COMPARISON OF FEAR AND ANXIETY AMONG CHILDREN WHILE USING VARIOUS INSTRUMENTS IN THE DENTAL OPERATORY

Original Article

Dr. Manali Vyas[*], Dr. Vasudha Sodani[**], Dr. Bhumi Sarvaiya[***], Dr. Hemangi Bhanushali[****], Dr. Heli Shah[*****], Dr. Bansari Shah[******]

ABSTRACT

AIM: To assess the knowledge and attitude of general practitioners while managing children in their dental operatory.

MATERIALS AND METHOD: A survey was carried out where 150 dental surgeons were given a questionnaire consisting of information regarding behaviour management techniques and perspectives of dental surgeons while dealing with children at dental clinic.

RESULTS: Most of the dental surgeons preferred calling pediatric dentist for treating children. They are aware about the behaviour management techniques and prefer non-pharmacological techniques over pharmacological ones. They prefer distraction, positive reinforcement, TSD over HOME, voice control and physical restraints. Most of them preferred sedating the child over GA.

CONCLUSION: The general practitioners do have knowledge about various behaviour management techniques but are not able to implement them effectively so to avoid hassle they do not treat children in their day-to-day practice and prefer calling a pediatric dentist.

KEYWORDS: Behaviour management techniques, general practitioners, Managing child patients, pharmacological, non-pharmacological

INTRODUCTION

In dentistry, anxiety represents a factor that makes it difficult to perform dental treatment, because the anxious patient tends to avoid treatment, thereby negatively interfering in oral health care. Pediatric patients commonly present anxiety when faced with dental treatment and this feeling is generally caused by the use of instruments in procedure. It may also be influenced by factors such as age, gender and personality.[1]

Dentists' knowledge about the levels of pediatric patients' anxiety before beginning with treatment is important, because this allows professionals to be prepared to deal with the situation and take the necessary steps to reduce its levels. For correct management of patients in these cases, professionals must have knowledge about the etiology of this emotional state and the psychology of children.

Fear and anxiety seem to be related to the child's temperament, mother's anxiety, mother's emotional intelligence, parent's support and low educational level.

Several assessment tools have been introduced to investigate children's psychological or behavioral changes due to dental fear and anxiety.[2]

MATERIALS & METHODOLOGY

A total of 60 patients between 4 to 10 years of age were selected for the study from outpatient Department of Pediatric and Preventive dentistry in Ahmedabad Dental College and Hospital. They divided into three groups. Each group had 20 Children.

Group I: Children undergoing procedure using local anesthesia

Group II: Children undergoing procedure using Airotor

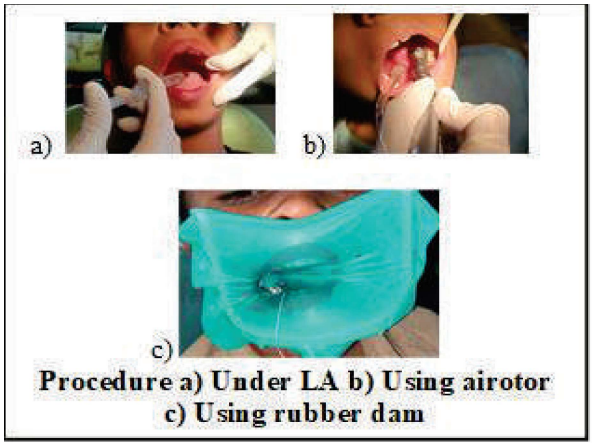
Group III: Children undergoing procedure using Rubber Dam

* PG Student, **Professor & Head, ***Professor, **** PG Student, ***** PG Student,

