



## Background

With the rise in opioid use during pregnancy over the past decade, neonatal abstinence syndrome (NAS) has increasingly affected more newborns. When a newborn is diagnosed with neonatal abstinence syndrome, he or she is often separated from the mother for observation or to receive pharmacological treatment of withdrawal symptoms. This separation can interrupt the bonding process. While all separation may not be preventable, this research project investigates nursing interventions mothers perceive as needed to improve the bonding process. Surveys were provided to both mothers and nurses to determine what interventions might increase bonding.

## Problem

*Newborns diagnosed with NAS are at risk of frequent separation from their mothers which may negatively impact the bonding process. Facilitating this bond between the mother and her newborn is essential to improving physical and social outcomes for this patient population.*

## Purpose

- Identify and prioritize bonding needs of mothers
- Identify nursing actions perceived as needed
- Develop nursing education to provide bonding needs

## Theoretical Framework

*Ramona T. Mercer's Maternal Role Attainment Theory*

•The two major concepts identified that most closely related to this project were maternal role attainment and infant health status.

•According to Mercer (1981), *maternal role attainment* is defined as an interactional and developmental process which occurs over a period of time; this is the time the mother becomes attached to her infant, acquires competence in the care-taking tasks involved in the role, and expresses pleasure and gratification in the role.

• *Infant health status* relates to any illness that causes maternal-infant separation, which in turn interferes with the bonding process (Mercer, 1986).



(Nursekey.com)

## PICOT

*Did mothers with a history of opioid use during pregnancy and their newborns diagnosed with NAS desire different nursing interventions compared to current interventions to increase bonding during the hospital length of stay?*

## Literature Review

Evidence shows increased bonding leads to:

- Decreased length of stay
- Decreased need for pharmacological treatment
- Decreased cost of care
- Decreased need for foster care or adoption

(Abrahams et al., 2010; Newman et al., 2015; Oto, 2017)

## Participants

- Mothers, 18 years or older, with a history of opioid use during pregnancy who had a baby diagnosed with NAS which received pharmacological treatment in the NICU for NAS withdrawal symptoms.
- NICU nurses who cared for newborns diagnosed with NAS within the last year.

