Study Finds Imagery Can Reduce Children's Post-operative Pain

Ed. Note: The following is a press release from Case Western Reserve University.

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CLEVELAND - A study aimed at giving health care providers a better understanding of the multidimensional nature and effects of school-age children's post-operative pain concludes that using imagery with analgesics reduced tonsillectomy and adenoidectomy pain and anxiety following surgery.

Findings of the study, "Imagery reduces children's post-operative pain," authored by Myra Martz Huth, a 2002 graduate of Case Western Reserve University's Frances Payne Bolton School of Nursing and co-authored by Marion Good, professor of nursing at Case, was published in the September 2004 issue of Pain, the influential publication of the International Association for the Study of Pain.

Seventy-three children between the ages of 7-12 participated in the study during a 53-week period, from June 1999 to July 2000. All children in the study were scheduled for an elective tonsillectomy or adenoidectomy and were expected to be discharged the same day of surgery.

The children were randomly assigned to one of two groups - a "treatment group" made up of those who received imagery and analgesic treatment, and an "attention-control group," or those children who received only pain medication and no imagery intervention.

The intervention was "To Tame the Hurting Thing," a professionally produced videotape, audiotape and booklets for school-age children, developed by one of the co-authors, Marion E. Broome, dean and professor of nursing at the Indiana University School of Nursing in Indianapolis. They included deep breathing, relaxation and imagery techniques. The videotape was viewed before surgery and the audiotape was used after surgery and in the home.

"This was the first study to demonstrate a reduction in school-age children's post-operative pain and anxiety," said Huth, an assistant vice president at the Center for Professional Excellence at Cincinnati Children's Hospital Medical Center. Children in the treatment group had significantly less pain and anxiety after surgery than the attention-control group that received only attention and medication. Imagery did not decrease the amount of pain medication used, either at the hospital or at home, she added. Children in this sample reported moderate pain the day of and mild pain on the day after surgery.

"We found that health care professionals and parents need to give adequate amounts of pain medicaton in conjunction with non-pharmacologic interventions, like imagery," Huth said.

Huth also said it is hoped that this intervention study will enable health care providers to better understand the nature and effects of children's post-operative pain and that it will assist them in providing relief for kids.

"In future studies, researchers need to explore imagery tape interventions in children having different surgical procedures as well as children with chronic pain," she said.

Good says that distracting the child plays a large role in reducing their pain.

"The purpose of this study was to examine the effects of imagery - in combination with routine pain medication - in reducing pain and anxiety surgery," Good said.

Tonsillectomy with or without an adenoidectomy is the most common ambulatory surgery performed on children under 15 years of age in the United States. Analgesics are the standard of care in post-operative pain management with children; however, children and parents have consistently reported moderate, and in some cases, severe post-operative pain after a tonsillectomy even after receiving pain medication.

The study was funded by a National Research Service Award received by the researchers from the National Institute of Nursing Research of the National Institutes of Health.

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