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Original Research Article

An Evaluation of Dental Practitioners' Fear While Attending Patient with Special Needs

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Abstract

The aim of this study was to evaluate the practitioner's fears with respect to patients with special care needs. 150 dental practitioners (aged 22 to 38 years) at a tertiary care dental teaching hospital were included in the study. A specifically designed 10-item schedule was used to access the fear. The results showed that 10 (6.7%) respondents had no fear or hesitation in offering treatment, 74 (49.3%) had hesitation, 62 (41.3%) had specific fears only and 4 (2.7%) had generalized fear. It can be concluded the fear to attend a dental patient with special care needs was quite prevalent and was affected by the dentist's practice area, clinical experience and teaching/academic experience.

Keywords: Special Need Patients, Dentist's Fear, Disability.

INTRODUCTION

Individuals with special care needs are those having a physical or mental condition or handicap that limits a person's movements, senses, or activities. This disability sometimes puts these individuals in a disadvantaged position in their routine life and ultimately affects their quality of life. Although these individuals need special care yet unfortunately they even fail to receive a generalized care. The limitation posed by their physical and/or mental condition is undoubtedly one of the barriers in their day-to-day routine life, however, the perceptions of other people also present as a more stronger barrier that is difficult to cross.

Evidence has shown that individuals with special care needs have dental healthcare needs of higher order yet proportion of patients with special care needs among total number of patients availing a dental healthcare facility is often disproportionate and dismally low as compared to their representation in population. Thus, these patients often have unmet dental needs [1, 2]. The barriers to dental healthcare of these patients have been studied extensively and have been reported to cover a wide range of reasons including patient fear and anxiety, gender, race, ethnicity, maternal/care-taker's education, socioeconomic status, place of residence, *etc* [1, 3, 4].

No doubt all these factors might have a significant role in determining the dental care utilization pattern of these patients resulting in a high proportion of unmet needs, however, there are still many other unexplored factors that determine the low representation of these patients in dental care facility.

In a recent attempt to explore the barriers for dental care among patients with special care need in our facility through the help of a systematic evaluation in PG clinics, we encountered that our postgraduate dental students and residents were quite hesitant and somewhat unwilling to attend the patients with special care needs. Eventually leading us to inference that apart from the patient's dental fear and anxiety, dental practitioners might also have psychological issues while attending these patients. With this background, the present study was carried out in order to assess dental practitioner's fear with respect to patients with special care needs.

MATERIAL AND METHOD

A total of 150 dental practitioners aged 22 to 38 years, including postgraduate dental students and residents in various specialties of Faculty of Dental Sciences, King George's Medical University, Lucknow, India, a leading tertiary care dental teaching hospital of India were included in the study.

All the participants were assessed for fear related with treatment of patients with special care needs. A specifically designed 10-item Practitioner Fear Survey Schedule was used for the purpose of study. The questionnaire was evolved through the help of Panel discussion. The items included in the questionnaire targeted dentist's uneasiness, apprehension regarding difficulty to understand/communicate with the patients, difficulty to instruct, inadequacy of infrastructure, apprehension of getting hurt/injured by the patient, apprehension of hurting the patient, apprehension of complications during treatment, considering their treatment as bothersome, apprehension of clinic facilities being disturbed/destroyed by the patient during treatment and having a previous bad experience in which patient had become uncontrollable during treatment.

All these items were scored Likert scale where score 0 indicated the least fearful and 4 indicated most fearful dentist perceptions.

The internal consistency of the scale was checked and it was found to be highly reliable (Cronbach α=0.819). Using the weightage provided by Likert scale Scores >30 indicated a generalized fear (for most of the questions scores indicating the most fearful scenario), 20-30 indicated specific fearful situations (for some questions scores indicating the most fearful scenario), score 10-20 indicated a hesitant situation (for few questions scores indicating the most fearful scenario/generally a situation indicating slight to some fear) and score <10 indicated no hesitation or fear (for most of the questions scores indicated slight or no fearful situation). The items included in the scale were fear on seeing, communicating, instructing, inadequacy of infrastructure, fear of being hurt, fear of hurting, fear of complications, bothersome treatment, threat to infrastructural facilities and past experience. Data analysis was done using Statistical Package for Social Sciences, version 15.0.

