



The Awareness of the Medical and House Officers about Child Management at Omdurman Military Dental Hospital (Sudan) in 2020

Dalia Ahmed Gasm Elseed Mohamed¹, Yousef Alfatih Ezaldeen², Mustafa Ahmed Salih², Muhanned Abdalgadir Fadlseed²

¹Assistant professor of periodontology in periodontics department in Napata College, Program of Dentistry, Sudan.

²Faculty of Dentistry, Karary University, Omdurman-Sudan.

ABSTRACT

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Back ground: The first dental visit is crucial in the formation of the child's attitude toward dentistry and future treatment success. A dental appointment is a stressful situation, which raises children's anxiety level and avoidance behavior. Several behavioral management approaches have been practiced to reduce distress during dental treatment, such as tell show-do, distraction, modeling, hypnotism, and pharmacological means.

Objective: To assess the awareness of the dentists (house and medical officers) about child management at Omdurman Military Hospital in 2020.

Methods: A destructive cross sectional study, with a sample size of 104 medical and house officers were recruited into the study. Data was collected using a self-administrated closed- ended questionnaire. The questionnaire included demographic (age, gender, residence) and other parts that included awareness about knowledge and attitude regarding child management. Data was analyzed with the aid of Microsoft Excel and the SPSS version 25.0 statistical software program (SPSS, Inc., USA).Results were presented in the form of tables, figures and, texts.

Results: The results of this study showed that (95%) of participants studied child behavior management in their curriculum. However, (44%) of them got their knowledge from the internet. The majority of dentists used the Tell- Show- Do technique (68%), and (53%) of the participants in this study thought that parent presence during the treatment was necessary. Also, about (90%) of participants thought that the use of audiovisual methods during treatment was useful, and (96%) of them thought that the first visit impression was a critical issue for ultimate success in future treatment.

45 % of participants had awareness about child management.

Conclusion: The tell show do technique is the most used technique among house officers and medical officers in Omdurman military hospital , presence of parents is important as well as using advance technique , 45% of the participants had awareness about child management.

KEYWORDS:

awareness, medical, house officers, child management

INTRODUCTION

The first dental visit is crucial in the formation of the child's attitude toward dentistry and future treatment success.

Corresponding Author: Dalia Ahmed Gasm Elseed Mohamed

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A dental appointment is a stressful situation, which raises children's anxiety level and avoidance behavior. Children's dental anxiety is an intense but situational and transient anxiety, if it is not managed, it will possibly continue in to adulthood (1). Anxiety is a variant of fear. Children during their first-dental visit are frequently found to be anxious and frightened owing to exposure to dental equipment and new people. Sometimes this causes a negative impact on child's psychology, and making an unpleasant dental appointment. Children with a high level of preoperative anxiety are more likely to develop maladaptive behavior postoperatively (2). Despite the evolving nature of pediatric dentistry, a greater

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challenge facing the profession still remains: How to prevent or intercept dental fear/anxiety at the beginning. Dental fear is a normal emotional reaction to one or more specific threatening stimuli in the dental situation, whereas dental anxiety means a state of apprehension that something horrible is going to happen in relation to dental treatment, and it is coupled with a sense of losing control. Several communicative, advanced, and pharmacological interventions have been developed to manage children's anxious and cooperative behavior (3). Several behavioral management approaches have been practiced to reduce distress during dental treatment, such as tell show-do, distraction, modeling, hypnosis, and pharmacological means. Tell-show-do (TSD) is an elementary method used in the behavior management of children. It dictates that before any procedure is done, the child is explained what is going to be done using euphemisms and then showing a simulation of what exactly happens with the intended procedure. But this may not completely allay the anxiety when exposed to a real clinical environment (2). Distraction of children provides an effective, relaxed experience during painful dental procedures. Cognitive behavioral therapy (CBT) is an active form of distraction where children are encouraged to participate in activities that calm their dental anxiety. Passive distraction includes audiovisual (AV) distraction, where children remain quiet and get involved in visual and auditory scenes (2). The available literature is sparse to demonstrate the effectiveness of distraction methods in managing preoperative anxiety in children. Hence, most of the clinical study was carried out with the aim of testing the effectiveness of cognitive behavioral play therapy, audiovisual distraction, and the tell-show-do technique in allaying preoperative anxiety in children in dental offices. A range of fear management techniques have been described in the literature and the American Academy of Pediatric Dentistry (AAPD) has described basic concepts as basic behavior guidance such as communication, tell-show-do, voice control, nonverbal communication, positive reinforcement, distraction, and parental absence or presence, and advanced behavior

RESULTS

guidance such as protective stabilization, sedation, and general anesthesia(4).

