

Research Article



Knowledge and Attitude among Dental Undergraduate Students towards Sedation in Dental Practice

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Received: 16-02-2017; **Revised:** 15-03-2017; **Accepted:** 28-04-2017.

ABSTRACT

The aim of the study was to assess the knowledge, awareness and the attitude of dental undergraduate students towards sedations used in dentistry. A self-administered structured questionnaire consisting of 18 questions on knowledge, attitude and awareness about sedation in dental practice was distributed among 120 students randomly belonging to final year and intern students of saveetha dental college, saveetha university, chennai. The data extracted were tabulated, statistically analyzed and results obtained. All the final year students and interns were aware of sedation in dentistry and also stated that thorough medical history of the patients should be taken before administering sedation. Only 12% and 33% of final year students and interns respectively knew about armamentarium used in sedation. Only 6% and 13% of final year students and interns respectively were aware of pharmacological agents used in sedation. Most of the dental students were lacking in knowledge about sedation used in dentistry. Interns have more knowledge and awareness compared to final year students. Overall the students showed positive attitudes towards sedation use in dental practice. More emphasize should be given regarding sedation in dentistry in dental curriculum both theoretical and practical wise.

Keywords: Sedation, side effects, dental students, knowledge, Attitude, Dentistry.

INTRODUCTION

A Phobia is an intense, unreasonable fear. People can fear of a specific activity, object or situation.¹ People with dental phobia often put off routine care for years or even decades. People often use the words "anxiety" and "phobia" to mean the same thing, but they are totally different. People with dental anxiety will have a sense of uncomfortable feeling when it's time for their appointments. They will have exaggerated or unfounded worries or fears.² Dental phobia is a more serious condition where it is an intense fear or dread. People with dental phobia aren't merely anxious but terrified or panic stricken.

Sedation is a method in which the use of drug or drugs produces a state of depression of the central nervous system enabling the treatment to be done, but during which verbal contact with the patient is maintained throughout the treatment period.³ Sedation in dentistry is one of the methods used to facilitate a dental procedure and reduce patients fear and anxiety. There are various methods of administration of sedation such as inhalation, oral, intravenous and intramuscular.⁴ It's highly recommended that dental students should have a sound theoretical knowledge and some practical experience of basic dental sedation techniques and modes of administration. Hence it is necessary to find out what dental students think about the use of sedatives in dentistry.⁵

Thus, the rationale of this study was to evaluate the knowledge, attitude and perceptions of undergraduate

dental students regarding sedation use in the dental practice.

METHODS

A cross sectional study was conducted during the academic year in December 2016 among the undergraduate dental students of Saveetha dental college, Saveetha University, Chennai. All students in the study voluntarily completed the questionnaire. The survey was conducted randomly on 120 students of which 50 of them were final year students and 70 were interns. A Self-administered questionnaire of 18 questions were prepared and distributed among the final years and intern dental students. The questionnaire included questions related to sedation used in dentistry and they were structured to assess the knowledge and attitude of students towards sedation used in dental practice. After the data had been collected, they were tabulated and analyzed using quantitative-descriptive techniques and results obtained.

RESULTS

The sample of 120 dental students who took part in this survey comprised of 50 students from final year (42%) and 70 students from interns (58%) respectively.(Table 1) All the students who took part in the study were aware of sedation and its use in dental practice.(Fig 1) Out of 50 students from final year, 36(72%) of them agreed that sedation can be performed safely by a dentist and 14(28%) were disagreed. When asked about administrator of sedation in dental practice, 16% of final year students replied anesthetist while 56% and 28% of