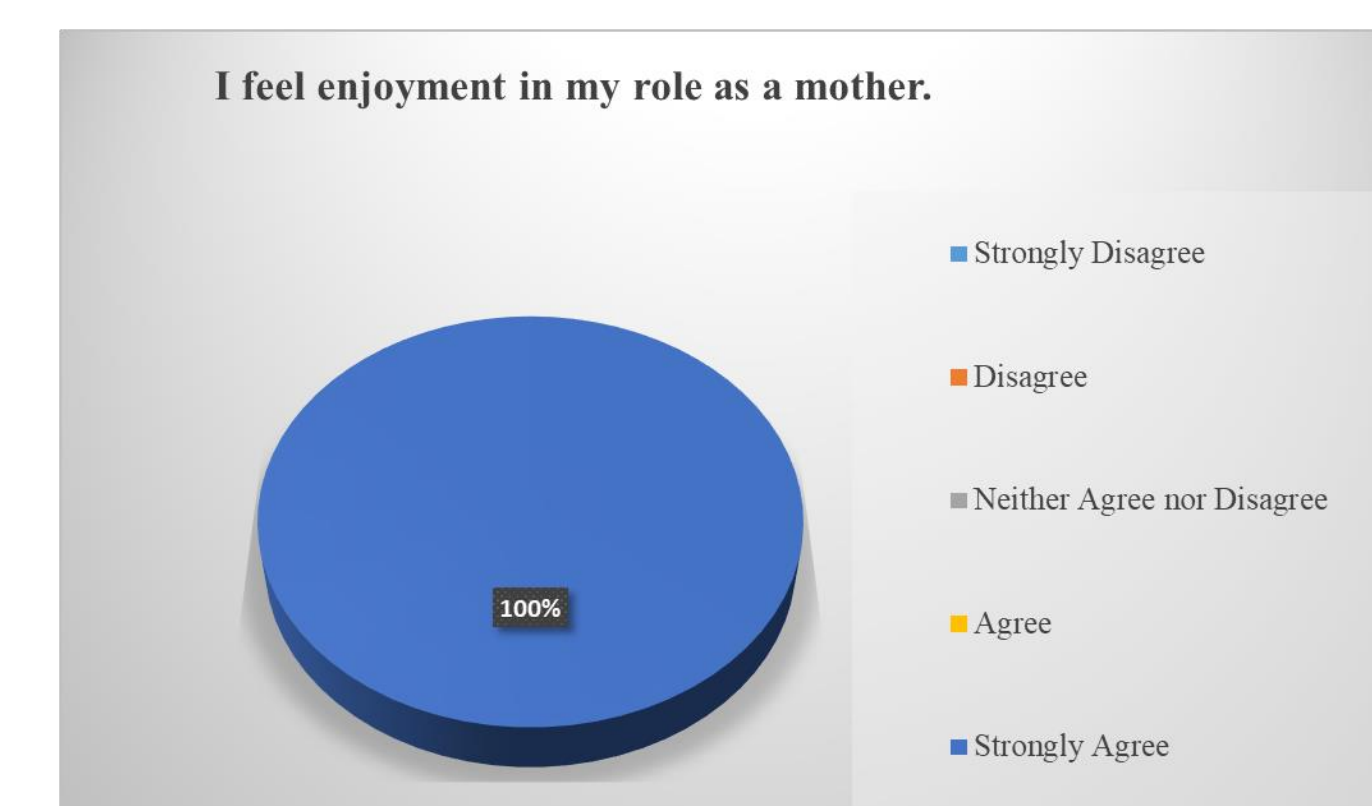
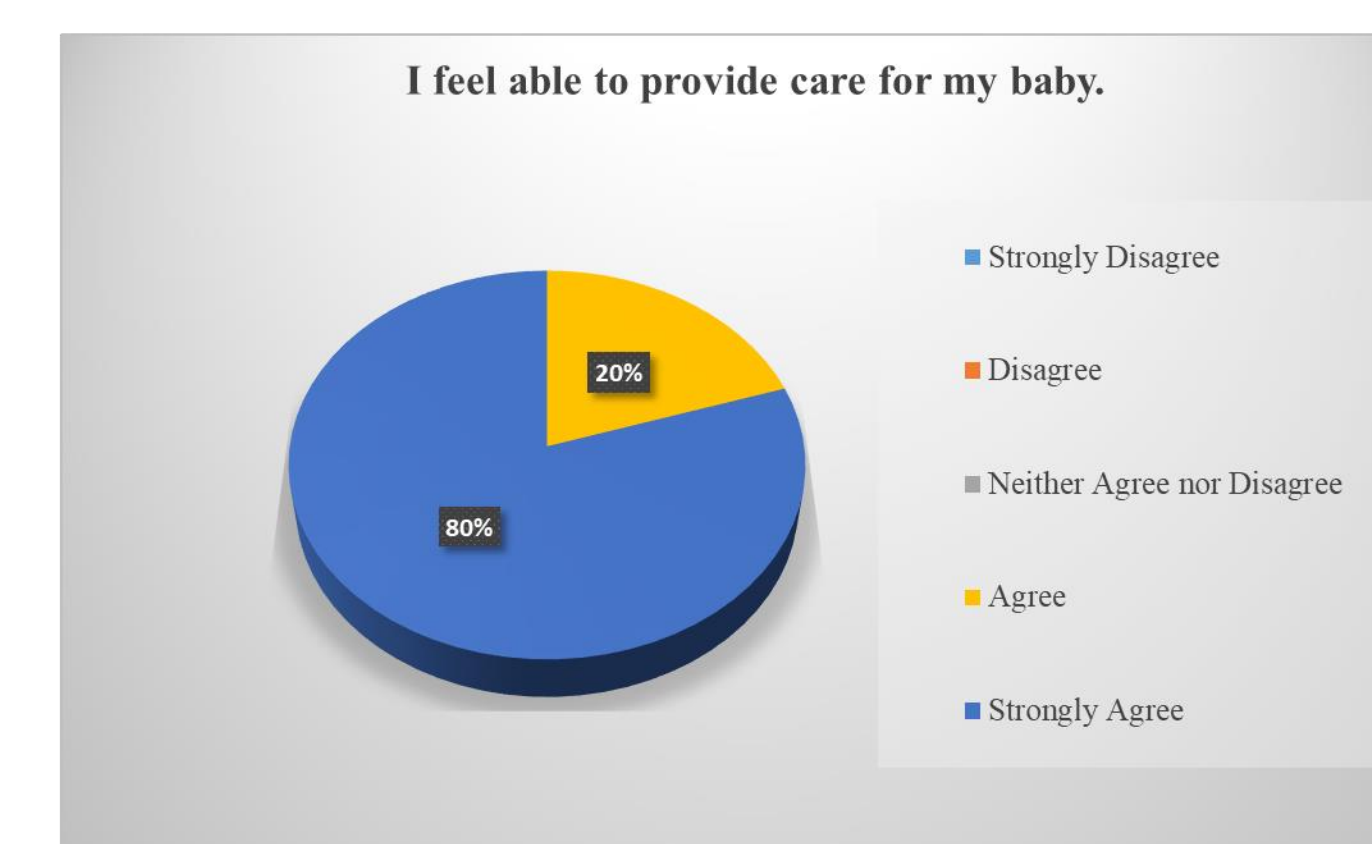
