

**Assessment of attitude towards Community Services among Dental Undergraduate Students in Davangere City- A Cross Sectional Survey**

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**Abstract**

**Background:** Rendering health services at Community premises in any nation play a pivotal role in solving the issue of poor access to dental care. Well trained professionals to treat the community can help in alleviating the barrier of access and reduces the disparities. So, understanding the attitude of dental students towards community services plays a valued role in addressing the issue of access to dental care.

**Objective:** To assess the attitude towards community services among dental undergraduates in Davangere city.

**Methodology:** A Cross sectional survey was conducted among final year BDS (Bachelor of Dental Science) students and House surgeons of two dental colleges in Davangere city. Community service attitude scale (CSAS) containing 46-items graded on 7-point Likert scale was used to assess their attitude towards community services.

**Statistical analyses:** The data obtained was compiled systematically. Descriptive statistics was generated in terms of frequencies and percentages. Data was analysed using chi-square test to check the association. Statistical significance was set at  $p < 0.05$ .

**Results:** Total of 250 dental students responded to the survey questionnaire. Most of the participants were females (74.4%) and final year students (67.2%). Majority of the population (58%) showed high level of attitude toward community services, among which the male students (64%) and house surgeons (76 %) exhibited high level of attitude. There was no association found between gender and level of attitude ( $p=0.522$ ), but there was a significant association found between the year of the study and level of the attitude ( $p=0.000$ ). **Conclusion:** Majority of the dental undergraduates in the present study had a favorable attitude towards rendering the community services.

**Keywords:** attitude, community services, dental undergraduate students

### Introduction

Oral health care is considered as an essential health care for overall health of an individual. But not all have access to oral health care services that they need.<sup>1</sup> Certain segments of the population, such as the elderly, very young children, the poor, and people who are medically compromised, face significant barriers in access to oral health care and are much more likely to have poorer oral health than the rest of the population.<sup>2</sup> so, Community oral health care services are of crucial importance for addressing these needs by providing services at their door step at ease of access.<sup>1</sup>

One of the issue that may contribute to this access to care problem may be an insufficient number of dentists who are willing to provide services at the community settings.<sup>1</sup> Their unwillingness may be due to their lack of exposure and experience in providing care in community settings other than dental school. Hence, Dental educators or institutions play an important role in addressing this challenge by ensuring that dental students are well educated about the importance of treating patients from all

segments of society by incorporated community-based and service-learning programs into their curricula.<sup>3,4</sup>

More exposure and experience in providing care to the underserved, especially in community settings other than dental school can greatly improve dental students' awareness of community needs, attitude toward community service, and willingness to provide care to those in need as part of the community service.<sup>2</sup> Community services drives students to go outside the clinic and into homes, neighbourhoods, and communities—the places where most patients live with their health challenges.

As attitude of the dental students plays a vital role in rendering the community services, it has become a salient task to predict student intentions to engage in community services. It will help in recognising the approaches to motivate these students from the earlier days itself. There is limited data related to dental students' attitude toward community services where the study was planned. Therefore, this study was designed to investigate a research question: what will be the attitudes of dental undergraduate students towards community services with the objectives based on their year of study and gender.

### Methodology

**Study Design, Setting and Participants:** An observational, descriptive, cross sectional questionnaire survey was conducted in two private dental institutions in Davangere city for a period of 2 months between December 2019 to January 2020. Final year dental undergraduate students and house surgeons of two institutions, who are present on the date of data collection and given their voluntary consent to respond, were considered for the study.

**Ethical consideration:** Protocol was scrutinized and Ethical approval was given by Institutional Ethical Review Board with approval letter Ref.no.

BDC/EXAM/509/2019-20. The data was collected after taking permission from the respective administrative heads of both the dental Institutions. Confidentiality of the study participants and their responses was maintained at all times.

**Sample size and sampling method:** All the dental undergraduate students studying in final year BDS (Bachelor of Dental Science) and House surgeons of two dental institutions in Davangere city were included in the study constituting a total population of 250 students.