With the advancement in technology, a standard mobile device has gone from being no more than a simple two-way pager to being a mobile phone, GPS navigation device, embedded web browser, and instant messaging client, and handheld game console. It is generally seen that children from all age groups, from toddler to teenager, stick up to their mobile phones, playing interactive games or even browsing the internet. Today, we have an app for possibly everything. However, very little has happened in favor of pediatric dentistry or even educating the patients about the procedures of their treatment, which can help reduce their fear or apprehension(1).

There are many difficulties facing dentists (medical and house officers) in applying variable child management techniques and their ability to choose the proper technique to control any change in child attitude due to a lack of awareness and knowledge about child management. This type of topic is very important because this problem is facing many dentists around the world.

The aim of this study was to assess the awareness of the medical officers and house officers about child management at Omdurman Military Dental Hospital in Sudan.

METHODS

This Cross sectional study hospital base was done by convenience methods among 104 dentists, medical staff and house officers who were willing to participate in the study during the study period at the Omdurman Military Dental Hospital, Sudan. Data was collected by a self-administrated, closed-ended, and multiple-choice questionnaire that included a demographic part (age, gender, residence) and another part which include awareness about knowledge and attitude regarding child management(**the participant can choose more than one option for the same question**). Data was analyzed with the aid of Microsoft Excel software and SPSS version 25.0 Statistical Software Program (SPSS, Inc.,USA).Results were presented in the form of tables, figures, and texts.

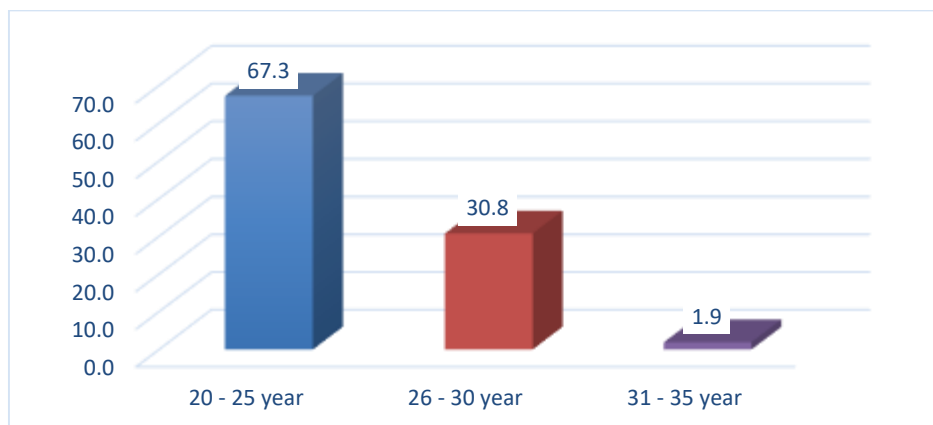


Figure 1: The age intervals among medical and house officers.

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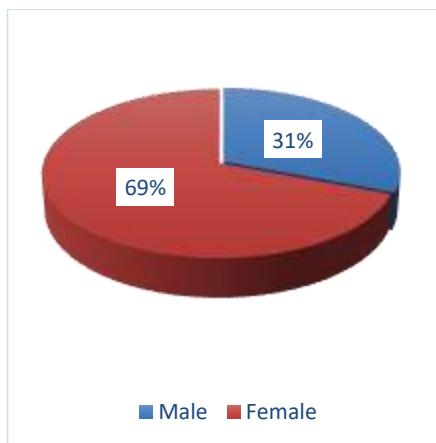


