Promoting Safety and Quality in Sleep and Travel for the Newborn

Kristie L. Bruesch

Ferris State University

Abstract

The Center for Disease Control recognizes infant mortality can be decreased with education of properly placing an infant to sleep through specific guidelines and proper restraining technique in a vehicle. Three specific stories in relation to these guidelines which were not adhered to are discussed and shown if proper education was conducted, these stories may not have happened. The North Ottawa Community Health System provides a specialized unit which does not offer up to date material for parents educating them on evidence based practice of safe sleep and safe travels of the infant. High Reliability, Just Culture Principle, and Quality improvement initiatives are discussed providing rationale for the proposed educational in the Family Birthing Unit at North Ottawa Community Health System. The proposed education need directs families to support safe sleep and safe travel of the infant through up to date information and through the education of a certified restraint technician. The ethical implications of the nurse is discussed and shows safe, quality care of the patient through education within the patient stay and at discharge.

Promoting Safety and Quality in Sleep and Travel for the Newborn

Every year the Center for Disease Control (CDC) reports there are approximately 3,500 infants who have been found dead while sleeping in a bed or other areas like a car seat or swing. In 2014, it was reported 1,500 of these cases were from Sudden Infant Death Syndrome (SIDS) and the other portion from either strangulation of bedding and unknown reasons (Center for Disease Control, 2016). Some key prevention tips for safe sleep include infant position, location, and deleting extra objects in the area of sleep. Infant deaths with lack of safety and quality in sleeping is not the only reason for infant and children deaths. It is reported, 638 children ages zero to 12 were tragically killed in a motor vehicle accident over a one year time frame (CDC, 2016). Of these deaths, 38% of these children were not in an approved safety seat and 46% of the approved safety seat were used wrongly (CDC, 2016). The purpose of this paper is to provide an intervention which promotes safety and quality for sleeping and traveling with newborns and children.

**Haddies Story**

On June 2nd, 2015, Haddie who was a bubbly nine months old baby, was dropped off at her usual day care facility in Holland, Michigan. At approximately three o’clock in the afternoon, Haddie’s mother Sandy, received a phone call from the Sheriff’s office saying there was important information to tell Sandy. Sandy awaited for the police officer to arrive. The police officer arrived and notified Sandy of Haddie’s death at the day care facility in which Haddie was dropped off at. Haddie had been placed in a pack-n-play close to another pack-n-play which had a thick comforter on top. Haddie had grabbed the thick comforter and silently fell asleep and suffocated. Haddie was not found for another three hours (Bromley, 2015).

**Cooper’s Story**

On February 19th, 2015, a three month old Cooper Fales of Grand Rapids Michigan was dropped off at an in-home daycare. Later in the afternoon, Cooper was given a bottle and placed in his car seat where Cooper fell asleep. The father presented to the day care in which Cooper was given to the father in the car seat sleeping. One hour later, the father picked Cooper up and out of the car seat to find Cooper unresponsive. Cooper was given cardio pulmonary resuscitation measures which were unsuccessful and Cooper was pronounced dead (Mlive, 2015).

**The Anderson Family**

On September 16th, 2015 in Niles, Michigan two lives were lost. The driver Tanjela had stopped the vehicle in the passing lane of a busy highway. Two vehicles were unable to stop in time, and hit Tanjela’s car. Tanjela had three passengers in the car at the time of the crash. The front passenger was the mother of the two children in the back seat. The two children, a ten month old and a four year old were killed on the scene due to not being properly restrained (Mlive, 2015).

**Quality and Safety Assessment**

At North Ottawa Community Hospital (NOCH) in Grand Haven, Michigan, an 81-bed acute care facility houses a labor and delivery unit known as the Family Birthing Unit (FBU). The FBU delivers approximately 375 newborns each year with the help of twelve experienced registered nurses (Yaklin, 2016). Currently, the FBU does not hold a policy on education of sleep habits to the parents. For discharging of the patient, the registered nurses have been instructed it is a legal issue if the registered nurses are to educate parents on correct car seat restraint education techniques. These techniques are legally bound to educators who are certified in car seat restraints. Many times the nurses will find infants in cribs with plush blankets, stuffed animals, and infants on the stomachs for sleep. On discharge, many parents ask for help of the registered nurse in proper infant placement in the car seat. The three scenarios in regards to Haddie, Cooper and the Anderson family are all within a 100 mile radius and within the last year. These scenarios coincide with the need for education in safety and quality of sleep and travel protection.

