



## KNOWLEDGE, ATTITUDE AND PRACTICE ON CONSCIOUS SEDATION IN CHILDREN AMONG DENTAL PRACTITIONERS

Monisha.K., Ashish.R.Jain and Dhanraj

Department of Prosthodontics, Saveetha Dental College and Hospitals, Saveetha University, Chennai, India

### ARTICLE INFO

#### Article History:

Received 12<sup>th</sup> January, 2017

Received in revised form 19<sup>th</sup> February, 2017

Accepted 24<sup>th</sup> March, 2017

Published online 28<sup>th</sup> April, 2017

#### Key words:

Conscious sedation, general Anaesthesia, effective, children.

### ABSTRACT

**Background:** Conscious sedation or general anaesthesia are the primary treatment options that allows comprehensive restorative dental care. Because of the risks and costs involved with general anaesthesia, conscious sedation is often the option of first choice. Conscious sedation is usually safe. However, if too much of the medicines given, problems with breathing may occur in the patient. Many children undergoing minor procedures need effective sedation, or anaesthesia, because they are frightened, in pain, ill, or have behavioural problems. Some procedures are very common and anaesthetists should know what sedation techniques are effective and likely to be used by other healthcare practitioner.

**Aim:** To create awareness among dental practitioners about the conscious sedation in children.

**Materials and Methods:** Questionnaire based cross-sectional study was conducted among 120 dental students to evaluate the conscious sedation in children. A self-assessed questions comprising of 12 questions was given to the participants. The questions comprised of 3 set of questions under the category of knowledge, 6 under attitude and 3 questions under practise. The obtained data were analysed as % calculation.

**Results:** 80% of dental practitioners have adequate knowledge, 20% are not aware of conscious sedation, 73% of dental practitioners shows good attitude towards conscious sedation whereas 27% do not and 90% of dental practitioners are not practising conscious sedation in children whereas 10 % are practising.

**Conclusion:** Conscious sedation is an integral part of dental practise. Teaching should also be done in undergraduate level so that effective sedation can be offered in future with good skills and confidence during practise.

Copyright©2017 Monisha.K et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

### INTRODUCTION

Conscious sedation is a technique of administering sedatives with or without any analgesics to induce a state that allows the patient to tolerate any unpleasant procedures while maintaining cardiorespiratory function. Conscious sedation is an integral part of Dental practise. This helps to prevent transmission of pain sensation during procedures which can serve to build trust and foster the relationship of the patient and dentist, allay fear and anxiety, and promote a positive dental attitude. The sedation of children is different from the sedation of adults; sedation in children often is administered to control behaviour to allow the safe completion of the dental procedure. Behavioural management is an essential skill and should be acquired by all members of a dental team treating children. A child's ability to control his or her own behaviour to cooperate for a procedure depends both on his or her chronologic and developmental age.

\*Corresponding author: **Monisha.K**

Department of Prosthodontics, Saveetha Dental College and Hospitals, Saveetha University, Chennai, India

The most common emotional upsets seen during dental treatment are anxiety and fear, which might originate from a previous traumatic experience in the dental treatment or during hospitalisation for other reasons. Dental anxiety and fear of dental treatment in children are considered to be the main reason for management problems and avoidance of dental care. These problems sometimes require replacement of conventional treatment with more complicated alternatives, such as sedation or general anaesthesia (GA). Children who have positive interactions with their dentist will be more likely to visit the dentist and will have better dental health. Shortcoming of most of the dental surgeons when treating children is their lack of knowledge, clinical skill, or attention to the vital performance of providing and assuring profound local anaesthesia. Most of the dental surgeons felt uncomfortable with their clinical skills and avoid giving children local anaesthesia. This study will provide an awareness among the Dental practitioners to offer effective sedation in children which is still unclear these days.

**MATERIALS AND METHODS**

A questionnaire based cross-sectional study was conducted among 120 dental practitioners to evaluate their knowledge, attitude and practise about conscious sedation in children. A self-assessed questions comprising of 12 questions was given to the participants (Table 1).

