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# Student and faculty perspectives of a faculty-student mentoring programme in a dental school

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## Abstract

**Purpose/Objectives:** In addition to an established peer mentoring programme, the Louisiana State University Health Sciences Center, School of Dentistry introduced a faculty-student mentoring programme, the first-year dental student (D1)-Faculty Guide Program, in 2013. The intent of the D1-Guide Program was to provide faculty mentorship for D1 students. The purpose of this study was to evaluate the outcomes of the programme and identify areas for improvement.

**Methods:** Faculty members, D2 and D3 students were surveyed regarding their experiences and perceptions of the D1-Guide Program with a seven question and 12 question survey, respectively, via Survey Monkey® and data were analysed.

**Results:** The response rate for the students and faculty was 61% and 64%, respectively. The majority of faculty (92%) felt comfortable serving as a guide to the D1 students with 79% of those surveyed having served as a guide for 3 or 4 years. The majority of students (81%) felt that the D1-Guide Program provided mentoring that was not redundant to existing peer mentoring and valuable to their acclimation to dental school.

**Conclusions:** Despite adding additional duties for faculty and students, the D1-Guide Program was considered valuable during the student's first year of dental school with encouragement to continue the programme. The programme helped establish a student-faculty rapport beyond the boundaries of the classroom.

## KEYWORDS

dental education, faculty development, mentoring, professional student

## 1 | INTRODUCTION

In recent years, the importance of mentorship has gained emphasis in the educational setting. A review of literature shows that there is a general consensus that mentoring has many benefits for the mentor and the mentee.<sup>1-3</sup> In the last few decades, formal mentoring programmes have been incorporated into many institutions and corporations.<sup>2-4</sup> In 2003, the American Dental Education Association (ADEA) formed a Presidential Commission on Mentoring with the goal of raising awareness of the value of mentoring.<sup>5</sup> The commission

defined mentoring as "a voluntary and reciprocal interpersonal relationship in which an individual with acknowledged expertise shares his or her experience and learning with another (less experienced) person."<sup>5</sup> Mentoring benefits the mentee by providing psychological support, advice on career advancement and a safe environment to test new ideas.<sup>1,2,4-7</sup> The mentor benefits by experiencing increasing confidence in teaching, mentoring and providing a collaborative environment.<sup>1,2,4-6</sup> Institutions with mentoring programmes often see improved culture, reduced turnover of faculty and improved communication.<sup>5</sup>

Students entering dental school must acclimate quickly as a student in a new professional setting under a demanding curriculum and potentially in relatively unfamiliar surroundings. Mentoring beyond the formal environment of the classroom can be used to enhance acclimation. Specifically, mentoring or guidance during the students' first year of any professional school can help provide psychological support for the student, help advance their careers and improve retention.<sup>3,5</sup> Such mentoring can exist as peer-peer mentoring or faculty-student mentoring.<sup>8</sup>

Prior to 2013, the only mentoring programme at the Louisiana State University Health Sciences Center School of Dentistry (LSUSD) was a peer programme. Each first-year dental (D1) student is paired with a D2 student creating a network of students in each year of school that is referred to as a "Miniclinic." The senior student is the "Big" brother or sister and the junior student is called the "Little" brother or sister. Formally, the students work together for Dental Rounds presentations and patient care.<sup>9</sup> Informally, this network serves as a resource for incoming and early stage students for questions regarding the daily routine of dental school and advice. Peer to peer mentoring has shown success in professional school settings.<sup>8,10-12</sup> Some benefits include increased comfort and guidance, helping the student deal with stressful situations, particularly during the first year of dental school, and later from pre-clinic to clinic by sharing their experiences with their peers.<sup>8,10-12</sup>

Despite the success of peer mentoring, leaders at LSUSD felt faculty mentoring would also be helpful to reinforce correct information regarding school policies and to establish a supportive relationship early in the academic career. The LSUSD D1-Guide Program, a faculty-student mentoring programme, was initiated in 2013 and was intended to provide a resource for information, support and advocacy for dental students during their first year of dental school.