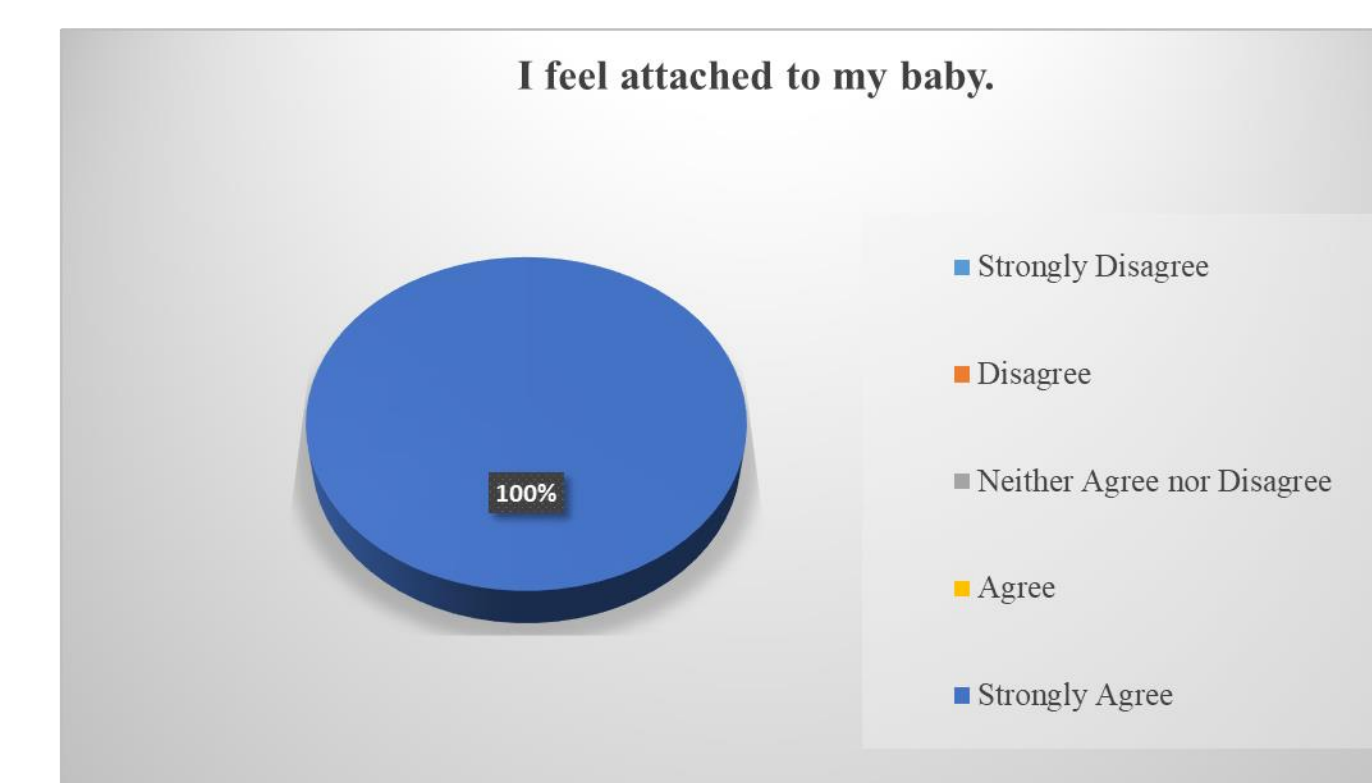
## Design & Methods

