

Attitudes of a sample of Saudi parents towards behavior management in a pediatric dental clinic

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تهدف هذه الدراسة إلى تقييم الطرق المختلفة للسيطرة على الأطفال، من سن ٤ إلى ٩ سنوات، ومدى تقبل الآباء لتلك الطرق. وقد تم اختيار ٣٤٤ طفلاً وطفلة من المترددين على عيادة طب أسنان الأطفال. وقام ٤ استشاريين بفحص الأطفال واستعمال طرق مختلفة للسيطرة على الأطفال ابتداء بطرق الحوار والتقييد الجسدي إلى التركيز والتخدير العام. كما قام الآباء المصاحبون للأطفال بإكمال استبيان عن حالتهم الاجتماعية وإبداء رأيهم في طرق السيطرة على الطفل. وتبين أن ٩٤٪ من الآباء يفضلون طرق التفاهم والإقناع الإيجابي بينما يفضل ٥,٨٪ إعطاء التعليمات للطفل بشيء من الصرامة، كما يرى ٨,٣٪ أنه يجب استخدام الصوت للسيطرة على الطفل. ويفضل ٣٣,٢٪ من الآباء استخدام التخدير الكلي أو المهدئ للسيطرة على الطفل، فيما يرى ١٣,٤٥٪ من الآباء أن طريقة معاملة الطفل في العيادة يجب أن تترك للطبيب. وأعر ٣,٣٥٪ من الآباء عن عدم تقبلهم لاستخدام أي أسلوب صارم أو شديد للسيطرة على الأطفال. وقد أظهر الأطباء تجاوبهم مع رغبات الآباء من حيث اختيار أسلوب السيطرة على الطفل.

There are many behavior management techniques used in pediatric dentistry from tell-show-do, voice control, physical restraint, to oral sedation and general anesthesia. The aim of this study was to evaluate the attitudes of Saudi parents toward behavior management techniques used when treating 4-9 year old children in a pediatric dental clinic in the Northwest Armed Forces Hospitals. A total of 344 children were selected to participate in the study. Four consultant pediatric dentists were trained in a calibration program, to ensure a uniform approach with behavior management techniques. The patients were examined, and treated starting with 'tell-show-do', followed by techniques requiring increasing firmness when necessary. Parents completed a questionnaire on relevant socio-economic and behavioral factors. Most parents (49.3%) preferred 'tell-show-do', some (8.5%) voice control, while only (3.8%), permitted the dentist to use physical restraint. A total of 33.2% preferred general anesthesia rather than restraint, and 13.4% left the decision to the dentist. Parents who would not tolerate any form of restraint to be use on their children under any circumstances constituted 3.3%. These results indicated that most parents preferred the more passive techniques to physical restraint, and participating dentists showed strong sensitivity to parental preferences by utilizing mainly tell-show-do and voice control.

INTRODUCTION

Most children are relatively cooperative during dental treatment but some require a host of behavior management techniques to render comprehensive care.¹⁻⁶

The goal of behavior management is to reduce anxiety and fear. This could be done through dialogue, voice control and facial expression to minimize difficult behavior and instill a positive attitude in children and their parents.^{1,6-8}

Although there are many behavior management techniques deemed useful in pediatric dentistry, some do not meet the approval of parents, and indeed some are considered unacceptable.^{2,4,5,9-11}

In modern multicultural societies, there is increased emphasis on children's

rights, and parents frequently demand informed consent and more participation in treatment decisions that might affect their children.^{3,5,12} Dentists can no longer assume that parents will automatically accept proposed choices of behavior management.^{2,3,5,9,12} Furthermore, cultural factors also influence child-rearing practices leading to the possibility of miscommunication with parents as to what constitutes the norm in a given society. Not all parents for example accept an authoritarian style discipline even at home, whereas others appear to be more dictatorial and assertive, characterized by more obedience and parent-defined rules.¹³

