

General Dental Practitioners Knowledge And Attitudes Towards Employing Dental Hygienist Or Surgery Assistant In India

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Abstract

Aims and Objective - To investigate general dental practitioners' knowledge and attitudes towards employing dental hygienist/surgery assistant in India. **Material and Methods** - Cross sectional questionnaire survey was conducted amongst 226 registered dentists of Udaipur, located in south east zone of Rajasthan in India. Self prepared questionnaire was used to collect the data. The data were coded and analyzed using SPSS software version 11.0. **Results** – 31% of dentists said that they would not employ dental hygienist or surgery assistant due to financial problems. Other barriers were patient acceptance, availability and also lack of knowledge. **Conclusion** – In general dentists were in favorable approach towards employing dental hygienist or surgery assistant. They believed that they could work more skillfully in a team.

INTRODUCTION

This study was done to predict the dentist's knowledge and attitudes towards employing dental hygienist/surgery assistants in India. It has been found from this research that dentist could work more efficiently and effectively using these auxiliaries in their general practice. Majority of the dentists favor the team approach with dental hygienist and surgery assistants. They believe that dental hygienist and surgery assistants are of value based staff so that they can concentrate well on their major work and can give more time to it. However few dentists do not favor their employment due to some persisting barriers. One of the main perceived barrier was patient acceptance. Some dentists had no opinion as they thought that it would not go in accordance to their patient acceptance. The other barriers were financial problem and also the availability.

Dentists are in general aware that team work is important and they value the support staff that they already have (1). As early as 1929 dental hygienist provided preventive services outside dental practice, however today's dominant hygiene model of care is confined largely within private dental practice (2). The hygienists are trained in over 25 countries and their course extends over the periods of 2 years. In India there are about 5-6 institutions where training

is given. Graduate level programs for dental auxiliary teachers must be developed (3). The dental surgery assistant assist the dentist in a non technical works so that dentist can deviate full attention to care of patients.

Several studies have shown that the working qualities of dental hygienist and surgery assistants are of similar standards as that of dentist. According to previous research done by Kohn and C.G Crossner there was not much difference in accuracy of dental hygienist and dentist in diagnosing dental caries (4). However the inconsistent delegation of task to the hygienist is probably related to the lack of full time employment of hygienist in most practice and conflict (5). The dental auxiliaries may be extender but not the substitutes for dentist (5). It is established that auxiliaries can function with quality which historically have performed by dentist (5). New practice arrangements with broader community-based and multi-disciplinary configurations have emerged (2, 9, 10). A slight increase in dental hygiene practice has been observed (2, 11, 12). The aim of this study was ascertain dentist knowledge and attitudes towards employing dental hygienist or surgery assistant.

MATERIAL AND METHODS

The study was conducted amongst the dentists in Udaipur located in south eastern zone of Rajasthan in India during the period of December 2008 and January 2009. Ethical clearance was obtained by ethical committee of Darshan dental college. Cross sectional questionnaire survey was conducted amongst 246 registered dentists of Udaipur. In case of dentist working in more than one address the first address on the list was used. The questionnaires were returned by 226 dentists and those 20 who did not complete were excluded. The questionnaires were completed anonymous. The data were coded and analyzed using SPSS. Pre test of questionnaire was done before starting the study. The reliability of question was assessed before 10 days. Completed questionnaires were returned from 226 dentists. One hundred fifty (66.4%) were BDS (Bachelor of dental surgery) and seventy six (33.6%) were MDS (Master of dental surgery)

RESULTS

Table – 1 shows dental auxiliaries that dentist had employed in general practice. More than half about 51.3% subjects reported that they used dental lab technician in their general practice, about 76.9% subjects used surgery assistant and 82.3% subjects used dental hygienist in their general practice. None of them employed dental health educator.

Figure 1

TABLE-1: DENTAL AUXILIARIES THAT DENTIST HAD

	BDS		MDS	
	HAD	DID NOT	HAD	DID NOT
		HAD		HAD
DENTAL HYGIENIST	118(52.2%)	32(14.2%)	68(30.1%)	8(3.5%)
SURGERY ASSISTANT	114(50.4%)	36(24%)	60(26.5%)	16(7.1%)
DENTAL LABORATORY TECHNICIAN	86(38.1%)	64(28.3%)	24(10.6%)	52(23%)
DENTAL RECEPTIONIST	66(29.2%)	84(37.2%)	28(12.4%)	48(21.2%)
DENTAL HEALTH EDUCATOR	-	-	-	-
NO AUXILIARIES	140(61%)	10(4.4%)	72(31.9%)	4(1.8%)

Figure 2

TABLE-2: KWOLEDGE OF DENTAL PRACTITIONERS

STATEMENT	BDS			MDS		
	YES	NO	DON'TKNOW	YES	NO	DON'TKNOW
There is evidence that dental hygienist/surgery assistant can perform high quality of work	62 (27.4%)	74 (37.2%)	14 (6.2%)	26 (11.5%)	42 (18.6%)	8 (3.5%)
Dental hygienist/surgery assistant can only perform operative procedures of children	26 (11.5%)	110 (48.7%)	14 (6.2%)	24 (10.6%)	36 (15.9%)	16 (7.1%)
Dental hygienist/surgery assistant must work under direct supervision of dentist	138 (61.1%)	8 (3.5%)	4 (1.8%)	52 (23%)	6 (2.7%)	18 (8%)

