

Awareness of Dental Personnel of Two Dental Colleges in A.P, on the Role of Soft Skills in Dentistry- A Survey

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Abstract

Introduction: Dental curriculum concentrated on hard skills which include theoretical and clinical knowledge only. Today the world realized the need for extra skills to have a competitive edge, which includes soft skills. They improve the performance and productivity. No dental teaching in India teaches soft skills to their under graduate students. To attain those skills one has to attend some extra training or course.

Aims/Objectives: There are very few documented studies are available on the role of soft skills in dentistry. The present study was undertaken to assess the awareness of the knowledge, attitude and behaviour of dental personnel in 2 teaching dental institutes in Andhra Pradesh, towards role of Soft skills in Dentistry.

Materials and Methods: A cross-sectional descriptive study was conducted. Over a period 4 months from Oct 2016 to Jan 2017. A pre-tested self-administered questionnaire was given to a total of 431 dental personnel includes faculty, post graduate students, interns and undergraduate clinical students (both 3rd & 4th B.D.S). Statistics was analysed by SPSS software 19 version. Frequencies and percentages were calculated.

Results: The survey forms were distributed in two dental teaching institutes to a total of 407 dental personnel, including 43 faculty, 83 post graduate students, 132 interns and 149 under graduate clinical students (3rd & 4th BDS). Statistical analysis is done by SPSS software. Majority of the dental personnel were aware of hard skills but only few are aware about soft skills.

Conclusion: Due to the scientific nature of the curriculum, the technical skills are more focused in Dentistry. Many of the dental personnel's including faculty not aware of the soft skills. All the dental teaching institutes need to incorporate the soft skills in their under graduate teaching curriculum. Regularly all the dental personnel need to attend some soft skills training.

Keywords: Hard skills; Emotional intelligence quotient (EQ); Domain skills; Communication skills; Positive attitude; Role model

Introduction

Dental curriculum concentrated on hard skills which include theoretical and clinical knowledge only. Today the world realized the need for extra skills to have a competitive edge, which includes soft skills. They improve the performance and productivity. Hard skills are the technical abilities which are required to perform a job and are also called as technical skills. These are object oriented, requires high IQ and Clinical skills [1]. Whereas communicative skills, positive attitude and leadership qualities comes under soft skills, and are also known as life skills [2]. These are people oriented and require high EQ (Emotional Intelligence Quotient) [3,4].

Soft skills will not be considered as alternative to the hard skills but they can be treated as additional qualities [2]. For the successful journey of dental practice, one needs both hard and soft skills in equal proportions. By adopting these skills, the academicians, practitioners as well as the student community will acquire best learning experience.

Materials and Methods

The present study was a descriptive cross sectional study. The study location was at Lenora Institute of Dental Sciences, Rajahmundry, Andhra Pradesh and Government Dental College and Hospital, Vijayawada, Andhra Pradesh. Proper permissions were obtained from the Institutional Ethical Committee. A pre-tested self-administered questionnaire was developed after literature search and review

(Appendix-1). The questionnaire was distributed to a total of 431 dental personnel includes 54 faculty, 86 post graduate students, 137 interns and 154 under graduate clinical students (both 3rd & 4th B.D.S) in two dental teaching institutions in Andhra Pradesh, for a period of 4 months from October 2016 to January 2017. A total 407 people responded. 11 faculty members and 3 post graduate students were rejected the forms, 5 interns responded after 4 months, and 5 incomplete questionnaires from under graduate students were excluded from the study.

Statistical Analysis

The data collected was entered in Microsoft Excel 2007 and data analysis was done using SPSS (Statistical Package of Social Sciences) software 19 version. Descriptive statistics were done to assess frequency and percentage for responses of the participants. Categorical data was

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analysed using Chi-Square test (X²), and P value <0.05 was set as significant.

Results

Out of 431, a total of 407 participants which includes 43 faculty members, 83 post graduate students, 132 interns and 149 under graduate clinical students (both 3rd and 4th B.D.S) were responded in this survey (Table 1). When the participants were asked regarding importance of soft skills in relation to hard skills, a total of 91.6% personnel felt that they were additional qualities to the hard skills but not the replacement (P<0.000). Whereas when they were asked about the soft skills being taught in their institution, 56.5% mentioned that such sort of skills were not teachings in their institutions (P<0.000).