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Diplomates of the American Board of Pediatric Dentistry have reported changes in parenting style, which have adversely influenced child behavior and provoked changes in pediatric dentists' management strategies.¹⁴ Parental fatigue and hurried lifestyles are thought to be the root causes of these changes, preventing parents from setting limits and providing consistent discipline in their children.¹⁴

Previous research using videotapes and actual observation during dental treatment, found that parents considered 'hand-over-mouth', the use of Papoose Board and other physical restraint methods, too traumatic for their children.^{2,5,9} Parents preferred gentler techniques such as positive reinforcement and tell-show-do.^{2,5,9,15} Other studies indicated that informed parents significantly accepted firm behavior management techniques than uninformed parents.^{3,5,11,16-18}

Observations of children and parents in the pediatric dental clinics at the North West Armed Forces Hospitals (NWAFFH) in Tabuk, Saudi Arabia indicated similarities in behavior and attitude towards management techniques with that reported in other studies. However, there is no documentation of parents' preference to behavior management technique or of the actual techniques used by dentists in this community. Hence, we set out to assess parental attitudes to a variety of behavior management techniques used on their children during dental treatment and the actual technique used by dentists. The results of this investigation are expected to help dentists to select appropriate and acceptable management techniques which could potentially increase cooperation between dentists, parents and children, and hence increase effectiveness of the service.

PATIENTS AND METHODS

A convenient sample of 344 children aged between 4-9 years, receiving dental care during normal working hours at the NWAFFH, Department of Dental Services, together with their respective parents, participated in the study. Selection of cases was not based on prior knowledge of the child's behavior but merely on availability of cases during the study period (2002) and willingness of the parents to participate.

Four consultant pediatric dentists were trained in a calibration program prior to the commencement of the study to ensure a uniform approach with behavior management techniques. Following the initial dental examination, the treatment plan and possible techniques in managing the child's behavior were discussed with parents in detail. In all cases, treatment would start with 'tell-show-do', followed by techniques requiring increasing firmness, with the parents' permission, if and when the child's behavior deteriorated.

Parents completed questionnaires during the initial dental examination of the children which included questions about their preference of behavior management technique and other socioeconomic and behavioral patterns of both the parents and children.

Parental cooperation during treatment was also recorded. Children were given positive reinforcement and toothbrushes for positive behavior.

Patients were assigned coded numbers in order to comply with NWAFFH Medical Research and Ethics Committee guidelines on patient privacy, and only persons directly involved in the research project had access to the questionnaires and data entered in a computer. Information related to dental status,

child behavior, behavior management technique(s) employed and parental attitude was aggregated and entered in a computer database.

RESULTS

The mean age of the children was 5.57 years with a range of 4-9 years. Distribution by gender was 50.07% males and 49.93% females.

Approximately 70% of children visited the dentist for dental caries, 11% for swelling, 7% for mobility and the rest for other reasons.

Parental preferences from the results of the questionnaire for the behavior management of children are set out in Table 1. Most (49.3%) preferred tell-show-do, 8.5% opted voice control, and only 3.8% permitted restraint. A total of 33.2% preferred general anesthesia, 5.2% chose sedation and 13.4% left the decision to the dentist, whereas 3.3% of

parents would not accept any form of restraint to be used on their children no matter what the circumstance.

The actual behavior management techniques employed by the dentists during treatment are summarized in Table 2. Most patients were managed using tell-show-do (74.45%) and voice control was employed in 56.2% of all cases. Manual restraint was necessary in 25.5% of the children and the papoose board was used in 11.2% with parents' approval.

Dentists rated 69% of children as cooperative and 31.0% of children were rated as uncooperative during dental treatment. The vast majority of parents (97.0%) remained in the surgery during dental treatment and only 3.0% were requested to leave due to interruptive behavior. Eighty two percent were actively involved in the treatment and only 15.0% were passive. The father accompanied the child to the dental clinic in the majority of cases (78.0%) while mothers were present in 18.0% of attendance. A guardian such as the grandparent, the family driver, neighbor or other relative accompanied a small percentage of children (4.0%).

