A qualitative content analysis to identify barriers to improving neonatal pain management practices in Ontario

Ashley Desrosiers, BScN student,[1,2] Denise Harrison, RN, PhD,[1,2] Jessica Reszel, RN, MScN,[2] Jodi Wilding, RN, BScN[2]

[1]School of Nursing, University of Ottawa, [2]Children's Hospital of Eastern Ontario

Background

In their first days of life, newborns require painful blood sampling, resulting in pain and distress. The distress that results from painful procedures may have long-term negative consequences which may extend into childhood.[1] Extensive research shows that breastfeeding (BF),[2] kangaroo care (KC),[3] and sucrose[4] are effective in reducing procedural pain in neonates.[1] Despite this evidence, these pain management strategies are not consistently implemented in clinical practice.

Aims

To identify barriers to using evidence-based pain management strategies (BF, KC, oral sucrose) during heel lance and venipuncture in neonatal units in Ontario.

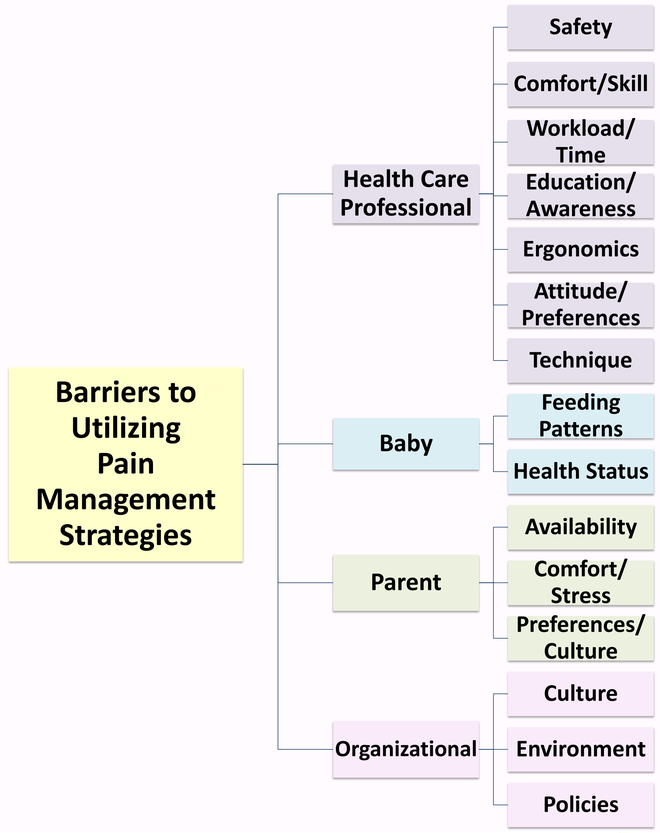
Method

- Surveys were electronically distributed to clinical managers (or their nominees) of 91 neonatal and maternal-newborn units across Ontario.
- As part of a larger survey, six qualitative questions asked respondents to identify factors which limit their use of BF, KC, and sucrose during heel lance and venipuncture
- A content analysis of the qualitative responses from healthcare professionals (HCP) was completed to identify themes and sub-themes.[5,6]

Results

- Thirty-five (83%) respondents completed the qualitative portion of the electronic survey.
- Key themes of barriers to using BF, KC, and sucrose for pain management during heel lance and venipuncture were identified (Figure 1):
- **HCP factors:** HCP workload and time act as a barrier to the three pain management strategies: ***"May not want to take time (they are busy) to have baby go skin to skin or on breast."***
- **Baby factors:** Baby feeding patterns act as a barrier to the three pain management strategies: ***"Baby is not due for feeding when blood work is required"*** or ***"Baby not latching well".***
- **Parental factors:** Parental comfort and stress act as a barrier to the three pain management strategies: ***"Parents request not to be present when blood work is being completed."***
- **Organizational factors:** Environmental factors act as a barrier to the three pain management strategies: ***"Set up of unit does not always provide the privacy for mother."***

FIGURE 1. Barriers to pain management strategies



Implications

Study results inform our understanding of barriers to implementing effective pain management strategies in neonatal and maternal-newborn units in Ontario, as evidence is not being used in clinical practice. Results will inform a future cluster randomized controlled trial to evaluate a knowledge translation intervention aimed at improving use of BF, KC, and sucrose for procedural pain management in neonates.

References

1. Taddio, A., Appleton, M., Bortolussi, R., et al. Reducing the pain of childhood vaccination: an evidence-based clinical practice guideline. CMAJ 2010. DOI:10.1503/cmaj.101720.
2. Shah, P.S., Herbozo, C., Aliwalas, L.I., Shah V.S., 2012. Breastfeeding or breast milk for procedural pain in nenonates. Cochrane Database of Systematic Reviews 3 (12. Art. No.: CD004950. DOI: 10.1002/14651858.CD004950.pub3.)
3. Johnston, C.C., Stevens, B., Pinelli, J., et al., 2003. Kangaroo care is effective in diminishing pain response in preterm neonates. Archives of Pediatrics & Adolescent Medicine 157 (11), 1084-1088.
4. Stevens, B., Yamada, J., Lee, G.Y., Ohlsson, A., 2013. Sucrose for analgesia in newborn infants undergoing painful procedures. Cochrane Database of Systematic Reviews (1: CD001069)
5. Graneheim, U.H., Lundman, B., 2003. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. Nurse Education Today (2004) 24, 105-112
6. Hsieh, H., Shannon, S., 2005. Three Approaches to Qualitative Content Analysis. Qualitative Health Research, Vol. 15 No. 9, November 2005 1277-1288.

Acknowledgments: We acknowledge the University of Ottawa Undergraduate Research Opportunity Program for their support.