

# Knowledge Attitude and Practice of Usage of Anti-Anxiety Drugs in Paediatric Patients among General Dental Practitioners

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## Abstract

**Aim :** To assess the knowledge attitude and practice of usage of anti-anxiety drugs among the general dental practitioners.

**Background:** Anti-anxiety drugs can act as effective way to manage patients with anxiety and dental fear mainly children. Adequate knowledge is necessary for using anti-anxiety drugs. Usage of anti-anxiety drugs can help to treat the patients in an effective way.

**Material and Methods:** Questionnaires consisting of 15 questions was distributed to 80 general dental practitioners practicing in private dental hospitals and clinics in Chennai city in June 2017. The questionnaire was designed to enquire about the knowledge and usage of anti anxiety drug in children

**Results:** 83.75% of dentists are aware of the pharmacological means of anxiety reduction. 51.25% are aware of the side effects and over dosage reaction of using anti anxiety drugs. 12% of dentists are aware of the method of managing side effects and over dosage reaction of using anti anxiety drugs

**Conclusion :** Anti-anxiety drugs can act as a better alternative and also an adjunct to the conventional behaviour management. Proper knowledge about its mechanism of action, dosage, adverse effects are essential for the dentist to use anti-anxiety drugs in an effective way. Hence the usage of anti-anxiety drugs can be recommended and encouraged among dentists provided they have a sound knowledge about the drug

**Key words:** *Anti anxiety drug, dentist, behaviour management*

## Introduction

Dental anxiety is one of the reason for behaviour management problem in pediatric dental patients. The

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common reason for with fear and anxiety for the dental treatment could be due to dentophobia , stranger anxiety or negative past dental experience. The prevalence of dental anxiety and fear which causes behaviour management problems in children undergoing dental treatments was reported to be 5% to 20%<sup>(1)</sup>. The three pathways which leads to the acquisition of child fears are direct conditioning through some traumatic experience, vicarious experiences or threatening information<sup>(2)</sup>.

Dental anxiety is cumulative over time and starts from childhood<sup>(3)</sup>. Increased heart rate, altered respiratory rate, sweating, trembling, weakness are the

physiologic responses of anxiety. Feeling of impeding danger, powerlessness, tremors are the psychological responses of dental anxiety.

Dental anxiety of children with behaviour management problems and children with special health care needs can be managed by non pharmacological and pharmacological means of behaviour management. Non pharmacological behaviour management includes Tell-show-do, modelling, contingency management, systematic desensitisation, retraining, protective stabilisation, HOME. Pharmacological behaviour management comprise of premedication with sedatives and hypnotics, anti-anxiety drugs, anti histaminics, conscious sedation, and general anaesthesia<sup>(4)</sup>.

According to Girdler and Hill 2009, Dental anxiety can act as a major source of stress for general dental practitioners who treat the anxious patient<sup>(5)</sup>. A proper behaviour-guidance technique is essential to do a proper dental management in an anxious child which improves the quality of the dental treatment. In children with severe anxiety, pharmacological methods as an adjunct therapy can help a dentist to communicate more effectively with the child<sup>(1)</sup>.

Pharmacological behaviour management techniques and agents used by the dentists should provide sufficient safety and efficacy. These agents should produce a mild state of depression in which the child can respond to physical and verbal stimulations and retain the ability to maintain a patent airway<sup>(6)</sup>.

The aim of the present study was to identify the knowledge, attitude and practice of usage of anti-anxiety drugs in pediatric patients among general dental practitioners.

## Materials and Method

The present descriptive study is questionnaires based cross sectional survey carried out among 80 general dental practitioners in chennai city, Tamil Nadu, India in June 2019. The study was carried out in private dental hospitals and clinics in chennai. The samples were collected by simple random sampling for the study. The questionnaires distributed to the dental practitioners focused on knowledge based questions, attitude based questions to assess the level of usage of anti anxiety

drugs as a treatment modality for behavior management

## Results

Among the 80 general dental practitioners, 45 were male and 35 were female. The mean age of the participants was 36+\_3.472. The results of the present study shows that 82.5% of dentists has encountered patients with dental anxiety. 75% of dentists were aware of different means of anxiety reduction. 43.75% of dentists find the pediatric patients to be more anxious, 7.5% of the dentists find adult patients are more anxious and 48.75% finds both adult and paediatric patient to be equally anxious

86.25% of dentists uses non pharmacological means of management, 6.25% of dentists uses pharmacological means of management and 7.5% of dentists uses both pharmacological and non pharmacological means of anxiety reduction for paediatric patients (Figure 1). 65% of dentists uses non pharmacological means of management, 23.75% uses pharmacological means of management and 11.25% uses both pharmacological and non pharmacological means of anxiety reduction in adult patients

83.75% of dentists are aware of the pharmacological means of anxiety reduction and 80.26% of dentists prefer benzodiazepines, 3.42% uses barbiturates, 16.32 % are not aware of the medications used for anxiety reduction in children (Figure 2 and Figure 3)

65% of dentists uses oral route of administration of anti anxiety drugs, 15% uses nasal inhalation route, 1.25% uses intravenous route of drug administration (Figure 4). 48.75% of dentists modify drug dosage for paediatric patient, 15% of dentists does not modify drug dosage for paediatric patients (Figure 5) and 36.25% of dentists has no idea on dosage modification for anti-anxiety drugs for paediatric patients.

