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Survey of Utilization and Rationale for Hand-over-Mouth Technique in Under Graduate Dental Students

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Abstract

Introduction

When a young child displays highly disruptive, tantrum like behavior in the dental office, the practitioner needs techniques for managing the child in a quick, effective, and positive manner. A variety of relevant behavior management techniques which meet this need have been described in the literature is hand over mouth technique.The hand-over-the-mouth technique (HOME) has been proposed as a behavior management tool for communicative, but defiant children. The restraint technique sought to establish a line of communication and clear under- standing of expected behaviors from the child patient.The aim of the study was to evaluate the utilization and rationale for hand over mouth technique in under graduate dental students.This study considered 200 under graduate dental students studying in Saveetha dental college.They were questioned about utilization and rationale for hand over mouth technique. Collected data were statistically analyzed and results were noted..Based on the result of this survey, it appears that the level of utilization and rationale of HOME technique among the respondents is good. Therefore additional resources and training are needed to help the undergraduate dental students to deal with such uncontrollable child.

Key Words*: Hand Over Mouth Technique, Behaviour management, Child's behaviour*

I. Introduction

The hand over the mouth technique (HOME) was viewed in a single-dentist pedodontic practice. This study includes the frequency of its use relative to the patient's age, sex, previous dental experience and history of a significant medical experience. Observations were also made of the nature of subsequent appointments. It was used most often for three-year-old patients, especially female. In the majority of cases (89 percent), it was used on a single occasion and that incident was followed by appointments of a positive nature. It has been proposed as a behavior management tool for communicative, but defiant children. The restraint technique sought to establish a line of communication and clear under- standing of expected behaviorsfrom the child patient. Studies evaluating parental acceptance of various behavioral techniques indicated that acceptance could be modified through appropriate information regarding the use of such techniques. Among the various techniques, there was a reported hierarchy of acceptance, with positive techniques being more widely accepted than aversive techniques. Despite the ability to increase acceptance of behavioral techniques by communication with parents, all techniques were subject to disapproval by a portion of parents. Although the desired outcome for patients in acute care is generally a cure or improvement of health through the use of sophisticated diagnostic and treatment measures, the decision to use restraint may be appropriate in some situations but not in others, and requires the parent to consider burden versus benefit. The main aim of this article has been to undergo the possible legal grounds upon which a dentist may base his use of HOM and HOMAR for child behavior management. It has been explained out the uses of HOM that will not offend the dentist to liability to the patient when HOM is used properly and parental consent to treat the child is obtained. Such parental consent need not specifically identify the prospective use of HOM, because HOM is an inseparable component of the treatment of certain children. Parental consent to the treatment is informed consent to the necessary use of HOM.

The use of HOMAR is more nearly objectionable legally and may result in liability of the dentist practicing in some jurisdictions, unless express parental consent to its use is obtained in advance of treatment. It must be emphasized that no reported decision of any court has indicated the legal standing of the use of HOM or HOMAR. It is hoped that this article may also be of some guidance to courts faced with the issue of the legality of a dentist's use of HOM or HOMAR. Until a

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court rules on the legitimacy of the use of HOM and HOMAR, there will be some uncertainty how a court will view its use. And of course, the dentist cannot avoid liability, if the dentist utilizes HOM or HOMAR in a manner inconsistent with the standard of the dental profession. Yet, despite such uncertainty, the dentist who uses HOM or HOMAR in accordance with the standard of the ordinarily prudent dentist in the locality and who obtains the requisite consent to treatment should not fear liability for battery or for malpractice. [1]

