The Effectiveness of Video Education on Pre-operative Parental Knowledge and Anxiety

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Introduction

Background: Pre-operative anxiety is a common and anticipated response to patients expecting to undergo anesthesia in preparation for surgery. Pre-operative parental anxiety can lead to increased anxiety in children, which is associated with physiologic alterations in the child. Pre-operative video education is an inexpensive method to increase knowledge and decrease pre-operative parental anxiety related to the perioperative process.

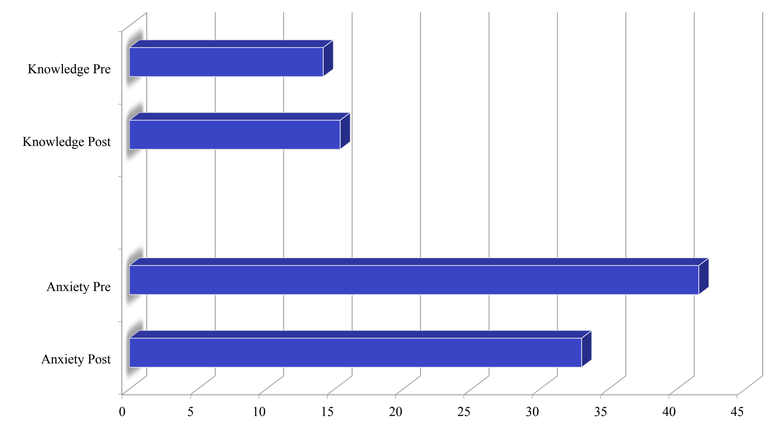
Objective: The first goal of this project was to evaluate the effectiveness of a pre-operative video in increasing knowledge of the perioperative experience in parents of children anticipating surgery by viewing a pre-operative video. The second goal of this project was to evaluate the effectiveness of viewing a pre-operative video in decreasing pre-operative parental anxiety in parents of children anticipating surgery by viewing pre-operative video.

Design

Twenty-five participants were recruited for this study. Each participant viewed an 8 minute and 5 second educational video developed by the academic medical center. The video was designed to demonstrate a child undergoing anesthesia with visuals of the perioperative area, including the operating room. For the first goal, parental knowledge levels were measured utilizing a questionnaire developed by the DNP student and capstone chairperson. The knowledge questionnaire was administered before and after viewing the video. Scores were analyzed using a paired sample t-test to determine if there is a statistically significant difference between pre and post-test. For the second goal, parental anxiety was measured with the State Trait Anxiety Inventory. This tool has been found to be both valid and reliable. The state and trait portions were administered before viewing the video. The state portion was administered again after viewing the video. A paired sample t-test was used to determine if there is a significant difference between pre and post-test.

Conclusion

This project successfully addressed knowledge and stress (or anxiety as measured by the STAI). The video intervention allowed parents to learn, and even see, what their child would experience the day of surgery. By providing parents with this opportunity, their knowledge of what they and their child could expect the day of surgery increased and anxiety decreased.



Results

There was a significant difference between pre and post-intervention (p=0.004). The mean knowledge score pre-intervention (M = 14.16, SD = 2.035) was lower than the mean knowledge score post-intervention (M = 15.40, SD = 1.118), t (24) = 3.228. The mean increase in knowledge scores was 1.24 with a 95% confidence interval ranging from 0.447 to 2.033.

There was a significant difference between pre and post-test parental state anxiety scores (p = 0.000). The mean anxiety score pre-intervention (M = 41.6, SD = 12.783) was higher than the mean anxiety score post-intervention (M = 33.04, SD = 9.914), t (24) = 4.381. The mean decrease in anxiety scores was 8.560 with a 95% confidence interval ranging from 4.528 to 12.592.

In addition, there was a statistically significant difference between pre-intervention trait anxiety levels and pre-intervention state anxiety levels (0.001). The mean trait anxiety score (M = 32.64, SD = 7.756) was lower than the mean state anxiety score pre-intervention (M= 41.6, SD = 12.783). The mean increase in anxiety score was 8.960 with a 95% confidence interval ranging from 4.306 to 13.614.