skin contact and rooming-in becoming common practice in much of the world. In some cultures and countries the tradition of routine separation of mothers and their healthy babies at birth or soon after continues to occur. These babies may be removed from their mother’s arms for a short time to be washed and clothed or be transferred to well baby nurseries for the remainder of their stay, while their mothers are cared for in the postnatal or maternity wards.

Contact that is continuous between the mother and her infant is not usually able to be maintained when the infant requires care in a specialised nursery (special care or level II nursery, newborn nursery, neonatal nursery or neonatal intensive care unit – NICU), even when it is the preferred practice in the country or culture to provide this close contact for healthy babies. These mother and infant couples undergo a period of separation that is
unique, in that other mother and newborn baby couples do not experience this separation because the usual practice is to maintain mother and infant contact until the mother and baby are discharged home together.

Immediate contact between a mother and her newborn infant enhances the success of breastfeeding and this when combined with continued close contact for mothers and their babies during the postnatal stay promotes bonding and encourages feelings of confidence and competence in a woman’s self belief of her ability to care for her infant.

Exploring the process of bonding between a mother and her newborn baby has shown that attachment commences before pregnancy, continues during pregnancy and is enhanced after the birth of a baby. Attachment is a process that occurs between the mother and newborn infant and each of the partners in this couple will exhibit behaviours that facilitate the forming of enduring bonds that develop into a central force in life. Although physical contact between mothers and their newborn infants immediately after and in the days following birth has been demonstrated to enhance the process of bonding and attachment, it is not the sole influence on a mother and her newborn baby’s ability to form a positive attachment. Small changes to care practices such as keeping mothers together with their babies after caesarean births, involving parents in care tasks and providing facilities for parents to use when they visit neonatal nurseries can contribute in a positive way to establishing the maternal and infant bonding process, even when some separation is experienced.

One example of physical contact practices is skin-to-skin, another is rooming-in. The long term effect of immediate skin-to-skin contact and rooming-in for mothers and their babies is an established component of setting up a positive attachment and breastfeeding partnership. This early attachment and establishment of partnership continues and translates into a long term relationship that is positive and beneficial for both the mother and baby. Demonstrations of these positive effects are measured with increased mother-infant interaction and an enhanced ability of the infant’s coping with stress at age one compared to babies who were separated from their mothers soon after birth.

A second significant consideration of separating mothers and their newborn babies is the affect on the breastfeeding partnership for the mother baby couple. The benefits of
breastfeeding are well established, it is known that contributions to the health and development of babies who are breastfed will continue to enhance their long term health.\textsuperscript{10} Current breastfeeding rates throughout the world do not meet the recommendations of the World Health Organisation (WHO) which recommends that babies be breastfed exclusively until at least 6 months of age and continue breastfeeding until 2 years of age.\textsuperscript{10}

Whilst breastfeeding is natural and almost all mothers are able to breastfeed\textsuperscript{11} there can be difficulties which impact on the mother-infant dyad and affect their breastfeeding experience. The variety of difficulties that women experience when breastfeeding can be broadly grouped into physiological, psychological and social factors.\textsuperscript{12} Common physiological difficulties include excess or diminished milk supply, breast and or nipple pain and problems with attachment. Psychological issues include sexuality and feelings about breastfeeding. The need to return to work and other social factors can cause mothers to cease breastfeeding before the partnership has been established between themselves and their infant. Little is known about the effect of separation due to the newborn’s admission to nursery for care needs on the breastfeeding experience for these mothers.

The journey of the mother and her infant towards obtaining and maintaining a successful breastfeeding partnership can be enhanced by providing uninterrupted skin to skin contact soon after birth, waiting for signs that the newborn is ready to commence its first feed.\textsuperscript{4} Babies who are born and placed prone across their mother’s abdomen or chest whilst being dried and assessed and who remain in this position covered with a warm blanket will progress through a predictable set of behaviours in readiness to breastfeed.\textsuperscript{2} The breastfeeding ability at this first feed if recorded is shown to be higher than those of infants who are removed to an infant cot to be dried, assessed and wrapped before being returned to their mothers for a first feed.\textsuperscript{2} In the days following birth, encouraging close contact between the mother and her baby through routine practices of rooming in and enabling unrestricted access to the breast for feedings increases milk supply\textsuperscript{13} and decreases breastfeeding difficulties.\textsuperscript{14}

