

Title: The effect of dental anxiety on the salivary cortisol and alpha-amylase levels of children undergoing dental treatment

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Background and Aim: The purpose of this study was to assess the salivary cortisol and salivary alpha-amylase levels in children aged between 6 and 9 years immediately prior to dental treatment.

Methodology: A total of 183 patients aged between 6 and 9 years who were awaiting dental treatment were administered the Arabic version of the Children's fear survey - dental subscale and accordingly allocated to one of three groups: phobic patients, anxious patients, and control group.

Results: The results of the study showed that amylase and cortisol levels had a significant association with the level of dental fear. The phobic patients had the highest levels of salivary amylase and salivary cortisol levels with no significant associations observed with either heart rate. Control and anxious patients had significantly lower amylase levels when compared to phobic patients. There was no significant difference between the salivary cortisol levels of anxious and phobic patients.

Conclusions: Within the limitations of this study, we can conclude that salivary amylase is a good indicator of acute stress that can differentiate between anxiety and dental fear, while salivary cortisol is a good indicator of the phobia induced by a flight or fight response.

Biography

Majed Almuammar completed his BDS, MS, ABPD, FAAPD, and FICD. He worked as a consultant Pediatric Dentistry, King Abdulaziz Medical City, in National-Guard, RIYADH, SAUDI Arabia, and Associate Professor at King Saud bin Abdulaziz University, RIYADH, Saudi Arabia. He finished certificate in pediatric dentistry at New York University on July 1996. He had done Master of Dental Material from same university (New York unit) on 1997. He certified as an American board in pediatric dentistry in the year of 2000. He was a fellow of American academy of pediatric dentistry in the year 2001 and International College of Dentistry on the year of 2007. Seven publications done in known journals. He worked as Director of the residency program in national-Guard in the center region from the year 2000 – 2011. He involved in administration as a divisional head in pediatric dentistry and Orthodontics department for several years and involved in many committees. He attended as an invited speaker in international symposium for several occasions.