

# RESEARCH

## Practicum Experiences: Effects on Clinical Self-Confidence of Senior Dental Hygiene Students

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### Abstract

**Purpose:** The purpose of this study was to determine the effects of a 3-week practicum experience on the clinical self-confidence of University of North Carolina (UNC) senior dental hygiene students.

**Methods:** A mixed methods approach was utilized. Before and after a 3-week practicum experience, UNC senior dental hygiene students (n=32) were asked to complete a 20-statement clinical self-confidence survey based on the dental hygiene process of care. Statements were Likert-scaled, ranging from "not at all confident" to "totally confident." The stratified Mantel Haenszel row mean score test with the subject as strata as a repeated approach was used to assess whether on average across subjects, the pre- and post-surveys had the same mean score. Students were also asked to submit reflective journal entries discussing critical incidents during their practicum experience. Representative comments from students' journal entries were selected as qualitative data to support survey results.

**Results:** Pre- and post-practicum surveys (31 and 32, respectively) were completed, and all 32 students submitted journal entries. The differences in the row mean scores from pre- to post-practicum survey were statistically significant ( $p < 0.05$ ), indicating an overall positive gain in clinical self-confidence from the practicum experience. Students' journal entries provided comments that supported the quantitative results.

**Conclusion:** The results suggest that a 3-week practicum experience in dental hygiene students' final semester increased UNC dental hygiene students' clinical self-confidence in the dental hygiene process of care. Dental hygiene administrators may want to consider the benefits of requiring students to participate in a practicum experience if they do not already do so.

**Keywords:** curriculum, dental hygienists, education dental, service learning, self concept, clinical competence

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### INTRODUCTION

Curricula in a dental hygiene program should support the development of a confident and well-rounded dental hygienist, prepared to treat a variety of patients in traditional and nontraditional settings. The challenges of educators to prepare dental hygiene students to succeed in an evolving profession are ever present. The American Dental Education Association (ADEA) has recommended that dental institutions "develop the knowledge and skills necessary to serve a diverse population, provide experiences of oral health care delivery in community-based and nontraditional settings, and encourage externships in underserved areas."<sup>1</sup> Moreover, the American Dental Association's (ADA) Commission on Dental Accreditation (CODA) standards require students to have a sufficient number of hours in clinical practice to develop appropriate clinical judgment, as well as experience in providing care to children, adolescents, adults, geriatric patients and special needs patients.<sup>2</sup> Practicum experiences pro-

vide a method to follow ADEA's recommendations and fulfill ADA's CODA standards because they have been shown to provide many experiences with diverse patients with a variety of needs.<sup>3-8</sup>

The practicum experience is a type of experiential learning that includes hands on practice, reflection, abstraction and application of the new experience.<sup>9</sup> Experiential learning helps students connect theory to practice.<sup>10</sup> Students may encounter experiential learning in a school's clinic or lab setting, but the situation may not be practical due to the academic environment.

Practicum experiences in dental education are also referred to as service learning, outreach placements, community-based experiences, external placements, extramural rotations, service learning or community-externships.<sup>3-8,11-18</sup> A benefit of the practicum experience is that it provides stu-

dents with an opportunity to apply what they have learned in school to practical situations in a variety of community-based settings. Often occurring near the end of an educational program, practicum experiences typically last several weeks, allowing students to gain insight into their future career. The efficacy and value of practicum experiences in dental education has been studied using various quantitative and qualitative methodologies. Smith et al found that dental, dental therapy and dental hygiene students were overall positive about their experiences.<sup>5</sup> The students felt that they gained experience with diverse patients in various settings, and increased awareness of the different possible careers in dental hygiene.<sup>5</sup> Likewise, an Australian study using a cross-sectional survey of dental hygiene students' practicum experiences also reported positive feelings towards the community-based placements and described exposure to a variety of clinical skills.<sup>18</sup> Ledford et al found that 46% of dental hygiene graduates that participated in a practicum experience felt that it made them more likely to seek a career in an alternative practice setting.<sup>17</sup> Sixty percent of the students also felt that their practicum experience enhanced their knowledge of the specialty, while 88% thought it was an important part of their education.<sup>17</sup>