We know that difficulties with breastfeeding in the first four weeks of the newborn’s life are negatively associated with breastfeeding duration.\textsuperscript{15} Commonly these difficulties are described as sore nipples, inadequate supply and a perception that the baby is not satisfied
with the breast milk. This combined with women’s reports that the admission of a baby (which generally occurs within days of the newborns birth) to nursery care was a reason for ceasing to breastfeed suggests that there is a greater risk of shorter than optimum breastfeeding length for these vulnerable infants. It has been reported that admission to newborn nursery was the reason for ceasing to breastfeed for between 10 – 15% of women who initiated but did not continue breastfeeding beyond the early days of life.

Several research studies using methods of phenomenology, and ethologic approaches have described the experiences of mothers whose newborn babies were cared for in a NICU during the postpartum maternity care period. This affects just a relatively small number of babies, the 2007 admission rates for live born babies being admitted to level III nurseries or NICUs in Australia was 2.1% and for New Zealand 2.7%; in fact the majority of babies needing nursery care are admitted to a level II or special care nursery (SCN), with approximately 12.7% of live born babies in Australia and New Zealand being cared for in these environments in 2007. A search of World Health Organisation (WHO), Unicef, Canadian Neonatal Network (CNN), March of Dimes, EuroNeoNet and Australian and New Zealand Neonatal Network (ANZNN) did not provide information on worldwide or national admission rates (other than Australia and New Zealand) to either level III or Level II nurseries. It is difficult to estimate worldwide figures for admission rates to nursery care of full term newborn babies, this review may provide the opportunity to discover these figures and associated patterns or influences.

Nonetheless, little is known about women’s experience of separation from their infant and its influence on the woman’s attachment and bonding behaviours or on the experience of breastfeeding for mothers whose babies are not able to room in with them because of the baby’s admission to newborn nurseries.

This review aims to add to the qualitative evidence base for providing care and support to women, babies and their families that will enhance the care experience and minimise harm by looking at the common or shared experiences of women whose babies are separated from them for the purpose of receiving medical care in the newborn nursery. The libraries of Joanna Briggs Institute and the Cochrane Collaboration have been searched for the
presence of similar systematic reviews on women’s experiences of separation from their newborn babies; no similar reviews on this topic have been identified. One review on separate versus rooming-in care for women and their newborns has been registered with the Cochrane Collaboration, this is a quantitative review that considers the effect of separation on breastfeeding duration and thus is quite different.6

INCLUSION CRITERIA:

Types of Participants:
This review will consider publications that include experiences of new mothers whose term infants were admitted to special care nursery within 72 hours of birth. Publications will not be excluded on the basis of mode of birth, parity or age of the women. Studies that include the experiences of women who have a condition that prevents their participation in the care of their baby will not be included in this study. Such conditions may require admission to adult intensive or critical care areas and would include severe obstetric haemorrhage, eclampsia or stroke.

Infants that are premature (those born before 37 completed weeks) and those that have structural deformities such as clefts of the lip and palate, babies that are admitted to or have been admitted to NICU or maternal or neonatal conditions in which breastfeeding may be contraindicated (chemotherapy, radioactive treatments, HIV-Aids or neonatal gastro-intestinal deformities) will not be included in this review.

Phenomena of interest:
This qualitative review will consider studies that investigate mother’s experiences of separation on physiological, psychological and social factors when their term infants are admitted to special care nursery within 72 hours of birth. Babies are considered to be separated from their mothers when there is an alteration to the constant close presence of the infant remaining in the same room as the mother (rooming-in) from the time of birth and continuously during the postnatal stay.
A second phenomenon of interest is the impact of this separation on the mode of feeding for these mothers and their infants.

**Types of studies:**
This review will consider studies that focus on qualitative data including, but not limited to, designs such as phenomenology, ground theory, ethnography, action research and feminist research. In the absence of research studies, other text such as opinion papers and reports will be considered in a narrative summary.

