

Educating Hospital Caregivers on Car Seat Safety:

Development of an Educational Program

Based on National Standards

Britney Munday, BSN, RN, MSN Student

PROJECT METHODOLOGY

Through this project, car seat safety education has been created with the intention of increasing hospital caregivers' knowledge of car seat safety. Following utilization of the created educational program, hospital caregivers can educate parents of newborns on car seat safety. This intervention can potentially improve the health outcomes of infants involved in motor vehicle crashes. As healthcare professionals, we have a moral obligation to advocate for the safety and wellness of our patients. The created car seat safety education include a PowerPoint presentation, pre-and post-tests, course evaluations, and an easy-to-reference flyers. These resources have been created with child passenger safety recommendations from the National Highway Traffic Safety Administration ⁽¹⁾ and Safe Kids Worldwide ⁽⁴⁾.

Provided resources do not intend to replace car seat evaluation from a certified child passenger safety technician (CPST); all car seats should be evaluated from a CPST. However, hospitals can be financially limited when it comes to certifying their caregivers as CPSTs. Consequently, parents of are inadequately educated, and infants are placed at risk. While this education intends to provide hospital personnel with a basic knowledge of car seat safety, caregivers providing education to patients should always recommend that parents work with a CPST and provide resources to locating a technician.

Deliverables

- Educational Slides
 - Car seat safety information has been compiled into educational slides for hospital leadership to disseminate among their caregivers. Slides include:
 - Local news stories
 - Supplemental video links
 - Resources for additional education
 - Notes for discussion.
- Pretests and Posttests
 - To evaluate caregivers understanding of car seat safety as well as the need for additional education.
- Easy-to-Reference Handout
 - An informative handout to distribute to hospital caregivers and parents of newborns.
 - Information on the handout includes:
 - Importance of car seat use
 - Basics of child passenger safety knowledge
 - CPST contact information.

Plan and Implementation

- Chronological Timeline
 - Six months
 - Program leader become certified CPST.
 - Three months
 - Contact local hospitals.
 - Three months
 - Administer educational to caregivers.
 - One month:
 - Evaluate effectiveness of education.
- Plan for Evaluation
 - Evaluation of program effectiveness will be assessed by a comparison of pre-and post-test scores, as well the completed evaluation from course participants and those results will guide the need for revision.
 - Program will remain guided by most recent child passenger safety recommendations and evidence-based updates.



(7)



(7)



(7)



THEORETICAL FRAMEWORK

The John Hopkins Nursing Evidence-Based Practice (JHNEBP) model was chosen for the process of guiding car seat safety education into the clinical environment. The JHNEBP model was created based on recognizing a gap in the transfer of research results to clinical nursing standards ⁽⁵⁾. This model provides a systematic approach through the PET process, which stands for three phases: practice question, evidence, and translation. The PET process is the core of the JHNEB model, and within those three phases there are 19 steps. This model has been used for state-level EBP review initiatives is beneficial in any setting that utilizes nursing practice ⁽⁴⁾.

CONCLUSIONS

Providing parents with adequate car seat education is not a superfluity, but a necessity. Previously, material provided for hospital caregivers on car seat education was lacking the necessary information to influence widespread change. Nurses have an ethical responsibility to advocate for their patients and attempt to discharge newborns home to a safe environment. The educational program created within this project seeks to increase hospital caregivers' knowledge on correct car seat use. Consequently, aiding in the most effective measure to decrease childhood mortality rates related to motor vehicle accidents ⁽⁶⁾. Nurses have the potential to influence change and improve the outcomes of newborns involved in motor vehicle accidents. While this project intends to support the local community, it also advocates for a national conversation on standardized child passenger safety education for hospital caregivers.

REFERENCES

1. National Highway Traffic Safety Administration. (2015). *Hospital discharge recommendations for safe transportation of children: Best practice recommendations developed by an expert working group convened by the National Highway Traffic Safety Administration*. http://www.nhtsa.gov/staticfiles/nti/pdf/812106_HospitalDischrgeRecSa feTransChildren.pdf
2. Hoffman, B. D., MD, Gallardo, A. R., MA, & Carlson, K. F., PhD. (2015;2016;). Unsafe from the start: Serious misuse of car safety seats at newborn discharge. *The Journal of Pediatrics*, 171, 48-54. <https://doi.org/10.1016/j.jpeds.2015.11.047>
3. Kuroiwa, E., Ragar, R. L., Langlais, C. S., Baker, A., Linnaus, M. E., & Notrica, D. M. (2018). Car seat education: A randomized controlled trial of teaching methods. *Injury*, 49(7), 1272-1277. <https://doi.org/10.1016/j.injury.2018.05.003>
4. Safe Kids Worldwide (2021). *The Ultimate Car Seat Guide*. <https://ucsg.safekids.org/>
5. Melnyk, B. M., & Fineout-Overholt, E. (2019). Evidence-based practice in nursing & healthcare: a guide to best practice. Wolters Kluwer.
6. Schwebel, D. C., Tillman, M. A., Crew, M., Muller, M., & Johnston, A. (2017). Using interactive virtual presence to support accurate installation of child restraints: Efficacy and parental perceptions. *Journal of Safety Research*, 62, 235-243. <https://doi.org/10.1016/j.jsr.2017.06.018>
7. PowerPoint (stock image) (n.d.)

ABSTRACT

There is a lack of car seat education delivered to parents of newborns. Studies show that nearly all car seats have errors in use and installation. Hospitalization during the postpartum period presents an opportunity for nurses to educate parents on car seat safety. Currently, some hospitals utilize certified child passenger safety technicians (CPSTs) to educate parents on car seat safety; however, not all hospitals have this resource. Identification of this knowledge gap has led to the creation of this project and the educational resources that can be administered to nurses caring for the postpartum population.

PICO QUESTION

In healthcare providers (P), how does education regarding child passenger safety (I), compared to no education regarding child passenger safety (C), affect knowledge of car seat installation (O) when discharging newborns (T)?

LITERATURE REVIEW

Data was primarily located through Weber State University's Stewart Library One Search database, EBSCOhost, as well as evidence-based recommendations from the National Highway Traffic Safety Administration (NHTSA)⁽¹⁾. The search was limited to include journal articles published after January 1, 2012. Prevalent themes were:

- The incidence of car seat misuse.
 - 95% of car seats have errors in use and installation ⁽²⁾.
 - The mortality rate of children involved in motor vehicle crashes was improved by 74% with correct car seat usage ⁽³⁾.
- Effective administration of car seat education.
- Correct methods for correct car seat use and installation.

Findings support the master's project assertion that many nurses are not well-versed on correct car seat use, parents are not adequately educated, and children are not correctly restrained.