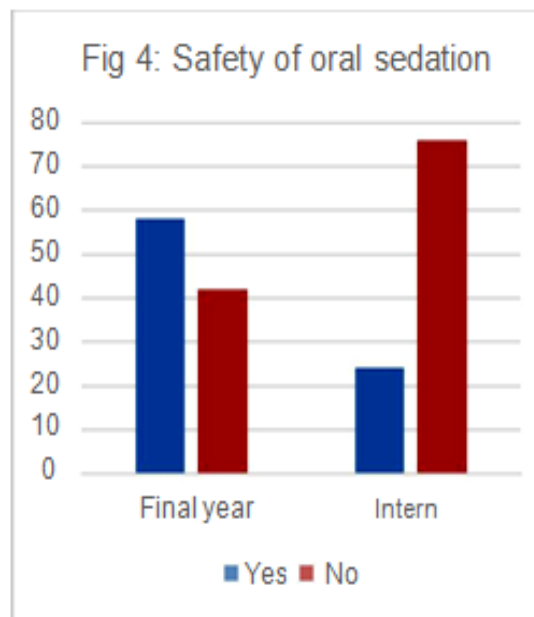
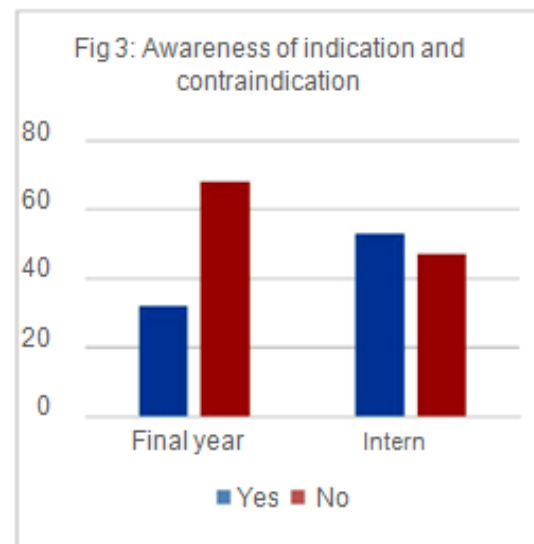
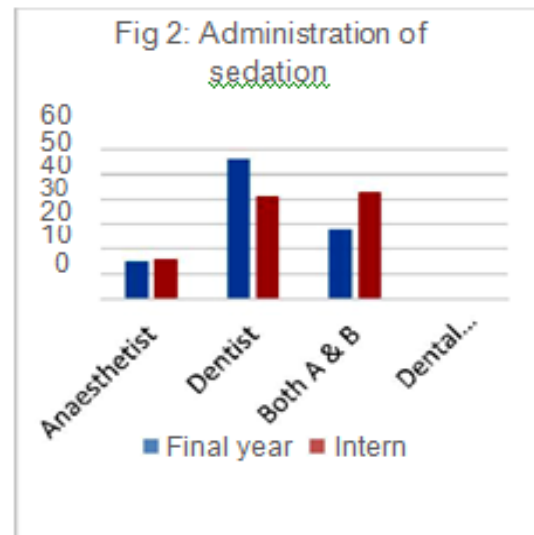
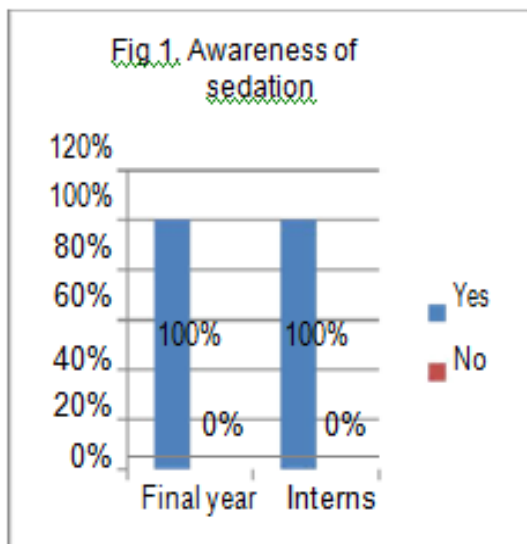
them told it can be given by dentist and also both anesthetist & dentist respectively. 16% of interns also replied sedation can be given by anesthetist in dental practice while 41% and 43% of them said it can be administered by dentist or by both anesthetist and dentist respectively.(Fig 2)

Among final years and interns, only 32% and 53% were aware of indications and contraindications of sedation in dental practice respectively. 68% of final year and 47% of interns were not aware of indications and contraindications of sedation before administration.(Fig 3) 58% of final year students said that oral sedation is safer than other modes of sedation. But 76% of interns answered that oral sedation is not safer mode of sedation and only 24% of the interns agreed that oral sedation is safer in dental practice.(Fig 4) Only 12 out of 120 students knew about the pharmacological agents used for sedation in dentistry.