**SEARCH STRATEGY**
The search strategy aims to find both published and unpublished English-language studies. The search will be limited from the year 2000 to present. A three-step search strategy will be utilised in each component of this review. An initial limited search of MEDLINE and CINAHL will be undertaken followed by analysis of the text words contained in the title and abstract, and of the index terms used to describe article. A second search using all identified keywords and index terms will then be undertaken across all included databases. Thirdly, the reference list of all identified reports and articles will be searched for additional studies.

The databases to be searched include:

- CINAHL
- MEDLINE
- PsycINFO
- EMBASE
- Cochrane Library
- SCOPUS
- PsycARTICLES
- ScienceDirect
- Psychology and Behavioural Sciences Collection (EBSCOHost)
- Global Health
- Health source/Nursing Academic
The search for unpublished studies will include:

- ‘Grey Literature Report’ from New York Academy of Medicine
- ProQuest Dissertations and Theses Full Text
- PsycEXTRA
- Grey Source: A Selection of Web-Based Resources in Grey Literature
- Proceedings First
- Institute for Health & Social Care Research (IHSCR),
- AHRQ (Agency for Healthcare Research and Quality)
- Clinical Medicine Netprints Collection
- HMIC (Health Management Information Consortium)
- NurseScribe
- Index to Theses
- Theses Canada
- The Qualitative Report
- WHOLIS: WHO Organization Library database
- Mednar

Initial keywords to be used will be:

- Separation
- Separat*
- Mother-Infant Separation
- Interruption
ASSESSMENT OF METHODOLOGICAL QUALITY

Qualitative papers selected for retrieval will be assessed by two independent reviewers for methodological validity prior to inclusion in the review using standardised critical appraisal instruments from the Joanna Briggs Institute Qualitative Assessment and Review Instrument (JBI-QARI) (Appendix I).

Any disagreements that arise between the reviewers will be resolved through discussion, or with a third reviewer.

DATA EXTRACTION

Qualitative data will be extracted from papers included in the review using the standardised data extraction tool from the Joanna Briggs Institute Qualitative Assessment and Review Instrument JBI-QARI (Appendix II).

The data extracted will include specific details about the interventions, populations, study methods and outcomes of significance to the review question and specific objectives.

DATA SYNTHESIS:

Qualitative research findings will, where possible be pooled using the Qualitative Assessment and Review Instrument (JBI-QARI). This will involve the aggregation or synthesis of findings to generate a set of statements that represent that aggregation, through assembling the findings (Level 1 findings) rates according to their quality, and categorising these findings on the basis of similarity in meaning (Level 2 findings). These categories are then subjected to a metasynthesis in order to produce a single comprehensive set of synthesised findings (Level 3 findings) that can be used as a basis for evidence-based practice. Where textual pooling is not possible the findings will be presented in narrative form.

CONFLICTS OF INTEREST:

None known.
REFERENCES:

APPENDIX I  JBI QARI Critical Appraisal Instrument

JBI QARI Critical Appraisal Checklist for Interpretive & Critical Research

Reviewer ___________________  Date _________
Author _____________________  Year _________  Record Number ______

1. Is there congruity between the stated philosophical perspective and the research methodology? Yes  No  Unclear

2. Is there congruity between the research methodology and the research question or objectives? Yes  No  Unclear

3. Is there congruity between the research methodology and the methods used to collect data? Yes  No  Unclear

4. Is there congruity between the research methodology and the representation and analysis of data? Yes  No  Unclear

5. Is there congruity between the research methodology and the interpretation of results? Yes  No  Unclear

6. Is there a statement locating the researcher culturally or theoretically? Yes  No  Unclear

7. Is the influence of the researcher on the research, and vice-versa, addressed? Yes  No  Unclear

8. Are participants, and their voices, adequately represented? Yes  No  Unclear

9. Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body? Yes  No  Unclear

10. Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data? Yes  No  Unclear

Overall appraisal:  Include  Exclude  Seek further info.

Comments (Including reasons for exclusion)
### JBI QARI Data Extraction Form for Interpretive & Critical Research

**Reviewer** _____________________________  **Date** ________________  
**Author** _____________________________  **Year** ___________  
**Journal** _____________________________  **Record Number** ________

**Study Description**
- **Methodology**   
- **Intervention**   
- **Setting**   
- **Geographical**   
- **Cultural**
- **Participants**
- **Data analysis**

**Authors Conclusions**

**Comments**
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Extraction of findings complete  YES