A bulk of the respondents (75.4%) revealed that they believe in role model, but 44% of them expressed that they don't choose their career, by observing their role models (P<0.000).

Discussion

As per Dr. Sujith Pardeshi, the dentist turned management guru in India, the Harvard University research work revealed that, domain/ hard skills count only 12.5%, where as soft skills count the major portion for the success, and evident that many of the dental professionals not having much knowledge about 'soft skills' (Table 2). [2] The present study results were also in line with the Harvard university research work. The majority (88.5%) of the participants claimed that they know about soft skills, whereas when they were asked to identify exactly, only very less of them (32.4%) were able to match properly, this may be due to these type of skills are not teaching in the dental institutions or may be for the sake of survey they might have mentioned that they know about soft skills (Table 3).

According to [5] the dental graduates are underprivileged of developing the soft skill as a learner because more importance given in their curriculum to understand the theories and principles rather than to communicate what they have learned (Table 4) [5]. According to [6] in the US and Canada there are 40 dental schools are teaching interpersonal communication skills [6]. A systematic research review by [7] on communication skills which are teaching in dental institutions that, the 'didactic teaching' is still the primary teaching method [7]. According to Chilcutt AS, there is a lack of training in team communication and leadership which require for the dental practice [8]. The present study results on importance of communication skills in

Position	Frequency	Percent
Faculty	43	10.6
P.G	83	20.4
Interns	132	32.4
U.G	149	36.6
Total	407	100.0

Table 1: Distribution of subjects according to their position/Designation.

Position	Response		Total
	Yes	No	
Faculty	37 (86.0%)	6 (14.0%)	43 (100.0%)
P.G	66 (79.5%)	17 (20.5%)	83 (100.0%)
Interns	108 (81.8%)	24 (18.2%)	132 (100.0%)
U.G	113 (75.8%)	36 (24.2%)	149 (100.0%)
Total	324 (79.6%)	83 (20.4%)	407 (100.0%)

X² Value = 2.7999, P=0.424 (Non-Significant).

Table 2: Shows the participant's awareness on hard skills, a total of 79.6% of the participants claimed that they knows about the Hard Skills. The major portion shared by the faculty (86.0%). The results obtained were not statistically significant (P=0.424). Distribution of subjects according to knowledge on Hard Skills.

Position	Response		Total
	Yes	No	
Faculty	41 (95.3%)	2 (4.7%)	43 (100.0%)
P.G	74 (89.2%)	9 (10.8%)	83 (100.0%)
Interns	132 (100.0%)	0 (0.0%)	132 (100.0%)
U.G	113 (75.8%)	36 (24.2%)	149 (100.0%)
Total	360 (88.5%)	47 (11.5%)	407 (100.0%)

X² value =42.483, P=0.000 (Highly Significant).

Table 3: Reveals the knowledge of the participants on Soft Skills. Majority of the personnel (88.5%) mentioned that they know about the Soft Skills, out of this 100% interns and 75.8% under graduate students claimed that they knows about soft skills. The results obtained were statistically highly significant (P<0.000). Distribution of subjects according to knowledge on Soft Skills.

Position	Identification		Total
	Correct	Incorrect	
Faculty	14 (32.6%)	29 (67.4%)	43 (100.0%)
P.G	21 (25.3%)	62 (74.7%)	83 (100.0%)
Interns	56 (42.4%)	76 (57.6%)	132 (100.0%)
U.G	41 (27.5%)	108 (72.5%)	149 (100.0%)
Total	132 (32.4%)	275 (67.6%)	407 (100.0%)

X² value=9.583, P=0.022 (Significant).

Table 4: Shows the exact identification of soft skills by the participants. Even though 88.5% participants claimed that they were aware of soft skills, only 32.4% of the participants were really knows about soft skills. In that 42.4% interns were able to identify correctly. The results obtained were statistically significant (P<0.022). Distribution of subjects according to the correct response in identifying Soft Skills.

Position	Required skill		Total
	Yes	No	
Faculty	41 (95.3%)	2 (4.7%)	43 (100.0%)
P.G	77 (92.8%)	6 (7.2%)	83 (100.0%)
Interns	132 (100.0%)	0 (0.0%)	132 (100.0%)
U.G	149 (100.0%)	0 (0.0%)	149 (100.0%)
Total	399 (98.0%)	8 (2.0%)	407 (100.0%)

X² value=19.176, P=0.000 (Highly Significant).

