

A Quality Improvement Project: Treating Procedural Needle Pain in Pediatric Patients Using Non-Pharmacologic Techniques

Amanda C. Moore, RN, DNP-FNP Student

Abstract

Background: Needle-procedural pain often goes untreated in pediatric patients. Untreated and under-treated needle-procedural pain is associated with long term negative consequences, including vaccine hesitancy, hyperalgesia, healthcare avoidance, and increased morbidity and mortality. The purpose of this quality improvement initiative was to increase the utilization of non-pharmacologic interventions in the emergency department of this facility.

Methods: This quality improvement project evaluated interventions using the Plan Do Study Act method of healthcare improvement. Pre- and post-intervention changes in utilization rates of non-pharmacologic techniques used to treat needle procedural pain in pediatric patients were assessed through a retrospective chart review of medical records. Nurses were also surveyed regarding their beliefs about and practices with non-pharmacologic techniques.

Intervention: A distraction kit was developed and assembled which included informational resources about non-pharmacologic interventions for pediatric needle procedural pain. The electronic health record (EHR) was modified to provide a standardized method for documenting the use of non-pharmacologic techniques to treat pediatric needle-procedural pain. Education sessions were presented by the DNP student and designed to increase knowledge about the importance, ease, and efficacy of the use of these techniques.

Results: Self-reported and documented use of non-pharmacologic interventions to treat needle-procedural pain increased over the duration of this quality improvement initiative. Data showed a 39% increase in nurses who reported always or frequent use of non-pharmacologic techniques, and an 87% increase in documented use of non-pharmacologic techniques. When compared to

the first timepoint, there was an increase in self-reported use of 7 of the 12 non-pharmacologic techniques discussed in the education session and/or available in the distraction kit.