Knowledge and Practices of Hip-Healthy Newborn Swaddling Among Maternity Nurses

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Purpose: Swaddling of infants with the hips in adduction and extension is associated with developmental dysplasia of the hip (DDH). Lack of widespread consensus guidelines for proper swaddling has resulted in variability in swaddling techniques, including harmful hip positions associated with DDH. Maternity and neonatal nurses are often the first medical professionals to care for infants and educate parents on swaddling. The purpose of this study is to assess current knowledge and practices of infant swaddling among maternity and neonatal nurses.

Methods: Anonymous surveys with seven multiple-choice questions were administered to maternity and neonatal nurses at a single institution. The survey included questions regarding how frequently patients are swaddled by nurses; assessment of nurse training and knowledge of hip-healthy swaddling positions; and methods used by nurses to teach parents swaddling. Descriptive statistics are presented as counts and percentages on all survey questions. Fisher’s exact test was performed to analyze contingency between responses to paired questions. All statistical analyses were completed using RStudio version 1.1.456 (Boston, MA) with a two-sided level of significance of 0.05.

Results: We collected 104 completed surveys. 80.8% of nurses reported a 75-100% rate of swaddling infants in the maternity unit. Only 62.4% of nurses reported receiving formal swaddling education in their training. Nurses who received swaddling education were more likely to correctly identify the hip-healthy swaddling position than nurses who were not trained in swaddling (85.2% vs. 73.5%). While 99.0% of nurses reported it was their responsibility to teach parents swaddling, only 67.0% reported actually teaching parents 75-100% of the time. The most commonly used teaching methods were demonstration (99.0%) and verbal instruction (77.5%). Nurses who personally swaddled patients more often tended to also teach parents more often (p < 0.001). Nurses who swaddled their patients less often tended to perceive a lower rate of swaddling in their units (p < 0.001)

Conclusion: Although maternity and neonatal nurses swaddle the majority of infants in their care and are often responsible for teaching parents swaddling techniques, fewer nurses receive formal training and teach parents how to swaddle appropriately in practice. We observed a trend towards formal swaddling education being associated with correctly identifying appropriate, hip-healthy lower extremity swaddling techniques. We found underutilization of brochures, pamphlets and published online resources for education of parents on hip-healthy swaddling. There is an opportunity to address these gaps in swaddling education and practices of nurses through the development of evidence-based swaddling guidelines, educational materials, and training protocols.

Significance: Improving healthy hip swaddling education and knowledge in maternity and neonatal nurses may help to decrease the incidence of DDH.
Figure 1: Summary of survey response results.