Table 1. Parental preference for behavior management technique (n=344)

Behavior management technique	Percentage
Tell-show-do	49.3%
Voice control	8.5%
Restraint	3.8%
Oral sedation	5.2%
General anaesthesia	33.2%
No force	3.3%
Dentist choice	13.4%
Others	1.4%

Parents may have selected more than one behavior management technique

Table 2. Actual management technique used by dentist (n=344)

Behavior management technique	Percentage of use by dentists
Tell-show-do	74.5%
Voice control	56.2%
Manual restraint	25.5%
Papoose board	11.2%

Dentists may have used more than one behavior management technique.

DISCUSSION

In this study, the majority of parents preferred tell-show-do together with positive reinforcement as the best option in managing pediatric dental uncooperativeness. If these approaches failed, 33.2% of parents preferred general anesthesia and 5.2% preferred oral sedation to manage child behavior, whilst 13.4% delegated the decision regarding management technique to the dentist. In a similar study,⁵ most parents preferred relaxation and explanation and only very few (4%) left the decision as to which behavior management technique to use solely to the dentist.

The preferred strategy used by the pediatric dentists in this study was

overwhelmingly (75.5%) tell-show-do similar to the parents preference in the questionnaire, and also to McKnight's study.⁴ Voice control was the second most common technique used by pediatric dentists in this study, followed by manual restraint and papoose board. In a survey of dentists in the United Kingdom,¹⁹ the most popular cited technique by pediatric dentists for managing children was also tell-show-do (87%) with 40% listing voice control as the second most common strategy. For 15% of dentists, nitrous oxide was the third choice, followed by 13% of dentists spending time in the waiting room with the child prior to treatment, 11% of dentists used live modeling to help with behavior management. In a similar survey in Saudi Arabia, tell-show-do, positive reinforcement and voice control were favored by both general practitioners and pediatric dentists.²⁰ Most of the sophisticated behavior management techniques such as sedation, restraint, modeling and non-verbal communication, were often employed by pediatric dentists.²⁰

In this study, some parents helped to pacify the child by sitting close and or manually restraining the hands of the child, talking to them, and even pleading with the dentist to be gentle with their children. Some parents resorted to bargaining with the dentist which is a common cultural habit observed in Tabuk to give their children several more chances before using the papoose board. These findings agree with comments of the American Academy of Pediatric Dentist that child behavior appears to be more difficult to manage as a result of the changing face of parent-child dynamic.¹⁴ Dentists have shifted behavior management strategies towards less aggressive techniques as most parents no longer tolerate the more aggressive techniques like physical restraint and the 'hand over mouth' exercise.¹⁴ A few

parents in our study did not agree to any use of force.

Another observation in this study, was the tendency for many parents to bribe their children with money than impose disciplinary measures and even accepting disrespectful behavior from them, suggesting parents in this community tended to be over-protective. Very few parents used voice control, yet expected the dentists to undertake extensive dental treatment on their children who appeared to have very little experience of parental discipline at home, thereby impeding the management of children during dental treatment and adding to the burden of stress in pediatric dentists.

During the treatment sessions, only about one third of parents of children, exhibiting uncooperative behavior accepted the papoose board when verbal and manual restraint techniques had failed. These findings are similar to two other studies,^{9,15} that parents preferred the use of general anesthesia or oral sedation to the papoose board. Other studies found that most mothers approved of the papoose board when necessary.^{5,6} Assessing behavioral techniques using videotapes^{3,9,10} and surveys,^{4,11,19} may lack the realization of the importance and the choice of the actual techniques used. Thus, the high percentage of non-acceptance of physical restraint and the papoose board in such studies may be understood. Staying with the children during treatment and witnessing the behavioral problems encountered by the dentist may have contributed to the acceptance of the necessity of the techniques used. It may strengthen the idea that the techniques used were for the benefit of their children.

