PHENOMENOM OF CONCERN

Problem: Through anecdotal assessment of the medical record, the Clinical Nurse Specialist (CNS) identified that nursing staff in the pediatric and oncology departments of a western hospital were not documenting the Pediatric Early Warning Score (PEWS) and assessment per hospital guidelines.

Theoretical Model: John Hopkins Nursing Evidence-Based Practice Model (JNEBP)

Method: To address the problem, the following Quality Improvement strategies were initiated:
- Development of an audit tool to assess the electronic medical record (EMR) for the following:
  - PEWS completed within one hour of admission OR near 4-hour assessment
  - PEWS completed every 4 hours per hospital guidelines
  - Identify any records with a PEWS score of 3 or greater
  - If a PEWS score of 3 or greater was documented, was the action and response documented
  - If a PEWS score of 3 or greater, was the patient transferred to the Pediatric Intensive Care Unit (PICU)
  - Pre-test survey to assess gap in knowledge
  - Educational Intervention: PEWS Pediatric Sepsis Escape Room to enhance knowledge, skills, and attitude regarding pediatric sepsis and PEWS assessment tool
  - Post-test survey to reassess knowledge
  - Evaluation of educational intervention

PURPOSE

Reinforce education of staff to improve identification of early clinical deterioration of pediatric patients and proper documentation of PEWS with recommended interventions, per guidelines

- The PEWS helps identify early signs of deterioration that can accurately recognize up to 85% of pediatric patients who will experience clinical deterioration.
- The PEWS can identify clinical deterioration as early as 11 hours before deterioration occurs.
- The PEWS empowers nurses to communicate clinical findings to physicians with confidence.

METHOD

- Identified and recruited Stakeholders
- Review and update of hospital guidelines
- Development of an audit tool
- 23 chart audits completed
- Pre-test survey completed by staff over 15 days via online survey. QR code was created for survey for ease of access. 52% of staff participated.
- Created action plan for educational event
  - Skills and Drills sign up sheet placed in break room in February 2021. Maximum of six staff members per session
  - Skills and drills to be held over six days with 4-hour educational sessions. PEWS Pediatric Sepsis Escape Room to be 1 hour of the 4 hours sessions.
  - Adaptation of Colorado Hospital Association’s Pediatric Sepsis Escape Room Education Plan
  - Purchase of escape room supplies and construction of escape room boards
  - Development of Facilitator Guidebook based on adaptation of Colorado Hospital Association’s Pediatric Sepsis Escape Room Education Plan

PRE-INTERVENTION DATA

- Admission Documentation: 12% improvement compared to pre-intervention data
- Q4H Documentation: 4.3% of charts reviewed had a score of 3 or higher documentation of interventions were present
- PEWS Documentation: 4.918% improvement immediately following intervention
- Documentation of interventions were present

OBJECTIVES

- To improve documentation on admission and Q4H documentation to 90% for both documentation intervals within 6 months
- To improve knowledge from 80% pre-test to 90% or greater post-test
- A team of nurses will use clinical findings to calculate the PEWS correctly and properly identify interventions within the first 15 minutes of the Pediatric Sepsis Escape Room
- A team of nurses will complete all required assessments, interventions, med math calculation for a bolus, and verbalize where to find Intraosseous (IO) supplies and equipment within 30 minutes of the Pediatric Sepsis Escape room
- A team of nurses will correctly identify the proper medication to be administered for sepsis within 40 minutes of the Pediatric Sepsis Escape room

EDUCATIONAL INTERVENTION

Scan the QR code with your smartphone’s camera and then click on the link to take you to a five-minute tour of the Pediatric Sepsis Escape room.

- Staff was given a PEWS educational handout and a badge buddy before the start of the escape room to use throughout the educational experience
- Rules were read out loud by the facilitator before starting the educational intervention
- Staff were instructed not to share the escape room experience with their colleagues on the unit
- Staff were informed that the answers to all the questions/games were in the room
- Staff were informed that the experience would be timed
- Staff were informed that answers were not given
- 91.2% of staff participated in the post-test and evaluation

POST-INTERVENTION DATA

- Admission Documentation: 90% + 7.21% improvement
- Q4H Documentation: 53% of the participants received a 91% or higher

SIGNIFICANCE OF INTERVENTION

- Escape rooms are linked to increase learner engagement, increase retention of knowledge, and improvement in quality indicators (Dacanay et al., 2021).
- Pre-test to post-test showed a 12% improvement
- Staff rated their understanding of PEWS at 53.23% extremely well, 37.1% very well, 8.06% moderately well, 1.92% slightly, and 0% not at all.
- Admission documentation compliance increased by 9.375% and Q4H documentation increased by 4.918% immediately following intervention
- Recommend follow up audit in six months

REFERENCES

Available upon request/ Also available in the “scan me” QR code in the video description

CONTACT

Heather Spaulding
California State University Dominguez Hills
Email: hspaulding1@torornail.csudh.edu