Table-2 reveals the knowledge that dentist have regarding the dental hygienist or surgery assistant. About 38.9% subjects were aware of evidence that dental hygienist or surgery assistant can perform high quality of work. 22.1% subjects correctly indicated that dental hygienist or surgery assistant are not restricted to treating children and about 84.1% of dentists believed that dental hygienist or surgery assistant must work under direct supervision of dentist. According to early survey dental hygienists were accurate in diagnosing the lesions (4). Here also most of the dentists (64%) disagreed that dental hygienist or surgery assistant can only perform the operative procedures of children.

Figure 3

TABLE -3: ATTITUDES OF DENTAL PRACTITIONERS

STATEMENT	BDS					MDS				
	Strongly Agree	Agree	Strongly disagree	Disagree	Both	Strongly Agree	Agree	Strongly Disagree	Disagree	Both
dentist can work efficiently using hygienist/assistant in team approach	62 (27.4%)	66 (29.2%)	4 (1.8%)	16 (7.1%)	2 (0.9%)	22 (9.7%)	24 (10%)	6 (2.7%)	16 (7.1%)	8 (3.5%)
In general patient will want to be treated by hygienist/surgery assistant	4 (1.8%)	14 (6.2%)	38 (16.8%)	80 (35.4%)	14 (6.2%)	0 (0%)	8 (3.5%)	16 (7.1%)	34 (15%)	18 (8%)
Hygienist/surgery assistant can make a meaningful contribution to dental team	42 (18.6%)	86 (38.1%)	2 (0.9%)	16 (7.1%)	4 (1.8%)	24 (10.6%)	24 (10.6%)	6 (2.7%)	6 (2.7%)	16 (7.1%)
Dental care will be less personalized if hygienist/surgery assistant are used for treatment	14 (6.2%)	56 (24.8%)	16 (7.1%)	44 (19.5%)	20 (8.8%)	8 (3.5%)	14 (6.2%)	6 (2.7%)	38 (16.8%)	10 (4.4%)
If more use is made of hygienist/surgery assistant than there won't be anything left for dentist	14 (6.2%)	20 (8.8%)	30 (13.3%)	74 (32.7%)	12 (5.3%)	4 (1.8%)	16 (7.1%)	8 (3.5%)	40 (17.7%)	8 (3.5%)
Using hygienist/surgery assistant would increase the enjoyment of dental practice	24 (10.6%)	84 (37.2%)	6 (2.7%)	30 (13.3%)	6 (2.7%)	4 (1.8%)	36 (15.9%)	4 (1.8%)	26 (11.5%)	6 (2.7%)

Table 3 revealed that 77% subjects expressed a favorable attitude about working with dental hygienist or surgery assistant and 4.4% subjects expressed no opinion. Almost 74.3% subjects expressed unfavorable opinion in statement that In general patient wants to be treated by dental hygienist or surgery assistant and 14.2% subjects had no opinion. Around 78.9% subjects showed a favorable attitude towards the value of dental hygienist or surgery assistant and 13.2% subjects had unfavorable opinion.

46% subjects disagreed with this statement that dental care will be less personalized if hygienist/surgery assistant are used for some treatment and 13.3% subjects expressed no opinion. Majority of respondents 67.2% subjects did not agree with statement that if more use is made of dental hygienist/surgery assistant than there won't be anything left for dentist and 8.8% subjects expressed no opinion. Around 65.5% subjects showed favorable response to dental hygienist or surgery assistant through delegation of tasks, 5.3% subjects were undecided.

If legislation allowed would you employ a dental hygienist or surgery assistant in general practice?

If legislation allowed eighty eight (38.9%) would employ Dental Hygienist or surgery assistant and twenty two (9.7%) were undecided.

Figure 4

TABLE-4 Dentist perceived barriers to employment of dental hygienist/surgery assistant in general practice:

	BDS	MDS
Financial problems	44 (19.5%)	26 (11.5%)
Knowledge	30 (13.3%)	8 (3.5%)
Patient acceptance	34 (15%)	18 (8%)
Legislation	6 (2.7%)	0 (0%)
Accommodation	0 (0%)	2 (0.9%)
Availability	26 (11.5%)	16 (7.1%)
Supervision	2 (0.9%)	4 (1.8%)
Split treatment	8 (3.5%)	2 (0.9%)

Table – 4 lists the various barriers mentioned in the responses, some respondents mentioned more than one barrier. In this section of questionnaire, respondents were asked an open ended question. The main perceived barriers to the employment of dental hygienist or surgery assistant in practice would appear to be financial considerations (31%), patient acceptance (23%), availability (18.6%) and lack of knowledge (16.8%).

DISCUSSION KNOWLEDGE

This study demonstrated the dental auxiliaries that the dental practitioners used in their general practice. The most perceived barriers for employing dental hygienist or surgery assistant were the patient acceptance and financial problems. The second perceived barrier was the availability.

