



ATTITUDES OF DENTAL PROFESSIONALS TOWARDS EMPLOYING QUALIFIED PARADENTAL STAFF IN A DENTAL COLLEGE, INDIA: A CROSS SECTIONAL STUDY.

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ABSTRACT

Background: In the modern era, practice of dentistry is a team work which requires the art of a dentist and the skill of a paradental staff. There are numerous dental clinics in India and thousands of dental surgeons actively practicing but the number of qualified paradental staff is nil.

Aim and objective: To know the attitude of the dental professionals with regards to the employment of qualified paradental staff.

Materials and methods: After obtaining permission and ethical clearance from concerned authorities, an anonymous survey was conducted using a validated questionnaire that was constructed after opinions from dental practitioners having practice from a minimum of 5 years in and around our college. This questionnaire was distributed among the dental professionals attending our college to know the attitude towards employment of qualified paradental staff in a dental college, India.

Results: The total number of respondents were 353. It was found that most of dentists were in favor of paradental staff getting qualified, with proper training and course.

Conclusion: Redefinition of the team including dental and paradental staff, through which dental care is to be delivered in the future was the main focus of our study. Most of the respondents in our study expressed the need for a course for paradental staff for better quality care in delivering oral health to the society.

KEYWORDS : Attitude, Cross sectional study, Dental professionals, India, Paradental staff

Introduction

The demand for dental care is increasing day by day owing to the increase of awareness and education in the general population. The lack of qualified dental auxiliaries in a dental office is a major cause of inability of the dental professionals to deliver quality care to the patients. Qualified auxiliaries/ paradental staff reduce the burden on dental professionals which help during the dental procedures.¹

The role of paradental staff in front office and operatory is not merely for registering the patient details.¹ The purpose of the paradental staff in the true sense is to be trained in managing the patient outside the operatory area, should have knowledge about the armamentarium used in the dental operatory, should be trained in the sterilization procedures including the safety protocols for both the patient and self, should be trained in assisting the dentist efficiently thereby being a qualified part of four handed dentistry.² It is also important that the paradental staff should be trained in basic management, with the help of the dental professional, of medical emergencies. These requirements have led to a need to redefine the role of each member of the dental workforce mainly paradental staff.^{1,4}

In developing countries like India, a shortage of paradental staff has adversely affected the profession as the above mentioned requirements are not met. The reason behind this could be the current literacy rate in India along with the lack of job opportunities which could further be attributed to the lack of awareness of such paradental staff. This survey is an attempt to know the current attitude of dental professionals towards employing trained paradental staff and hence to take measures for improvement of awareness for the same.

Many studies reported on the attitude of general dental practitioners towards employing dental hygienist-therapists but none, to the best of our knowledge, conducted a survey on dental professionals on employment of qualified paradental staff attending dental college, India.

Materials and method

This study was carried out among dental professionals attending a

dental college and hospital on a pre-decided date during college working hours, India. After obtaining ethical clearance from the concerned authorities, an anonymous survey was conducted among dental professionals using a self-administrated validated questionnaire to inquire their attitude with regards to the employment of qualified paradental staff.

The questions were chosen after a careful evaluation of opinions of dental practitioners practicing in different regions of city regarding requirement of such qualified dental auxiliaries in day to day practice. The problems faced by them due to lack of trained paradental staff were evaluated and the survey was aimed at knowing the attitude of dental practitioners regarding paradental staff. The subjects were asked to fill questions about employment of qualified paradental staff course in future. A total of 353 respondents of either gender with age between 20–50 years, participated in the study. The completed questionnaires were then collected; data was assessed and statistically analyzed with SPSS 14 software. Chi square tests were used to identify differences in response for different variables with the level of significance set at $p < 0.05$

Results

A total of 353 dental professionals responded to the questionnaire among them 104 were final year students, 121 interns, 86 post graduates and 42 staff.

