ABSTRACT

**Background:** Dental anxiety and subsequent avoidance of dental care and deterioration of oral health a significant problem for the dental profession. Whereas anxiety is an emotional state in individuals to defend themselves, but anxiety has influence in dental treatment. Anxiety can decreasing cooperation of patient, increase pain during treatment, and then make less success of dental treatment.

**Objective:** Dental treatment can be a terrible experience discomfort and feel anxiety, specially in children. So, this research aimed to reduce anxiety children patient in dental treatment, increasing patient cooperation, and dental care through an effective method.

**Method:** Subject research was divided into 2 groups, placebo and treated group, each group contain of 10 person. Treated group was treated audio and visual stimulation with "Robo-smile" during dental treatment and placebo without it. "Robo-Smile" is equipped with audio and visual stimulation capabilities and devoted to reducing child's anxiety during dental treatment. Audio stimulation in "Robo-Smile" is able to provide music relaxes. "Robo-Smile" is able to provide visual stimuli to make tell show do and also as a friend while dental treatment underway. Parameter to determine this research was using blood pressure and Frankl’s index (index emotion of anxiety in dental patient). Then the data was analyze with independent t-test and Mann-whitney test.

**Result:** The research has proven, the test showed that there was a established in blood pressure and showed positive emotion in Frankl’s index. Hence, there has been significant different ($p< 0.05$) among groups. **Conclusion:** "Robo-Smile" can reducing child’s anxiety while dental treatment.

**Keywords:** anxiety, “Robo-Smile”, audio visual stimulation, dental treatment