Despite communications which are sent out to all Dentists in General Dental Council (GDC) regarding professionals complementary to dentistry (PCDs), there was lack of knowledge about employing dental hygienist or surgery assistant. Only 6.2% subjects were aware that the dental hygienist or surgery assistant may work outside the direct supervision of a dentist. More than 84% subjects thought that direct supervision was necessary and 9.7% subjects did not know. This showed that there was considerable knowledge about dental hygienist and surgery assistant in dental practitioners.

More than half of about 64.6% subjects thought that dental hygienist or surgery assistant can perform other procedures in addition to the operative procedures of children. Early researches suggested that dental hygienist had a good knowledge and opinion about pit and fissure sealants although they had low levels of training in their use (6).

More than half of about 51.3% subjects thought that dental hygienist or surgery assistant cannot perform high quality of work and 9.7% subjects did not know. According to survey done by Mandall the difference between the orthodontics and dental hygienist to carry out the potential orthodontic auxiliary procedure was $P < 0.05$ (7).

ATTITUDES

According to previous research by J.L.Gallagher and D.A.Wright the dentist were in favorable attitudes towards employing dental therapists (1).

In general the attitudes of General dental practitioners towards dental hygienist or surgery assistant were favorable. K-ohrn and CG Crossner showed that there was no difference in accuracy of diagnosing dental caries between dental hygienist/surgery assistant (4). Evidence of early research reveals the contributions of hygienists in terms of quality of care and cost containment, for both traditional and non-traditional settings (2, 13, 14).

This survey indicates that about one in two dentists have positive approach to team working with dental hygienist/surgery assistant. In this research also most the dentists has shown that they would like to work with dental hygienist or surgery assistant in a team work.

BARRIERS

This survey found that 31% respondents did not employ dental hygienist/surgery assistant due to their financial problems. 23% subjects would not employ them because of patient acceptance and 18.6% subjects would not employ because of the availability while 16.8% subjects did not employ because of lack of knowledge. Those who said that they would not employ dental hygienist/surgery assistant did not necessarily hold a negative attitudes towards dental hygienist/surgery assistant but were unable to consider employment due to factors such as cost/patient acceptance/availability.

Previous study by E.Borgesson and A.Taube suggested that there was no real difference between dental hygienist and

dental practitioners in diagnosing the caries and other lesions. This study reveals that most of the dentists believe that dental practitioners can perform high quality of work using dental hygienist/surgery assistant in team approach. But only reasons they would not employ is due to financial problems/patient acceptance and to some extent availability. A study conducted by J.L.Gallagher and D.A.Wright showed that the main perceived barriers for their employment were the patient acceptance(16%), financial problem(22.5%) and knowledge (17.5%) while In our study the main perceived barriers were financial problems(31.5%), patient acceptance(23%) and availability(18.6%).

The government considers that proposals for dental hygienist/surgery assistant would be a powerful boost to team working but recognizes that this would be limited by the acceptance by the dental practitioners (1).

There has been very little research into patient's attitudes towards dental hygienist/surgery assistant. The problems associated with utilization of hygienist has resulted from licensure restriction and practice patterns and in addition the lack of clear difference of roles of dentists and his Auxiliaries has resulted in ineffective utilization (3). Many of them did not have opinion as to whether patient would wish to be treated by dental hygienist/surgery assistant. This may indicate that these dentists are reluctant to express on behalf of their patients. However the patient acceptance was the second most perceived barrier to employment of dental hygienist/surgery assistant in general practices. Dentist knowledge of clinical remit of dually qualified hygienist-therapist was found to be limited, reflecting a restricted inaccurate view of professional remit of hygienist-therapist (8).

Earlier the ohio college of dental surgery had developed a program for hygienist and assistant in 1910, but it had to be discontinued due to pressure from the dentist. The duration of training for dental hygienist has been extended to 2 years. The employment of dental hygienist was started in U.S.A more than a century ago. Dr. C.Edmund kells of New Orleans employed a woman as a 'lady in acceptance' in 1885 so that unaccompanied female patient could come to his clinic. This practice became more popular. The utilization improved during world war II due to acute shortage of professionals to meet the demands of armed forces. In India the main factors working behind the lack of employment of dental hygienist/surgery assistant are the financial problems which arises due to the less amount of

payment done to dentist and also the lack of awareness of people towards dental care. Since 1991 dental hygienists have been licensed by the Swedish Board of Health and Welfare. This license allows them to practice dental hygiene independently, and the tasks are expanded to include complete examination as well as therapeutic decision concerning hygiene and preventive treatments (4, 15).

This study was conducted in Udaipur located in south eastern zone of Rajasthan (India). It is hoped that the findings will contribute to the national debate.

CONCLUSION

In general dentists were in favorable attitudes towards employing dental hygienist and surgery assistant. Most of them had a positive attitude towards them. But there were few barriers which made them to think for their employment such as patient acceptance, cost, lack of knowledge and availability. Amongst them the patient acceptance and financial problem were the main barriers. In general the dentists had a positive attitudes and knowledge towards employment of dental hygienist and surgery assistant.

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