When questioned 'who are paradental staff', 70% (247/353) said that paradental staff includes dental hygienist, chair side dental assistant, dental lab technician, and dental mechanic. Among these respondents, majority were senior dental professionals and this could be attributed to their seniority and experience in practice. (Table 1)

Sixty percentage (211/353) of respondents said that they were unaware of any such course plan in their state in India, and among them 90% (190/353) said that separate training course is required for paradental staff. Most (i.e. 85% [300/353]) of the dental professionals agreed that they should be trained in BLS (Basic Life Support) and medical emergency. (Table 1)

When questioned regarding the qualification to undergo parodontal course, 40% (141/353) respondents said 10 plus 2 (Higher secondary school), 30% (106/353) said degree with biological science, 10% (35/353) said general nursing, 12% (42/353) said after 10th grade and 8% (28/353) said hospital management respectively. When asked regarding duration of course, 40% (141/353) voted for 1 year, 35% (124/353) for 2 years, 5% (18/353) for 3 years, and 20% (71/353) for 6 months respectively. (Table 1)

Sixty percentage (211/353) of respondents said that course programme shall be conducted by central and state medical universities, 25% (88/353) said by intermediate board as a vocational course and 15% (53/353) said by Open University. When questioned in which regulatory board this course should be included 5% (18/353) said Medical council, 70% (247/353) dental council, 10% (35/353) nursing council and 15% (53/353) felt there should be a separate council for it. (Table 1)

Most of the respondents (i.e. 75%; 265/353) said that they should have separate dress code and 25% (88/353) said they should have similar dress code of nursing. When asked regarding average salary range 28% (99/353) said 5000 to 6000 INR, 25% (88/353) 4000 to 5000 INR, 25% (88/353) 6000 to 7000 INR, 22% (78/353) said above 7000 INRs respectively. (Table 1)

Among the various years of education in which the study was conducted, it was found that almost all the staff members and majority of postgraduates were more responsive towards the need and importance of qualified parodontal staff when compared to final years and interns which could be attributed to their level of practice.

The results thus obtained were tabulated and subjected to statistical analysis using ANOVA Test with the help of SPSS 14 software.

Discussion

Teamwork is an integral part of comprehensive dental care today and dentists value the support staff for an efficient and total dental care. Our survey aimed at assessing the attitude of the dental professionals towards the requirement of parodontal staff and the need to employ them.

The World Health Organization Expert Committee in 1990 has emphasized on the educational imperatives for auxiliary personnel's stating that the simpler dental procedures could be undertaken by various categories of auxiliary personnel's. In 1990 there were 3,000 registered hygienists and 5,000 laboratory technicians in India. There are no registered dental nurses or chair side assistants and no denturists. This situation is becoming increasingly difficult with a decrease in the number of schools for hygienists and laboratory technicians from forty (20+20) in 1990s to twenty (10+10) in 2000 with the result that there has been no increase in the efficiency of overburdened dentists.⁵ The Indian scenario is slowly catching up with the concept of the dental professionals undertaking more complex procedures and hence the need for more dental auxiliaries has increased. But where do we stand today in terms of knowledge of these dental auxiliaries is important and the awareness to train and employ these auxiliaries is the need of the hour.⁶ With an increase in awareness of oral health and thereby increase in demand for specialized dental services, an auxiliary could also be more widely used.

During this survey we have come to a conclusion that in general the attitude of the dental professionals towards the need of a parodontal staff is favorable. The Expanded Functions Dental Auxiliary (EFDA) Certificate is designed to prepare graduates for positions in private practice dental offices, dental clinics; federal, state and municipal health departments; and correctional institutions. Depending on the type of work required; training period of EFDA (The Expanded Functions Dental Auxiliary) is adjusted accordingly. He/she works in close co-ordination and

supervision of dentist. As a result of this it is found that the dentist's productivity increased by 61.5%.⁷ Majority of the dental professionals also believed that a separate training course is required for the parodontal staff.

This was in accordance to the surveys conducted by Yap and Wexler who suggested that such auxiliaries are valuable in building up practice as they save time for the performing specialist by their assistance and also help in preventive services to the patients.^{8,9}

A need to start a separate training course for parodontal staff is an opinion shared by most of our respondents and hence the authors have concluded that it is a high time a course of this kind be started to improve the quality of dental care in India.