The programme was developed with oversight from the Faculty Development Committee. Faculty were introduced to the purpose and expectations of the programme at a Faculty Development Day. Faculty guides were sent instructions that included purpose, process of assignments, timing, how to begin and what to expect as shown in Table 1. All full-time faculty were assigned a D1 student alphabetically. The student was instructed to contact their assigned faculty guide within the first month of the D1 year to initiate a meeting, and subsequent meetings were then scheduled.

One year after implementation of the D1-Guide Program, a pilot survey was conducted to obtain feedback and to assess whether it should be continued. The then D2 students were surveyed regarding their experience as mentees in the previous year. The overall feedback was positive, and the majority of students thought the programme was helpful and should be continued. Examples of comments included the following: "My faculty guide was extremely helpful! I could always go to him with any concerns I had about school, and he gave me a lot of great advice," "I thought this was an excellent programme. It was one more way to feel included and welcomed at the school. It was also great to have a personal contact with the faculty if needed" and "I really enjoyed having a faculty mentor during

**TABLE 1** Instructions for "Guides"

#### Instructions for "Guides"

*Purpose:* To provide guidance/mentorship for D1 students over the first year. Foster a relationship that is helpful to them along with advice and someone they know they can talk to for issues that arise. All full-time faculty are expected to participate

*How Guides will be assigned:* Each student will be assigned a Guide via alphabetical order (A-Z). Alternating years will assign Z-A

*When will it begin:* Students will meet with their assigned Guide within the first month of the D1 year

*How often will meetings take place:* Students will meet with Guides at least quarterly throughout the D1 year. However, meetings can be scheduled at any time

*Who will initiate meetings:* The Student will be responsible for scheduling the first meeting. The Guide or Student can initiate/schedule future meetings. The Guide will document the meeting that can be recorded in a database as evidence of the Program for accreditation

*What to expect from initial meeting:* Provide some navigation to the student and learn more about them

Guide (suggested areas of focus)

Provide awareness of resources within the school

Provide expanded orientation information from Orientation schedule

Provide information on how one becomes a patient

Provide the faculty member's background within the school

Answer questions the students have

Student (suggested areas of focus):

Provide background information of the student

Provide information on special interests in dentistry (specialty programs, research, leadership, teaching) important for Honor's programs, etc

*What to expect from subsequent meetings:* Progress overall and guidance/advice for problems/issues that arise

the D1 year." Based on this feedback, the Guide Program was continued with no major changes. The purpose of this study was to formally assess the value of the D1-Guide Program at LSUSD from both the student and faculty perspective after 3 years of implementation.

## 2 | MATERIALS AND METHODS

Separate surveys were developed for students and faculty as shown in Table 2. The student and faculty surveys were adapted from the 2014 student pilot survey. Both surveys allowed participants to provide comments at the conclusion of the survey. The surveys were approved by the Louisiana State University Health Sciences Center Institutional Review Board (IRB #9600). No power analysis was necessary as it represented a convenience sample. The surveys were administered in the spring of 2017 to the D2 and D3 (second- and third-year dental students) students (n = 127) and all full-time faculty members of LSUSD (n = 75). The current D1 students were

