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Original Research Article

Behavioral Challenges Faced by General Dental Practitioners in the Treatment of Pediatric Patients; A Cross-sectional Study Done in Saudi Arabia.

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Introduction: Pediatric patients come to the dental office with visible fear and stress. However, it is also important to understand the level of stress the dental practitioner undergoes. This may vary on the basis of several factors of which the most important is the clinical experience. Materials and methods: This is a cross-sectional study, which utilized a closed-ended survey targeting general dental practitioners in Saudi Arabia. An electronic survey was constructed using Google forms and distributed using emails and social media applications. Results: Overall, no significant relationship was found when males were compared with females. Few survey questions were found to be statistically significant when compared on the basis of clinical experience. Conclusion: Confidence levels in treating a pediatric patient depend on the behavior and attitude. No comparison between males and females could be identified.

Keywords: Pediatric patients, Behavior, Dental treatment.

INTRODUCTION

Pediatric patients usually present with aggressive behavior when receiving or about to receive dental treatment. Dental practitioners have found it challenging as the majority of children require urgent dental treatments. Pediatric patients come to the dental office with visible fear and stress. However, it is also important to understand the level of stress the dental practitioner undergoes. This may vary on the basis of several factors of which the most important is the clinical experience (Davidovich et al, 2015).

It may also be argued that the general dental practitioners who may be graduated recently may exhibit practical knowledge on how to manage pediatric dental patients. The reason may be their undergraduate clinical as well as didactic training, which may affect their overall performance positively. Studies have demonstrated that the relationship between good recent clinical training and better readiness of dentists in order to treat children (Rich, Straffon and Inglehart, 2006).

Several studies have been conducted to assess the different behaviors of children while receiving dental treatment with their relationship and effects on the dentists. A study done by Cardoso et al (2004) revealed that regardless of the behavior of children in a dental setting, the dentists tend to be nervous at all times. Similarly, less experienced dental students also exhibit higher stress levels when treating pediatric dental patients. Therefore, it is imperative to educate them on how to manage these challenging cases (Waggoner et al, 2003).

AIMS OF THE STUDY

- To determine the stress levels of dentists having varying clinical experience.
- What is the frequency of patient referral to specialists in the case of an uncooperative patient?

MATERIALS AND METHODS

This is a cross-sectional study, which utilized a closed ended survey targeting general dental practitioners in Saudi Arabia. An electronic survey was constructed using Google forms and distributed using emails and social media applications.

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Convenient sampling was used and a total of 300 dentists were sent the questionnaire.

Collected data was subjected to statistical analysis using SPSS version 19. Mean values were calculated and comparisons were made using Chi-square test with the p-value kept under 0.05. Survey questions were categorical in nature and 5-point Likert scale was used with very low to be coded as 1 and very high to be 5.

RESULTS

A total of N=225 dental professionals participated in this study. Figure 1 shows that 69% were females whereas 31% were males. On the other hand, 31% had clinical experience of less than 2 years, 55% had 3-5 years and 14% with more than 6 years (figure 2). As far as dental specialty is concerned, 94% of the participants were general practitioners and only 6% were pediatric dentists (figure 3).

Mean scores were recorded for confidence levels reported by the study participants. Higher mean value indicated an increased confidence level in treating various cases. Higher mean value was noted when inquired the participants about treating mandibular arch. However, low mean value was discovered when inquired about confidence in treating anxious children (table 1).

Overall no significant relationship was found when males were compared with females (table 2). Few survey questions were found to be statistically significant when compared on the basis of clinical experience (table 3). Highly significant relationship was found when compared on the basis of dentistry level (table 4).