The U.S. Department of Health and Human Services has provided evidence in regards to safe sleep habits. The American Academy of Pediatrics recommends specific sleep positions to aid in decreasing SIDS. Recommendations and education for safe sleep include; placing infant on the back to sleep, placing infant on a firm safety approved mattress, keeping all extra items out of the sleep area, no smoking around infant, promote infant to sleep alone and not in bed or of the arms of an individual, do not use items which recommend the decrease of SIDS, use of a sterile pacifier, and provide tummy time while awake to reduce a flat spot of the infant head (National Institute of Child Health and Human Development, 2008).

A randomized trial was performed supporting the need for a parent training program to aid in the prevention of infant and toddler injury during motor vehicle accidents. The study provided a two part DVD which focused on the correct safety measures of child safety in the car focusing on safety seats and restraints. The study revealed the education of safety seats and restraints provided “significant gains on both outcome measures, a traditional knowledge-based assessment, and a live simulation of child safety seat installation designed to assess recognition of improper installation” (Schwartz, et al., 2013, p. 39). Another research article highlighted the fatalities in children up to nine years old and the use of restraints. This research provided statistics for 7,625 children and of which 53% were restrained. Barriers and solutions were provided highlighting education being a key barrier, cost of booster seats, and refusal of the child to sit in a booster seat. Strategies suggest education awareness to the general public, along with providing car seats or booster seats through campaigns and donations (Lee, Farrell, & Mannix, 2015).

**High Reliability, Just Culture Principle, and Quality Improvement**

The Just Culture initiative for NOCH FBU is to provide education for the safety and quality of safe sleep and travel of the newborn. The role will provide the education to decrease newborn mortality due to unsafe sleep and travel acts. Punitive sanction in the event of nurses not educating safe sleep and travel will cause alarm and require re-education to the nurses. Providing education will help the healthcare system legally, professionally, and ethically (American Nurses Association, 2010).

Quality improvement focuses on knowledge, improvement and outcomes (Health Resources and Services Administration, 2016). The registered nurses on the FBU need to have knowledge to be able to educate safe sleep and safe travel information. Improving the work habits of the nurses will be a team effort in changing the work habit. The registered nurses will need to change the education to promote safe sleep and travel of the infant. Lastly, outcomes is the future of the infant while staying in the hospital and on discharge day. Nurses will need to monitor for the need of re-education if the nurse finds unsafe sleep habits and inappropriate restraint of the infant on discharge (see Appendix A).

In order for the FBU to perform High Reliability Standards, the FBU must be “identifying evidence-based interventions that improve the outcome, selecting interventions with the most impact on outcomes and converting to behaviors, developing measures to evaluate reliability, measuring baseline performance, and ensuring patients receive the evidence-based interventions” (Pronovost, et al., 2006, p. 1599). Specific examples for the FBU is to provide education through verbal education, videos and pamphlets for safe sleep practice. Provide education through a certified restraint educator for safe travels of the infant. Measures can be developed by patient evaluations on discharge with manual evaluation of parents placing infant in car seat. Other evaluations can be a questionnaire prior to discharge evaluating nurse education during the patient stay on safe sleep and travel of the infant.

**Proposed Change and Association**

The two tiered proposed change for the FBU, promoting safety and quality of the infant is to initiate a policy in regards to safe sleep of the infant. The other tier is to propose education of safe travel of the infant through the certification of a nurse in car seat restraint. This proposal will focus on the nursing sensitive indicator of RN education/certification (Montalvo, 2007). The initiation of a policy will state the current evidence practice of safe sleep standards as described throughout this paper. Education of staff will be performed with surveys to parents to provide accurate details of parent knowledge and attainability and the survey will show whether staff is educating appropriately.

The second tier of providing a certified educator in car seat restraint will be more in depth. The certification piece requires the educator to enroll in a certification class which is 3-4 days long. The standardized child passenger safety technician (CPST) certification course “combines classroom instruction, hands-on work with car seats and vehicles, and a community safety seat checkup” (National Child Passenger Safety Certification, 2013). Once the program is completed, the nurse will take the knowledge, skills, and attitude to the FBU and educate staff on correct safety restraint to incorporate to the parents on discharge for the infant. Other education ideas is to provide car seat education during prenatal classes which are offered through NOCH.

