

# STRONG CHILDREN'S RESEARCH CENTER

## Summer Research Scholar

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### ABSTRACT

#### **Title: Improving Pain Perception and Mobility Education in the Pediatric Surgical Center: A PACU-UPP Quality Improvement (QI) Project**

**Background:** Patients and their caregivers often have expectations for pain that will be experienced after an elective surgery in the Pediatric Surgical Center (PSC). The pain that is experienced post-operatively is assessed in the Pediatric Post-Anesthesia Care Unit (PACU) to be safely and adequately managed<sup>1</sup>.

Baseline assessment has indicated that a standard approach to setting caregiver expectations about the degree of pain matched with the type of surgery in the pre-operative setting has room for improvement. Furthermore, while the PACU always assesses and documents patients' pain scores during post-surgical recovery, the caregivers' perception of how well their child's pain is managed is not always measured and documented. Prior research has shown that to increase preparedness for experienced post-surgical pain and ease the transition home, pre-operative communication and thorough discharge instructions were among the important themes<sup>2</sup>.

**Objective:** By December 2026, we will improve patient/caregiver perception of how well the PSC/PACU experiences match pre-op expectation (current: 82.2% to goal: 95.0%) and perception of pain management (current: 92.2% to goal: 95.0%). We will increase preparedness for the PSC process and transitioning from the hospital with road map pain resources and mobility flashcards for families.

**Methods:** A data collection tool was created to measure how well caregivers' pre-operative pain expectation matched the post-operative experience and the perception of how well pain is being managed in the PSC (using a 0-100 scale). A variety of QI tools including a Current State Process Map, Key Driver Diagram, and Fishbone Diagram were utilized by the team. In using qualitative feedback from patients and families, a literature review of the operations in the PSC, and collaboration with Nursing, Anesthesiology, Physical Therapy, and Providers, resources are being developed to increase pre-operative education and support the transition home.

**Results:** Run charts indicate that patient/caregiver pre-operative pain expectation hovered from 82.2% to 81.0%. Perception of pain management improved from 92.2% to 98.0%. A "What to Expect with Surgery" roadmap was created to outline what education families can expect to receive in each stage of the PSC process. General mobility tips and breathing exercises that are applicable to patients across all age cohorts discharged from the Pediatric PACU were developed to supplement the current discharge information.

**Conclusion:** Through an effort to standardize the education that is received at each point of the PSC process, as well as supplement the "activity" section of the current discharge information, this QI team is working towards the development of resources to better match expectation about pain with the actual pain experience. Educational materials will be distributed to families and adjusted according to feedback. These materials are also supplemented by alternative pain management and mobility strategies found on the GCH Pain Management Webpage.

**Resources:**

1: Palomaa, Anna-Kaija, et al. "Parents' Perceptions of Their Child's Pain Assessment in Hospital Care: A Cross-Sectional Study." *Journal of Pediatric Nursing*, vol. 71, July 2023, pp. 79–87, [www.sciencedirect.com/science/article/pii/S0882596323000672](https://www.sciencedirect.com/science/article/pii/S0882596323000672), <https://doi.org/10.1016/j.pedn.2023.03.012>.

2: Luo, Jessica, et al. "Parental Perspectives on Pediatric Surgical Recovery: Narrative Analysis of Free-Text Comments from a Postoperative Survey." *JMIR Perioperative Medicine*, vol. 7, 1 Nov. 2024, pp. e65198–e65198, <https://doi.org/10.2196/65198>. Accessed 9 June 2025.