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BARRIERS AND FACILITATORS IN IMPLEMENTING SKIN-TO-SKIN CONTACT AFTER BIRTH: A SYSTEMATIC REVIEW

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Abstract

Although the importance and benefit of Skin-to-Skin Contact (SSC) have been recognized universally and it is essential to support exclusive breastfeeding, it is often not performed because of many factors. The systematic review explored any barriers and facilitators in implementing Skin-to-Skin Contact (SSC) after birth. A literature search was performed using key terms: Skin-to-skin contact, Barrier, and Support and its synonyms through PubMed, Medline, CINAHL databases. The eligibility criteria of the reviewed article were published in the last five years, in English, and full text is available. The quality appraisal of the study was performed using The Critical Appraisal Skills Program (CASP) and The Joanna Briggs Institute (JBI) critical assessment tool. There were seven articles included in this review, with 440 total participants. There were two themes retrieved about barriers and support in practising SSC, including knowledge and medical conditions, both from the health staff's side and the mother's side. Future research is needed to review SSC implementation in midwife-led care units.

Keywords: Skin-to-Skin Contact; Breastfeeding; Barriers; Facilitators

Introduction

Skin-to-Skin Contact (SSC) is defined as placing a naked baby in a prone position on the mother's bare chest immediately (less than 10 minutes) after birth for at least sixty minutes or until the baby gets its first milk without any disturbance. This is one of the main implementations of the global "Ten Steps to Successful Breastfeeding" Policy since 1989 (World Health Organisation, 2018). The policy aims to support early mother-child bonding and successful breastfeeding. This is expected to provide many benefits, both physical and psychological, and has the potential to affect the quality of life for mothers, babies, and families. Unfortunately, SSCs are often delayed, interrupted, or not performed due to various challenges (Crenshaw, J. T., Cadwell, K, 2012). This is reflected by the prevalence of SSC which only ranges from 1% - 98% worldwide (Abdulghani, N., Edvardsson, K. and Amir, L. H. 2018). Therefore, this study raises the question "what are the barriers and facilitators of the implementation of SSC after delivery?"

Methods

Systematic review has been applied in this study with the characteristics of following a rigid, systematic, and transparent protocol to produce strong evidence [(5)]. The

literature search strategy was systematic through the e-database CINAHL (The Cumulative Index to Nursing and Allied Health Literature), Medline (OVID), and PubMed. The most appropriate types of primary studies to answer research questions are qualitative research and cross-sectional studies (Aveyard, H. 2010). This is because the research question can be answered by exploring the perspectives of health workers or mothers about their experiences with SSC through phenomenological or cross-sectional studies.

Three groups of key terms were used to search for articles (Table 1). The first group was "skin-to-skin contact" and its nine synonyms, the next group was "barrier" and its four synonyms, and the last category was "support" and its four synonyms. The author searched for each term in a group and combined each result using "OR". Then the final results from each of the three categories were combined using "AND". Literature published in the last five years, in English, and full text available were inclusion criteria in this study. In contrast, the exclusion criteria for this study were studies not on SSC immediately after birth, not research articles, and studies not related to humans.

The Critical Appraisal Skills Program (CASP) containing ten screening questions was used to assess the qualitative studies and systematic reviews included in this study (Critical Appraisal Skills Programme, 2018). The Joanna Briggs Institute (JBI) critical assessment tool consisting of eight screening questions was used to assess cross-sectional studies (Joanna Briggs Institute, 2017).

Table 1. The terms that were used to search for articles and its boolean operator

	AND →		
OR ↓	Skin-to-skin contact	Barrier*	Support*
	Kangaroo mother care	Challenge*	Resolve
	Kangaroo care	Inhibitor*	Solve
	Breastfeeding initiation	Difficult*	Answer
	Baby-friendly hospital initiative	Obstacle*	Address
	Ten steps for successful breastfeeding		
	Maternal-newborn contact		
	Breast crawl		
	Maternal-infant contact		
	Mother-infant bonding		

Result

There were seven articles included in this review based on the literature search flow in Figure 1.

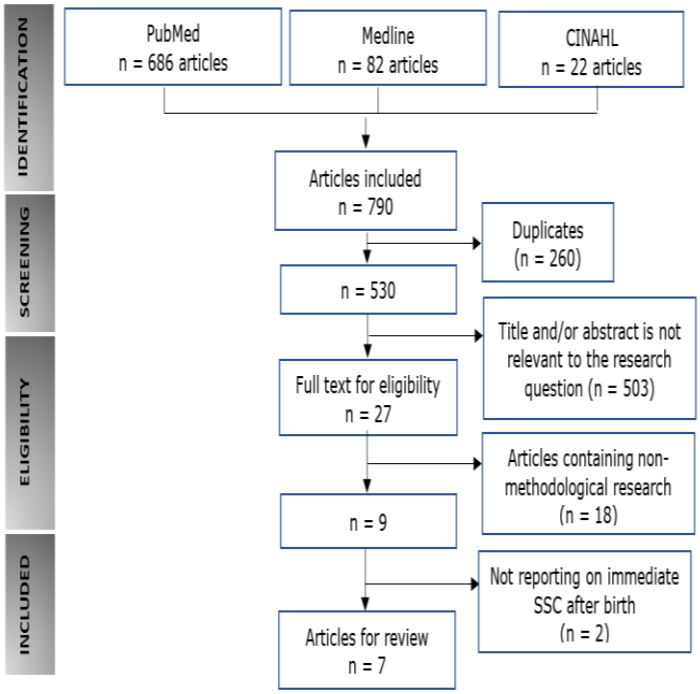

Figure 1. The literature selection process by modifying the PRISMA flowchart

The total sample was 440 participants, including postpartum mothers, breastfeeding mothers, birth attendants, and health workers. Types of delivery included cesarean delivery (3 studies), vaginal delivery (2 studies), and vaginal and cesarean deliveries (2 studies) conducted in hospitals and maternity homes. Most of the studies were qualitative research, and two others were systematic review. All included articles studied SSC in developed countries. Most of the studies were held in Australia (three papers), the United Kingdom, Brazil and Sweden, Austria, and United States one paper each. The quality appraisal of the included papers is presented in Table 2.