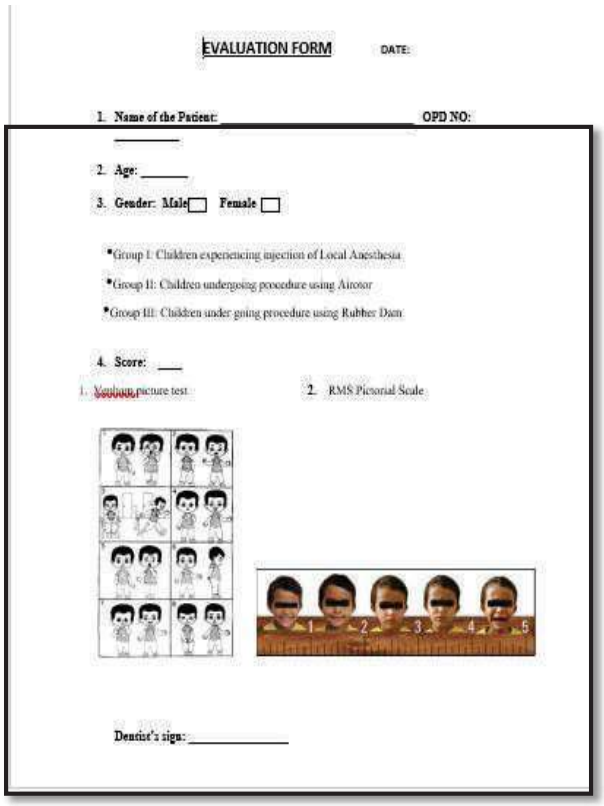
Department of Pedodontics and Preventive Dentistry, Ahmedabad Dental College And Hospital, Gujarat.

Ahmedabad Dental College And Hospital, Bhadaj- Ranchhopura road, Ta- Kalol Dist.-Gandhinagar, Gujarat.

ADDRESS FOR AUTHOR CORROSPONDENCE : Dr. Manali Vyas, E-mail : manalivyas61196@gmail.com Ph.: +91 9723416763



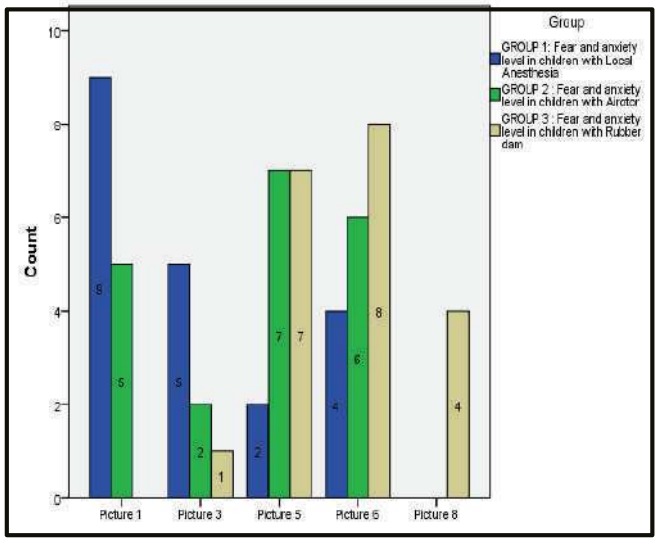
Then all the subjects were subjected to dental instruments according to the selected group. Responses of the all subjects were recorded during appointment. Evaluation was done based on RMS Pictorial Scale and The Venham Picture Test.

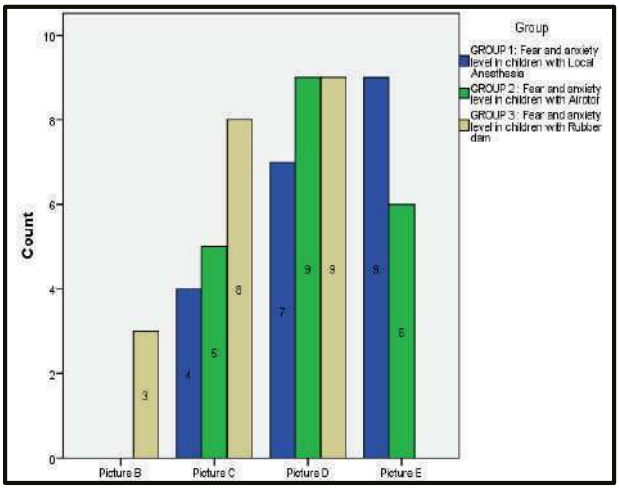


RESULT

According to Venham picture test comparison of these three groups had showed that fear and anxiety level was highest while giving local anesthesia in children (Graph: 1).

