



Variations in Post-Procedural Neonatal Pain Assessment and Intervention

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Introduction

Large variations in nursing assessment and intervention of neonatal pain, have created challenges in our NICU regarding the proper management of post-operative neonatal pain. After finding a lack of policy and specific guidelines regarding pain interventions after pain assessment scores, a literature search was created on the topic.

PICO Question

Population: Post-operative Neonates in the intensive care unit.

Intervention: The use of the N-PASS score to assess pain and guide interventions.

Comparison: Pain assessment and subsequent intervention among various nurses in the NICU.

Outcome: Identify the assessment behind an assigned N-Pass score and likelihood and type of intervention.

Question: Do differences in nursing pain assessments of post-procedural neonates create variations in N-Pass scores that subsequently affect intervention?

Methods

A literature search was conducted using CINAHL, NIH public access, and PubMed databases.

Keywords: *N-Pass score and intervention, neonatal post-operative pain, neonatal pain assessment, variations in neonatal pain assessment.*

Inclusion Criteria: NICU post-operative patients, neonatal pain assessment of registered nurses, quality of N-Pass score, quantitative N-Pass data used for intervention, articles from the past 10 years.

The initial search yielded 841 articles, 5 were included for this project. Those excluded were not pertinent to the inclusion criteria.

Results

Article	Methods	Results
Akuma, A., & Jordan, S. (2011)	Sample consisted of 494 nurses and doctors in 7 NICUs(level 2 and 3) in one area of the united kingdom. Questionnaire comprised of 32 questions regarding the knowledge and use analgesia and comfort measures in neonates was used for the study.	Response rate was 44% with 217 returned questionnaires. The majority agreed that neonates >28 weeks gestational age can perceive pain. The mean pain rankings of nurses were significantly higher than those of doctors. Analgesia was more likely to be used for more invasive procedures. Pain intervention differed among level of NICU. *One of the most commons reasons for not medicating was lack of a unit policy.
Polkki, T., Korhonen, A., Laukkala, H., Saarela, T., Vehvilainen-Julkunen, K., & Pietila, A. (2010)	Sample size of 257 nurses. A questionnaire to collect data about pain in pre-term infants receiving NICU care.	Response rate of 71%. There is a lack of knowledge in nurses regarding differences in perception of pain in pre-term infants vs full term infants. Factors found to be related to individual pain assessment included: educations, work experience, and the unit. . *Half of the respondents reported that pain can be assessed without the use of a pain score.
Dodds, E. (2003)	Sample size of 21 neonatal nurses surveyed. A questionnaire used to investigate attitudes of neonatal pain, pain assessment approaches and pharmacological and non-pharmacological interventions.	Pain assessment tools were used by 48% of respondents. Pharmacological methods were rarely used for pain management. Non-nutritive sucking was used by 66%, other non-pharmacological management was under utilized.

Discussion

- Non-pharmacologic and pharmacologic interventions are underutilized in our population
- Variation in nursing assessment creates a large barrier in managing post-op pain.
- Pain assessment tools are under used and it is not specific as to when interventions should be used based on the N-pass score.
- The lack of specific protocols makes it difficult for new nurses to accurately intervene in the management of post-op pain.

Conclusions

- Overall, a lack of information was found specifically related to post-op neonates.
- Information regarding the utilization of the n-pass score in determining intervention was also lacking.
- Nursing intervention is based on the n-pass score in conjunction with assessment, therefore, how can we make assessment more uniformed in post-op patients to minimize the large variations among nurses and in turn properly manage neonatal post-op pain.

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