Original Article

Comparative Practice of Behavior Management Techniques in Pediatric Patients among BDS and MDS Practitioners of Other Specialties

Sharanya Ravindran, Joyson Moses, M. Arul Pari, Jai Ganesh Inbanathan

Department of Pedodontic and Preventive Dentistry, Thai Moogambigai Dental College, Chennai, Tamil Nadu, India

Abstract

Context: Dentist plays a unique role in treatment plan for the child patient. Without a proper behavior management technique, there would not be a successful treatment outcome. Behavior management techniques among various dentists are studied. **Aims:** The aim of the present study is to compare the behavior management techniques of pediatric patients among undergraduate and postgraduate practitioners of other specialties. **Subjects and Methods:** The study was conducted in the Department of Pedodontics and Preventive Dentistry, Thai Moogambigai Dental College and Hospitals, Chennai, Tamil Nadu. A total of 88 dental surgeons were selected randomly by stratifies sampling method, in which 22 were undergraduate dentists and 66 were postgraduate dentists from different specialties. **Statistical Analysis Used:** Descriptive statistical techniques and bivariate analysis were used. **Results:** Postgraduate dentists of other specialties were more likely to accept behavior management techniques than undergraduate practitioners. **Conclusions:** It was concluded that practitioners should recognize that both didactic and clinical educational components may influence on the students. Hence, it is necessary that graduate dentists must be aware of the behavior modification techniques.

Key words: Behavior management, postgraduate practitioners, techniques, undergraduate practitioners

Introduction

Children are not young adults, their behavior, attitude, ability to understand, imagination, logical thinking, reasoning, etc., vary considerably from that of adults and also from each other.

Dentistry is a super specialty which primarily depends on the cooperativeness of the patient, without which a dentist will not be able to perform any operatory procedure. One of the most challenging problems faced by dental practitioners and dental students is behavior management. Psychological variables (anxiety and/or stress), sociocultural (individual characteristics, children's maturity, previous dental experience), and legal requirements (parent's consent) are involved in dental treatment interfering with professional performance.[1,2]

To be successful in pediatric dental treatment, it is necessary to choose adequate strategies based on procedures that stimulate children's cooperative behavior and knowledge which should have been acquired during formal dentistry training.[3]

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Apart from these techniques, behavioral management strategies start as soon as the patient arrives in the dental operatory, and also involve attire, voice tone, facial expression, body language, sense of humor of the dentist. For a child who is not capable of cooperate, the dentist has to rely on other behavior management techniques (BMTs) as communication and education.[4]

In general, children used to judge a BMT according to the way it looked; hence, hand over mouth exercise (HOME) was the least acceptable BMT, whereas the most acceptable was tell-show-do (TSD).[5] Interestingly, it was observed the same reaction by parents, which considered HOME an aggressive technique[6,7] and TSD, the safest of all.[8]

Address for correspondence: Dr. Sharanya Ravindran, No. 49, 4th Circular Road, Jawahar Nagar, Agaram, Chennai - 600 082, Tamil Nadu, India.
E-Mail: sharanya0811@gmail.com

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There are many behavior management strategies available in the dental literature. To choose the appropriate protocol and strategies of effective management with the primary goal of installing a positive attitude is the need for the hour. Anticipation of the newer strategies of behavior management and updating them is a vital task for the dentist.

Aim

The aim of the study is to compare the BMTs of pediatric patients among undergraduates and other specialty postgraduates.

Objectives

The objective of the present study was to evaluate the practice of pediatric dental treatment among undergraduate and other specialty postgraduates.

Subjects and Methods

The subjects of this study include patients of undergraduates and other specialty postgraduates of dentistry.

Methods of sample collection

The study was conducted in the Department of Pedodontics and Preventive Dentistry, Thai Moogambigai Dental College and Hospitals, Chennai, Tamil Nadu.

A total of 88 dental surgeons were selected randomly in which 22 were undergraduates and 66 were postgraduates from different specialties such as oral medicine, periodontics, prosthodontics, endodontics, orthodontics, oral and maxillofacial surgery [Tables 1 and 2].

Sampling method: Stratified sampling method.

Inclusion criteria

1. The study included undergraduates and other specialty postgraduates who are designated in various department at Thai Moogambigai Dental College and Hospital
2. Postgraduate practitioners other than pedodontics and preventive dentistry.

Exclusion criteria

1. Postgraduate students
2. Nonclinical dental graduates.

Questionnaire

It is a questionnaire-based study with 15 self-explanatory questions, starting from the attitude of the child when he/she enters the dental clinic and till he/she leaves the premises, and the parental attitude when the child is been treated were included in it. Thus, the questionnaires were given to practitioners individually, and its percentage value was evaluated and scores had been valued and assessed.

Statistical analysis

The absolute and percent frequencies were obtained for data analysis (descriptive statistical techniques). The existence of significant association between undergraduates and postgraduates practitioners was verified by means of bivariate analysis.

Results

90.9% of undergraduate dentists and 87.9% of postgraduate dentists preferred the parents to stand along with the child [Table 3]. 63.6% of undergraduate practitioners and 39.4% postgraduate practitioners say that the child fears but cooperative [Table 4]. Both undergraduate and postgraduate practitioners answered that around 90.9% equally prefer nonpharmacological behavior management [Table 5]. Around 63.6% of undergraduate dentists and 60.6% of postgraduate dentists consider TSD as an effective nonpharmacological BMTs [Table 6]. About 81.8% of undergraduate practitioners and 75.8% of postgraduate practitioners preferred conscious sedation rather than general anesthesia [Table 7].