Even though a total of 120 students took part in the study, only 12% of students knew how to react to medical emergency during administration of sedation in dental practice, while remaining 88% of the students didn't know how to manage an emergency during sedation.(Fig 5) When asked about armamentarium used in sedation only 12% and 33% of final year students and interns respectively knew about it very well.(Fig 6) . Overall the students showed positive attitudes towards sedation use in dental practice. The questionnaire with the data obtained from the students responses are tabulated and presented.(Table 2)

Table 1: Distribution of Participants

| Year of study | N (%) |
|---------------|------------|
| Final year | 50 (42%) |
| Interns | 70 (58%) |
| Total | 120 (100%) |



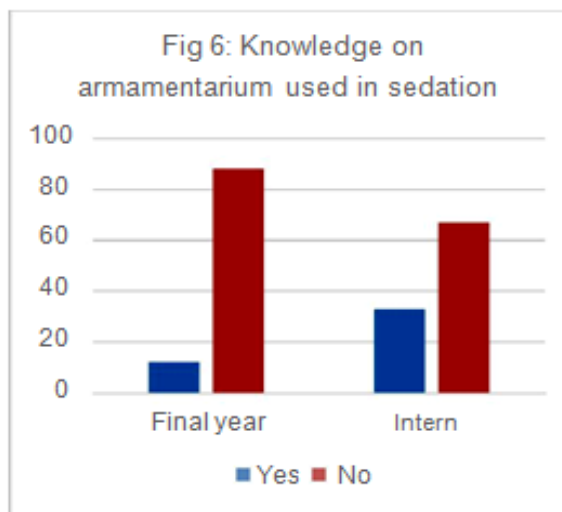
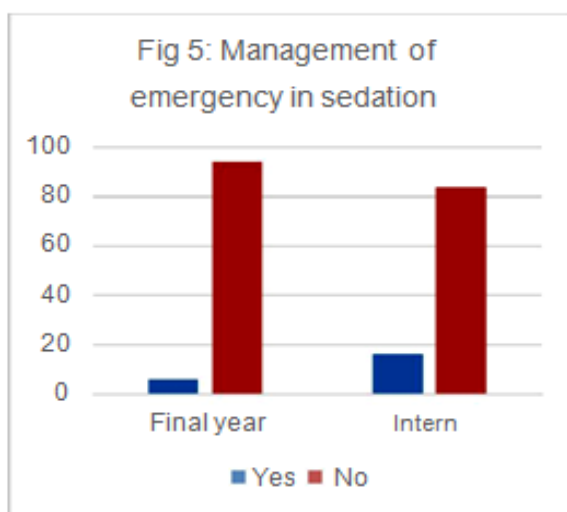