Survey study

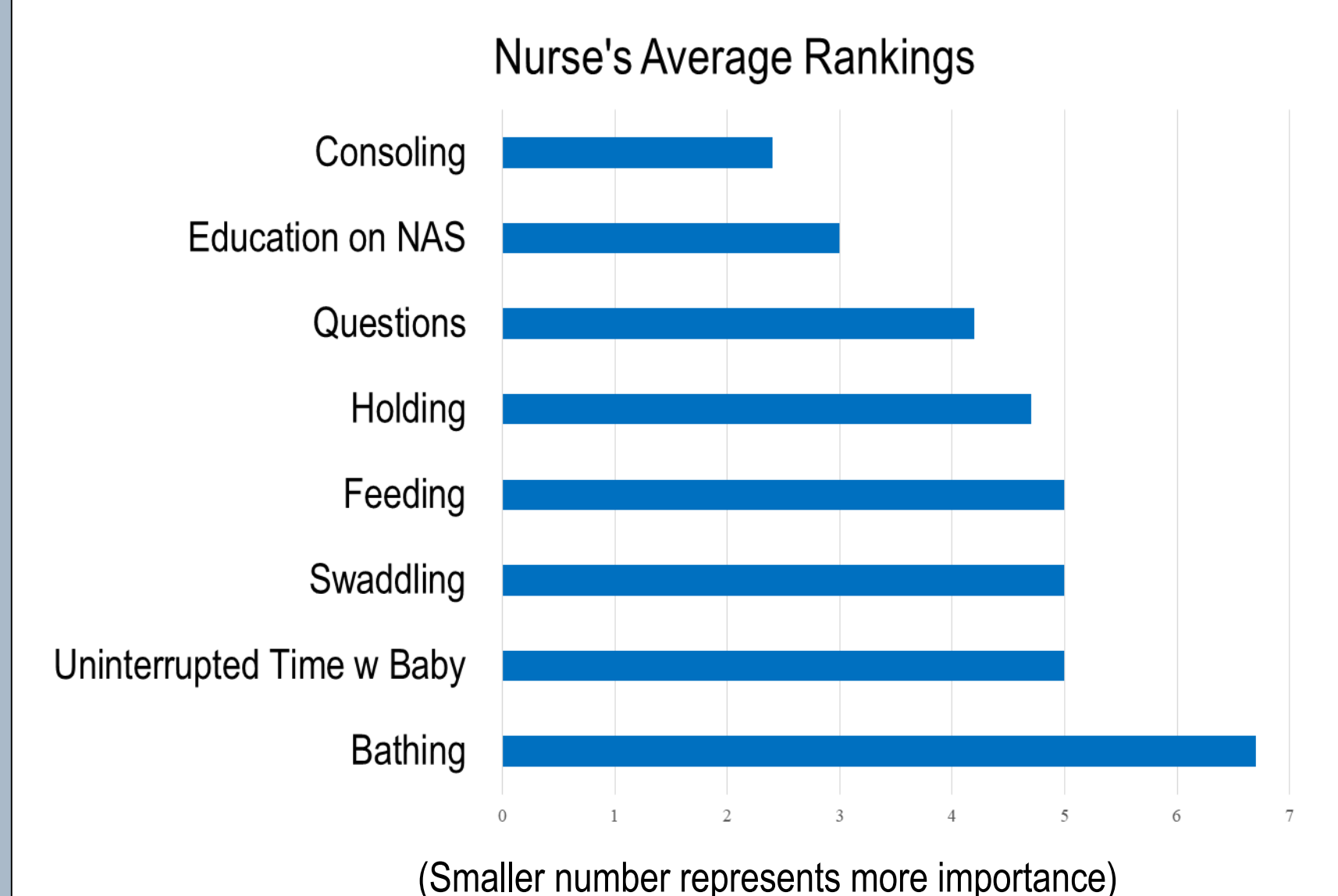
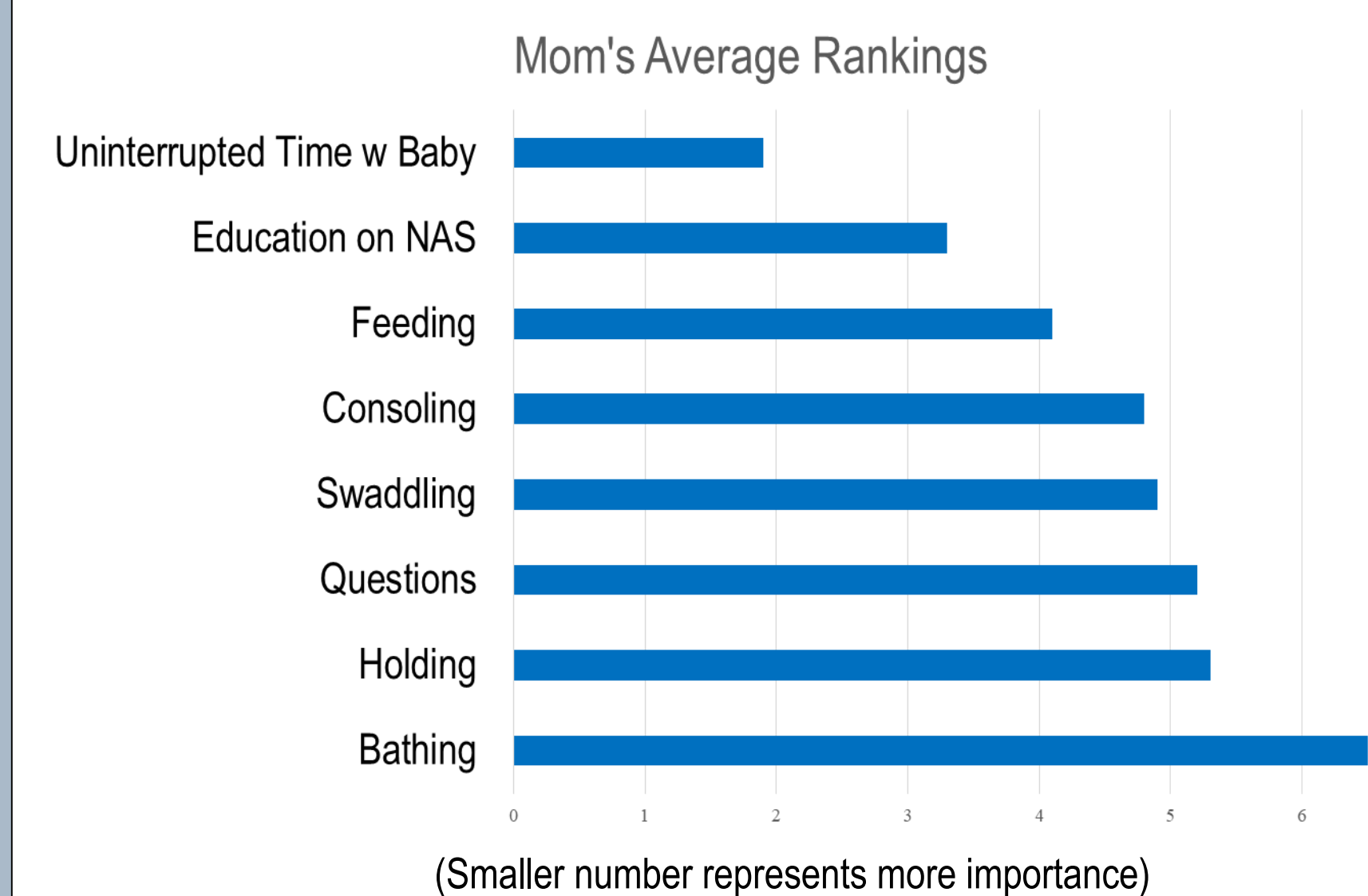
- Maternal bonding survey
  - Likert Scale to determine level of bonding
  - Ranked interventions to determine which interventions mothers perceive are needed to increase bonding
- Nursing survey
  - Ranked interventions to determine which interventions nurses view as important to increase bonding
- Nursing education provided based on results of survey
- Post education survey to determine level of implementation of interventions
- A t-test was performed to determine if the mean importance mothers placed on each intervention was statistically different from the mean importance NICU nurses placed on each intervention.