Despite parental misgivings over the use of the papoose board, some parents in this study changed their minds and opted for this form of restraint when the procedures of general anesthesia were

explained in detail, especially, when parents were asked to sign the anesthesia consent that included the risk of death. Only 10 parents refused the papoose board outright and preferred to abort treatment with a view to trying again another day. Although Field's study¹⁵ soliciting parents attitude towards the papoose board was negative, it remains in use²¹⁻²³ 96% of mothers responding to a survey after the use of the papoose board⁶ indicated that using the papoose board was necessary for the treatment, 78% did not think it had a negative effect on the their children, 86% were willing to use again when needed, but 66% thought it was stressful for the child.⁶

In a study that investigated the attitude of Hispanic parents towards behavior management techniques using video tapes, about 70% of parents found 'hand over mouth' unacceptable indicating a preference for general anesthesia.¹⁰ In this hospital, 'hand over mouth' is not practiced. In the UK, 73% of pediatric dentists reported feeling uncomfortable with 'hand over mouth' techniques, followed by 69% for active restraint, and 61% with the papoose board.¹⁹ The majority of dentists in Minnesota, USA⁷ favored the use of behavioral management techniques, such as physical restraints and nitrous oxide, in the belief that they resulted in a greater degree of productivity. A survey of the members of the American Academy of Pedodontists,²³ indicated that 86% of 1142 respondents used physical restraints. Fifty three percent of respondents preferred restraint to a sedative (other than nitrous oxide), when doing a simple restoration on a 3 year old. By contrast, a study of Australian dentists in Victoria found that few supported the use of such restraining methods, relying instead on strategies such as shorter appointment sessions and teaching anxious children relaxation techniques.²⁴

Most of the children in this study came from large families, as 43% of the children were ranked as the fourth or higher sibling. Children from large families are less likely to have home supervision.¹⁴ The familial mode of decision-making is the norm in this culture and families provide a great deal of strength and support. For example, several members of the family often accompany young patients. Also for logistic reasons, 75% of children were accompanied by their fathers not mothers, and dentists had to deal with paternal anxiety rather than maternal anxiety, which may be less. Female patients talk more, ask more questions and get more information than men.²⁵ Men may be more authoritative than women and children may respect authority from their fathers. Among parents who found the papoose board unacceptable, 78% were mothers.⁵

Due to the Saudi family structure and the perceived dependence of children on their parents for moral support, it was found to be helpful if the parents were in full view of their children, so long as their presence was not disruptive. In this study, 97% of the guardians were in attendance during treatment, 3% were sent out as they interfered with treatment. In the UK study,¹¹ 80% of dentists were in support of parental accompaniment of the child during treatment, 60% of the dentists believed that a child's anxiety increased when separated from the parent. Although dentists believe (84% in the UK study) that there are parents who increase the child's anxiety during the course of dental treatment, it is evident that most parents were perceived as helpful, rather than obstructive.¹⁹ Parents may feel the need to protect their child, may have a very strong emotional bond with the child, or genuinely feel the child may behave better in their presence.

CONCLUSIONS

In this study, most parents preferred the more passive techniques, such as 'tell-show-do' and positive reinforcement for child behavior management to techniques requiring physical restraint. The participating dentists showed strong sensitivity to parental preferences by utilizing mainly 'tell-show-do' and voice control. Although the majority of parents indicated a preference for pharmacological techniques in children exhibiting poor behavior, in practice more parents accepted the use of a papoose board when the procedures and protocol for general anesthesia and oral sedation were presented. Many parents were actually deemed helpful allies during dental treatment of their children.

As we live in a multicultural society, we need to better understand childrearing practices and strive to work with rather than against cultural differences. Child behavior management requires a high level of cultural sensitivity, competence and understanding, as well as scientific and technical expertise to render a comprehensive treatment.

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