RESULTS

The participants of the study aged from 22 to 38 years. Mean age of participants was 26.87±3.23 years. Majority of them were females (61.3%) and postgraduates (55.3%). Clinical experience ranged from 1 to 15 years with a mean value of 5.27±3.07 years. Most of them were doing institutional practice only (94.7%) and had experience of teaching (82.7%) (Table-1).

Table-1: Profile of Dental Practitioners included in the Assessment

SN	Characteristic	Statistic
1.	Mean Age±SD (Range)	26.87±3.23 (22-38)
2.	Gender	
	Male	58 (38.7%)
	Female	92 (61.3%)
3.	Qualification	
	Undergraduate	67 (44.7%)
	Postgraduate	83 (55.3%)
4.	Mean years of experience±SD (Range)	5.27±3.07 (1-15)
5.	Type of Practice	
	Institutional	142 (94.7%)
	Institutional + Individual	8 (5.3%)
6.	Teaching exposure	
	No	41 (27.3%)
	Yes	109 (82.7%)

Mean scores for different items ranged from 1.27±0.96 to 2.58±1.11 (might hurt these patients) to 2.58±1.11 (infrastructure is inadequate). There were four items (infrastructure is inadequate, difficult to instruct, difficult to understand their problems and feeling uneasy when a patient with special needs comes to clinic) having mean score above 2. For none of the items, the mean scores were below 1, thus indicating that in general for all the items there were hesitations while attending the patients with special care needs. Overall mean scores were 18.93±5.84, thus indicating a generalization hesitation among dental practitioners while attending the patients with special care needs. The scale was consistent internally (α=0.819) (Table-2).

Table-2: Item wise Dentist Fear Perception Scores (n=150)

Item	Mean	Std. Deviation
Feeling uneasy when a patient with special needs comes to clinic	2.11	0.94
Difficult to understand their problems	2.35	0.71
Difficult to instruct	2.48	0.70
Infrastructure is inadequate	2.58	1.11
Patients might hurt the dentist	1.43	0.91
Might hurt these patients	1.27	0.96
Treating these patients might lead to complications	1.73	0.96
Treating these patients is bothersome	1.84	1.04
Patients can destroy/disturb the material facilities	1.35	1.03
Having a previous experience in which patient had become uncontrollable	1.79	1.03
Overall mean score	18.93	5.84
α=0.819		

On categorical evaluation based on criteria defined in materials and method section, a total of 10 (6.7%) practitioners did not have any hesitation or fear. A total of 74 (49.3%) had hesitation in attending these patients. However, a sizeable proportion (n=62; 41.3%) had specific fears. There were 4 (2.7%) who had generalized fears (Table-3).

Table-3: Distribution of Dental Practitioners according to fear level

Fear Level	Corresponding fear Scores	No.	%
No hesitation or fear	<10	10	6.7
Hesitation	10-20	74	49.3
Specific fears	21-30	62	41.3
Generalized fears	31-40	4	2.7

On evaluating the association of fear scores with characteristics of dental practitioners, statistically no significant association of fear scores was observed with age and gender. However, qualification, teaching exposure and clinical experience showed a significant association with fear scores. Mean fear scores of dental practitioners with undergraduate qualification, having no teaching experience and those with shorter clinical experience were significantly higher as compared to those with postgraduate qualification, having teaching experience and those with longer clinical experience ($p \leq 0.001$) (Table-4).

