Spring 5-8-2020

Safe Sleep Modeling in the Neonatal Intensive Care Unit

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Executive Summary

Introduction

Approximately 3,500 babies die each year due to sleep related deaths. The Academy of Pediatrics wrote a Policy Statement in 2016 that clearly states all health care workers should model safe sleep for infants less than 12 months of age prior to discharge from the hospital. Safe sleep was not being modeled in this large, Midwest, level IV, university-based neonatal intensive care unit (NICU).

Literature Review

Sudden Unexplained Infant Death (SUID) is the umbrella term used by the CDC for all infant deaths. SUIDs include deaths such as Sudden Infant Death Syndrome, drownings, and accidental suffocation and strangulation. The American Academy of Pediatrics recommends all pediatric providers educate families and model safe sleep practices.

Current literature identifies education as the critical step to decreasing the rates at which infants in the United States are dying from sleep accidents. Education must be provided to both health care workers and parents. Education should be consistently taught and demonstrated to avoid inconsistent messaging to parents.

Project Methods

The goal of this project is to have safe sleep practices modeled and have consistent education provided for parents while in the hospital setting. All healthcare workers in contact with infants less than 12 months of age should model this practice. The setting of this project started out to be unit-based in the neonatal intensive care unit. Due to the wide acceptance and

Board of Directors recognition of best practice, this project now encompasses all Health Service Organizations that care for infants less than 12 months of age at a large Midwest hospital organization. This has resulted in a delay in the implementation of this project at the original site; however, it has also led to the approval for implementation at eight additional sites in the overall Hospital System, a huge success in changing practice.

Furthermore, during the organization embracing the Quality Improvement Project, one of the Board members requested the project be presented to the Missouri Division of Community and Public Health; which is a subcommittee of the Department of Health and Senior Services. The project was presented by the Project Lead RN and Project Lead MD. The project will also serve as the pilot program for the Safe Sleep Initiative for the state of Missouri.

IRB approval was not required due to this being a Quality Improvement Project.

Evaluation

Evaluations were set at two different steps in the project. The first evaluation was completed with the safe sleep champion training sessions. Pretests and posttests were completed to identify increases in knowledge. The tests were de-identified as to the champions and the hospitals at which the champions work. The results yielded 106 pretests and 106 posttests. The median pretest score was 72 with an average of 72% and a median posttest score was 92 with an average of 91%.

The second evaluation period is the audit for safe sleep using the Preventable Harm Application. Quality metrics were chosen that would be able to measure success in the practice of safe sleep. The metrics were infant gestational age, infant position in the crib, crib mattress is flat, crib mattress is covered with a fitted sheet only, no additional linens in the crib, no items in

the crib other than the infant, and infant swaddled in one blanket or in a hospital-provided swaddler. The metrics were chosen to identify not only if the nurse was practicing safe sleep, but if not practicing safe sleep, why they were not. This was used to help identify barriers to practicing safe sleep. Due to the change in the setting and the project expanding to a system wide organization, the data available were the pre-project data that reflected 0% compliance in the NICU. The low compliance was attributed to additional linen and stuffed animals in the crib as well as the head of the bed being elevated. These were also identified as the anticipated barriers to nursing compliance during the project development period.

Limitations of the project that have so far been identified include supplies. When a patient is admitted to the hospital, it is critical to order the appropriate bed for the patient. It was noted that if a crib is not available, a bed would be ordered for the patient. This presented a clear violation of the safe sleep policy which when presented to administration, resulting in the ordering of additional cribs for the hospital.

The cribs must be dressed with tightly fitted sheets. This was an ongoing barrier in the hospital. The Safe Sleep Committee had full support from administration and worked with the Hospital Supply Officer for purchasing of additional fitted crib sheets and maintaining enough fitted sheets on hand in each ward to accommodate the ability for the nurse to change the fitted sheet as needed.

Diaper changing supplies are also kept in the cribs of patients that are not mobile. This violates the safe sleep policy; nothing is to be in the crib but the infant. A team of bedside nurses worked together to identify the best way to organize under the crib and contain the diaper changing supplies. This will hopefully result in compliance once bed auditing begins.

Impact on Practice

The immediate impact is the expected compliance with the American Academy of Pediatrics recommendations for safe sleep practice. Parents will see how safe sleep should be practiced. Parents will receive consistent messaging and education about safe sleep practices while in the hospital. Impact will be seen at a unit level, hospital level, organization level, and at the state level.

The predicted long-term impact from consistent messaging, education, and modeling of infant safe sleep will be a decrease in infant mortality in the state of Missouri.

Changes that should be considered with ongoing implementation are to consider the makeup of the population of the community where implementation is occurring. Cultural awareness of why parents practice sleep the way they do and how to message to the community so the message will be heard is key to the community embracing the change.

Conclusions

This project is still in its infancy. The policy and education for both staff and family have been developed. The SSC feels confident the Safe Sleep Champion Training provides a solid background education and the need for the practice change.

The SSC is planning an organization-wide Safe Sleep Initiative "kick-off" on March 1, 2020. We want to bring an excited awareness of the change being implemented and the good it will do for our infants and families. Additional efforts will come near the end of the first quarter of implementation in June 2020. The organizational results will be presented to the Missouri

Division of Community and Public Health and plans will be put into motion for the birth of the state-wide initiative.

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