51.25% are aware of the side effects and over dosage reaction of using anti-anxiety drugs and 12% of dentists are aware of the method of managing side effects and over dosage reaction (figure 6). 55% of dentists prefer referring the child with dental anxiety to a pediatric dentist.

80% of dentists feels that non pharmacological means of anxiety reduction is better than pharmacological

methods. The most common reason for preferring non pharmacological means of behavior management was to avoid the complications of side effects and adverse effects of the anti-anxiety drugs. 70% of dentists prefer to get medical opinion from general practitioner before using anti-anxiety drugs.

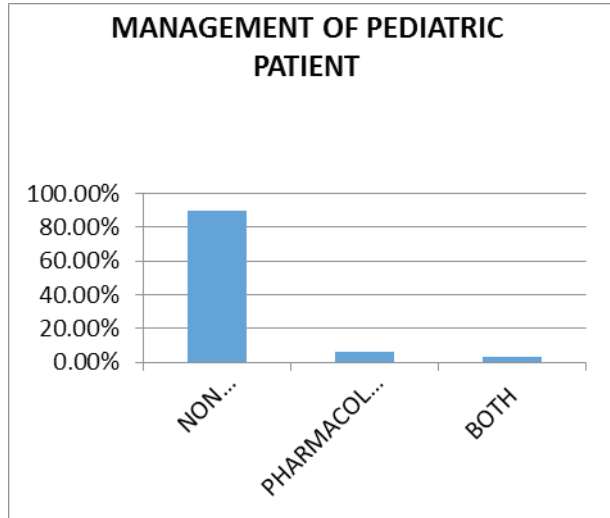


Figure 1

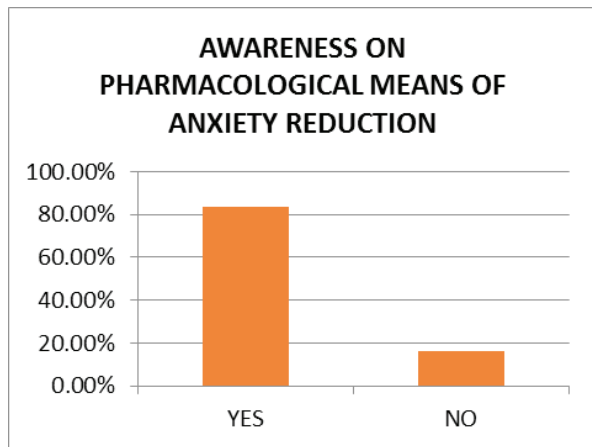


Figure 2

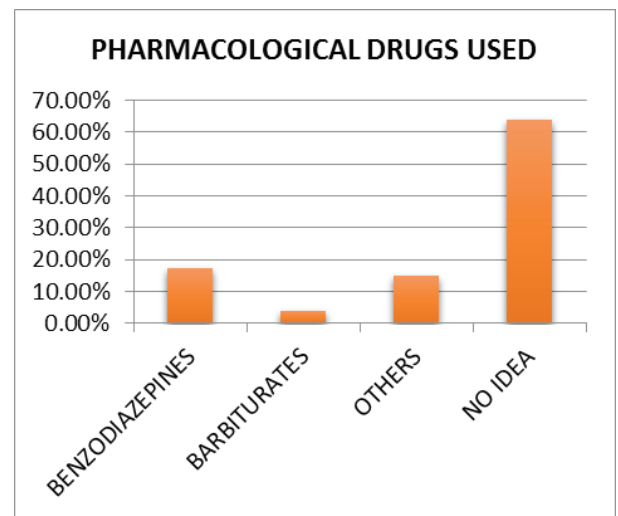


Figure 3

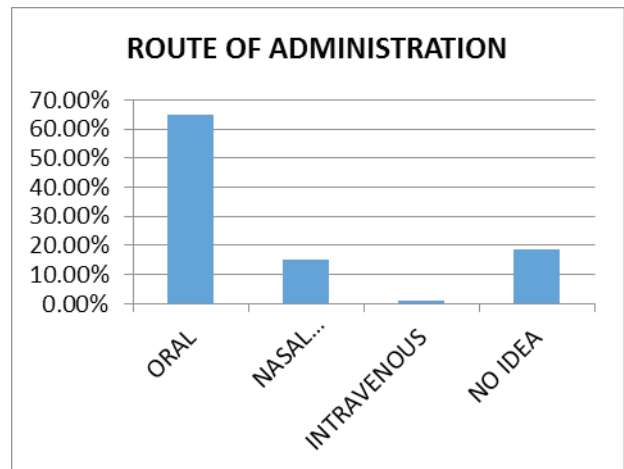


Figure 4

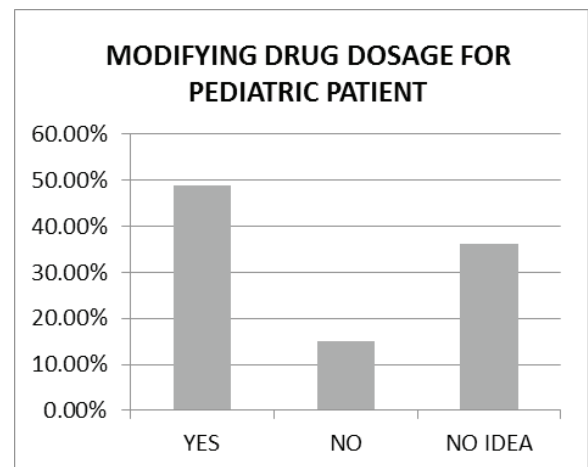


Figure 5

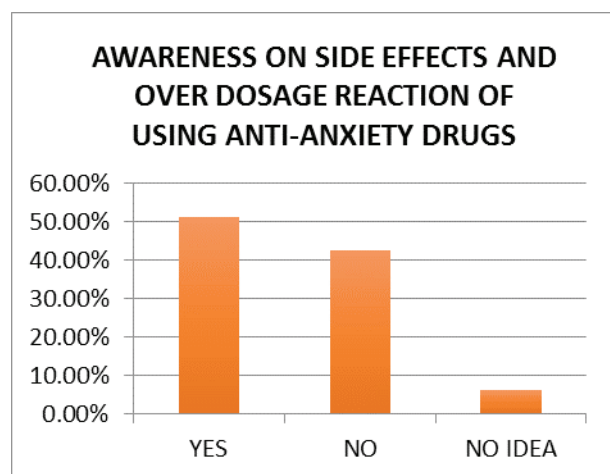


Figure 6

### Discussion

The results of the present study show that most of the dentist frequently encounter patients with dental anxiety. There are different scales to assess the level of dental anxiety in children. This includes Facial Image Scale<sup>(7)</sup>, Venham's Picture Test<sup>(8)</sup>, Venham's Clinical Rating Scale<sup>(9)</sup>, Dental Subscale of the Children's Fear Survey Schedule<sup>(10)</sup>. Other dental anxiety rating scales includes Corah's Dental Anxiety, Modified Dental Anxiety Scale<sup>(11)</sup>.