The awareness of the dental professionals was also assessed through our survey in which majority of respondents were of the opinion that higher secondary school education is sufficient for training as a parodontal staff and the course duration shall be for a minimum of one year. According to the Australian Government, oral health therapy training occurs at university level and therefore completion of secondary schooling to a high standard is mandatory, including certain pre-requisite subjects that differ between states/territories and between the universities that offer the courses themselves.^{10,11} A similar opinion was found in the respondents of our study. Further, this opinion could be shadowed by the concerns among dental professional that the auxiliaries may overstep the boundaries set for their work related to practical aspects of dentistry. However, such boundaries shall be strictly set by the supervising dentist and a state legislation rule may be passed to perform only the procedures they are trained for.^{12,13}

The present survey aimed at throwing light on an important aspect of four handed dentistry wherein the dentist, would take a lead role and would be responsible for the auxiliary's (Parodontal staff) role in the dental office and the dentist would be responsible for the diagnosis, overall treatment planning and quality assurance.⁷

According to the Nuffield report which was concerned specifically with the education and training of auxiliary dental personnel in the United Kingdom (UK), a dental setup is recommended to have two auxiliary personnel's i.e. an oral health therapist taking up the role of a hygienist and a clinical dental technician taking up the role of a dental technician.¹³ A similar proposal was piloted by the Australian Health Ministers Advisory Council (AHMAC) wherein it was proposed that special training be given to the auxiliaries to take up certain restorative and preventive services to adult population in public sector.^{14,15}

In United States, according to one report, formulations of national standards are needed to ensure the quality and consistency of dental therapy education. Since every state has differences in terms of requirement versus demand, the study reports that a set of consistent national standards for education is needed to provide guidance to boards of dentistry, regulators, employers of dental therapists, educational organizations and institutions and the public.¹⁵

The dire need of the hour in India, as is in the above mentioned developed countries, is to pioneer a new revolution in the area of dental auxiliaries and come up with a new course for the parodontal staff like in most of the developed countries.

Limitations:

The study was administered over academic college and hospital hence the results of the study cannot be attributed to the whole dental professionals. There is no appropriate validity evaluation of the sum of the questions. Hence it is recommended evaluate any question if any further study is intended on dental doctors.

Conclusion:

Team work is an integral part of any successful treatment in

medicine and dentistry. Dental professionals must strive to become a leader in delivering primary health care as a team with every member of the team playing a pivotal role in the treatment. India is catching up quickly in superior dental care with most of the developed countries but sadly, the adoption of dental auxiliary personnel's is restricted. We did a survey among the dental professionals and have come up with results that show that most of the respondents of the study find a definite need for a qualified parodontal staff to deliver a more efficient primary dental care to the

patients, and feel that the legislation should start such courses on a regular basis thereby helping the general population and the dental profession as a whole.

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Tables:

Table 1: Response to questions between groups and within groups.

Question		Sum of Squares	df	Mean Square	F	Sig.
Who are PDs	Between Groups	25.046	3	8.349	4.398	.005
	Within Groups	662.439	349	1.898		
	Total	687.484	352			
Do you feel that a separate training course is required for PDs	Between Groups	.972	3	.324	5.286	.001
	Within Groups	21.396	349	.061		
	Total	22.368	352			
Do you know any PD course existing in AP	Between Groups	3.593	3	1.198	5.007	.002
	Within Groups	83.478	349	.239		
	Total	87.071	352			
Qualification of PDs	Between Groups	32.570	3	10.857	13.087	.000
	Within Groups	289.521	349	.830		
	Total	322.091	352			
Duration of course	Between Groups	1.290	3	.430	.669	.571
	Within Groups	224.251	349	.643		
	Total	225.541	352			
Who should take up course	Between Groups	.583	3	.194	.471	.702
	Within Groups	143.938	349	.412		
	Total	144.521	352			
Do you feel PDs should be trained in BLS	Between Groups	.990	3	.330	2.656	.048
	Within Groups	43.350	349	.124		
	Total	44.340	352			
Under which regulatory board this course included	Between Groups	2.626	3	.875	1.544	.203
	Within Groups	197.901	349	.567		
	Total	200.527	352			
Dress code for PDs	Between Groups	2.691	3	.897	4.651	.003
	Within Groups	67.320	349	.193		
	Total	70.011	352			
Salary range	Between Groups	10.143	3	3.381	2.815	.039
	Within Groups	419.137	349	1.201		
	Total	429.280	352			

ANOVA test. p value is significant at the 0.05 level

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