



Research Article

## Students' perspective of need for leadership development program in dental education

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### ABSTRACT

**Objectives:** The aim of this study was to explore dental student's attitudes toward leadership development and their perceptions of the importance of leadership skills for dentists.

**Materials and Methods:** A 33-item questionnaire with a combination of both closed- and open-ended items (31 closed-ended items and 2 open-ended items) was administered to 862 students from three dental institutes in South India.

**Results:** Majority of students agreed that it is important for dentists to have leadership skills and they can be learned. Most reported that they expect to assume a leadership role in their dental practice (50.9%). Over one-third (35.4%) anticipate participating in leadership roles in dental associations, 27.4% in academic dentistry, and 17.1% in military dentistry. Approximately two-thirds of respondents strongly agreed (39.4%) or agreed (27.1%) that they would be interested in participating in a leadership development program if offered at their school. Most of the students (92.3%) had not participated in any leadership program.

**Conclusion:** Majority of the students had a positive attitude toward the development of leadership among dentists and were ready to take a leadership role in the future. This study implies the need for leadership development program to improve the leadership skills of dental health workforce.

**Keywords:** Dental, Education, Attitude, Leadership

### INTRODUCTION

Leadership is an important skill for healthcare professionals. Today's era raises the issue for leadership that demands focusing on reduced social and health benefits, and downsizing workforces and related services. Leaders need to make smart choices with limited resources based on plausible alternatives and also demand the need for motivating and bringing others along, on marshaling and synchronizing resources to achieve a shared goal.<sup>[1]</sup>

Leadership can be defined as "a function of knowing yourself, having a vision that is well communicated, building trust among colleagues, and taking effective action to realize your own leadership potential."<sup>[2]</sup>

The 21<sup>st</sup> century has exposed us to newer challenges in health care with rapidly changing epidemiological and demographic transitions. Health systems are not effective in handling the challenges; reason mainly attributed to ill-equipped graduates with weak leadership qualities. The

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emphasis is now on transformative learning, i.e., producing professionals with leadership attributes, thereby producing “change agents.”<sup>[3]</sup> At present, leadership is important to envision the future, to reallocate resources, to monitor progress using information technology,<sup>[4]</sup> and to produce both evidence-based and outcome-based health care for all.

Increasing health-care inequalities also emphasize the need for a culturally competent health-care workforce. Integration between other health-care professionals and sectors will be the key for effective utilization of the health-care workforce to meet the changing health needs of society.<sup>[5]</sup> Dentistry requires effective leaders to move the dental profession forward, building on past accomplishments, meeting new challenges, and leading innovation and change. A dentist as a leader should be able to positively motivate his team and share a common goal.<sup>[6]</sup> The ability of a dentist to be an effective leader and employing competent members can create an environment to deliver high-quality patient services and leadership is demonstrated to be the missing attribute in failing dental practice.<sup>[7]</sup>

There is the increasing number of leadership development programs for dental professionals showing the importance of training future leaders of the profession. The program is effective as the undergraduate period is one of the best opportunities for early identification and purposeful development of leadership talent, interest, and abilities. These programs<sup>[8-11]</sup> have reported positive impact among the participants. These programs suggested that the key to success is when best taught to individuals who are receptive hosts, rather than as part of a mandate. This underlines the importance of assessing the students’ perception of leadership programs.

In literature review search, there were limited surveys conducted to assess dental student’s perceptions of leadership development, although a study on medical student’s perceptions of competencies important for physician leadership and the effectiveness of various leadership development activities has been reported.<sup>[12]</sup> Hence, this study was designed to explore dental student’s perceptions of the characteristics of effective leaders and their perceptions of the importance of leadership skills for dentists.

## SUBJECTS AND METHODS

### Study design

A cross-sectional survey with a self-administered questionnaire was used in this study.

### Subjects

This study was conducted among undergraduate students of three dental institutes of South India. Convenience sampling

method was followed to select the dental institutes. A total of 862 students completed the questionnaire, 281 from Karnataka, 254 from Kerala, and 327 from Pondicherry. Students who were present on the day of the study and provided informed consent constituted the study subjects.

### Ethical approval

Ethical clearance was obtained before the start of the study from the institutional review board.