Table-4: Association of Fear Scores with Dentist Characteristics

SN	Characteristic	No.	Mean Score	SD	Statistical significance
1.	Age				
	≤25 Years	61	20.11	5.80	F=1.883; p=0.135
	26-30 Years	70	18.44	5.55	
	31-35 Years	15	16.53	6.68	
	>35 Years	4	18.50	6.35	
2.	Gender				
	Male	58	18.48	6.37	t=0.749; p=0.455
	Female	92	19.22	5.49	
3.	Qualification				
	Undergraduate	83	20.36	5.65	t=3.455; p=0.001
	Postgraduate	67	17.16	5.62	
4.	Teaching exposure				
	No	41	22.15	6.53	t=4.379; p<0.001
	Yes	109	17.72	5.08	
5.	Clinical experience				
	≤2 Years	41	22.15	6.53	F=6.991; p<0.001
	3-5 Years	42	18.62	3.98	
	6-10 Years	57	17.12	5.55	
	>10 Years	10	17.40	6.31	

Table-5: Multivariate assessment of Dependence of Fear perception scores on dentist characteristics

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	637.113(a)	2	318.556	10.546	<0.001
Intercept	52220.306	1	52220.306	1728.830	<0.001
Qualification	54.644	1	54.644	1.809	0.181
Teaching	258.130	1	258.130	8.546	0.004
Qualification * Teaching	.000	0	.	.	.
Error	4440.221	147	30.206		
Total	58848.000	150			
Corrected Total	5077.333	149			

a R Squared = .125 (Adjusted R Squared = .114)

In a multivariate model where fear scores of dental practitioners were considered to be dependent on independent variables dental practitioner's qualification and teaching experience, only teaching experience was found to be significantly associated with fear scores. Interaction of qualification and teaching experience or qualifications independently were not seen to be significantly associated with fear scores (Table-5). In a preliminary assessment, where clinical experience was also kept as an independent variable, dental practitioner's fear scores were kept as the dependent variable. Clinical experience was found to be confounded with both teaching experience as well as qualification and hence has to be excluded from next iteration of the model.

DISCUSSION

The present study was carried out at a tertiary care teaching hospital in Northern India. The profile of practitioners included in the assessment showed them to be young professionals and primarily females. Dentistry of late is becoming a preferred profession amongst females in India which is in consonance with the worldwide trends [5, 6]. One of the reasons for increasing popularity of dental profession among women is flexible working time, relatively fewer hours of working and ability to adjust between professional and familial responsibilities [5, 6]. Majority of our respondents were postgraduate qualification holders or those pursuing postgraduate qualification, thus indicating the increasing emphasis on specialization than practicing as a general practitioner. Being an academic institution, the average experience of those included in the study was only 5.27±3.07 years which is in consonance with the average duration of general practitioners in India [7]. The reason for relatively shorter duration of average experience of general practitioners in India could be increasing number of dental schools and influx of fresh dental graduates in Dental practice and postgraduate schools. Thus, the general dental practitioner in India today is mainly young workforce predominantly women and the profile of practitioners included in this assessment despite being included from a teaching dental institution represents the profile of a general dental practitioner in India. However, the difference being that owing to being conducted in an institution, most of the respondents had experience of only institutional practice (94.7%). Institutional practice is sometimes advantageous as it provides a better access to infrastructural facilities as well as specialist professional consultation from different streams which otherwise is not available in general individual practice. However, if we look at the other aspect, then in case of an unwillingness to undertake a procedure, it also induces the tendency of passing the bucks. In present study, owing to being carried out in a teaching hospital, a large proportion of respondents also had teaching experience (82.7%). Teaching experience gives exposure to varied problems, queries and need to study and interact with students and resolve different issues related with theory and practice of dentistry.

The present study used a 10-item evaluation scale for assessment of dentist fear associated with attending a patient with special care needs. The scale was self developed following a panel discussion but was found to have a high internal consistency (α=0.819). Thus fulfilling the criteria of having a good internal consistency as proposed by Nunally [8] who was of the view that a scale can be termed to have a good internal consistency if the Cronbach alpha value is above 0.7. In present study we did not go for data reduction as the purpose was mainly to gauge the fear level. Moreover, the total number of items in the scale were not sufficient enough to identify various dimensions related with dentist fear. Being a preliminary assessment, the findings in present study must be considered as indicative rather than conclusive and further assessment for different related dimensions must be carried out.

In present study, hesitation to attend patients with special care needs was observed to be quite frequent as reflected by mean scores for all the items which were above 1 for all the items. For four items, the hesitation seems to be turning into a fearful situation, *viz.* items feeling uneasy when a patient with special needs comes to clinic, difficult to understand their problems, difficult to instruct and infrastructural inadequacies – for all these items the mean scores were above 2. On a categorical assessment too, as adjudged by the panel, though the generalized fears were relatively less common (2.7%) yet specific fears and hesitation were quite common (41.3% and 49.3%

respectively). There were only 10 (6.7%) respondents who had no hesitation or fear.