According to RMS Pictorial scale test also highest anxiety level was seen while giving local anesthesia (Graph: 2).





DISCUSSION

The present study sought to determine anxiety and associated factors in children during treatment, by means of using two tests one is Venham picture test and second is RMS pictorial test.[1]

Before beginning with any treatment, it is feasible to analyze possible trigger factors of anxiety, since this has a multifactorial origin. Among the factors that predispose to anxiety within the scope of dental treatment, it is feasible to mention psychological aspects, the frequency of consultations, the parents' anxiety and fear of the unknown. This present study was done to compare and evaluate the level of fear and anxiety in children with various instruments like local anesthesia, airotor and rubber dam during dental treatment and the assessment was done with the help of Venham picture test and RMS pictorial test.[3]

Among various instruments used in pediatric dentistry mainly these three instruments showed highest level of anxiety in children. In local anesthesia fear for needle was mainly seen in children. Airotor is also a very noisy instrument so it could also make a child fearful. While rubber dam placement causes a lot of discomfort.

This research covered an age range from 4 to 14 years. The scales mostly used for measuring dental anxiety are the following: Dental Anxiety Scale (DASS), Venham Picture Test (VPT), Taylor Manifest Anxiety Scale (TMAS), Frankl Behavior Scale, RMS pictorial scale and the Anxiety and Behavioral Scales.[4] The VPT idealized by Venham and Gaulin-Kremer was validated in Brazil by Teixeira et al. (2006)[5].

Venham picture test showed different 8 pairs of pictures. The evaluation was done by asking a child about his/her experience with showing that picture. Same way of assessment was done with RMS pictorial test.

Olivera CA, Gama TS (2018) stated that anxiety was observed in the majority of children (Dental Anxiety Scale - 89% and Venham Picture Test - 70.5%) and the predominant levels were low to moderate. The child´s age group was significantly associated with anxiety (p=0.014) by the Venham Picture Test, while gender did not present this correlation[1].

According to Dahlander A, Soares F, Grindefjord M, Dahllof G (2019) the children's fear survey schedule dental subscale (CFSS-DS) found that 7% of the children had dental fear at age 7. This study showed an increased prevalence of dental fear and anxiety between seven and nine years of age[6].

After the all-comparative assessment this study showed that local anesthesia showed highest anxiety level according to both the tests in children.

CONCLUSION

Based on the results of the present research, majority of the children presented anxiety during administration of local anesthesia.

Other methods used for reducing anxiety are tell-show-do, distraction, positive reinforcement, voice control etc. which generally showed satisfactory results. An effective solution to reducing the elevated presence of anxiety with local anesthesia would be to adapt the dental office, seeking to make the environment more welcoming to the child patient.

REFERENCES

1.Olivera CA, Gama TS, Cabral EL, Figueiredo CHMC, Guenes GMT. Elizandra Silva da PENHA1, et al. Anxiety presented by children facing dental treatment. RGO, Rev Gauch Odontol 2018;66(3):212-8.

2.Martínez KR et al. Fear and anxiety in children treated at the dental surgery of the University of Cartagena.Odont 2018;22(1).

3. Yon M, Chen K, Gao S, Duangthip D, Lo EC, Chu C. An Introduction to Assessing Dental Fear and Anxiety in Children. Healthcare 2020;8(86):2-9.

4. Corah NL. Development of a Dental Anxiety Scale. J Dent Res 1969;48(4):596.

5. Venham LL, Gaulin-Kremer EA. Self-report measure of situational anxiety for young children. Pediatr Dent 1979; 1(2):91-6.

6. Dahlander A, Soares F, Grindefjord M, Dahllöf G. Factors Associated with Dental Fear and Anxiety in Children Aged 7 to 9 Years. Dent J 2019 1;7(3):68.