



Maternal-Preterm Neonate Skin-to-Skin Contact



Pristine Bui

Pre-Licensure Nursing Program Candidate

Research Question

- This research will entail the exploration of skin-to-skin contact (SSC) between mothers and their preterm infants. Specifically, it will encompass the physiological and psychological effects that skin-to-skin care has on the dyad and their relationship during the early postpartum period and throughout the beginning years of their shared life.

*Are the effects that skin-to-skin care have on mothers and neonates lasting?
If so, for how long?*

Definitions

- Skin-to-Skin Care (SSC):** This is a method of care in which the neonate rests diaper-clad or naked on the bare chest of the mother.
- Kangaroo Care (KC):** This is similar to SSC, but in some cases, the infant rests on the mother's abdomen rather than her chest. The effect is similar, but does not facilitate breastfeeding as much as SSC does.
- Dyad:** Two individuals in a significant relationship. In this case, it is the mother-child dyad.
- Neonate:** A newborn child, especially a child less than one month old.
- Pre-term:** This refers to neonates born prior to 37 weeks gestation.
- Premature:** This refers to neonates born prior to 37 weeks gestation, lacking complete organ development.

Background

Origins

- A shortage of incubators in Bogota, Columbia led to utilizing natural, maternal body heat to provide physical and emotional comfort in addition to physiological stabilization.
 - By the early 1990s, SSC had spread to Europe and the U.S. as a preferred method of care in hospitals (Feldman, 2004).

Benefits

- Benefits to Mothers:**
 - Lower rates of postpartum depression.
 - Further production of oxytocin.
 - Experience of a decrease in cortisol levels – this is indicative of lower stress levels (Bigelow, Power, MacLellan-Peters, Alex & Claudette, 2012).
- Benefits to Neonates:**
 - Reduction of pain perception (Castral, Warnock, Leite, Haas, & Scochi, 2008).
 - When in physical contact with mother, they experienced less pain from the routine heel pricks.
 - Facilitated growth and improvement of the infant microbiome (Hendricks-Muñoz et al., 2015).

Barriers

- Certain situations may prevent immediate skin-to-skin contact after birth.
 - These should be addressed in order to further promote SSC and its benefits in the healthcare setting.
 - Complications at birth, vaginal or Cesarean, may necessitate other care methods and limit, if not fully prevent immediate skin-to-skin contact (Mangan & Mosher, 2012).
 - Visitors, the mother's fatigue, and concerns for modesty are other barriers.
 - These issues may be addressed by regulating visitor hours, designating a naptime, and a provision of a comfortable garment, respectively (Ferrarello & Hatfield, 2014).



Methods

- A comprehensive literature analysis of articles and books will be performed.
- The approach to the question and topic will include:
 - Analysis of key concepts and considerations by personnel in the field of medicine pertaining to maternal and neonatal health.
 - Discussion of past studies and exploration of the disparate research methods, sample sizes, and contributions to public knowledge and understanding of SSC.
 - Analysis of other written works designed for the general populace, such as novels written by doctors, nurses, and practitioners that provide different perspectives of and recommendations for SSC.

Anticipated Outcomes

- This research will conclude that benefits of skin-to-skin contact and care are lasting and will positively impact the mother and child.
 - The effects they have will benefit and improve the dyad's health throughout the child's infancy, childhood, adolescence, and possibly adulthood.
- The results of this research will pave the way for further studies and analysis, such as longitudinal studies of the pair, to better determine the lasting effects of skin-to-skin care.

Significance

- Research has demonstrated that SSC supports and better the health of the mother and the neonate. It can be concluded that along with improved health follows a positive, healthy relationship.
- Not enough studies, however, have been discovered to fully support the hypothesis that skin-to-skin care also better the dyad's health and relationship for a long period of time.
- It is thus important to continue studying and promoting skin-to-skin care.
 - A better understanding of skin-to-skin care will increase its popularity and with that, the facilitation of physical and emotional bonding between mother and child at the very beginning of their relationship will foster.
- In addition, as knowledge of human health and the field of medicine is dynamic, is, it is vital to review what has previously and is currently understood about our physiology in order to move forward and better the health of the members of society.

References

- Bigelow, A., Power, M., MacLellan-Peters, J., Alex, M., & McDonald, C. (2012). Effect of mother/infant skin-to-skin contact on postpartum depressive symptoms and maternal physiological stress. *Journal of Obstetric, Gynecologic & Neonatal Nursing, 41*(3), 369-382. doi:10.1111/j.1552-6909.2012.01350
- Castral, T. C., Warnock, F., Leite, A. M., Haas, V. J., & Scochi, C. G. (2008). The effects of skin-to-skin contact during acute pain in preterm newborns. *European Journal of Pain, 12*(4), 464-471. doi:10.1016/ejpain.2007.07.012
- Feldman, R. (2004). Mother-infant skin-to-skin contact (kangaroo care): Theoretical, clinical, and empirical aspects. *Infants and Young Children, 17*(2), 145-161. Retrieved from CINAHL Plus [EBSCO].
- Ferrarello, D., & Hatfield, L. (2014). Barriers to skin-to-skin care during the postpartum stay. *MCN, The American Journal of Maternal/Child Nursing, 39*(1), 56-61. doi:10.1097/01.nmc.0000464.31628.3d
- Hendricks-Muñoz, K. D., Xu, J., Parikh, H. I., Xu, P., Fettweis, J. M., Yang, K., Louie, M., Buck, G. A., & Thacker, L. R. (2015). Skin-to-skin care and the development of the preterm infant oral microbiome. *American Journal of Perinatology, 32*(12), 1205-1216. doi:10.1055/s-0035-1552941
- Mangan, S., & Mosher, S. (2012). Challenges to skin-to-skin kangaroo care: Cesarean delivery and critically ill NICU patients. *Neonatal Network, 31*(3), 259-261. Retrieved from CINAHL Plus [EBSCO].

Contact

Pristine Bui
 CSU Stanislaus
 University Honors Program
 Email: pbui@csustan.edu