**TABLE 2** Student and faculty surveys used to evaluate the D1-Guide Program

Student survey questions (answer choices)	
1. What year are you in?	(D2, D3)
2. Roughly how often did you meet with your Faculty Guide during the D1 year?	(Monthly, Bi-monthly, Quarterly, 1-2 times only, Did not meet)
3. Was your Faculty Guide accessible?	(Very, Somewhat, Seldom)
4. Did you find the D1-Guide Program valuable during your D1 year?	(Very, Somewhat, Not valuable, No opinion)
5. Was there significant redundancy in what your Guide provided compared to your Big (brother or sister)?	(Yes, No, Somewhat)
6. Who do you feel is best suited to make contact to set up the initial meeting?	(Faculty mentor, D1 student)
7. Should the D1-Guide Program be retained for the D1 students?	(Yes, No, No opinion)
Faculty survey questions (answer choices)	
1. How many years have you served as a Guide?	(0,1,2,3,4)
2. Do you feel comfortable serving as a Guide to a D1 student?	(Yes, No)
3. Although instructions for guides are included each year with the D1 Guide pairings, do you feel that a formal re-orientation should be held every few years?	(Yes, No)
4. Outside the D1-Guide Program, how often do you interact with the D1 class?	(Never, Seldom, often)
5. Did your D1 student(s) originally contact you within 1 month of starting as instructed?	(Yes, some did, Never)
6. Did you ever end up contacting your D1 student if they didn't contact you?	(Yes, No)
7. Who do you feel is best suited to make contact to set up the initial meeting?	(Faculty mentor, D1 student)
8. How often do you usually meet with your D1 student?	(Monthly, Quarterly, 1-2 times, Never)
9. Have you ever take your D1 student to lunch as an alternative means to meet?	(Yes, no)
10. Do you meet your D1 student at pre-scheduled times?	(Yes, Sometimes, No, Not applicable)
11. Do you feel you provide value to the D1 student as a Guide?	(Yes, No)
12. Do you think we should continue the D1-Guide Program?	(Yes, No)

excluded due to insufficient time in the programme to evaluate it adequately, and the current D4 students were excluded because they had already been surveyed in the 2014 pilot survey. The participating students were asked to reflect on the mentorship received during their D1 year. The faculty members were surveyed about their experiences as mentors in the programme.

The surveys were sent out via Survey Monkey® (Survey Monkey, San Mateo, CA, USA) via campus email. One subsequent reminder was sent to the students and faculty after 2 weeks, and the study was closed after 3 weeks.

Following closure of the study, responses and comments were summarised. A Wilcoxon rank-sum test and Kruskal-Wallis tests were used to compare responses for two groups and more than two groups, respectively. *P* values <0.05 were considered significant. Statistical Analysis System (SAS) version 9.4 (Cary, NC, USA) was used for data analysis.

### 3 | RESULTS

Of the 127 students that were surveyed, 77 responded (31 D2 and 46 D3 students) yielding a response rate of 61%. Of the 75 full-time faculty surveyed, 48 responded yielding a response rate of 64%. Overall the majority of students (78%) met with their faculty guide 1-2 times during the D1 year, mainly at pre-scheduled times, with 85% responding that their faculty mentor was accessible and available when needed. The majority of faculty (92%) were comfortable serving as a guide to the D1 students with 79% of those surveyed serving as a guide for 3 or 4 years. The majority of students (81%) responded that the D1-Guide Program provided mentoring that was not redundant to the peer mentoring they received.

There were no significant differences in the responses to any question between the participating D2 and D3 students but there were significant differences between the faculty and student responses. Faculty indicated D1 students should make initial contact with their assigned guide whilst significantly fewer students indicated the same (60.1% vs 31.6%, respectively,  $P < 0.0001$ ). A higher percentage of faculty members than students responded that the programme had value (59.5% and 45.3%, respectively) but this difference did not reach statistical significance ( $P = 0.15$ ). Overall the majority of faculty and students supported retaining the programme (57.2% vs 66.1%, respectively). The results regarding value of the programme are summarised in Table 3 (faculty) and Table 4 (students).