Classifying children's behaviour: The label "uncooperative" is frequently applied to children who have experienced difficulty in the dental surgery, sometimes on only one occasion. The term implies that a child is deliberately difficult or obstructive, which is rarely the case The relationship between a child and their dentist is a special one, as children do not choose to attend a dentist, their parents and care givers bring them. Parents and care givers may also play an important part in reducing a child's anxiety and allowing the dentist to form a treatment alliance. Children have relatively limited communication skills and are less able to express their fears and anxieties. Their behavior is essentially a reflection of their inability to cope with their anxiety. When children cannot cope, they attempt to escape the impending event. The subsequent change in behavior seen is often a manifestation of anxiety or discomfort in a child who has no other way to cope or of informing you of their difficulty. Behavior management aims to give children appropriate coping strategies. Children's behavior may be characterized in three ways: Co-operative, potentially cooperative, lacking co-operative ability [2].The techniques described in this guideline are appropriate for co-operative and potentially co-operative children. "Potentially cooperative" is preferred to the inaccurate "uncooperative" as described above. Children who lack co-operative ability include the very young with whom communication cannot yet be established (pre-co-operative), and children with specific disabilities with whom cooperation in the usual manner may never be achieved. These two groups are outside the scope of this guideline. Children are not small adults, thus an understanding of child development is crucial if behavior management techniques are to be used effectively. The approach and language used with each child can then be modified to match their abilities and understanding. Factors influencing child behavior, anxiety is a recognized personality trait, but there are some factors which have been found to increase the likelihood of behavior problems at dental appointments.[3]

Medical history: Children who have had negative experiences associated with medical treatment may be more anxious about dental treatment. Similarly, fear sustained from previous unhappy dental visits has also been related to poor behavior at subsequent visits. When taking a medical history the dentist should include questions about previous hospital/medical contact/treatments and the child's response to them.

Parental anxiety: A relationship between maternal anxiety and difficulties in child patient management at all ages has been shown and is particularly important for children less than four years old. When a parent is unable to contain their own dental anxieties it may increase the child's own anxiety, in such cases finding an alternate adult who is less fearful may be helpful.Parents are also able to accurately predict the likely behavior of their children.[4]

Dental Problem: Children who know they have a dental problem are likely to show negative behavior at the first dental appointment which each members role in the dental team understands and so must the accompanying adult.Aparent with the communication is also important to establish events which have distress the child in the past, this is especially important where a negative dental experience have occurred already. The good communication is essential with all patients if a good treatment alliance is to be formed. Parents who are with children the communication pathway is more complex than the simple one to one communication that exists with most adult patients. The child, dentist, parent, care giver and dental nurse are involved potentially. When problems occur,the child can be concentrated by only one at same time,it is often potentiated by unhelpful communication between the child and parent or care giver.[5]

The Parent role: Many dentists have firm views on whether a parent should be present when dental treatment is carried out. Parents have view on may prefer to be presented during treatment, especially when child of theirs are young or at an initial visit. The dentist have concern about the potential of the parent to disrupt treatment by inappropriate communication or by exhibiting anxiety themselves. The exclusion of desire the parents may also reflect too many dentists are used to a one to one relationship with patients and find a three-way interaction threatening. However, involving the parent in the planning stage and outlining their role as a passive 3 but silent helper may provide a comforting presence without unhelpful interference.Research suggests that the behavior of the child is unaffected by their presence or absence of their parents. The exception is young children (less than 4 years) who behave better with their mothers present. [6] AFear of separation of child is normal developmental stage, and it has been shown to be a good indicator of dental anxiety in childhood. So for the children parent presence is important, for older children parent presence appears not to have such a clear effect on child behavior but may be important to the parent.The essential of the child is that individual practitioners explain their practice policies on parental presence to parents.Behavior management techniquerecommends that there are a number of non pharmacological techniques that aim to help manage patient behavior. Some methods aim to improve the communication process,others are intended to eliminate inappropriate behavior or reduce anxiety. While the techniques are described