Table 1: Total number of practitioners involved

Qualification	Number	Percentage
BDS	22	25.0
MDS	66	75.0
Total	88	100.0

Table 2: Number of practitioners from different specialities

MDS speciality	Number	Percentage
Oral medicine	6	9.1
Oral pathology	6	9.1
Periodontics	14	21.2
Endodontics	10	15.2
Orthodontics	6	9.1
Prosthodontics	6	9.1
Public health dentistry	6	9.1
Oral and maxillo facial surgery	12	18.2
Total	66	100.0

Table 3: Preference of parental presence during the dental treatment

	BDS	%	MDS	%	Total	%
Parent in the waiting room	2	9.1	8	12.1	10	11.4
Parent standing along with the child	20	90.9	58	87.9	78	88.6
Total	22	100.0	66	100.0	88	100.0

Table 4: Preference of patients for dental treatment with various emotional disturbances

	BDS	%	MDS	%	Total	%
Fear but co-operative	14	63.6	26	39.4	40	45.5
Fear and un co-operative	4	18.2	22	33.3	26	29.5
Cry but co-operative	4	18.2	14	21.2	18	20.5
Un co-operative	0	0.0	2	3.0	2	2.3
Calm and co-operative	0	0.0	2	3.0	2	2.3
Total	22	100.0	66	100.0	88	100.0

Table 5: Preference for type of dental treatment

	BDS	%	MDS	%	Total	%
Pharmacological	0	0.0	2	6.1	2	4.5
Non-pharmacological	20	90.9	60	90.9	80	90.9
Others	2	9.1	6	3.0	8	4.5
Total	22	100.0	66	100.0	88	100.0

Table 6: Preference for non-pharmacological treatment

	BDS	%	MDS	%	Total	%
Models	2	9.1	10	15.2	12	13.6
Physical restraints	6	27.3	6	9.1	12	13.6
Tell show to techniques	14	63.6	40	60.6	54	61.4
voice control	0	0.0	10	15.2	10	11.4
Total	22	100.0	66	100.0	88	100.0

Table 7: Preference for pharmacological treatment

	BDS	%	MDS	%	Total	%
Conscious sedation	18	81.8	50	75.8	68	77.3
General anesthesia	4	18.2	16	24.2	20	22.8
Total	22	100.0	66	100.0	88	100.0

Discussion

Numerous articles have been published regarding the practice of behavior management among various dentists, but the comparative knowledge of undergraduates and the other specialty postgraduates were not established in the dental literature. The present study is done based on it to assess the comparative BMTs of pediatric patients among undergraduates and other specialty postgraduates.

In the present study, we had found that majority of undergraduate practitioners preferred parent to stay along with the child during the treatment but postgraduate practitioners felt that the child fears but cooperates. Same way, Lewis *et al*. in 1961 and Shroff *et al*. in 2015 had conducted a study in which they concluded that more number of undergraduate dentists prefer the parents to be present in the dental operatory during the treatment which is similar to our study.[9]

Whereas there is a specific protocol given by Margaret Mahler in her theory of separation-individualization, where she has classified the relationship between a child and her mother, based on which the presence of mother in the operatory was classified. This should be quoted as a vital tool in behavior management of a child which is to be updated by the dental practitioner.[10]

Both undergraduate and postgraduate dentists preferred nonpharmacological dental treatment rather than pharmacological treatments such as conscious sedation and general anesthesia.

63.6% of undergraduate dentists and 60.6% of postgraduate dentists considered TSD as an effective nonpharmacological BMTs. Similar to our study, Sharath *et al*. and Adair *et al*. and Sotto *et al*. have suggested in their study that TSD is considered as the essential treatment plan for the child in their study.[11-13]

More number of undergraduate practitioners were involved in conscious sedation than postgraduate practitioners. Similarly, Boynton *et al*. in 2007 and Brahm *et al*. in 2013 had concluded in their study that maximum number of undergraduate dentists prefer conscious sedation rather than general anesthesia according to the cooperativeness of the children which was also similar to our study.[14,15]

This study was made as a questionnaire-based study and the answering options were directly listed, so that we can directly get the dentist's opinion. The advantage of our study is numerical values, statistical evaluation, graphs, and time consumption were all eliminated. Advantages of the study were questions which were direct and self-explanatory.

The results of our study indicated that undergraduate dentists are very much less aware of BMTs and are more toward pharmacological means of treatment planning.

Pediatric dentists who are always in the position and direct exposure to the children so that we can learn all the up-to-date behavior modalities, but it is the need of the general dentists to update the latest behavior management aids to install a positive attitude in child.

Conclusion

It was concluded that postgraduate dentists were more likely to accept and follow the behavior management techniques than the undergraduate practitioners who were not so confident according to our study. However, the undergraduate dental education components have the potential to shape student perceptions of pediatric dental BMTs during their career. Moreover, they should recognize that both didactic and clinical educational components may influence on the students. Hence, it is necessary that undergraduate dentists must be aware of the behavior modification techniques.

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Conflicts of interest

There are no conflicts of interest.

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