

Preoperative Anxiety in Pediatric Population: Anesthesiologist's Nightmare

Voepel-Lewis T*

Department of Medicine, Carnegie Mellon University, Mellon, USA

*Corresponding author: Voepel-Lewis T, Department of Medicine, Carnegie Mellon University, Mellon, USA, E-Mail: Voepel-Lewis@gmail.com

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Description

Surgery in a child is one of the most important events of its life. Exposure to hospital environment including operating room away from own area of comfort, meeting with new peoples and visualising sick people in agony creates a significant impact on a child's mind. Any unfavourable experience in this circumstance not only creates a fear towards medical systems for the lifetime but also sometimes lead to serious psychological consequences like post-traumatic stress disorders. The perioperative period is particularly important in this scenario because it is very difficult to manage an anxious and fearful child posted for surgery. It is of utmost importance that the antianxiety measures should start immediately after admission to avoid such a scenario and the anaesthesiologists have a crucial role in it [1].

Important Challenge to Anesthesiologist

In 1975 Visintainer and Wolfer described five dimensions of surgical experiences that evoke anxiety to the children. Later in 1995 Squires further elaborated the factors in relation to stress and anxiety in hospital admitted children. In general, in the operating room, the child is exposed to new surroundings with new people in command and in the fear of repeated painful physical stimuli, the exaggerated sense of helplessness crawls over the child's mind. Parental absence, anxiety or reduced control over the situation further demoralise the child and fear and anxiety overshadows the soothing effort of the healthcare providers. Researchers have found several factors which contribute to the preoperative anxiety in children which includes [2].

Control of preoperative anxiety in children is an important challenge to the anesthesiologists and considered as a primary objective in current day anesthesia practice. Sedative premedications, parental presence at induction of anaesthesia and behavioural intervention forms the mainstay of anxiety management. Identification of 'stress points' are important and significant improvements are noted if these periods are taken care of appropriately. Parental presence should not be mandatory, rather should be case specific. An informed consent should be obtained from the parents for medicolegal purposes. Preoperative interview, videos, clowns, virtual tour all is effective if practiced appropriately. Distractions in the form of deep breathing, videos or toys are very effective and should be used particularly during the 'stress points'. The authors strongly recommend use of pretend play, as described in the article, to

get better control over the stress points [3].

Millions of children undergo outpatient surgery in the United States each year; the overwhelming majority will experience significant perioperative anxiety and pain. Behavioral preparation programs focused on skills acquisition and modeling, considered essential for effective preparation, are no longer offered to most children and families in the outpatient surgery setting. Moreover, what little preparation does occur is typically generic in nature, rather than tailored to unique characteristics of the child and family. Untreated anxiety and pain have significant implications for children's short- and long-term recovery and future interactions in the medical environment. The rapid growth of the World Wide Web and increasing access to Internet by families across the country provides an opportunity to develop tailored, Web-based behavioral preparation programs that can be accessed repeatedly at times convenient to the child and family, that include coping skills training and modeling, and that can provide unique output based upon child and parent characteristics known to impact perioperative pain and anxiety. In this review article we present a conceptual framework for a computer-based intervention that may transform the way we manage children and parents before and after surgery [4].

The decision process of a computer-based tailored intervention is based on real-time decision support and takes into account all the information that has been provided by the parent and child in the intake component. The output of such a program should be evidence based and could sequentially address each of the five temporal divisions of surgery: 1) Home prior to surgery; 2) Holding area; 3) Anesthesia induction and surgery; 4) Recovery room; and 5) Home following surgery. Each of these output modules should be included for both parents and children. The child component should make use of three strategies: information provision, modeling, and coping skills training that have been previously reported as ideal for preparing children for surgery. The child component should be ideally age-appropriate, animated, engaging, and accessible to 2 to 5 year old children. The parent component should include two concepts: information and coping skills education and practice. Use of multiple media formats (e.g., audio and visual) to provide parental information will increase engagement in the program. We recommend that in such a program parents and children will work together to complete the child component, ensuring that parents also learn children's skills. In addition, "parent teaching" time should be built into the program.

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