

Sigma's 30th International Nursing Research Congress Barriers and Facilitators to Using Recommended Pain Management for Infants and Children

Denise Harrison, PhD, RN

Nursing Care of Children, Youth and their Families, Children's Hospital of Eastern Ontario (CHEO) and The University of Ottawa, Canada, Ottawa, ON, Canada

BACKGROUND

Despite over two decades of research attention aimed at improving pain management for infants and children during painful procedures in the inpatient and ambulatory health care setting, studies around the world continue to report sub-optimal management of children's pain. Understanding facilitators and barriers to using evidence-based recommended pain management strategies in diverse health settings where children receive care, and addressing identified barriers, may lead to improved translation of knowledge into action for sick and healthy children undergoing painful procedures. As very little is known about these factors in the Chinese context, this study aimed to ascertain this information in a hospital in mainland China.

METHODS

This was a preliminary exploratory study carried out at a large specialist surgical hospital in mainland China, that has three dedicated pediatric surgical units. The data collection was from June 2017 to December 2017. Three data sources were used; a focus group interview including health care providers (HCPs) from nursing and medical disciplines, individual semi-structure interviews of nursing and medical clinicians and leaders focusing specifically on procedural pain management and use of breastfeeding, sucrose, topical anesthetic as well as pain assessment, and a 14-question survey based on ChildKind International principals of care. Descriptive content analysis was used to analyze interview data and survey data were described as frequencies and proportions, and summarized using descriptive statistics as appropriate for the distribution of the data.

RESULTS

Seventeen HCPs in total participated in the study; 10 participated in the focus group interview, 13 in individual interviews and six participants participated in both individual and focus group interviews. All 17 HCPs completed the ChildKind Principals survey. **Survey:** Sixteen of the 17 answered that they monitored outcomes of pain management and most (n=15) stated that information about the importance of children's pain was conveyed to the family in the unit. Fourteen responded that regular chart reviews on pain relief were conducted, and 14 reported that their unit had a mission statement about pain management in their unit. Thirteen of the 17 reported that training courses about pain management existed in their units and 12/17 reported that pain management was discussed and orientation for new staff. Less than half reported that hospital signage existed about pain management and less than half answered that competences about pediatric pain management existed.

Interview results: Conflicting perceptions about barriers and facilitators to using topical anesthetics and sucrose and breastfeeding for procedural pain management were found. Topical anesthetics and sucrose were perceived by some as being effective, easy to use, and readily available whereas others perceived that they did not know the evidence, the strategies were not effective, too complicated to use, or either not

available or if so, were difficult to access. Breastfeeding infants for procedural pain management was largely reported as not appropriate, or not available as most mothers did not breastfeed.

Key barriers to using pain management strategies were the perception that the children's distress during procedures was due to fear, and not pain, and lack of availability of sucrose and topical anesthetics.

CONCLUSION

Substantial barriers to using evidence-based effective pain management strategies for hospitalized children were evident. Although some ChildKind principals were in place, others were not, showing room for improvement in pediatric pain focus and management at the organizational level. Knowing the barriers of availability of sucrose and topical anesthetics will assist in planning pain management improvement strategies, and education is required to dispel the myths surrounding the lack of necessity to treat procedural pain in children. These results will be used in a nursing leadership intervention aimed to improve pain management at the organizational level for hospitalized children.

Title:

Barriers and Facilitators to Using Recommended Pain Management for Infants and Children

Keywords:

Children, Pain and Research

References:

Birnie, K.A., Chambers, C.T., Fernandez, C. V., Forgeron, P.A., Latimer, M.A., McGrath, P.J., Cummings, E.A., Finley, G.A., 2014. Hospitalized children continue to report undertreated and preventable pain. *Pain Res. Manag.* 19, 198–204. <https://doi.org/10.1155/2014/614784>

Harrison, D., Joly, C., Chretien, C., Cochrane, S., Ellis, J., Lamontagne, C., Vaillancourt, R., 2014. Pain Prevalence in a Pediatric Hospital: Raising Awareness during Pain Awareness Week. *Pain Res. Manag.* 19, e24-30. <https://doi.org/10.1155/2014/737692>

Kozlowski, L.J., Kost-Byerly, S., Colantuoni, E., Thompson, C.B., Vasquenza, K.J., Rothman, S.K., Billett, C., White, E.D., Yaster, M., Monitto, C.L., 2014. Pain prevalence, intensity, assessment and management in a hospitalized pediatric population. *Pain Manag. Nurs.* 15, 22–35. <https://doi.org/10.1016/j.pmn.2012.04.003>

Stevens, B., Abbott, L., Yamada, J., Harrison, D., Stinson, J., Taddio, a, Barwick, M., Latimer, M., Scott, S., Rashotte, J., Campbell, F., Finley, a, CIHR Team in Children's Pain, 2011.