**Table 1** Survey Questionnaire

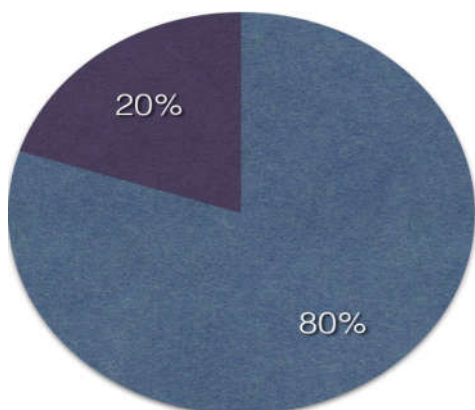
| Knowledge   |
|---|
| 1. Do you think oral route of is the most commonly preferred for sedation in children.<br>A) Yes. B) No   |
| 2. Do you think nitrous oxide is the most commonly used sedation in children.<br>A) Yes B) No   |
| 3. Do you think anxiety is the main objective of using sedation in children.<br>A) Yes B) No  |
| Practise  |
| 1. Are you practising sedation in children<br>A) Yes. B) No   |
| 2. The reason for not practising in your opinion could be<br>A). Due to lack of training. B). Due to cost. C). Due to risk factors of patients. |
| 3. In your opinion when do recommend a sedative dose in a child<br>A). Pain. B). Anxiety. C). Others.   |
| Attitude  |
| 1. Do you think conscious sedation can be used for all Dental treatments.<br>A) Yes. B) No  |
| 2. Do you feel parental presence in the operators room would be easier to perform procedures in the child?<br>A) Yes. B) No                     |
| 3. Do you think all sedative agents are capable of producing successful results without side effects.<br>A) Yes. B) No                          |
| 4. Do you think postgraduates are more familiar with the sedative roles compared to the undergraduates.<br>A) Yes. B) No                        |
| 5. Do you prefer General Anaesthesia for treatment in a child<br>A) Yes. B) No  |
| 6. Do you aware the child that dentistry may involve pain?<br>A) Yes. B) No.  |

The questions comprised of 3 questions under the category of knowledge, 6 under attitude and 3 questions under practise. The obtained data were analysed as % calculations.

**RESULTS**

The following were the results obtained from the study:

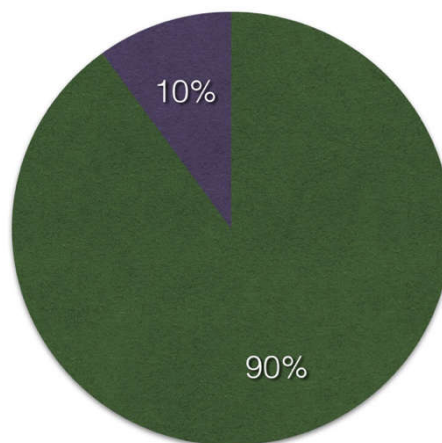
**Knowledge:** 97 dental practitioners (80%) have adequate knowledge about the conscious sedation in children whereas 23 (20%) are not aware of it. (Fig-1).



**Figure 1** Knowledge about conscious sedation

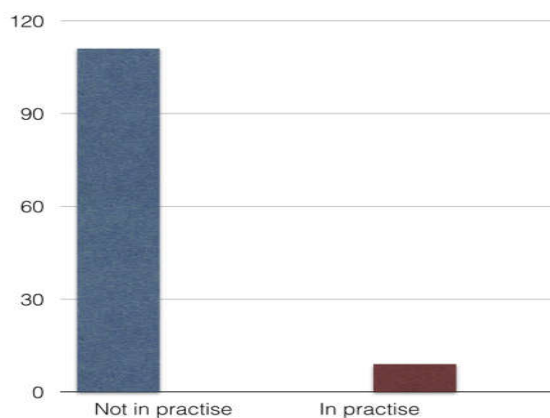
When asked if oral route of administration is the most commonly preferred, 94 Dental practitioners accepted and 26 said no, when asked if nitrous oxide is the most commonly preferred conscious sedation used in children, 102 Dental practitioners said yes whereas 18 of them said no, 85 Dental practitioners said anxiety is the main objective of sedation whereas 35 of them did not agree.