## Data Analysis

Likert Survey Results



Mean Ranking of Interventions by Mothers and Nurses



Mothers were given an opportunity to write in additional interventions that may have helped them with the bonding process. Three mothers took the opportunity to comment and further explained:

- Being able to do things her way would have helped. She also stated thinking some of the point system [on the Finnegan score] was not correct.
- Breast feeding and skin-to-skin would have helped.
- Explaining the difference between normal newborn behavior and newborns suffering withdrawal symptoms would have helped.

## Conclusions

The data from this TRP showed mothers perceived *uninterrupted time with baby* as the top nursing intervention needed to improve maternal bonding with the newborn. Nursing data revealed NICU nurses felt *teaching consoling techniques* was the most important intervention needed to improve bonding. Nurses need to investigate existing evidence and continually re-examine current practices to make improvements in patient care. While this researcher's sample size was small, it supports current evidence and encourages a greater need for uninterrupted bonding time.

## Implications for Practice

Providing opportunities for bonding is evidenced in the research to improve patient outcomes for newborns diagnosed with NAS. Educating nursing staff providing care for NAS diagnosed newborns on the importance of bonding is essential to positive outcomes for this patient population. To help alleviate fear, promote individualized care, and to provide a safe atmosphere for the mother to be open and honest, nurses may initiate conversations about which interventions each individual mother perceives she needs.

## Limitations

- Closure of NAS unit due to low census of newborns diagnosed with NAS.
- Short time frame for data collection.
- Low response rate of nurses may be due to accessibility of surveys and knowledge of project.

## References

- Abrahams, R. R., MacKay-Dunn, M. H., Nevmerjitskaia, V., MacRae, G. S., Payne, S. P., & Hodgson, Z. G. (2010). An evaluation of rooming-in among substance-exposed newborns in British Columbia. *Journal of Obstetrics Gynecology Canada*, 32(9), 866-871.
- Mercer, R.T. (1981). A theoretical framework for studying factors that impact on the maternal role. *Nursing Research*, 30, 73-77.
- Mercer, R. T. (1986). *First-time motherhood: Experiences from teens to forties*. New York, NY: Springer.
- Newman, A., Davies, G. A., Dow, K., Holmes, B., Macdonald, J., Mcknight, S., & Newton, L. (2015). Rooming-in care for infants of opioid-dependent mothers. *Canadian Family Physician*, 61, 555-560.
- Oto, M. A. (2017). Study: Don't separate NAS infants from moms. Retrieved from <https://www.mdedge.com/pediatricnews/article/146401/pediatrics/study-dont-separate-nas-infants-moms>