Many dentists are aware of the pharmacological means of anxiety reduction. But only very few applies it to their practice. Benzodiazepines, Azapirones, anti histaminics, beta-blockers are the anti anxiety drugs used for behavior management (KD TRIPATHI). Benzodiazepines is the most commonly used anti anxiety drug<sup>(12)</sup>. Use of barbiturates as anti anxiety drug has been reduced and it's been replaced by benzodiazepines because the latter is relatively safe in higher dosage and is less likely to cause dependence when compared to barbiturates<sup>(13)</sup>.

The adverse effects of benzodiazepines includes light headedness, psychomotor and cognitive impairment, vertigo. Long term usage can lead to dependence<sup>(14)</sup>. 12% of the dentists are aware of the means of managing the overdosage and side effects from using anti anxiety drugs. Despite the fact that many dentists are aware of the side effects, the number of dentists who can manage the side effects of these drugs are relatively very low.

Psychological understanding and care for paediatric patients, effective behaviour management techniques,

empathic attitude and atmosphere forms the basis for successful dental treatment. There are many techniques which can be used but to achieve an optimal result for both patient and dentist. The indication for pre-medication should be first made clear, as this will affect the choice of substance and route of administration<sup>(15)</sup>

### Conclusion

Anti anxiety drugs can act as a better alternative and also an adjunct to the conventional behaviour management. More number of CDE programs, workshops, can be conducted to increase the awareness, knowledge and practice of usage of anti anxiety drugs in dentistry among the dental practitioners.

**Source of Funding:** Nil

**Conflicts of Interest:** Nil

**Ethical Clearance:** IHEC/SDC-PEDO-1703/19/006

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