individually they are often used in combination.[7] The language which are used should be always be age appropriate as should non-verbal communication which is happening all the time, even when we are unaware. Behavior shaping utilizes positive reinforcement and works well combined with tell-show-do for the majority of patients, the exception being those who are classified as "blunters". The patient response isgood to general information which is found in detailed information off-putting. It is also important to ensure that the accompanying parent knows what strategies you are likely to adopt and is prepared .Their knowing of how you will raise your voice under certain circumstances and they will react instantly until it occurs. The information strategies that have been used to decrease parental anxiety, such as pre-appointment letters, may help the children. These are usually in the form of a letter welcoming the new patient and family to the practice. These letters inform them about the happening at the visit, give advice on preparing the child and help to reduce parental anxiety. Communications of non verbal is type of form of communication occurs continuously and may reinforce or contradict verbal signals. Some of the interactive communication includes - having friendly environment for child and a happy, smiling team. Reassurance has been shown to be ineffective as a method of controlling distress. The reinforcement of the child that is enquiring how the child is feeling or gentle activities and squeezes has been found to minimize distress. The cue of the verbal and signs are used to give positive encouragement to child and enhance other management techniques and may be useful with all patients.[8] Young childrencontrol of voice is often responded to the tone of voice rather than the actual words. The technique of control of voice is used as a controlled alteration of voice, sound, tone or to influence and direct a patientbehavior. These techniques aimed to improve attention and compliance and to establish authority. For instance, an abrupt change from soft to loud to gain attention of the child who is not cooperating. Voice control has been shown to 4 decrease disruptive behaviors without producing long-term negative effects. Depending on child it shows as widely used by dentists it may not be acceptable to all parents or clinicians. The technique is useful for inattentive but communicative children. Somehow its not appropriate for children too young to understand or with intellectual or emotional impairment.[9]

Tell show do: Widely used procedure to undergo on a patient with a new technique. The tell phase involves an age appropriate explanation of the procedure. The show phase is used to demonstrate the procedure, for example demonstrating with a slow hand piece on an environment by observing others' behavior, using a model, either live or by video to exhibit appropriate behavior in the dental environment.[10] This demonstration of this appropriate behavior will decrease anxiety by showing a positive outcome to a procedure a child requires themselves; illustration and demonstration are the rewards for performing appropriately. Models which are best should be the same age as the target child, should exhibit appropriate behavior and be praised. They should also be shown entering and leaving the surgery.[11] The technique is useful where an appropriate model is available. This approach aims to shift the patient's attention from the dental setting to some other situation,or from a potentially unpleasant procedure to some other action. Animated pictures and video clips have been shown to reduce disruptive behaviors in children when combined with reinforcement that is when children knew the cartoon would be switched off if they did not behave.[12] Later studies suggest that audio tapes may be even more effective. Short term distractors such as diverting the attention by pulling the lip as a local anesthetic is given or having patients raise their legs to stop them gagging during radiography may also be useful. The pedodontist who speaks while applying topical material and giving local anesthetic is also using distractions with words. The technique is useful for all patients who can verbally communicate. There are no contraindications.[13]

Desensitization of system: This technique helps the individuals with specific fears or phobias overcome them by frequent contacts. A strategiesof producing fear and stimuli is constructed, and the patient is exposed to them in an ordered manner, starting with the stimulus posing the lowest threat. Fears in dental clinics are usually related to a specific procedure such as use of local anesthesia.[14] First, the patient is taught to relax, and in this state exposed to each of the stimuli in the hierarchy in turn, only progressing to the next when they feel able. An example of a hierarchy for localanesthesia. True phobias have several relaxation sessions with a dentist who has received training in relaxation or hypnosistechniques may be obtained. Patient came and required 8 hour long sessions with a therapist. However, a similar approach can be used for children who have had a negative experience in the past. The procedure is useful for a child who can clearly know their anxietyand communicate verbally.

Reinforcement of negative behavior of child: The powerful effect of positive reinforcement has been spoken clearly.[15] Negative reinforcement has also been used in dental practice. Patterns of the child which gives power on theirbehavior by the removal of a stimulus which the individual perceives as unpleasant quality of actas soon as the required behavior is exhibited. [16] The stimulus is applied to all actions except the required one, thus reinforcing it by removal of a negative stimulus.Confusion of the behavior of child, which is the form of an unpleasant stimulus to inappropriate behavior. Hand over mouthtechnique (HOM) is one of the forms and selective exclusion of the parent. Engagement of this HOM technique are restraining the child in the dental chair, placing a hand over the mouth (to allow the child to hear). The nose must not be covered. Quiet interaction takes place between dentist and child by explaining that the hand will be removed as soon as crying stops.[17] When early things happens the removal of hand done and the child is gifted with appreciation. If protests start again the hand is replaced. The technique objects

