

Knowledge, Attitude and Awareness of Conscious Sedation Among Dental Practitioners - A Survey

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ABSTRACT

Background: Conscious sedation is a procedure which includes a combination of medicines or a single dose of medicine that will help a patient to relax (a sedative) and to block pain (an anesthetic) during a dental procedure.

Aim: The aim of this study is to assess the knowledge, attitude and awareness of conscious sedation among dental practitioners.

Materials and Methods: This study had a sample size of 100 dental practitioners. It was based on a self administered questionnaire. These questions were structured in order to assess their knowledge and awareness on conscious sedation. The data extracted were then tabulated, statistically analyzed and the final results were obtained.

Results and Discussion: Only very few of them were aware of conscious sedation used in dentistry. The most common route of administration according to the survey conducted was the inhalation route (61.9%) followed by oral route (20.2%) and intravenous route (17.9%) and also according to the survey it is preferred to administer conscious sedation under an anaesthetist.

Conclusion: Most of the dental practitioners were lacking in knowledge about sedation used in dentistry. More emphasis should be given in dental curriculum both theoretical and practical wise in order to create an awareness on conscious sedation.

Keywords: Conscious Sedation, dental practitioners, knowledge, attitude

INTRODUCTION

Sedation in dentistry is a controversial topic mainly due to its safety during the procedure. Conscious sedation is a procedure in which a drug or drugs is used to produce a state of depression in the central nervous system (CNS), wherein the verbal contact with the patient is maintained throughout the period of sedation (D. C. Craig and Wildsmith 2007).. According to the definition by the American Dental Society of Anesthesiology, a patient is said to be conscious if he is capable of rational response to the command and has all protective reflexes intact, including the ability to clear and maintain his airway in a patent state (Donaldson and Wild 2000)

Dental fear and anxiety are two major barriers that prevail among children and adults in a dental chair. The following includes the indications for conscious sedation namely the dental fear and anxiety, traumatic and long dental treatments or procedures, children more than 3 years of age and ineffective local anesthesia due to any reason. This technique helps the patient to maintain a patent airway both independently and continuously. Various routes of administration of conscious sedation are namely the oral, intramuscular, intravenous, and inhalational, wherein inhalational being the most common in pediatric patients (Galeotti et al. 2016).

Patient selection is important for administering conscious sedation in pediatric dentistry. The American Society of Anesthesiologists (ASA) scale of Physical Fitness is used to classify patients when risk is anticipated which includes ASA 1 being the normal healthy patient, ASA 2 being patient with mild systemic disease, ASA 3 being patient with severe systemic disease (limits activity), ASA 4 being the patient with severe incapacitating systemic disease and ASA 5 being moribund patient with poor prognosis (<24 hours) (D. Craig and Skelly 2004). Sedation in children involves careful pre-sedation evaluation, appropriate fasting guidelines and knowledge on the sedative drugs used and mainly the procedure being carried out must be established (Keira 2013). According to ASA, only classes 1 and 2 are considered for sedation in dental care settings.

The main characteristics of conscious sedation are as follows, the patient remains awake, they remain responsive to stimuli such as verbal commands, all of the patient's protective reflexes remain functional. There are certain risks involved like loss of consciousness i.e loss of verbal contact with patient's, hyperactivity etc. An increasing number of patients are managed with conscious sedation techniques. A dental practitioner should have enough knowledge about conscious sedation to effectively use it and to give the highest quality of dental treatment. The aim of this study is to assess the knowledge, attitude and awareness of conscious sedation among dental practitioners (Meredith, O'Keefe, and Galwankar 2008).

MATERIALS AND METHODS

Study design

This study is a prospective, questionnaire based survey. A structured questionnaire enquiring about knowledge regarding conscious sedation was administered to 100 dental practitioners in Chennai. An online link was created and the responses were obtained online. The questionnaire was designed to ensure the awareness and knowledge on conscious sedation. Each question had a set of options and the dental practitioners had to choose one option. The questionnaire included questions related to conscious sedation and the questions were structured to assess the knowledge, awareness and attitude

towards conscious sedation among dental practitioners. Data were collected, readings were tabulated and analyzed using quantitative descriptive techniques and the results were obtained.

Questionnaire

1. Your experience in patient care?
2. Do you have any idea about conscious sedation ?
3. Is conscious sedation routinely done in your clinical practice ?
4. During conscious sedation do you prefer to deliver the drug by yourself or by an anaesthetist?
5. How safe do you consider conscious sedation in dentistry ?
6. Which is the most preferred route of administration of conscious sedation ?
7. According to you, which is the safest route of administration of conscious sedation?
8. Are you aware of the complications of conscious sedation in different routes of administration ?
9. If a CDE/ Hands-on program is organized on sedation, would you prefer to attend??
10. Do you think conscious sedation and its significance should be an integral part of dental curriculum ?

