Parental Presence in the Operating Room: A Black Box Approach

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Introduction: There is much debate in the anesthesiology literature regarding whether parents can effectively calm their children in the operating room during induction of anesthesia. To date, the literature has focused primarily on parental presence or absence rather than on *what parents do* in the operating room. One obstacle to examining parental behaviors in the perioperative environment has been the lack of an appropriate assessment instrument.

Methods: For the past 15 years, Dr. Ronald Blount (University of Georgia) and colleagues have researched the impact of adult behaviors on children's distress during medical procedures. Integral to this research has been a coding system developed by Dr. Blount: the Child-Adult Medical Procedures Interaction Scale (CAMPIS). In order to more exhaustively investigate adult behaviors during a child's induction of anesthesia, we modified the CAMPIS with consultation from Dr. Blount, to enable coding adult-child interactions *within the perioperative environment.*

We assembled a multi-disciplinary taskforce to revise the CAMPIS. We have collected data for this revision by videotaping pediatric patients ages 3-8 whose parents were present during induction of anesthesia. Patients were videotaped for 5 minutes in the holding preoperative area and then during their entire induction of anesthesia. Videotapes were then transcribed into written form. After this transcription, the multidisciplinary task force reviewed 10 videotapes, evaluated the developmental appropriateness of each CAMPIS category, identified whether or not there are meaningful categories specific to the perioperative context that may or may not be in the CAMPIS, and discussed codes that needed to be modified, or discarded. Next, the task force examined nonverbal aspects of each videotape and added nonverbal codes to the CAMPIS. The CAMPIS manual was modified and examples specific to the perioperative environment were added to each category. Next, the task force coded transcripts and videotapes with the coding system at that point, then discussed and further refined codes and added coding rules, discriminators, etc. Finally, after the task force agreed that the modification was complete, a new set of videotapes and transcriptions was coded. Reliability was calculated using the kappa statistic.

Results: We collected data via videotapes from 40 children who interacted with parents and health care providers during the perioperative period. We tested the final modified version on 20 videotapes. Interrater reliability of the Perioperative-CAMPIS (P-CAMPIS) was assessed using the kappa statistic. The interrater reliability of the 19 adult codes of the P-CAMPIS were all within the good-to excellent range (over 0.60). Mean interrater reliability was .80. The interrater reliability of the 16 child codes of the P-CAMPIS were all within the good-to excellent range (over 0.60). Mean interrater reliability was .84. These are excellent levels of agreement

Discussion: We believe the development of the P-CAMPIS provided a reliable, observational coding method that categorized communication between adults and children in the perioperative environment.

References:
Fleiss, J. L. (1981). Statistical methods for rates and proportions. New York: Wiley