to proclaim the interest of the child and enable interactions, reinforce good behavior and establish that avoidance is futile. Those who advocate the technique recommend it for children below 9 years when interaction is lost. [18] Importance of children parents is obtained and the technique should never be used on children who are young to understand or with intellectual or emotional impairment. While still used in south India the technique remains controversial. [19]There have been no studies of the effectiveness of HOM. Its legality (with regard to restraint and individual rights) has also been questioned. Selective exclusion of the parent (SEP) is less controversial but uses similar principals. The indications for SEP are the same as for HOM. Parental consent is required. When inappropriate behavior is exhibited the parent is asked to leave. Ideally, the parent should be able to hear, but be out of sight of the child. When appropriate behavior is exhibited the parent is asked to return, thus reinforcing that behavior. [20]

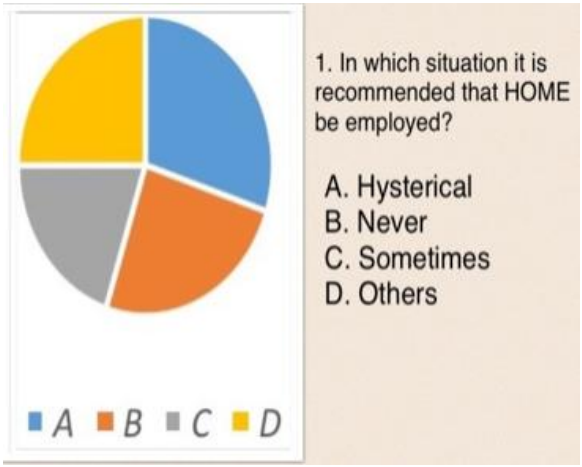
Materials and Method

This study comprised of 200 under graduate dental students studying in a dental college in South India who were selected by convenience sampling technique.They were questioned about utilization and rationale for hand over mouth technique in pediatric patients by a self-structured questionnaire in English language. Collected data were statiscallyanalyzed and results were noted.

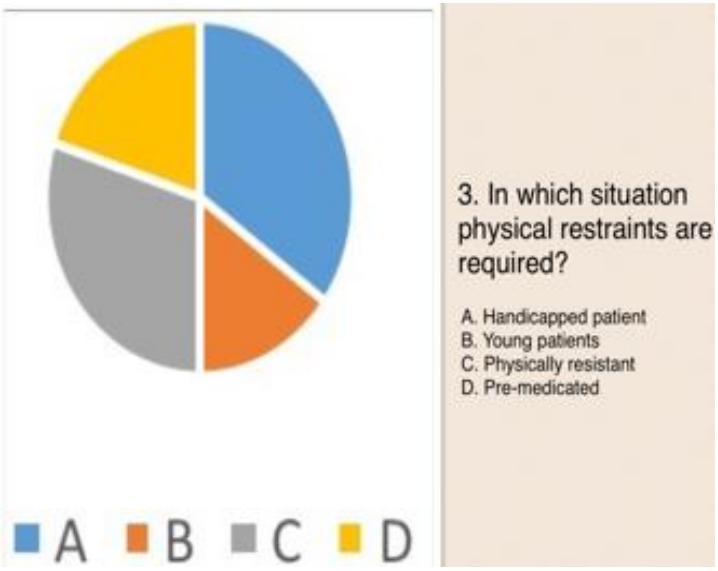
Result

A total of 200 undergraduate dental students responded to the questionnaire based survey that was distributed. The completed questionnaire from 200 under graduate dental students were collected and analyzed statistically.The result implies that about 90 percent of the undergraduate dental students that is (150/200) were aware of utilization and rationale for HOME technique was considerably high and only 10 percent lacked knowledge which has to be trained and more additional information is needed to help them deal with such child.