**Attitude:** 90% Dental practitioners feels that conscious sedation can be used for all procedures whereas 10% do not (Fig-2), 82 of them feels parental presence would be easier to perform procedures whereas 38 do not, 87 Dental practitioners think all sedative agents can provide successful results without any side effects, 88 Dental practitioners said postgraduate are more familiar with the sedative roles compared to the undergraduates and 32 said no; 66 of them said general anaesthesia can be used in the treatment of a child whereas 54 said no; 77 Dental practitioners said they would inform the child that dentistry will involve pain whereas 43 do not.



**Figure 2** Attitude –if conscious sedation can be used for all Dental procedures

**Practise:** 111 Dental practitioners are not practising administration of conscious sedation whereas 9 of them are in practice (Fig-3); When asked about their opinion in recommending a sedative dose 63 Dental practitioners said during pain, 49 said during anxiety and 8 said others.



**Figure 3** No of Dental practitioners in practise of conscious sedation

**Reason for not practising:** 72% Dental practitioners felt this could be due to lack of training, 15% Dental practitioners felt this could be attributed to cost, whereas 13 % Dental practitioners felt this could be due to risk factors of patients.

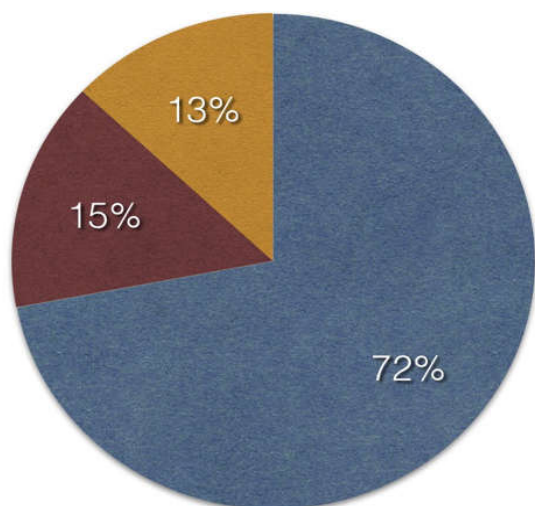


Figure 4 Reason for not practising

## DISCUSSION

The present study evaluated the knowledge, attitude and practice on conscious sedation in children among dental practitioners and found that most dental practitioners were aware about conscious sedation but lack in the practice of giving effective doses. The present study shows 85% Dental practitioners preferred oral route of administration whereas 15% did not. 94(79%) Dental practitioners said nitrous oxide was the most commonly used sedation in children. A study done by Sarah et al reported that only 12 (6%) of the dental surgeons preferred to use nitrous oxide as a behavioural management technique. Study results reported that 159 (73%) of the dental surgeons were totally comfortable with nitrous oxide sedation technique. Anxiety is the most disturbing experience for children, a response that sometimes can only be controlled with techniques beyond anaesthesia. The present study shows (76%) Dental practitioners said anxiety is the main objective of using sedation in children. 53% Dental practitioners said they would recommend a sedative dose when a child has pain, 41% said anxiety and the rest 6% said others. Pain and anxiety are crucial matters in dentistry. About 10 to 30% of adults and children may present some kind of fear or anxiety related to dental treatment. There is evidence that these patients will benefit from conscious sedation in the performance of their treatments. 73% Dental practitioners says conscious sedation can provide successful results without side effects. 90% Dental practitioners says conscious sedation can be used for all procedures. In the survey by McKnight-Hanes et al, 35 60% of the pediatric dentists used GA in oral rehabilitation. A study done by Manal et al reported that more than 50% of the general dentists and 60% of the paediatric dental surgeons reported the use of GA. Most children react positively when their parent is there beside them during the treatment. Levy and Domoto reported that 88% of dental surgeons and auxiliary staff allowed parents in the dental clinics. Another study results showed that 68 (34%) of the dental surgeons allowed parents in dental clinic. Pain management during dental procedures is essential for successful behaviour guidance and enhancing positive dental attitudes for future appointments. Children perceive and react to painful stimuli differently from each other and under the age of 4 years are more sensitive to

painful stimuli and are not able to communicate as well as older children and teens.