Approximately one third of students and faculty (38% and 35%, respectively) provided comments. Student comments were vastly similar to the previous pilot survey. The distribution of positive, negative and neutral comments by students was 34%, 31% and 27%, respectively. The faculty survey had 41% positive, 24% negative and 35% neutral comments. Some examples of the faculty survey included the following: "I very much enjoy serving as a Guide," "All the students I have served as Guide for seemed very appreciative" and "It is also nice to see them as they progress through the following

**TABLE 3** Faculty responses regarding value of the D1-Guide Program

Survey questions	Percentage that answered "Yes", %	95% CI for percentage that answered "Yes"	P value*
Q2. Do you feel comfortable serving as a guide?	92.9	80.5, 99.0	<0.0001
Q11. Do you feel you provide value to the D1 student as a Guide?	59.5	43.3, 74.4	0.14
Q12. Do you think we should continue the D1-Guide Program?	57.1	41.0, 72.3	0.22

\*P values based on "Yes" vs. "No" responses.

**TABLE 4** Student responses regarding value of the D1-Guide Program

Survey Questions	Percentage that answered "Yes", %	95% CI for percentage that answered "Yes"	P value*
Q4. Did you find the Guide Program valuable during your D1 year?	45.3	32.8, 58.3	0.27
Q5. Was there a significant redundancy in what your Guide provided compared to your Big (brother or sister)?	18.9	9.4, 32.09	<0.001
Q7. Should the Guide Program be retained for D1 students?	66.1	21.4, 43.3	0.0092

\*P values based on "Yes" vs "No" responses.

3 years." Examples of negative faculty comments were "I think it was a nice idea but I do not think it's needed. I do not think it made any significant difference in student acclimation to school." and "No D1 met with me more than once."

## 4 | DISCUSSION

The D1-Guide Program was considered valuable by students and faculty with the majority of respondents supporting its continuation. Overall strengths of this study included a response rate of 61% for students and 64% for faculty. Hence, reliable information was obtained. In addition, the lack of significant differences between the D2 and D3 respondents shows consistency in these data. The survey used a piloted questionnaire which also reduced invalid responses due to poorly worded questions. The survey also revealed that the majority of participating faculty (70%) reported having little to no contact with the D1 class during the academic year. Thus, the survey identified an important need to integrate faculty and students, especially clinicians, earlier in the curriculum.

Although the programme was deemed successful with roughly 50% of both faculty and students rating it valuable and closer to 60% suggesting it be continued, there were aspects that likely detracted from the overall value. Most students met with their mentors only 1-2 times, and this may have been inadequate to make a meaningful difference in their perception of the programme. If they had met more often, they may have established more rapport with the faculty and comfort discussing their issues. Also, with faculty and students having busy workloads, it becomes difficult to coordinate and meet during school hours. These meetings require an added effort on both parties to schedule a convenient time that can be challenging when the student is heavily focused

on course work. This was evident in a small number of student comments alluding to limited accessibility of their guide. However, accessibility overall was deemed adequate.

The quality of mentorship received varied between faculty members. Most students expressed satisfaction with their faculty guide. However, some students commented that their assigned faculty member was not interested in serving as a guide. This may be because the faculty did not fully understand what was expected of them. Indeed, 45% of faculty felt that having a refresher guide orientation every few years would be a useful supplement to the written instructions that are provided annually via email. Additionally, newer faculty may not have felt as comfortable serving as a guide to the D1 students, especially if they were not able to provide as much information about the school compared to their veteran counterparts. Another factor contributing to variability in mentoring was the length of time faculty members served as a guide. The length of time served, ranged from 1 to 4 years, although most faculty had served 3-4 years. Another comfort-related factor was that not all mentors are DDS clinicians and thus had limited ability to mentor the students about clinical affairs. Finally, as faculty are especially sensitive to activities that increase their workload, mandatory service as a guide may have deterred some faculty from more enthusiastic participation vs a volunteer-based programme.

Ultimately, the success of faculty-student mentoring depends on the faculty member that is assigned to the student, the dynamic nature of the random assignment, and also the faculty member's responsibilities in the school (ie, research, teaching or clinical). Despite these issues, the majority of students did not feel the D1-Guide Program was redundant to the peer mentoring suggesting that the faculty mentoring provided its own unique brand of mentoring. This also suggests that peer mentoring alone may not be fully adequate to address all the needs of matriculating D1 students.