Table 5: Related to the type of skills which are needful to the dentist for successful professional career, a preponderance of the total participants (98%) was accepted that the soft skills are important for the successful professional life. The results obtained were statistically highly significant (P<0.000). Distribution of subjects according to the type of Skills which require for the success.

dentistry were also in the same view point of Theaker DE and his colleagues [9], that the pivotal part in dental student's education is the fulfilment of suitable interpersonal communication skills. As per [10] the Association for Dental Education in Europe (ADEE), for the European dentists in their Domain II to attain significant expertise, deploys stress on interpersonal, communication, and social skills (Table 5) [10]. One of the Indian under graduate dental college introduced the 'communication skills course' in their institutional level dental curriculum [11].

The present study results on subjective importance of teaching communication in the dental curriculum is also in concurrence with that of study done by [12], that the communication is consider as important for dentist's work (Table 6).

During undergraduate dental education, the main spring area which requires attention in 'dentist-patient relationship' from the first interview is the communication between patient and health care professional [11,13]. The results of present study were in accordance with the training of communication skills in the dental institutions that the dental student's knowledge and behaviour can expand to a great extent (Table 7) [14].

Position	Need for teaching		Total
	Yes	No	
Faculty	40 (93.0%)	3 (7.0%)	43 (100.0%)
P.G	80 (96.4%)	3 (3.6%)	83 (100.0%)
Interns	132 (100.0%)	0 (0.0%)	132 (100.0%)
U.G	149 (100.0%)	0 (0.0%)	149 (100.0%)
Total	401 (98.5%)	6 (1.5%)	407 (100.0%)

X² value =15.786, P=0.001 (Significant).

Table 6: Reveals the awareness of the participants regarding the need to teach the soft skills in the institution. The lion's shares of the participants (98.5%) were under the opinion that the soft skills should be taught in the college level. The results obtained were statistically highly significant (P=0.001). Distribution of subjects reveals the necessity to teach Soft Skills in the institution.

Position	Opinion		Total
	Yes	No	
Faculty	43 (100.0%)	0 (0.0%)	43 (100.0%)
P.G	80 (96.4%)	3 (3.6%)	83 (100.0%)
Interns	132 (100.0%)	0 (0.0%)	132 (100.0%)
U.G	149 (100.0%)	0 (0.0%)	149 (100.0%)
Total	404 (99.3%)	3 (0.7%)	407 (100.0%)

X² value=11.798, P=0.008 (Significant).

Table 7: Depicts the attitude of dental personnel towards training of communicative skills which will improve dentist's ability to communicate with the patients easily. Almost all the members (99.3%) felt that training of these skills will improve the ability of the dentist to communicate with the patients. The results obtained were statistically significant (P=0.008). Distribution of subjects on opinion of training communicative skills will improve ability to communicate with patients.

Position	Opinion		Total
	Only UG	Everybody	
Faculty	43 (100.0%)	0 (0.0%)	43 (100.0%)
P.G	83 (100.0%)	0 (0.0%)	83 (100.0%)
Interns	8 (6.1%)	124 (93.9%)	132 (100.0%)
U.G	59 (39.6%)	90 (60.4%)	149 (100.0%)
Total	193 (47.4%)	214 (52.6%)	407 (100.0%)

X² value =233.928, P=0.000 (Highly Significant).

Table 8: Regarding who require training of soft skills, in the view of majority participants (52.6%) all the dentists require to undergo a training on soft skills, whereas 100% faculty and post graduate students under the opinion that the under graduate students were in need for the training. The results obtained were statistically significant (P<0.000). Distribution of subjects according to those who require Soft Skills training.

Carrey JA and his colleagues in their published review on communication skills in dental education mentioned that even though the learning and assessment methods are inconsistent, but the majority of the dental students are willing to learn communication skills (Table 8) [13]. The present study results also reveals the same opinion that majority of dental personnel are willing to learn communication skills [14] in their survey on the effect of class room, clinic and externship learning on the competencies of graduates from a dental school in Canada mentioned that the effective interpersonal communication skills were one of the most assessed competencies [14]. After evaluation of the communication skills of dental students of the Shiraz University of Iran, in relation to patients [15] felt that teaching of communication skills is very important for the clinical dental students [15]. The results of present study in concurrence with the above study regarding necessity of teaching communicative skills (Table 9). The studies of showed that the dental curriculum was favoured by inclusion of communication related topics [12,16]. Victor off introduced a pilot programme on exposure of 'role models' for dental students, to acquire