## CONCLUSION

The present study reveals the knowledge, attitude and practice on conscious sedation among dental practitioners. The level of practise to offer sedation in children among practitioners should increase hence teaching and practise can be done in an undergraduate level. Dental studies should include guidelines and techniques to train the upcoming dentists for excellent dentistry.

## References

1. A Naurin Salma, Mahesh Ramakrishnan, USE OF Anaesthesia In Paediatric Dentistry, Across-Sectional Study. *International Journal of Pedodontic Rehabilitation* 2007(1):(5-9)
2. JChandrapoojaandKathiravanSelvarasu Behavioural Management Techniques in Pediatric Clinic. *IJPBS* 2016 ;6 (3):10-15
3. Cunha RF, Delbem ACB, Percinoto C, Melhado FL. Behavioral evaluation during dental care in children ages 0 to 3 years. *J Dent Child* 2003 May-Aug; 70(2):100-103.
4. Adair SM, Waller JL, Schafer TE, Rockman RA. A survey of members of the American Academy of Pediatric Dentistry on their use of behavior management techniques. *Pediatr Dent* 2004 Mar-Apr;26(2):159-166.
5. Adair SM, Rockman RA, Schafer TE, Waller JL. Survey of behavior management teaching in pediatric dentistry advanced education programs. *Pediatr Dent* 2004 Mar- Apr;26(2):151-158.
6. Maya Alsarheed, Children's Perception of their dentists, *Eur J Dent*. 2011 Apr;5(2) 186-190
7. Sarah A, Fatemah A. Parents and dentists attitude toward the use of nitrous oxide sedation as a behavioral management technique during pediatric dental care in Kuwait. Elective Project Study Course No. 703. Department of Surgical Sciences, Kuwait University; 2013.
8. Crossley M, Joshi G. An investigation of paediatric dentists' attitudes towards parental accompaniment and behavioural management techniques in the UK. *Br Dent J* 2002 May;192(9):517-521.
9. 10 Council of European Dentists. The Use of Nitrous Oxide Inhalation Sedation in Dentistry. In Dentistry. Available at: [http://www.eudental.eu/library/policy.html?filter\\_id=22](http://www.eudental.eu/library/policy.html?filter_id=22) on May 13th, 2013, 2012.
10. McKnight-Hanes C, Myers DR, Dushku JC, Davis HC. The use of behavior management techniques by dentists across practitioner type, age, and geographic region. *Pediatr Dent* 1993 Jul-Aug; 15(4):267-271.
11. Abushal MS, Adenubi JO. The use of behavior management techniques by dentists in Saudi Arabia: a survey. *Saudi Dent J* 2000; 12(3):129-134.
12. Levy RL, Domolo PK. Current techniques for behavior manage net: a survey. *PediatricDent* 1979 Sep;1(3):160-164.
13. Wali A, Siddiqui TM, Khan R, Batool K. Knowledge, Attitude, and Practices of Dental Surgeons in managing Child Patients. *Int J ClinPediatr Dent* 2016;9(4):372-378

14. Klingberg G. Dental anxiety and behaviour management problems in paediatric dentistry: a review of background factors and diagnostics. *Eur Arch Paediatr Dent* 2007 Feb; 8(4): 11-15.15]. Versloot J, Veerkamp JS, Hoogstraten J. Children's self-reported pain at the dentist. *Pain* 2008 Jul; 137(2):389-394.
15. Versloot J, Veerkamp JS, Hoogstraten J. Children's self-reported pain at the dentist. *Pain* 2008 Jul; 137(2):389-394.

**How to cite this article:**

Monisha.K *et al* (2017) ' Knowledge, Attitude And Practice On Conscioussedation In Children Among Dental Practitioners', *International Journal of Current Advanced Research*, 06(04), pp. 3033-3036.  
DOI: <http://dx.doi.org/10.24327/ijcar.2017.3036.0172>

\*\*\*\*\*