Figure 1: Male and female participants in this study

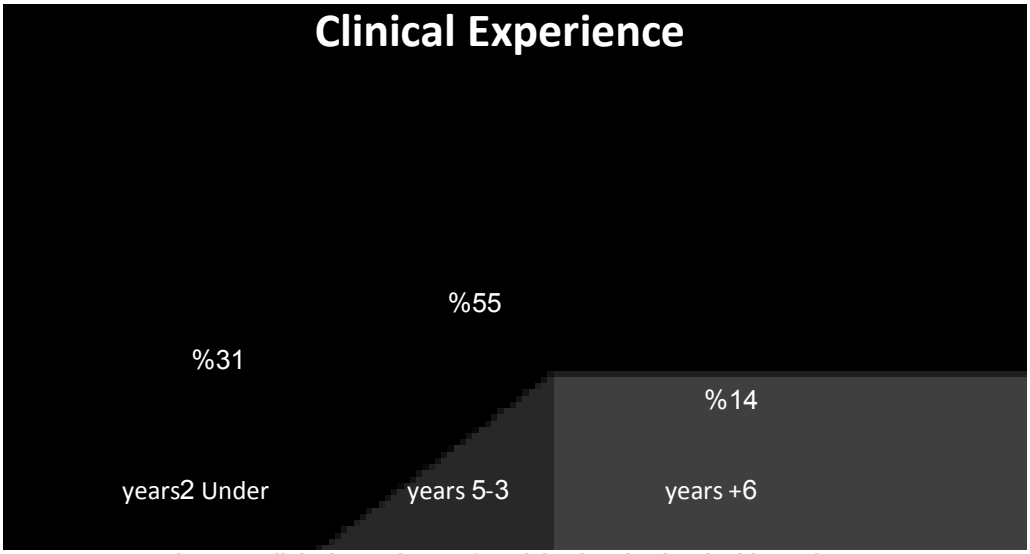

Figure 2: Clinical experience of participating dentists in this study

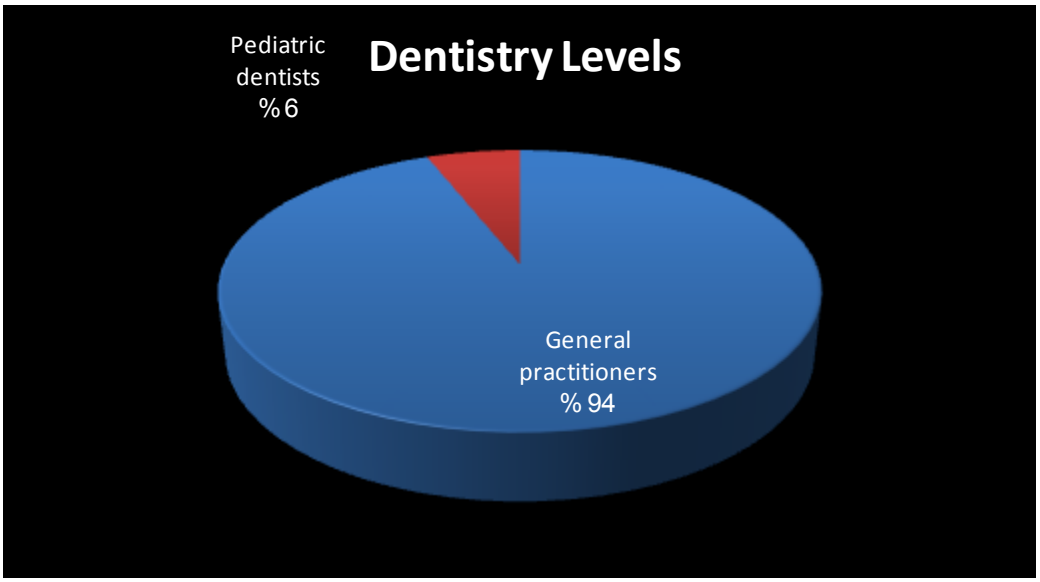

Figure 3: Dentistry levels of study participants

Table 1: Confidence levels displayed as mean values from 1=very low to 5= very high

Confidence Assessing Questions	Mean Values	Standard Deviation
Confidence in treating pediatric patients	3.26	0.86
Confidence in treating maxillary arch	3.48	0.89
Confidence in treating mandibular arch	3.59	0.95
Confidence in placing rubber dam	3.26	1.03
Confidence in giving local anesthesia	3.50	1.11
Confidence in treating anxious child	2.54	0.97

Table 2: Comparison among males and females

Survey Questions	P- value
Confidence in treating pediatric patients	0.233
Confidence in treating maxillary arch	0.490
Confidence in treating mandibular arch	0.768
Confidence in placing rubber dam	0.831
Confidence in giving local anesthesia	0.036
Confidence in treating anxious child	0.398
Refer uncooperative patient to the specialist?	0.011
Frequency of using Nitrous Oxide	0.385
Noticed a positive change in managing uncooperative patients?	0.370

Table 3: Comparison between participants on the basis of clinical experience

Survey Questions	P- value
Confidence in treating pediatric patients	0.026
Confidence in treating maxillary arch	0.261
Confidence in treating mandibular arch	0.269
Confidence in placing rubber dam	0.020
Confidence in giving local anesthesia	0.401
Confidence in treating anxious child	0.548
Refer uncooperative patient to the specialist?	0.110
Frequency of using Nitrous Oxide	0.974
Noticed a positive change in managing uncooperative patients?	0.006

Table 4: Comparison on the basis of dentistry level (general practitioners vs. pediatric dentists)

Survey Questions	P- value
Confidence in treating pediatric patients	0.000
Confidence in treating maxillary arch	0.002
Confidence in treating mandibular arch	0.075
Confidence in placing rubber dam	0.002
Confidence in giving local anesthesia	0.016
Confidence in treating anxious child	0.001
Refer uncooperative patient to the specialist?	0.000
Frequency of using Nitrous Oxide	0.000
Noticed a positive change in managing uncooperative patients?	0.004

DISCUSSION

Treating pediatric patients is one of the greatest challenges in dentistry. Behavioral changes and uncooperative attitude are the major obstacles which prevent or resist regular treatment provision to these patients (Slayton & Palmer, 2016). This study was done to assess the readiness and confidence levels of general as well as pediatric specialist dentists in treating pediatric patients. We aimed to compare the confidence levels on the basis of several factors. These included gender, clinical experience, and dental specialty.

It can be noted from the results that the mean values are different for various procedures as far as dentists' confidence levels were concerned. In general, the confidence in treating the pediatric patients was found to be moderate (mean: 3.26), which is lower than the mean score (3.59) when treating the lower arch and higher than the mean score (2.54) when treating an anxious uncooperative child. Mean value of 3.50 was recorded when inquired about the administration of local anesthesia.

Overall, the comparison between males and females was found to be statistically insignificant, as all the p-values were recorded to be higher than 0.05 apart from willing to refer the patient to a specialist (p-value: 0.011) and confidence in giving local anesthesia (p-value: 0.036). However, major comparisons were found out when compared the confidence levels between general practitioners and pediatric dentists. Expected high levels of confidence and attitude were reported by the pediatric dentists as compared to the other group. It is worth mentioning that the number of pediatric dentists was considerably low as compared to general dentists. Therefore, the relationship between designation and confidence in treating pediatric patients may not be justified accurately. We need a bigger sample size in order to achieve that.

CONCLUSIONS

- Confidence levels in treating a pediatric patient depend on the behavior and attitude.
- No comparison between males and females could be identified.
- Pediatric dentists showed a better attitude and higher confidence in treating children.

CONFLICT OF INTEREST

There was no conflict of interest among the authors.

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