### Data collection methods

The questionnaire was developed based on a study conducted by Victoroff *et al.*<sup>[13]</sup> among the US dental students, the questionnaire addresses the key issues related to leadership. The questionnaire was reviewed by several faculty members, who were active in leadership roles in the institution and ensured the content validity. A pilot study was conducted by selecting 16 students, four from each year. In the pilot study, students were asked for feedback on clarity of the questions, whether there was difficulty in answering the question or any ambiguity as to what sort of answer was required. No major modifications were required and the final questionnaire consisted of 29 items with categorical or rating scale type responses (ranging from “strongly agree” to “strongly disagree” or “very effective” to “not effective”), two items with yes or no responses, and two open-ended questions.

The closed-ended questions were designed to assess the following: Student’s attitudes regarding the importance of leadership abilities for dentists and whether or not leadership skills can be learned (10 questions), students’ past and current leadership development activities (four), the types of leadership roles, if any, that each student expects to assume in the future (nine), students’ interest in participating in leadership development activities during dental school (three), student’s perceptions of the effectiveness of a variety of leadership development activities (12), and whether the student has a role model or mentor in dentistry (one). Demographic data (year of study and gender) were also collected (three questions). The two open-ended questions were on qualities of effective leader and personal improvement in leadership skill.

Necessary permission was obtained from the authorities and the questionnaire was administered by the principal investigator (VM) in these institutes. The study was explained to the students beforehand and volunteered participants were asked to assemble in a classroom on a predetermined date and time, according to free time availability of students. Written informed consent was obtained and the questionnaire was distributed to the students after giving instructions. Sufficient time was given to students for completing the forms, care was also taken that cross copying will not occur. Later, the forms

were collected. This procedure was done class wise and the surveys were kept anonymous.

### Data analysis

The completed forms were compiled and data were entered into MS Excel sheet (Microsoft Corp.) and percentage was calculated using SPSS for Windows version 17.0 SPSS Inc., Chicago, IL, USA. To determine the test-retest reliability of the survey questions, responses from the 16 students who completed the pilot survey at the initial administration and again two weeks later were analyzed. Cronbach's alpha coefficient was calculated to test the reliability and alpha value of 0.79 was obtained, indicating acceptable internal consistency.

## RESULTS

Survey on perception regarding leadership development among dental students was conducted on 862 dental students. Among these dental students, 209 were male and 653 were female. Among these dental students, 219 were from the 1<sup>st</sup> year, 214 were from the 2<sup>nd</sup> year, 209 were from the 3<sup>rd</sup> year, and 220 were from final years.

### Students' attitude related to leadership development

Nearly all students agreed (38%) or strongly agreed (53.7%) that it is important for dentists to have leadership skills and agreed (60%) or strongly agreed (22.5%) that they have the potential to become leaders in the future. Majority of students

agreed (47.1%) or strongly agreed (37.4%) that leadership skills can be learned, and conversely, disagreed (26.6%) or strongly disagreed (37.7%) with the statement that leaders are born, not made.

Majority of the dental students agreed (44%) or strongly agreed (42.3%) that it is important to have a positive outlook and majority agreed (48.3%) that it is important to have self-discipline. Leaders have to compromise with their personal life agreed by majority (40%) or strongly agreed (27.1%) of dental students and majority of students agreed (35.1%) that leaders have to face many problems or barriers [Table 1].

### Students' interest toward leadership development program

More than half of the students agreed (39.4%) or strongly agreed (27.1%) to participate in a leadership development program if offered and majority agreed (34.9%) that they would motivate others to participate in leadership program. Around 28.9% of dental students agreed that they would conduct a leadership program if given a chance [Table 2].

### Students past experience in leadership development

Majority of the students (92.3%) had not participated in any leadership program, 7.7% had participated in leadership program such as the Indian Council of Medical Research, lights of world movement, National Service Scheme camp, and event program, and among this, some were class

**Table 1:** Dental student's attitudes toward leadership development ( $n=862$ ) by percentage of total respondents.

Attitude towards leadership development	Strongly agreed (%)	Agree (%)	Do not know (%)	Disagree (%)	Strongly disagree (%)
It is important for dentist to have leadership skills	53.7	38	5.4	2.2	0.5
I have the potential to become a leader in the future	22.5	60	14	2.6	0.9
Many leadership skills can be learned	37.4	47.1	11.4	3.4	0.6
Leaders are born, not made	13.7	11.7	10.2	26.6	37.7
It is important to have a positive outlook	42.3	44	8.2	4.2	1.1
It is important to have self-discipline	40.6	48.3	7.4	2.6	1.1
It is important to have problem-solving skill	44.8	43.4	8.2	2.6	0.9
Dentist should also take leadership in other health-related events	30.9	37.4	26.2	5.1	0.2
Leaders may have to compromise with their personal life	27.1	40	16.5	13.4	2.9
Leaders may have to face many problems/barriers	32.3	35.1	19.1	11.1	2.2