good leadership knowledge as well as skills, and they felt that such a programme required for dental students [17]. Our present study results also online with above study and many respondents reveal the belief on role models. Whereas Mufson MA, states that there is a lot of influence of 'role models' on later career choices of dental students for teaching and related behaviours [18]. But the present study results reveal that only few dental personnel were in favour of the above study. Sunila BS and Tekian A did a study on impact of course on communication skills for the third year under graduate dental students in a dental institution in India, and drawn the conclusion that, the course really did cultivate the student's communication skills (Table 10) [11]. In some of the countries soft skills are introduced in the dental teaching curriculum. In Malaya 'soft skills' module introduced for dental students in 2006 by the Ministry of Higher Education (MOHE) and top priority given to proficiency in communication skills and studies showed that, students have positive attitudes towards learning communication skills [19]. This present study results are also in line with the above study. Van Staden CW mentioned that, teaching soft skills as «Golden Threads» for the undergraduates to achieve competencies towards inter personal skills and professional, ethical attitudes (Table 11) [20].

Position	Opinion		Total
	Yes	No	
Faculty	43 (100.0%)	0 (0.0%)	43 (100.0%)
P.G	80 (96.4%)	3 (3.6%)	83 (100.0%)
Intern	132 (100.0%)	0 (0.0%)	132 (100.0%)
U.G	149 (100.0%)	0 (0.0%)	149 (100.0%)
Total	404 (99.3%)	3 (0.7%)	407 (100.0%)

X² value =11.798, P=0.008 (Significant).

Table 9: Denotes the behaviour of the participants towards the communication training in the institutions, all most all the respondents (99.3%) were apperceive that, this type of training will improve the knowledge as well as behaviour. The results obtained were statistically significant (P=0.008). Subject's opinion on training communication skills will improve student's knowledge & behaviour.

Position	Opinion		Total
	Yes	No	
Faculty	39 (90.7%)	4 (9.3%)	43 (100.0%)
P.G	80 (96.4%)	3 (3.6%)	83 (100.0%)
Intern	132 (100.0%)	0 (0.0%)	132 (100.0%)
U.G	131 (87.9%)	18 (12.1%)	149 (100.0%)
Total	382 (93.9%)	25 (6.1%)	407 (100.0%)

X² value =19.416, P=0.000 (Highly Significant).

Table 10: Depicts the opinion regarding the incorporation of soft skills in the academic curriculum, except very minor percentage of the respondents (6.1%) rest of them (93.9%) were in favour of the soft skill should be the part of the teaching curriculum. The results obtained were statistically highly significant (P<0.000). Distribution of subjects regarding incorporation of Soft skills in academic curriculum.

Position	Response		Total
	Yes	No	
Faculty	37 (86.0%)	6 (14.0%)	43 (100.0%)
P.G	83 (100.0%)	0 (0.0%)	83 (100.0%)
Intern	81 (61.4%)	51 (38.6%)	132 (100.0%)
U.G	95 (63.8%)	54 (36.2%)	149 (100.0%)
Total	296 (72.7%)	111 (27.3%)	407 (100.0%)

X² value =49.607, P=0.000 (Highly Significant).

Table 11: About the interest of the participants to attend soft skills course, a total of 72.7% respondents were willing, in that 100% post graduate students want to attend the soft skills course. The results obtained were statistically highly significant (P<0.000). Distribution of subjects interested to attend Soft skills course.

Conclusion

The soft skills are the most valuable but unfortunately they are most 'undervalued' in dentistry. Though the cognitive aspect of learning is more focused by the dental institutions, there is a need to implant the soft skills in to the teaching curriculum. If all the dental institutes start teaching the 'soft skills' for their students, then really the soft skills will become 'golden threads' for dental practice.

Recommendations

In some of the countries already the soft skills are introduced in the under graduate teaching curriculum. In India except in one college which introduced only 'institutional soft skills programme' to their third B.D.S students, no university or dental college is teaching soft skills to their students.

The highest apex body which is monitoring the dental education in India, i.e Dental Council of India (DCI) has no specific recommendations for teaching soft skills in the undergraduate and post graduate curriculum. It's time to think about the advantages of adding soft skills in the dental teaching curriculum. More research work is needed in this subject. May be DCI can consider the incorporation of soft skills in the Dental teaching curriculum for the benefit of dental fraternity.

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