Developing and Testing an Innovative Picture Tool to Assess Pain Location in Children

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Background:
-Pediatric patients are at special risk for substandard pain control (Scalford, et al. 2013)
-Pain location is an integral part of pain assessment for all phases of post-operative care prior to surgery with postoperative pain an utmost concern (ASPAN, 2003)
-Another way to communicate with a child unable to self-report pain following a surgical procedure due to a temporary inability to speak must be found (Mesko, 2010; Mesko, Eliades, Libertin & Scalford, 2011)
-A gap was identified in the literature on effective tools to identify pain location in the pediatric post-anesthesia patient (Hamril, Lundon, Hill & Liley, 2014)

Developing a Program of Research:
-Purpose
-Assess efficacy of picture communication aids to assess pain location in postoperative pediatric patients
-Develop a reliable and valid tool to assess pain location in children

Setting
-PeriAnesthesia Care Unit (PACU) of a Magnet® recognized free-standing pediatric hospital in northeast Ohio

Sample
-Convenience sample
-Retrieved patients ages three to nine undergoing same day surgeries (Figure 1)

Design
-Quantitative, comparative design

Methodology
-Study Recruitment
-CR schedule reviewed daily for prospective patients meeting study criteria
-PACU nurse completed:
-Standard pain assessment including location of pain
-Place limit 10 required to proceed
-Notified data collector of prospective subject within 15 minutes of patient being awake
-Data collector:
-In Study 1 and 2: explained study to parents
-Obtained consent
-Assessed child’s pain location using the PAL tool (Figure 2)
-Collect data from electronic medical record
-In Study 3:
-Child pointed to where they hurt (Figure 3)
-Patient medical history
-Surgical site

Findings: Location of Pain:

Study 1:
-38% inconsistency between nurse’s documentation and child’s location of pain
-81% of the time nurses cited operative site as location of pain compared to 20% by the child

Study 2:
-41 participants with at least one pain assessment by the nurse and data collector
-83% of cases pain location not documented and child indicated pain location using PAL
-17% cases nurse documented a pain location with 100% agreement of pain location child indicated using the PAL and pain location documented

Study 3:
-Preliminary reliability of PAL with parallel forms testing (Figure 6)

Discussion:
-Study results indicated
-Parents often not documented
-Pediatric postoperative patients are able to identify pain location using PAL tool
-Children experience pain at other area other than the surgical site

Implication:
-Pariesthesia clinical practice standards are advanced by findings that patients undergoing a variety of pediatric surgical procedures effectively used the PAL post-operatively to identify location of pain.

Future Research:
-Establish usability of PAL in practice
-Single and multi-site studies
-Comparison of pain intervention in patients where the PAL was and was not used
-Expand ages and sites beyond pediatrics

Conclusions:
-Findings
-Provide strong evidence PAL is effective tool
-Consistent with literature that nurses often fail to document pain location
-Advance perianesthesia clinical practice standards and pain management care regarding pain location
-Provide evidence to support incorporating the PAL to identify their child’s postoperative pain location

References:
-Consistency with literature that nurses often fail to document pain location
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