Figure 2: Distribution of Gender

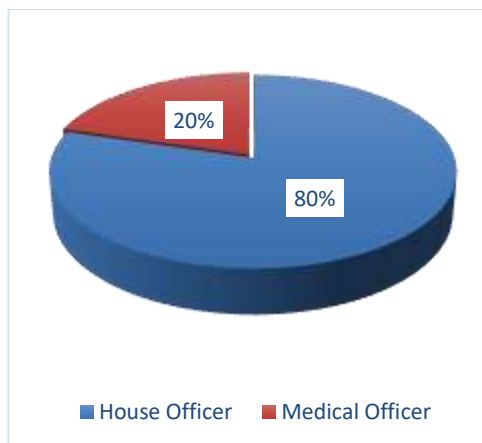


Figure 3: The job description

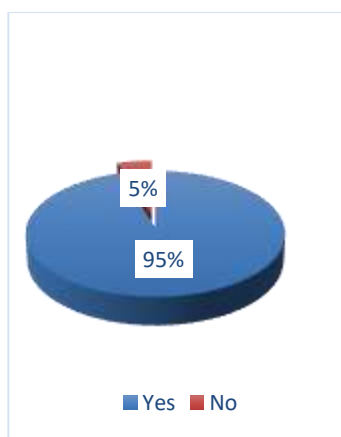


Figure 4: Study about CBM in the curriculum

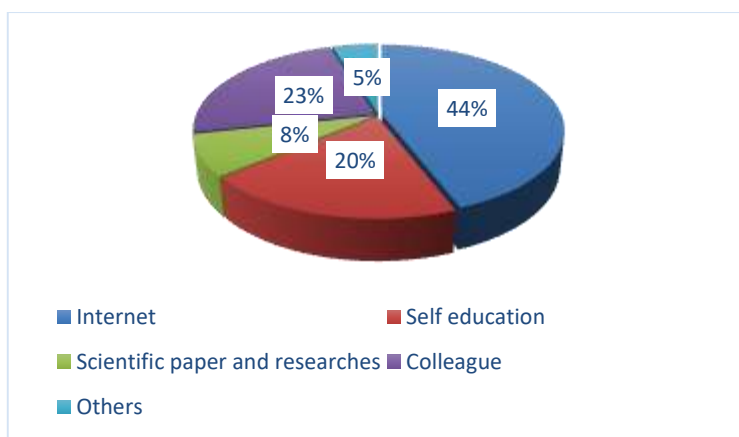


Figure 5: Sources of knowledge rather than curriculum

Table 1: The techniques of CBMT that dentists are familiar with and the techniques that they are often using are

Technique of CBMT	Familiar with	Often using
	Frequency (%)	Frequency (%)
Pre appointment preparation	38 (36 %)	21 (20%)
Behavior shaping	36 (35%)	24 (23%)
Tell – show – do	77 (74%)	71 (68%)
Positive reinforcement	33 (32%)	24 (23%)
Permitting of child sense of control	21 (20%)	16 (15%)
Voice control	45 (43%)	44 (42%)
Distraction	30 (29%)	18 (17%)
Modeling	29 (28%)	16 (15%)
Physical restraint	21 (20%)	12 (11%)

Table 2: The causes of choosing technique:

The causes	Frequency (%)
Easy	50 (48%)
Familiar with it	30 (29%)
Feel confident with it	41 (39%)
Other method are not available	6 (6%)
Lack of knowledge and practice for other types	4 (4%)
Others	8 (8%)

Table 3: When failure of the technique application:

When failure of the technique application	Frequency (%)
Use another technique	74 (71%)
Call for colleague help	18 (18%)
Call for supervisor help	22 (21%)
Call for child parent help	10 (100%)
Deferment the treatment	0 (0%)

