

## Effectiveness of Computer Video Games on the Levels of Anxiety of Children Scheduled for Tooth Extraction

**Authors :** Marji Umil, Miane Karyle Urolaza, Ian Winston Dale Uy, John Charle Magne Valdez, Karen Elizabeth Valdez, Ervin Charles Valencia, Cheryleen Tan-Chua

**Abstract :** Objective: Distraction techniques can be successful in reducing the anxiety of children during medical procedures. Dental procedures, in particular, are associated with dental anxiety which has been identified as a significant and common problem in children, however, only limited studies were conducted to address such problem. Thus, this study determined the effectiveness of computer video games on the levels of anxiety of children between 5-12 years old scheduled for tooth extraction. Methods: A pre-test post-test quasi-experimental study was conducted involving 30 randomly-assigned subjects, 15 in the experimental and 15 in the control. Subjects in the experimental group played computer video games for a maximum of 15 minutes, however, no intervention was done on the control. The modified Yale Pre-operative Anxiety Scale (m-YPAS) with a Cronbach's alpha of 0.9 was used to assess anxiety at two different points: upon arrival in the clinic (pre-test anxiety) and 15 minutes after the first measurement (post-test anxiety). Paired t-test and ANCOVA were used to analyze the gathered data. Results: Results showed that there is a significant difference between the pre-test and post-test anxiety scores of the control group ( $p=0.0002$ ) which indicates an increased anxiety. A significant difference was also noted between the pre-test and post-test anxiety scores of the experimental group ( $p=0.0002$ ) which indicates decreased anxiety. Comparatively, the experimental group showed lower anxiety score ( $p<0.0001$ ) than the control. Conclusion: The use of computer video games is effective in reducing the pre-operative anxiety among children and can be an alternative non-pharmacological management in giving pre-operative care.

**Keywords :** play therapy, preoperative anxiety, tooth extraction, video games

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