**Study tool:** Study proforma had two sections. First section was meant to collect the demographic data of the students and the second section was meant to collect the data regarding Student's attitude toward community services by using Community Service Attitude Scale (CSAS).<sup>3,5,6</sup> This scale had 46 items assessing community service attitudes in eight domains: Awareness, connectedness, normative helping behaviour, costs, benefits, career benefits, seriousness, and intention to community services on a 7 point Likert scale. Questions 1–12 used seven point Likert scale of extremely likely: Being 7; quite likely, slightly likely, neither likely nor unlikely, slightly unlikely, quite unlikely, and extremely unlikely: Being 1; while questions 13–46 used seven point Likert scale of strongly agree: Being 7; agree, slightly agree, neither agree nor disagree, slightly disagree, disagree, and strongly disagree: Being 1.<sup>3,5,6</sup> Finally the scores for each individual was computed and categorised based on their scores as low ( $\leq 107$ ), Medium (108-214) and High level ( $\geq 215$ ) of attitude towards providing community services.

**Administration of survey questionnaire:** The purpose of the study was explained to the dental students and only those who were willing to participate were given the questionnaires on prescheduled time in their respective class rooms and departments. Sufficient time was given to

them to fill the questionnaires anonymously and it was collected back on the same day. Care was taken to prevent interactions among participants.

**Data analysis:** The data obtained was compiled systematically in Microsoft Excel sheet and subjected to statistical analysis using Statistical Package for Social Sciences Software (SPSS 20.0 version). Descriptive statistics was generated in terms of frequencies or percentages. Data was analysed using chi-square test to assess categorical data. Statistical significance was set at  $p \leq 0.05$ .

### Results

A total of 250 dental students participated in the study. The mean age of the entire study population was  $22.40 \pm 1.42$  years. Majority of the students were females (74.04%) and 25.06% were males. Among 250 students, 168 (67.2%) were final-year BDS students, 82 (32.87%) were interns. Most of the study participants showed their high level of attitude (58%) followed by medium (38.4%) and average level (3.6%) of attitude in providing community services (Table 1).

Variables	Frequency	%
<b>Gender</b>		
Male	64	25.6
Female	186	74.4
<b>Year of the study</b>		
Final years	168	67.2
House surgeons	82	32.8
<b>Level of attitude</b>		
Average(=107)	9	3.6
Medium (108-214)	96	38.4
High (=215)	145	58.0

when the association between the levels of attitude with gender was assessed, Majority of the population had high level of attitude toward community services (58%), among which it was found that males (64%) have more attitude when compared to females (56%) and the relationship between levels of attitude with the gender was not statistically significant ( $p=0.522$ ) (Table 2) (Figure 1).

Gender	Level of Attitude			Total
	Low	Medium	High	
Female	7(4%)	75(40%)	104(56%)	186
Male	2(3%)	21(33%)	41(64%)	64
Total	9	96	145	250
Chi square value (p Value)	$X^2=1.29(0.522)$ , degrees of freedom=2			

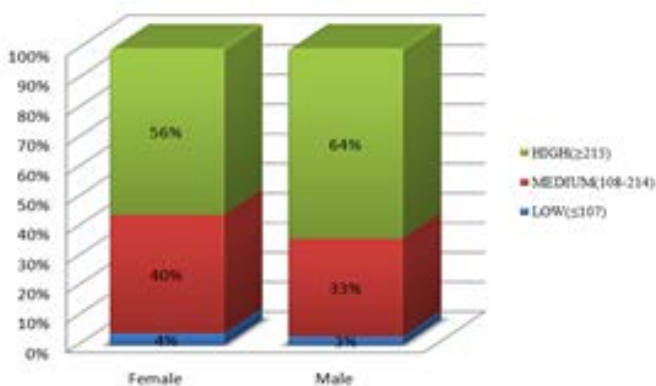


Fig 1: Association between level attitude with gender

Year of study	Level of attitude			Total
	Low	Medium	High	
Final year	8(5%)	77(46%)	83(49%)	168
House surgeons	1(1%)	19(23%)	62(76%)	82
Total	9	96	145	250
Chi square value (p Value)	$X^2=15.81*(0.000)$ , degrees of freedom=2			
*Statistically significant				