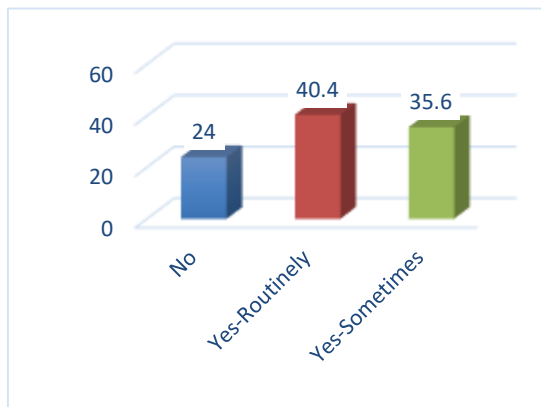


Figure 6: Explain the technique to parents

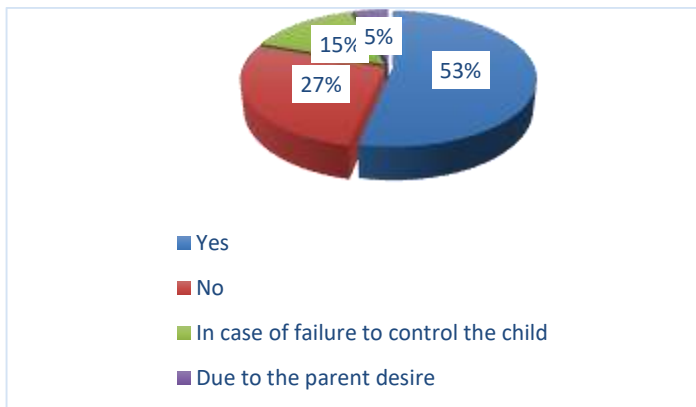


Figure 7: Parents presence during the treatment

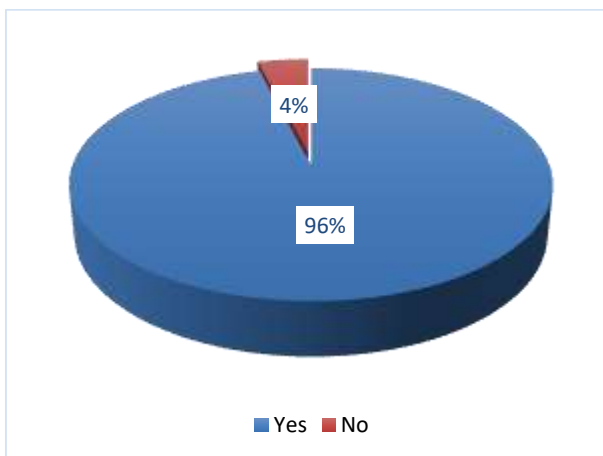


Figure 8: Is the first visit impression important?

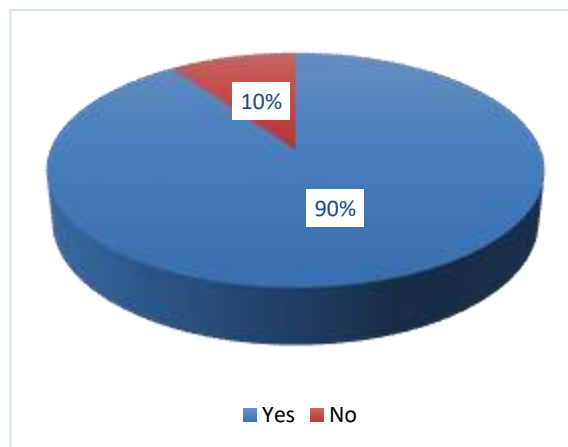


Figure 9: Is the use of audiovisual methods useful in treatment ?

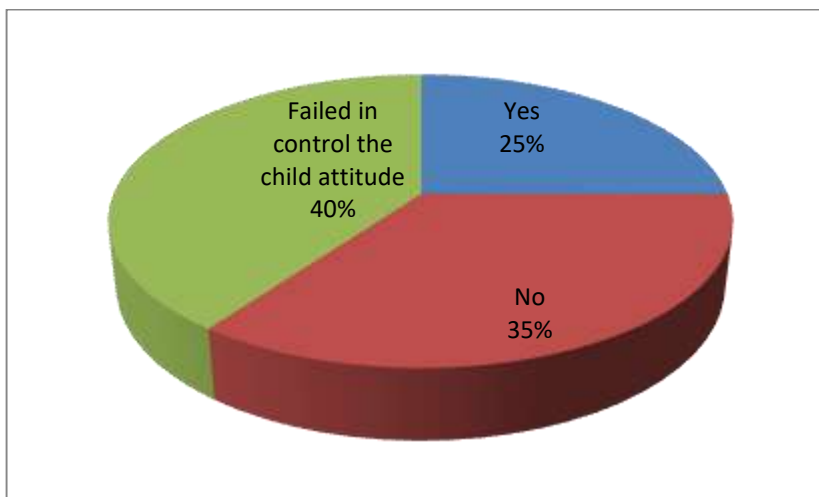


Figure 10: The use of a pharmacological approach to control the Childs attitude

RESULTS

In this study, the population consisted of 104 dentists, 72 (69%) females, and 32 (31 %) males. The age range was between 20 and 32 years, with a mean 25 years old, as seen in Figures (1, 2). 82 (80%) of participants in this study were house officers and 21 (20%) were medical officers in the military hospital of dentistry, as shown in figure 3. 99 (95%) of the participants studied CBM(Child Behavior Management) in the curriculum of their University as found in Figure 4 .When we asked about the sources of knowledge rather than the curriculum, we found that 45 (44%) of participants in this study got their knowledge from the internet, 23% from colleagues, 20% from self -education, 8% from scientific paper and research and 5% from other sources, as seen in Figure 5. The most common technique of CBMT (Child Behavior Management Technique) that dentists were familiar with by 77 (74%) and often used by 71 (68%) was the tell- show- do technique as seen in Table 1. When we asked about the causes of choosing technique 50 (48%) of the dentists said that they chose the easy technique, 41 (39%) said the technique that they felt confident with it, and 30 (29%) said that the technique was familiar, as seen in Table 2. When the technique that applied for child management failed, 74 (71%) of the participants said that they used another technique, as seen in Table 3. 40% of the dentists routinely explained the technique of CBM to parents, and 53% were with the parents during the treatment as seen in Figures (6,7). In this study, 96% of the medical and house officers thought that the first impression of children about dental management was important, as Figure 8 showed. When we asked the dentists about the idea of using the audiovisual method in treatment 90%, said that they thought that it may be useful and assist in child behavior management, as seen in Figure 9 .Finally, 40% of dentists used the pharmacological approach only when they failed to control the children's attitude.