RESULTS

Therefore, from the online results of this study which are represented graphically as shown below, it can be seen that the dental practitioners prefer the administration of sedation to be performed under the supervision of an anaesthetist (76.2%) (Figure 1). Also, 61.9% of the dental practitioners suggest that conscious sedation is one of the safest procedures in dentistry especially in cases of pediatric patients (Figure 2). Inhalational route (61.9%) of administration of conscious sedation is considered as one of the most common routes followed by oral route (20.2%) and intravenous route (17.9%).

DISCUSSION

Conscious sedation is a technique that is meant for dealing patients with dental phobia and should not be considered an alternative to effective local anesthesia but can be used as an adjunct in behavioral management (Bennett 1984). According to this study, it was seen that 37% of the dental practitioners do not have much knowledge about conscious sedation. Moreover, they lack proper knowledge on sedation and the various sedative techniques (G et al. 2017). Only few of the dental practitioners (29%) have undertaken treatments for patients under conscious sedation. A greater percentage of the dental practitioners do not have any practical knowledge or hands on experience.

A study conducted in 1998 demonstrated the quantity and quality of lectures on conscious sedation in the dental schools of the UK and Ireland for the first time (Leitch and Girdler 2000). Conscious sedation plays an important role in paediatric dentistry as it provides an easy control of the child's behaviour in chair side procedures (Nathan 1989). They facilitate the provision of improved treatment quality and minimise the extremities in child behaviour. Conscious sedation is one of the safe methods that can be used effectively in managing dental fear and anxiety. This method also reduces the need for general anesthesia. Inhalation sedation using nitrous oxide is the most recommended choice for conscious sedation in children. Intravenous sedation can be used only in adolescents over the age of 12 years (Forster, Escherich, and Halsey 2018; "The American Academy of Pediatric Dentistry" 1995). A report on various recommendations for all dental and medical practitioners providing conscious sedation whether in primary care or in hospitals had been published in 2007 (D. C. Craig and Wildsmith 2007).. It underlines the need for the referring dentist and the sedationist to understand the importance of considering alternative methods of pain and anxiety control in patients undergoing treatments under conscious sedation (Clark, Robertson, and Harden 2003).

There is utmost need for emphasising on both theoretical and clinical training among the dental practitioners for ensuring the delivery of a high quality service. This study inferred that the knowledge, awareness and attitude about treating patients with conscious sedation among the dental practitioners was inadequate. Hence, various education programmes on conscious sedation need to be initiated in order to create awareness and safety among the practitioners.

CONCLUSION

Therefore, conscious sedation can be used as an adjunct for behaviour management techniques. Based on this survey study, dental practitioners have a fair knowledge about conscious sedation. Education plays a major role in existing knowledge about sedation and its perception on the safety needs. More emphasis should be given in dental curriculum both theoretical and practical wise in order to create an awareness on conscious sedation

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CONFLICTS OF INTEREST

There are no conflicts of interest.

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Figure 1: During conscious sedation do you prefer to deliver the drug by yourself or by an anaesthetist?

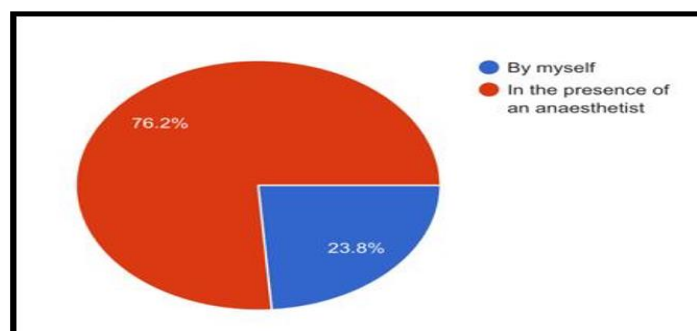


Figure 2: How safe do you consider conscious sedation in dentistry ?

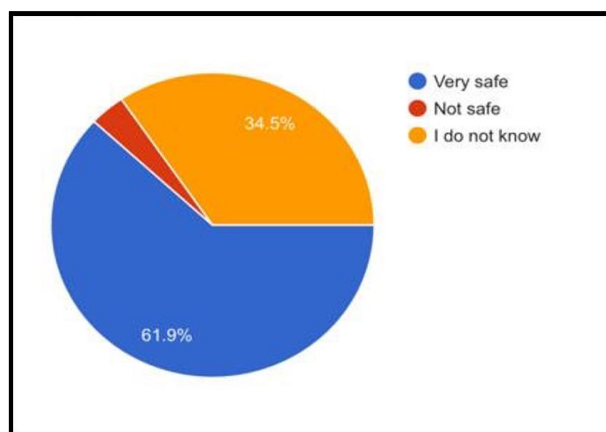


Figure 3: Which is the most preferred route of administration of conscious sedation ?