**Table 2:** Student responses regarding interest in leadership development program ( $n=862$ ).

Interest in leadership program	Strongly agreed (%)	Agree (%)	Do not know (%)	Disagree (%)	Strongly disagree (%)
Leadership development program was offered at case, I would participate	27.1	39.4	21.7	8.9	2.9
I would motivate others to participate in leadership program	23.4	34.9	27.1	11.4	3.1
Given a chance, I will myself conduct a leadership program	27.1	28.9	24.6	13.7	5.7

representative. About 30% of dental students disagreed, whereas 14.9% of dental students strongly agreed reporting that they have not worked as a leader in the past [Table 3].

### Students' future interest in leadership role

Students were asked to indicate what type(s) of future leadership role(s) they could anticipate participating in, if any. Nearly all agreed (37.1%) or strongly agreed (50.9%) that they expected to assume a leadership role in their dental practices. The majority of students agreed to have a leadership role in academic dentistry (strongly agreed – 27.4% and agreed – 54%), in dental associations (strongly agreed – 35.4% and agreed – 34.6%), in volunteerism in dentistry (strongly agreed – 20.6% and agreed – 27.7%), in military dentistry (strongly agreed – 17.1% and agreed – 26.9%), and in non-dentistry-related leadership roles in the community (strongly agreed – 35.4% and agreed – 34.6%) [Table 4].

### Students' perceived effectiveness of leadership development activities

The students showed a preference for relatively active rather than passive learning activities. For example, “finding out

how others perceive my leadership skills” was rated as very effective by majority percentage of students (58%) followed by “having actual opportunities to lead” (51.1%) [Table 5].

### Role model

Majority of the students reported that they do not have any role model, whereas 46.3% of dental students said that they have a role model as a leader and majority of the 3<sup>rd</sup> year students (55.4%) reported to have a role model as leader [Table 6].

According to 93.5% of the dental students, the qualities of effective leader are as follows: Skillful, not be partial, good listener, good speaker, smart, positive outlook, problem solver, positive attitude, punctual, good representative, discipline, talented, and multitasking, whereas 6.5% of dental students did not mention anything.

According to 87.2% of the dental students, the leadership skill they would personally like to improve is as follows: Improve their problem-solving skills, representative capacity, attitude toward others, time management, being nonjudgmental, self-discipline, speech, and sense of humor, whereas 12.8% of dental students did not mention anything.

**Table 3:** Responses of students' past experience in leadership development (n=862).

Past leadership Experience	Strongly agreed (%)	Agree (%)	Do not know (%)	Disagree (%)	Strongly disagree (%)
In the past, I have actively worked as a leader	14.9	18	23.1	30	14
I have a proven track record of success as a leader	11.7	17.1	22.6	24.6	24

**Table 4:** Student's responses by percentage on future interest in leadership development (n=862).

Type of future leadership roles	Strongly agreed (%)	Agree (%)	Do not know (%)	Disagree (%)	Strongly disagree (%)
Leadership role in dental practice	50.9	37.1	8.3	2.6	1.1
Leadership role in academic dentistry	27.4	54	13.4	3.1	2
Leadership role in dental association	35.4	34.6	23.1	3.4	3.4
Volunteerism in dentistry	20.6	27.7	32.6	14.4	4.5
Leadership role in military dentistry	17.1	26.9	27.7	21.1	7.1
Non-dentistry-related leadership roles in the community	18.9	20.9	28.6	16.6	15.1

**Table 5:** Perception regarding leadership development among dental students, by percentage of total respondents (n=862).

