Enhancing Self-Efficacy for Emergency Nurses in the Event of Nonaccidental Trauma: A Quality Improvement Project

**Introduction**

**Nonaccidental Trauma Background**
- Nonaccidental trauma (NAT) is a leading cause of childhood traumatic injury and death in the United States (US) \(^1,^2\).
- 48% child fatalities each year are related to physical abuse \(^10\).
- Over 700,000 children are victims of abuse and neglect in the US annually \(^14,^26\).
- An estimated 1 in 4 children are victims of some form of child abuse or neglect in their lifetimes; 1 in 7 experienced it in the past year \(^3,^5\).
- In 2020, approximately 1,750 children died of abuse and neglect in the United States \(^5\).
- Only 1/3 of NAT gets initially recognized in the emergency department and 1/4 of victims have had previous sentinel injuries that went unidentified \(^2,^4,^17\).
- Escalating injuries are related to significantly higher mortality rates \(^13\).

**Current State**
- Inadequate NAT education, practice guidelines, and risk reduction.
- Lack of nurse knowledge and confidence in their ability to identify potential victims of nonaccidental trauma.
- No standardized approach to maintain proficiency.
- No evidence-based, universal screening tool for pediatric abuse in the electronic health record triage narrator.

**Purpose/Aims**

To develop, implement, and evaluate the effects of an interactive educational module detailing the screening and recognition of nonaccidental trauma in the pediatric emergency department.

**Methods**

**Design:** Quality Improvement initiative to virtually educate pediatric emergency nurses on key nonaccidental trauma elements with pre-/post-intervention Likert-style self-efficacy & knowledge questionnaires.

**Setting:** Pediatric emergency department at an urban academic medical center with a Level 1 trauma designation.

**Sample:** 37 nurses.

**Intervention and Procedures:**

- **Pre-Test Demographics:**
  - 14, 26 years old.
  - 30 years old.
  - 80 years old.

- **Module:** Short-style Self-efficacy Questionnaire.

- **Data Collection:** Summary scores were calculated at two timepoints during this 12-week project via anonymous Qualtrics surveys.

**Limitations**

- Virtual education: lacks essential team building aspects, live discussion, time for feedback.
- Pre/post-test design: threats to internal validity, response shift bias, overestimation, hints to search for answers in module.
- Time frame: too short to assess for lasting affects and application of concepts learned.

**Results**

**Aim 1:** The pre-test self-efficacy scores were moderate with an average score of 35.75 ± 9.9. At post-test, scores were high with an average score of 45.68 ± 4.3. The mean difference in scores from pre- to post-test increased significantly by 9.93 ± 8.2 (t=6.45, p<.001).

**Aim 2:** Initially, knowledge summary scores were low with an average score of 4.39 ± 1.5. At post-test, scores were high with an average score of 7.43 ± 1.5. The difference in scores pre- and post-intervention revealed a significant improvement of 3.04 ± 1.7 (t=9.39, p<.001).

**Aim 3:** Clinical Significance
- Numerous stakeholders, nursing leaders, educators, clinical nurse specialists, and interdisciplinary team members were made aware of this project and support advancement.

**Conclusion**

**Main Findings:**
- Significant improvement in nurses’ self-efficacy and knowledge of nonaccidental trauma recognition in the emergency department.
- Highlights the importance of implementing formal education to increase awareness and guide identification of victims of nonaccidental trauma.

**Implications:**
- These findings can serve as a foundation for additional initiatives that draw attention to nonaccidental trauma and educate professionals in a variety of settings.

See References.