**Ethical**

The safe sleep and safe travel proposal for the FBU, takes into consideration the ethical principle behind nursing. This proposal will highlight provision three in the code of ethics, “The nurse promotes, advocates for, and protects the rights, health, and safety of the patient” (Winland-Brown, Lachman, & Swanson, 2015, p. 270). Providing education to the parents in regards to safe sleep and the accurate way to restrain an infant will decrease mortality of the infant based on evidence-based practice. The staff on FBU will ethically perform the most up to date education to ensure safety for all individuals involved.

Conclusion

It is clear with evidence-based practice, the education and promotion of safe and quality sleep and travel of the infant is needed at the Family Birthing Unit of North Ottawa Community Hospital. Safe sleep standards are not even in a policy currently and there are no certified educators trained in safety restraints. Parents are being discharged without complete knowledge of evidence-based practice promoting safety and quality of the infant. The nurses being advocates for education, mortality of the newborn can be decreased. The need for change in education of safe sleep and travel of the infant is needed.

References

American Nurses Association (2010). *Just Culture.* Retrieved from Nursingworld.org: http://nursingworld.org/psjustculture

Bromley, S. (2015). *Haddies story*. Retrieved from Haddies Calling: Every Child Wakes Up: http://www.haddiescalling.com/haddies-story/

Center for Disease Control (2016). *Injury prevention & control: motor vehicle safety*. Retrieved from Center for Disease Control: http://www.cdc.gov/MotorVehicleSafety/Child\_Passenger\_Safety/CPS-Factsheet.html

Center for Disease Control (2016). *Sudden unexpected infant death and sudden infant death syndrome*. Retrieved from Center for Disease Control : http://www.cdc.gov/sids/data.htm

Health Resources and Services Administration (2016). *Quality Improvement*. Retrieved from Health Resources and Services Administration: http://www.hrsa.gov/quality/toolbox/methodology/qualityimprovement/part3.html

National Child Passenger Safety Certification (2013). *Become a tech*. Retrieved from National Child Passenger Safety Certification: https://ssl06.cyzap.net/dzapps/dbzap.bin/apps/assess/webmembers/tool?pToolCode=TAB9&pCategory1=TAB9\_SHOWCOURSE&Webid=safekidscertSQL&pCourseID=MI201511171014&pCoursePK=560771

National Institute of Child Health & Development (2008). *Infant sleep positions and SIDS.* Retrieved from National Institute of Child Health & Human Development: https://www.nichd.nih.gov/publications/pubs/documents/sids\_qa-508-rev.pdf

Lee, L., Farrell, C., & Mannix, R. (2015). Restraint use in motor vehicle crash fatalities in children 0 year to 9 years old. *Trauma Acute Care Surg*, *79*, S55-S59. doi:10.1097/TA.0000000000000673.

Mlive (2015). *2 drivers won't be charged in U.S. 31 crash that killed infant, 4-year-old girl*. Retrieved from Mlive: http://www.mlive.com/news/kalamazoo/index.ssf/2015/12/2\_drivers\_wont\_be\_charged\_in\_u.html

Mlive (2015). *3-month-old boy died at Kentwood day care, investigators allege*. Retrieved from Mlive: http://www.mlive.com/news/grand-rapids/index.ssf/2015/02/3-month-old\_boy\_died\_at\_kentwo.html

Montalvo, I. (2007). The national database of nursing quality indicators. *The Online Journal of Issues of Nursing*, 12(3) doi: 10.3912/OJIN.Vol12No03Man02. Retrieved from http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume122007/No3Sept07/NursingQualityIndicators.html

Pronovost, P., Berenholtz, S., Goeschel, C., Needham, D., Sexton, B., Thompson, D., . . . Hunt, E. (2006). Creating high reliability in health care organizations. *Health Services Research*, *41*, 1599-1617. doi: 10.1111/j.1475-6773.2006.00567.x.

Schwartz, L., Glang, A., Schwebel, D., GeigerWolfe, G., Gau, J., & Schroeder, S. (2013). Keeping baby safe: a randomized trial of a parent training program for infant and toddler motor vehicle injury prevention. *Accident Analysis and Prevention*, *60*, 35-41. doi: 10.1016/j.aap.2013.07.026.

Winland-Brown, J., Lachman, V., & Swanson, E. O. (2015). The New ‘Code of ethics for nurses with interpretive statements’ (2015): practical clinical application, Part I. *Medsurg Nursing*, *24*(4), 268-271.

Yaklin, S. (2016). *About us*. Retrieved from North Ottawa Community Health System: http://noch.org/main.aspx?id=104

Appendice B

Quality Improvement Model for Safe and Quality Sleep and Travel of the Infant