Table 2: Overall data tabulation

| QUESTIONS | FINAL YEAR (50) | | INTERNS (70) | |
|--|-----------------|----------|--------------|---------|
| | YES(%) | NO(%) | YES(%) | NO(%) |
| 1. Do you know what is sedation? | 50(100%) | 0 | 70(100%) | 0 |
| 2. Are you aware of sedation in dental practice? | 50(100%) | 0 | 70(100%) | 0 |
| 3. Can a dentist perform sedation safely? | 36(72%) | 14(28%) | 62(89%) | 8(11%) |
| 4. Is sedation safe in dentistry? | 27(54%) | 23(46%) | 43(61%) | 27(39%) |
| 5. Sedation in dental practice can be given by | | | | |
| a)anesthetist | 8(16%) | | 11(16%) | |
| b)dentist | 28(56%) | | 29(41%) | |
| c)both a&b | 14(28%) | | 30(43%) | |
| d)dental student | 0 | | 0 | |
| 6. Are you aware of indications and contraindications for sedation? | 16(32%) | 34(68%) | 37(53%) | 33(47%) |
| 7. Do you believe that there are risks when sedation is carried out? | 33(66%) | 17(34%) | 29(41%) | 41(59%) |
| 8. Is oral sedation safer than other mode of sedation? | 29(58%) | 21(42%) | 17(24%) | 53(76%) |
| 9. Before administrating sedation, is thorough medical history of the patient should be taken? | 50(100%) | 0 | 70(100%) | 0 |
| 10. Have you performed or observed this procedure in dental college? | 0 | 50(100%) | 53(76%) | 17(24%) |
| 11. Do you know how to react to medical emergency? | 3(6%) | 47(94%) | 11(16%) | 59(84%) |
| 12. What is most preferred mode of sedation in dentistry? | | | | |
| a)inhalation | 18(36%) | | 27(39%) | |
| b)oral sedation | 21(42%) | | 16(23%) | |
| c)IV injection | 9(18%) | | 20(29%) | |
| d)IM injection | 2(4%) | | 7(9%) | |
| 13. Do you know the armamentarium used in sedation? | 6(12%) | 44(88%) | 23(33%) | 47(67%) |
| 14. Are you aware of pharmacological agents used in sedation? | 3(6%) | 47(94%) | 9(13%) | 61(87%) |
| 15. Most emphasize should be given regarding sedation in dentistry in dental education curriculum | 42(84%) | 8(16%) | 49(70%) | 21(30%) |
| 16. As most of the dental procedures are anxiety provoking, dentists must be well equipped and well trained for providing sedation in dental clinic for the patients | 50(100%) | 0 | 70(100%) | 0 |
| 17. Are you willing to attend CDE | 30(60%) | 20(40%) | 63(90%) | 7(10%) |
| 18. Your knowledge about sedation in dentistry | | | | |
| a)upto date | 0 | | 3(5%) | |
| b)reasonable | 8(16%) | | 39(55%) | |
| c)insufficient | 42(84%) | | 28(40%) | |

DISCUSSION

The result shows that all the undergraduate students are aware of sedation used in dental practice, but still the level of their knowledge on sedation and its uses are not sufficient enough for them to practice in dental treatment. Practitioner skills and practice standards are the general areas of controversy in procedural sedation.⁶ Although sedation is more preferably given by anesthetists, it will be beneficial if the dentist also learn the method as the anesthetists will not be available in dental office all the time.

There are studies which show that anesthetists did not approve of dentists administering sedation as they were not confident that dentists are suitable to give sedation.⁷ But still, they think dentists should be trained to provide sedation as it is impracticable for anesthetists to give sedation for all dental treatment.⁸

When looking over the data collected in our study, 88% of the dental students stated that they did not know how to react to manage a medical emergency in dental practice related to sedated patients. Although the indications for sedation use in dentistry are controversial, we must be attentive to the contraindications like pre-existing medical conditions like pregnancy, obstructive respiratory problems and certain syndromes which would rule out sedations.⁹

The recent study has revealed important aspects on knowledge and attitude among dental students regarding the sedation used in dentistry. Students felt for the need of more exposure of the subject in dental school. So, more emphasis should be given regarding sedation in dentistry in dental education curriculum.

CONCLUSION

Most of the dental students were lacking in knowledge about sedation used in dentistry. Interns were more aware of indications and contraindications, and route of

administration of sedation compared to final year students. Thus interns have more knowledge and awareness compared to final year students. Overall the students showed positive attitudes towards sedation use in dental practice. Students should be emphasized more about sedation in dentistry in dental curriculum and also regarding the management of emergency during sedation in dental practice.

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Source of Support: Nil, Conflict of Interest: None.