Perception regarding leadership development	Very effective (%)	Somewhat effective (%)	Not effective (%)
Having actual opportunities to lead	51.1	43.7	5.1
Finding out how others perceive my leadership skills	58	36	6
Formal educational program	40	45.4	14.6
Interviewing or talking with a dental leader	44.9	47.1	8
Listening to a talk given by a leadership expert	47.1	44.6	8.3
Help to represent the group	37.7	49.7	12.6
Will get recognized in crowd	38.3	46.3	15.4
Opportunities to improve condition	49.1	40.6	10.3



**Table 6:** Student's responses on any role model as a leader by percentage ( $n=862$ ).

Do you have any role model as a leader?	Yes (%)	No (%)
Among dental students	46.3	53.7
Among 1 <sup>st</sup> year dental students	41.3	58.7
Among 2 <sup>nd</sup> year dental students	44.6	54.4
Among 3 <sup>rd</sup> year dental students	55.4	44.6
Among 4 <sup>th</sup> year dental students	46.5	53.5

## DISCUSSION

The present study explored the dental student's perceptions regarding leadership development. Most of the students strongly agreed that it is important to have a leadership skills for dentists, they have a potential to become leaders and that leadership skills can be learned. Many students strongly disagreed that leaders are born not made. The results of the present study are consistent with the study conducted by Victoroff *et al.*<sup>[13]</sup> and in line with fact that leadership is a skill that can be learned, it is also well known that people are not born with or genetically endowed with leadership capabilities. Nearly half of the students said that it is important to have positive outlook, should have self-discipline and problem-solving skills. As we all know, the way the dentist behaves will have a significant effect on how the team behaves or acts. The mood of the dentist, comments made, attitude toward patients, and attitude toward customer service – all of these behaviors send messages to the team. Thus, it becomes the duty of the dentist to understand that he/she must lead by example because the team is watching them and emulating their behavior.<sup>[14]</sup>

Most of the students agreed that the dentist should also take leadership in other health-related events. Dental professionals should not restrict themselves to oral health; they need to develop competencies in transdisciplinary issues.<sup>[15]</sup> Leaders need to be role models to motivate their team and should play an active role in any event. Leaders may also have to compromise with their personal life as they have to give priority to the social activities. They are faced with difficulties in making key decisions and against other opinions.<sup>[16]</sup> In the present study, majority of the students felt same perceptions. Most of the students showed interest in participating, motivating others to participate, and conduct leadership programs themselves. Moreover, the agreement to conduct the program themselves was less compared to other two options, which could be due to lack of confidence in taking initiative and responsibility. About 15% of students reported to have participated in leadership programs in the past.

This could have led to very low percentage of students agreeing to have actively worked as leader and having a record of accomplishment of a successful leader. Professional students in India concentrate on curricular activities rather than

developing other skills in co-curricular activities. Nevertheless, the trend among the new generation is readily adapting to the newer and involve in innovative programs. In this study, the subjects were interested in taking leadership role in dental practice, academics and dental associations in the future. At the same time, they have neutral opinion for volunteerism in dentistry, leadership role in military dentistry, and non-dentistry-related leadership roles, which could be due to lack of knowledge of the respective fields and more orientation toward dental practice and academics. This is in contrast with the study conducted by Victoroff *et al.*<sup>[13]</sup> where more number of students agreed for leadership roles in dental practice, volunteerism in dentistry, and military dentistry. About 50% of the students perceived that actual opportunities to lead, listening to a talk given by an expert, and opportunities to improve conditions are very effective methods for leadership development. Less than 50% of students reported that they have a role model as leader. Such less number of students having this view could be due to the reason that they may not be oriented toward leadership and might not have looked on others as role model for leadership. Although the students were assured that anonymity would be maintained and they were asked to tick the more appropriate option with care taken to ensure that discussion among students will not take place with this being a questionnaire study, some amount of bias due to inclination to present oneself in a socially desirable way cannot be ruled out.

Students agreed that dentists should have leadership skills and that they have potential to become leaders in the future. They also appreciated the importance of leadership programs and they reported the importance of leadership in dental practice and in dental associations. Maximum number of dental students agreed regarding attitude toward leadership quality among dentists. Most of the students in all the years agreed that they have interest in leadership programs and they would participate in such programs if offered in the future mainly pertaining to the dental practice and dental associations. Students reported that opportunities to lead and listening to talks given by experts are very effective in the development of leadership skills.

It is important that dentists like any health-care professionals must begin to find and implement solutions to the complex issues that represent threats to the oral health of our nation. This requires a change in the professional culture and this begins with training the future leaders, i.e. dental students. Governing bodies should take note of the changing needs and appropriately design a curriculum that will provide trained leaders who can take our profession forward.

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## CONCLUSION

The present study revealed that undergraduate students had a positive attitude toward leadership training. The student's perceptions that leadership is a skill that can be learned are reassuring for the dental educators to implement training programs.

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## Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Nil.

## Conflicts of interest

There are no conflicts of interest.

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