Epidemiology and Management of Painful Procedures in Hospitalized Children Across Canada. C. Can. Med. Assoc. J. 183, E403–E410. <https://doi.org/10.1503/cmaj.101341>

Stevens, B.J., Yamada, J., Estabrooks, C.A., Stinson, J., Campbell, F., Scott, S.D., Cummings, G., 2014. Pain in hospitalized children: Effect of a multidimensional knowledge translation strategy on pain process and clinical outcomes. *Pain* 155, 60–8. <https://doi.org/10.1016/j.pain.2013.09.007>

Stevens, B.J., Yamada, J., Promislow, S., Barwick, M., Pinard, M., 2016. Pain Assessment and Management After a Knowledge Translation Booster Intervention. *Pediatrics* 138, e20153468–e20153468. <https://doi.org/10.1542/peds.2015-3468>

Twycross, A., Forgeron, P., Chorne, J., Blackman, C., Finley, G.A., 2016. Pain as the neglected patient safety concern: Five years on. *J. Child Heal. Care* 20, 537–541. <https://doi.org/10.1177/1367493516643422>

Twycross, A., Forgeron, P., Williams, A., 2015. Paediatric nurses' postoperative pain management practices in hospital based non-critical care settings: a narrative review. *Int. J. Nurs. Stud.* 52, 836–863. <https://doi.org/10.1016/j.ijnurstu.2015.01.009>

Abstract Summary:

By attending the session, participants will learn about key barriers and facilitators to using evidence-based effective pain management strategies for infants and children hospitalized in a pediatric unit within a large specialized surgical hospital.

Content Outline:

Introduction:

- Importance of pain, especially during needle-related procedures, for hospitalized children and their families.
- Existence of high quality evidence to reduce needle pain includes breastfeeding and sucrose for infants, topical anesthetics for children, and pain assessment to evaluate effectiveness of overall pain management
- ChildKind international principles exist to guide hospitals caring for children to promote best pain care

Study Aim:

- Ascertain use of, and barriers and facilitators to using evidence-based pain management
- Ascertain adherence to ChildKind international principals

Methods:

- Participants: Senior nursing and medical staff in three pediatric units within a large specialist hospital in Shanghai, China
- Data collection tools include:
 - Individual and focus group interviews

- Written survey of adherence to Childkind International Principals.

Results:

- ChildKind Principals survey – 17 respondents.
- Some principals well adhered to and others not well adhered to:
 - Well adhered to: Mission statement about pain relief; parent information on admission about importance of pain management; monitor outcomes of pain relief.
 - Not well adhered to: Signage in the hospital about pain management, importance of pain management during new staff orientation; available information for children and families about pain management
- Barriers and facilitators interviews – Same 17 respondents.
 - More barriers than facilitators to using all strategies.
 - Belief that needle fears already established, therefore not useful using pain reduction techniques – child already scared
 - Support required by all levels of leadership

Conclusion:

- Data used to develop Nursing Leadership intervention for implementing evidence-based pain management in infants and children
- Effectiveness of 1st Program currently being evaluated

First Primary Presenting Author

Primary Presenting Author

Denise Harrison, PhD, RN

Children's Hospital of Eastern Ontario (CHEO) and The University of Ottawa, Canada
Nursing Care of Children, Youth and their Families
Professor (Tenured) and Chair
Ottawa ON
Canada

Author Summary: Denise Harrison, Professor and Chair of Nursing Care of Children, Youth and Families at the University of Ottawa and Children's Hospital of Eastern Ontario (CHEO), Canada will present today on barriers and facilitators to using recommended effective pain management for infants and children in surgical pediatric units in a hospital in Shanghai, China.