Faculty and students had significantly different opinions about who should make initial contact with each preferring the other party contact them. Some students admitted that they did not make contact with their mentor (as per the instructions) and thus did not participate in the programme. In several cases, though the faculty member stated that they ultimately made contact with the student mentee who failed to follow the instructions, in an effort to set up the inaugural meeting, the motivation behind asking the student to make the first contact was purely logistical. It was felt that a higher rate of responsiveness would come from students in a neophyte setting as opposed to asking faculty with no realistic incentive. Whilst >80% of the student respondents did make the contact, this may have represented a flaw in the original programme design as an established entity (veteran faculty) of any institution should initiate contact with the less experienced (new students).

Implementation of the D1-Guide Program at other schools may have more of an impact than at LSUSD due to some unique factors. As a state school and the only dental school in the state of Louisiana, many students are familiar with the school through alumni or family members. Indeed, of the 1900 practicing dentists in Louisiana, 76% of them earned their DDS from LSUSD, and thus, the students may have relatives or close family friends who attended the school. Many students come from the same areas or attended the same undergraduate universities and may already have developed a social support network prior to dental school. For example, the 2018 graduating class is composed of 89% of Louisiana residents. Additionally, approximately 45% of the classes of 2018, 2019, 2020 and 2021 graduated from Louisiana State University in Baton Rouge. The informal mentoring inherent in the intimate nature of the dental community in Louisiana may create a climate where a faculty-student mentor relationship is not as critical for the entire class. However, this environment can also lead to a sense of isolation for students who are not part of this unofficial undergraduate or dental network. The D1-Guide Program may have been of more value to help them establish relationships, and this issue will be explored in further evaluations of the programme.

In addition to the unique circumstances at LSUSD, broader issues may have also impacted the outcomes of the study. Each dental class often takes on a unique personality over the course of the first academic year. Some classes form a cohesive social network where mentoring in general may not be as critical whilst other classes are more independent. This may affect the perceived need for mentorship as the students' progress through the D1 year.

Based on the feedback from the survey, the D1-Guide Program has been modified. Since the purpose of this programme is to benefit students, it was felt that any obstacles to participation should be removed and the programme should only include members that feel it is beneficial. Accordingly, for the year 2017-2018, faculty and student participation was made voluntary. This change was made in hopes to raise the quality and enthusiasm of the mentoring. In addition, students who already have a strong support system can elect not to participate in the mentor programme. Faculty members will now initiate contact with the students. Finally, a programme refresher is now offered as part of New Faculty Orientation given by

the Faculty Development Committee to ensure that new and veteran faculty participants have an opportunity for additional training regarding the protocol and objectives.

These changes bring the programme into closer alignment with the ADEA definition of mentoring.<sup>5</sup> The programme is now all volunteer and has increased faculty development support. Preliminary outcomes of these changes show a robust participation. For the 2017-2018, academic year showed that 53 of 65 students requested a guide and 35 of the 70 faculty invited agreed to serve as a guide. Faculty members hired in the previous 12 months were excluded but will be eligible once they have more familiarity with the school.

Future plans in the area of mentoring include exploration of how to recognise excellence in mentoring so that this increase to the faculty workload is shown value. This may be in the form of credit in the promotion and tenure process or in the form of recognition. For the students, the addition of an alumni mentoring programme is being considered to augment the D1-Guide Program.

Future areas for research include assessing the relationship between academic performance, student demographics, student and faculty retention, and academic productivity with participation in the programme. It would also be of interest to evaluate the effects of participation in a mentoring programme on student career paths.

## 5 | CONCLUSION

Despite adding additional duties for faculty and students, the D1-Guide Program was considered valuable during their first year of dental school with encouragement to continue the programme.

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