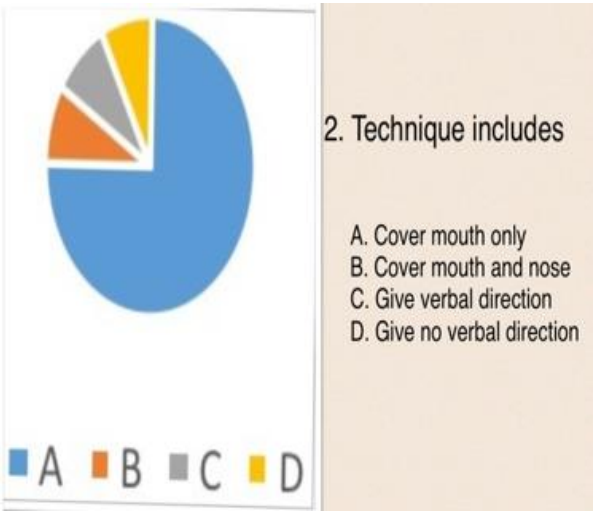
Graph 1



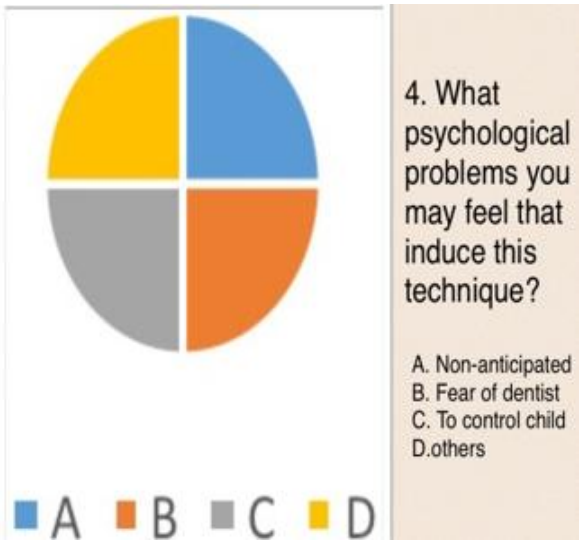
Graph 2



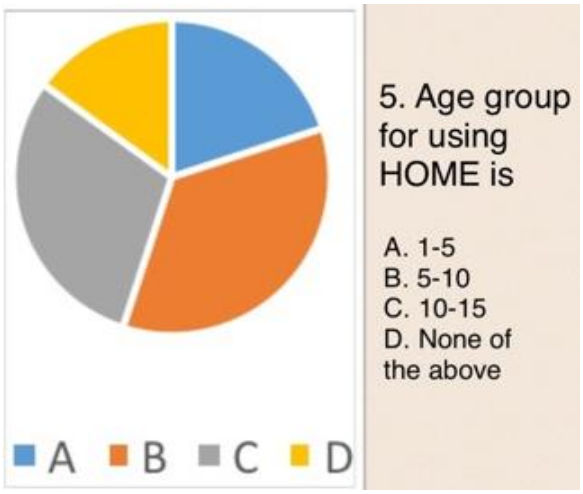
Graph 3



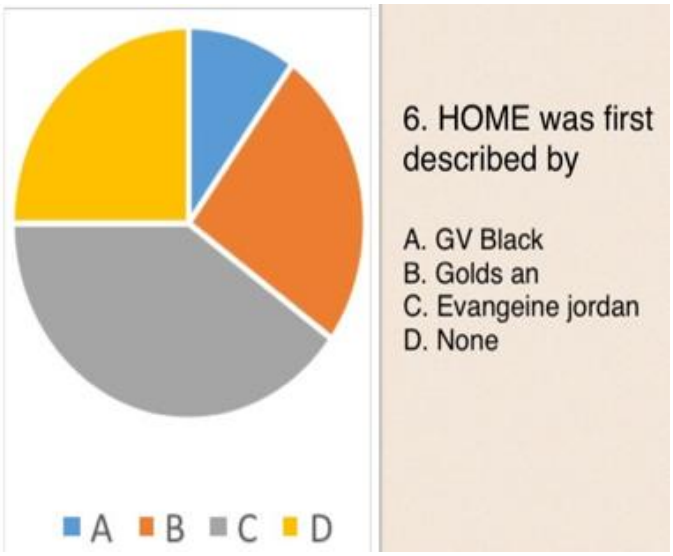
Graph 4



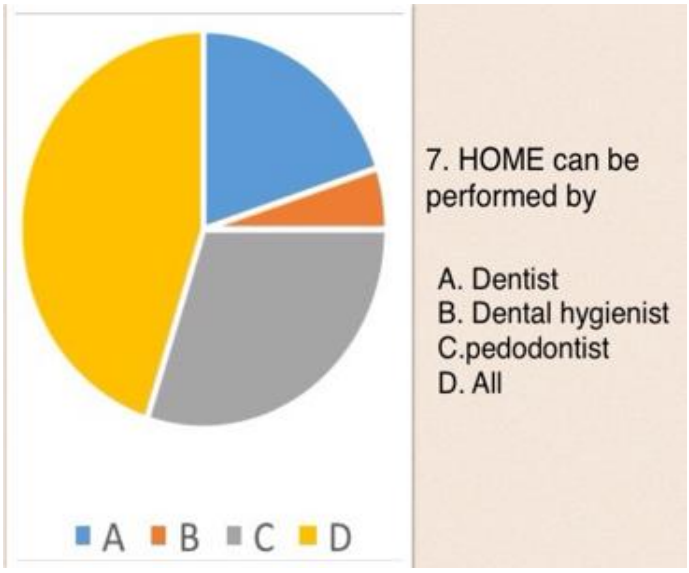
Graph 5



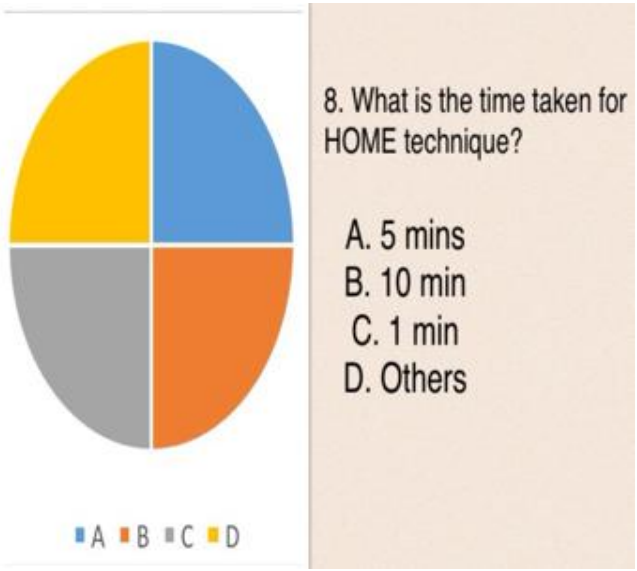
Graph 6



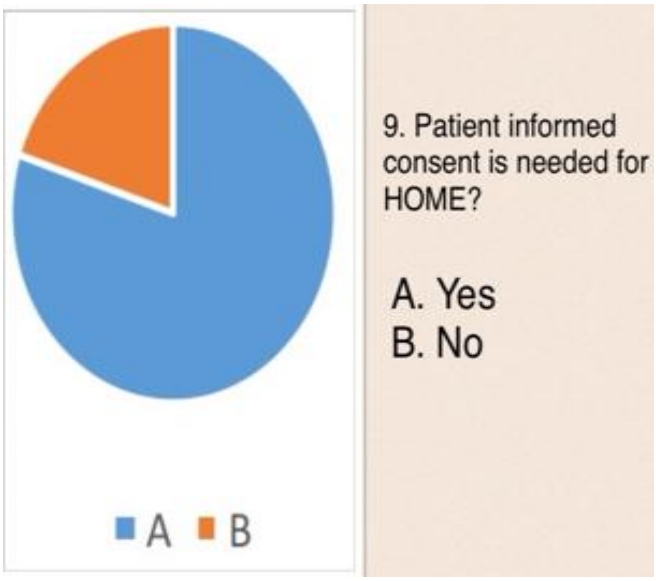
Graph 7



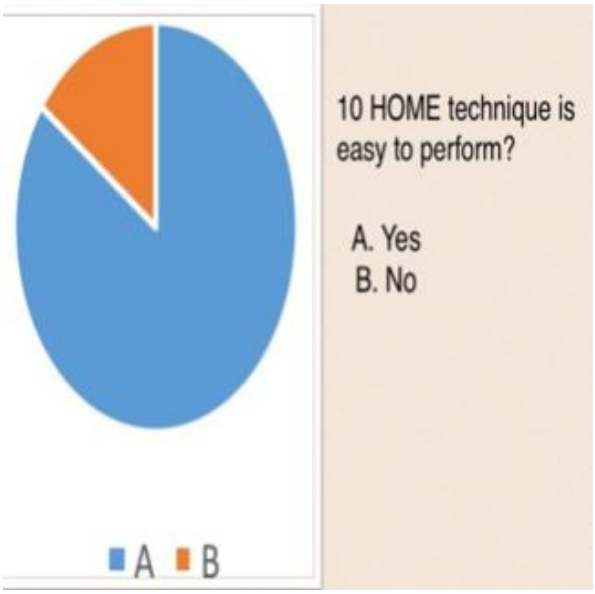
Graph 8



Graph 9



Graph 10



II. Discussion

Most undesirable behavior in the dental environment can be classified as "avoidance" responses. The child may have learned this particular mode of response to selected experiences by several methods, two of which are most relevant for the dental setting. The child arbitrarily does not want to comply with any behavioral requests. [21] He is resorting to actions which in the past have succeeded in enabling him to avoid selected situations. This behavior is a generalized learned response elicited by similar environmental tis-try as a result of knowledge acquired either directly by experience or indirectly through siblings, peers, etc. These fears may be of two types: (a) known, e.g., personally experienced, unpleasant incidents; and (b) unknown, e.g., the alien environment of the dental operators.