Level of Awareness:

According to the question (which one of the following CBMTs you are familiar with) and (which one of CBMTs you are often use), the number of answers indicates awareness (258) and, 318 answers indicate no awareness of participants. - 45% of participants had awareness about child management

DISCUSSION

The present descriptive cross-sectional study, with a sample size of 104 dentists (medical and house officers) at Omdurman Military Dental Hospital, was carried out to assess awareness and knowledge about child behavior management. In our study, we found that the majority of dentists used the tell- show- do technique (68%).This result was in agreement with the study done by Deepak Khandelwal et al, which showed that the Tell Show Do (TSD) technique is the most commonly used in pediatric dentistry (6). Our results are also in line with those of Maria Shindova which

demonstrate that T S D is one of the most used child behavior management techniques by 65.5% of dentists (7). TSD is one of the most used techniques as it is safe, non- invasive and acceptable for both dentists and parents (7). The T S D technique involves verbal explanations of procedures in phrases appropriate to the developmental level of the patient (tell); demonstrations for the patient of the visual, auditory, olfactory, and tactile aspects of the procedure in a carefully defined, non threatening setting (show); and then, without deviating from the explanation and demonstration, completion of the procedure (do) (8). In our study, (17%) used distraction as a behavioral management technique. This result was less than the study done by Kjetil Strøm et al, in Norway, which showed that (25 %) preferred to use distraction (9). Distraction is the technique of diverting the patient's attention from what may be perceived as an unpleasant procedure. Distraction may be achieved by imagination (e.g., stories), clinic design, and audio (e.g., music) and/or visual (e.g., television, virtual reality eye glasses) effects (8). Physical restraint is the least likely technique to be used.

Voice control is a deliberate alteration of voice volume, tone, or pace to influence and direct the patient's behavior. While a change in cadence may be readily accepted, the use of an assertive voice may be considered aversive by some parents unfamiliar with this technique. An explanation before its use may prevent misunderstanding (8.10). In the present study, 44(42 %) of participants used voice control as a method of child management. Physical restraint is the least likely technique to be used.

In our study, we found that 45 (44%) of participants got their knowledge from the internet due to the lack or absence of formal training on BMT (Behavior Management Techniques) after graduation.This result was in disagreement with the study done by Hassan Mohamed Kawia et al, at Muhimbili University of Health and Allied Sciences, which reported that 46 (62%) had received formal training on BMT (11).

In our study, we found that 55 (53%) of participants thought that parent presence during the treatment was necessary to gain emotional support and to avoid the effect of traumatic separation .This result was in agreement with the study done by Hassan Mohamed Kawia et al, which showed that (95.9%) of participants were aware of the importance of parent presence in dental treatment (11).

The majority of the dentists thought that the use of audiovisual methods in treatment is helpful in child behavior management. This was in agreement with the Polo et al study, which said that the use of virtual reality headsets can effectively distract a pediatric patient, helping to reduce anxiety and manage behavior during dental treatment (12).

The majority of the respondents considered that pharmacological methods are not the first option for child management, and it may indicate that if the control of the

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child by other methods did not succeed, this result was in agreement with Costa et al, which indicated that only 20% - 30% have training in pharmacological technique, and 94.4% of dentists use protective stabilization, and they go to the pharmacological approach only if other methods failed (13). In this study, we found that (45 %) of participants had awareness about child management. Which was lower than expected, due to the lack of post-graduation training in CBMT at the Omdurman military Dental Hospital.

CONCLUSION

The majority of medical officers and houses officer in the Omdurman military Dental Hospital preferred the (TSD) technique. Most of them got their knowledge from the internet. They thought that parent's presence in the dental clinic was important. Physical restraint is the least likely technique to be used. 45 % of participants had awareness about child management.

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