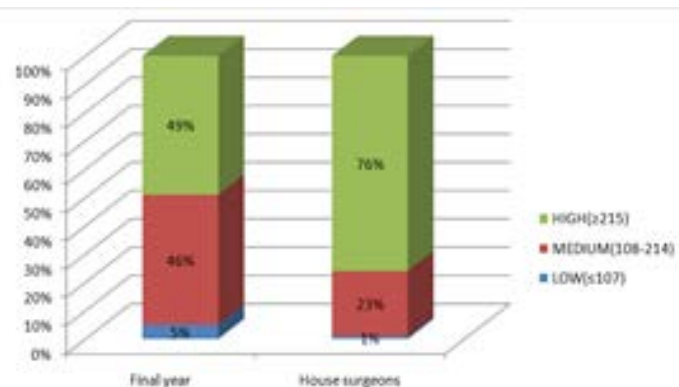


Fig 2: Association between level of attitude with year of the study

whereas association between levels of attitude with the years of study has shown that ,majority of the house surgeons (76%) have high level of attitude toward community service when compared to final year students (49%) and there exist a statistically significant relationship between year of the study and levels of attitude ( $p=0.000$ )(Table 3)(Figure 2).

### Discussion

India's health system faces the ongoing challenge of responding to the needs of the most disadvantaged members of Indian society.<sup>7</sup>Because 70% of the Indian population resides in rural areas and many in need do not have access to oral health professionals as inequality persists in service delivery, resulting in poor oral health. Much of the oral health workforce is unprepared to render culturally competent care to this diverse population of our country.<sup>8</sup>

One approach to lessen this inequality is by providing oral health care at the community premises itself . So, well trained professionals to treat the community can help in alleviating the barrier of access and reduces the disparities. Dental Educators has a crucial role to provide future health professionals with the required competences to cope with inequity by cultivating community based responsibility among the future dentist.<sup>3,9</sup>so, Understanding the attitude of dental students towards community services plays a valued role in addressing the

issue of access to dental care. Hence the present study was planned to understand the attitude of dental undergraduate students toward community services in Davangere city.

To date, there have been limited published studies which have examined attitude of dental students toward community services across the India, Hence valid comparison could not be made for the present study results.

The present study results revealed that male students had high attitude toward community service than females, which is similar to the study done by Leung et al<sup>10</sup>.but is in contrast to the study done by Anand BS<sup>3</sup>, Habibianet al<sup>11</sup> and the results observed in Crandall et al.,<sup>12</sup> on medical students. This less attitude of female students compared to male students in serving the community may be attributed to the conservative roles of women in traditional Indian society which could have made them less exposure and experience in providing care in community settings other than dental school. In contrast, male students reported of having high levels of attitude, may be because of their personal accomplishment, choice and independence in their work environment, satisfaction with oral health care service as a career, and intellectual and emotional satisfaction from their work.

Our study found that house surgeons participated in the study had high level attitude compared to 4th year undergraduates. This may be due to the cognitive behaviour of the 4th years, as they are not yet exposed to the community based education as compared to house surgeons. Another possible explanation is, few house surgeons must have already started rendering community services in their peripheral centre postings and by attending outreach programs during their postings in public health dentistry. But this study results are in contrast to the study done by Anand BS et al.,<sup>3</sup>,Habibianet

al.<sup>12</sup>and Volvovsky et al.<sup>1</sup>where final year undergraduates showed favourable attitude compare to house surgeons.

By considering the main findings of the present study it can be summarized that dental undergraduates revealed their positive attitude towards rendering the community service as measured with CSAS. Curricular developers and dental Educators can consider this study result as potential outcome to promote the students' attitude toward community services by exposing the dental students to provide services at the community setting other than the clinical setting. Which will not only increases their attitude but also their actual intention and behaviour in the future.

**Limitations:** The main limitation to studying a construct like attitude towards community service is social desirability. A socially desirable response is one given because a participant believes it to be the socially acceptable or appropriate answer, not because it actually reflects their personal beliefs or behaviours. There are chances that student scores on the CSAS may be influenced to some degree by social desirability in this study leading to overestimation of the results.

### Conclusion

The present study demonstrated that, majority of the dental undergraduates had a favorable attitude towards rendering the community services with males exhibited high level attitudes than females. House surgeons showed higher level of attitude than compared to final year BDS students. Further studies are required to identify the factors that influence the students' attitude in rendering the community services so that adequate preparation can be made in this regard.

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