Both sources of the avoidance response will produce the same scenario. The child may flail about kick, scream, and in general display tantrum-like behavior.[22] The maladaptive behavior pattern are strengthened and reinforced whenever the child imagines that the practitioner is concerned about causing unpleasant experiences. This ultimately reinforces the child's concept that the dental situation is best avoided.

The usually accepted HOME technique is analyzable in behavioral terms. It is employed when a child is displaying disruptive avoidance behavior. [23] The actual HOME technique with individual variations consists of the dentist's hand being placed firmly over the child's mouth. The dentist speaks softly into the child's ear and reiterates, "When you are quiet, I'll take my hand away." The child usually ends his avoidance response. [24] The dentist in turn removes his hand. If the child remains calm, the dentist immediately reinforces this behavior by saying, "That's better; now you are being good." Throughout the treatment, the dentist should reinforce the child's appropriate behavior by making statements like: "I'm proud of you; you are being very good and helping me, etc." The child dental patient population on whom these techniques are employed is characterized as approximately between three and six years of age and having cooperative abilities. Similarly the other survey was conducted in 1979 by Davis and Rombom regarding the utilization of hand over mouth technique. They suggested that Hand over mouth technique were widely accepted among the leaders of postdoctoral education. Almost 90% of the directors reported teaching such techniques. It was inferred by the authors that since no simple alternative management techniques were widely known, there would be resultant widespread use of the techniques within the private sector. The other survey conducted was the hand over mouth technique on post pedodontic education by Martin J. Davis, D.D.S. Howard M. Romborn [American Association of Pedodontics] in 1990 [25]

III. Conclusion

Based on the result of this survey, it appears that the level of utilization and rationale of HOME technique among the respondents is good. Therefore additional resources and training are needed to help the undergraduate dental students to deal with such uncontrollable child.

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