Table 2. Quality appraisal result of the included papers

No.	Authors/ Year	Quality Appraisal Result
1.	Finigan, V. and Long, T./ 2014	This research is able to motivate midwives to provide holistic care covering the mother's background and culture. However, the results of this study may not be generalizable because the study was only conducted in one place, and the participants in this study were poorly defined which could trigger bias.
2	Hoga, L. A. K., Gouveia, L. M. R., Higashi, A. B. and Zamo-Roth, F. S./ 2013	This study was conducted by meeting the rules of systematic review and being able to lead to recommendations for further research regarding birth attendants from various backgrounds.

3.	Wieczorek, C. C., Marent, B., Dorner, T. E. and Dür, W./ 2016	The number of participants is large for qualitative research with more than one study site so that it is expected to be able to describe a more general population. However, it was not explained how the relationship between the researcher and the participants which might trigger the bias.
4.	Stevens, J., Schmied, V., Burns, E. and Dahlen, H./ 2014	The study followed the rules of systematic review but did not explain the balance between barriers and supporters of SSC.
5.	Koopman, I., Callaghan-Koru, J. A., Alaofin, O., Argani, C. H. and Farzin, A./ 2016	Although the number of participants was considered sufficient for a qualitative study and represented by each health profession, the potential for bias in terms of the relationship between researcher and participant was not explained.
6.	Stevens, J., Schmied, V., Burns, E. and Dahlen, H./ 2016	Have clear research objectives but no explanation of the relationship between researchers and participants.
7.	Chaplin, J., Kelly, J., and Kildea, S./ 2015	The recruitment strategy was deemed insufficient for the purposes of the study and the number of participants was too small

There are two themes formulated from the seven articles reviewed regarding barriers and support for implementing SSC, covering knowledge and medical conditions.

Barriers and facilitator in implementing SSC related to knowledge

Three studies address lack of knowledge as a barrier to SSC. The exploratory research conducted by Koopman et al. found that health workers who lack confidence in facilitating SSC are the result of doctors' lack of knowledge and experience about SSC. Correspondingly, a study by Stevens, et al. highlight that health staff in operating theaters are not aware of the importance of SSC and that there is a policy to facilitate SSC after cesarean section. In addition, mothers and their families should also have a good knowledge of SSC. This is based on the opinion of health workers that some mothers want their babies to be cleaned first before performing SSC (Stevens, J., Schmied, V., Burns, E. and Dahlen, H. 2016).

Solutions to low SSC knowledge were identified by four studies, namely staff training, policy socialization, and training on how to educate parents about SSC. If all health workers have a good understanding of SSC, then its implementation can run smoothly (Stevens, J., Schmied, V., Burns, E. and Dahlen, H. 2014).

Barriers and facilitator in implementing SSC related to medical conditions

According to health workers in the operating room, SSC is considered to interfere with medical procedures performed on mothers and babies, such as when sewing surgical wounds and monitoring the mother's condition. The anesthetic effect can also make it difficult for mothers to bond with their babies (Chaplin, J., Kelly, J. and Kildea, S. 2016).

The existence of staff appointed to be responsible for the implementation of SSC, rearranging observation equipment, and having local guidelines for the implementation of SSC was deemed capable as a solution for implementing SSC in the operating room.

Discussion

Good knowledge is a major factor in the success of SSC as mentioned in five studies reviewed. This is in accordance with the theory of Knowledge, Attitude, and Practice (KAP) where the three elements will influence each other. Thus, it is important to conduct socialization about SSC, especially to optimize the condition of term infants, and to stabilize pre-terms (Finigan, V. and Long, T. 2014). Based on the second step of the "Baby-Friendly Hospital Initiative" (BFHI) recommendation regarding "staff competence", states that 80% of maternity staff should be educated, trained and evaluated on breastfeeding and SSC.

The use of "online continuing education" for health workers based on the concept of adult learning is a 1.5-hour online tutorial that has been proven effective in increasing knowledge about breastfeeding, participants also can learn it anytime and anywhere. This method may also assist efforts to increase understanding of SSC among health workers. In addition, an understanding of the importance of SSC should also be given since the education period so that later they are better prepared to provide services (Mcintyre, H. and Fraser, D. 2018).

Whereas education efforts for mothers and families can be assisted by trained volunteers in providing counselling and peer support in addition to health workers who tend to be busy. With a good understanding of SSC, it is hoped that health workers as well as mothers and families will have an attitude of supporting the implementation of SSC under any circumstances. For example, if the implementation of SSC is difficult because of the mother's condition, then the father or other family members can bond with the baby through SSC. Thus, policy makers need to ensure that SSC can continue to be carried out to support the achievement of the Sustainable Development Goals (SDGs) through the support of ASI (United Nations International Children's Emergency Fund, 2017).

Conclusion

There are two themes of obstacles and facilitators in the implementation of SSC, namely the low knowledge and medical conditions of the mother and baby which are considered impossible for SSC to be carried out. Policy support in increasing knowledge is an approach that is considered strategic in enhancing SSC efforts. Future research is expected to add a review of SSC implementation in settings with minimal interventions such as home delivery or private practice that was not covered in this study.

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