Dental practitioners are trained professionals, however, hesitation to attend patients with some specific conditions is not unusual. There have been reports of dentists' hesitation in attending patients with HIV and other blood-borne diseases [9] or pediatric patients on Medicaid [10], however, there is limited or no literature available regarding dental practitioners' hesitation/fear while attending patients with special care needs. We do not know whether anywhere else this sort of study has been carried out, however, as such the origin of present study was based on our practical observation regarding hesitation and fear while attending the patients with special care need in a project especially targeted to study the dental problems of patients with special care needs. Although this observation was incidental at first but evoked our interest to study the problem in detail and the results showed that magnitude of the problem was greater than that conceived.

On searching the published literature, we did not encounter any study like this. The reason might be that unlike India and less developed countries, western countries, from where most of the dental literature generates, special care dentistry is a well-developed branch of dentistry and most of the dental schools include special care dentistry in their graduate curriculum. In India, special care dentistry as such do not find any inclusion in graduate curriculum and to the best of our knowledge, none of the dental schools throughout India run any postgraduate or specialized programme targeted to develop specific skills to manage these patients.

In present study, we also made an attempt to find out whether dentist's demographic profile and characteristics have an influence on the dentists' fear/ hesitation while attending a patient with special care needs. However, as far as demographic characteristics like age and gender were concerned, we did not find any significant association between this fear and age and gender of the dental practitioner, although mean scores of those in younger age group ($\leq$25 years) and females were higher as compared to those aged >25 years and males. However, even before performing any statistical evaluation, the study does not support the view that this difference between two genders could be an implication of feminization of dentistry as the term coined by McKay and Quiñonez [6] as the mean scores of two genders varied only nominally (18.48±6.37 for males and 19.22±5.49 for females) nor do we intend to raise any gender roles mixed with the professional roles as a dental professional.

However, in univariate assessment, three characteristics, *viz.* dentist's qualification, teaching and years of clinical experience had a positive influence on hesitation/fear scores. As such all these factors indicated the role of increased exposure, in terms of knowledge enhancement as well as in terms of clinical versatility. This understanding, in the wake of the fact that there is no undergraduate exposure or training in handling the patients with special care needs, and hence, it is the years of experience, versatility of knowledge and clinical exposure that reduces this hesitation and fear.

However, in multivariate scenario, years of clinical experience were found to be confounding with qualification and teaching experience. This could be because of the reason that the present study was being carried out in a teaching hospital where years of clinical experience was directly associated with teaching experience and upgradation of qualifications of the dental practitioners and as such years of clinical experience confounded with these two variables and subsequently only two independent predictors, *i.e.* qualification and teaching experience could be identified and of these teaching experience finally had a significant association with the dental practitioners' hesitation/fear scores.

What is the implication of this assessment? It is a pertinent question. No doubt, in our settings, the hesitation to attend a dental patient with special care needs was quiet pronounced and in the given environment it was found to be significantly governed by teaching experience *per se* clinical experience and qualification. Thus, as such our dental training at graduate school level was not providing sufficient exposure to attend these patients.

In an earlier assessment in three South Asian countries namely India, Nepal and Pakistan, (unpublished data), the authors had found that although about 8.4 per cent and 6.1 per cent of the total estimated households in rural and urban India have at least one disabled person [11] yet a general dental practitioner encounters less than 5 patients with special care needs in a year, thus showing a giant gap in dental care services utilization pattern. The reasons for this gap could be multifold, however, a hesitation or fear on the part of dental practitioner might add to the woes of the patients with special care needs who already underutilize such services.

CONCLUSION

The findings of this study emphasize on need to inculcate adequate skills in undergraduate program itself in order to remove the hesitations/fear of dental practitioners in order to remove one of the probable barriers for patients with special care needs as well as in order to provide adequate skills to the students in order to cope up with all types of practice situations.

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