Practicum experiences have also shown to produce an increase in perceived overall clinical self-confidence in dental and dental hygiene students.<sup>4,5,11-14,19</sup> Dental therapy and dental hygiene students in a dental school in the United Kingdom reported gaining confidence in patient care delivery after their practicum experiences.<sup>5</sup> Another study by Butters et al evaluated dental hygiene students' self-perceptions of clinical competence in 19 different areas of clinical dental hygiene care after a practicum experience based on pre- and post-surveys.<sup>8</sup> They found that students perceived an increase in clinical competence in 6 areas: radiographic technique, scaling periodontally involved teeth, child patient management, clinical speed, clinical accuracy and clinical judgment.<sup>8</sup>

Several studies have drawn similar conclusions regarding practicum experiences for dental and dental hygiene students, such as enhancing their clinical knowledge and skills,<sup>4-6,8,12,13,15,19</sup> increasing speed and efficiency,<sup>5,8,13</sup> and facilitating professional growth.<sup>6,12,15</sup> Advantages also include awareness of ethical dilemmas,<sup>6,12</sup> benefits to the community, and comfort and awareness of vulnerable, underserved populations.<sup>3,6,7,19</sup> Enhancing communication and teamwork among dental professionals are also noted advantages from participation in an externship.<sup>4,5</sup> Moreover, dental and dental hygiene students have shown an interest in different career opportunities after their practicum experiences.<sup>5-7</sup>

The experiences students have during their practicum rotations may not fully develop knowledge and desired skills without reflection.<sup>15,16</sup> Reflective journaling has been widely used in nursing education as a means of self-assessment and critical thinking, and is accepted as an essential part of the learning process.<sup>18</sup> In dental education, studies in which students have practiced reflection regarding clinical experiences, awareness of clinical and professional development increased.<sup>15,20,21</sup> Several studies assessing dental and dental hygiene students' practicum experiences have utilized reflections as qualitative data.<sup>3,6,12,15,20,22</sup> Strauss et al recommend reflecting on practicum experiences in order for students to recognize the value of their experiences and to ultimately encourage lifelong self-assessment practices.<sup>15</sup> Therefore, reflective journaling may aid in fulfilling ADA's CODA standards for dental hygiene programs requiring graduates to "be competent in the application of self-assessment skills to prepare them for life-long learning."<sup>1</sup> Furthermore, Mofidi et al conceded that reflective practice during practicum experiences was necessary to develop a well-rounded practitioner in order to be successful in an evolving health care environment.<sup>12</sup>

The Critical Incident Technique (CIT) was first described by Flanagan in 1954, who defined it as "a set of procedures for collecting direct observations of human behavior in such a way as to facilitate their potential usefulness in solving practical problems."<sup>23</sup> The CIT was used in Mofidi et al's study to guide dental students' reflections after a practicum rotation, in which dental students acknowledged the value in their incidents, describing them as "awakening, unforgettable, memorable, and transformative."<sup>12</sup> Similarly, Fitzgerald et al concluded that the CIT is an appropriate research method in dental education, and could provide many benefits to dental education.<sup>24</sup>

Limited studies have been conducted on dental hygiene students' practicum experiences and particularly in how the experience may have affected their clinical self-confidence. For example, the Ledford et al study found that most dental hygiene graduates who participated in a practicum found it to be beneficial and a significant part of their dental hygiene education; however, the study did not look at the effect it had on their clinical self-confidence in the dental hygiene process of care.<sup>17</sup> A study conducted by Butters et al evaluated the effect of a 4-week practicum experience on a Midwestern university's dental hygiene students' perceived clinical competence.<sup>8</sup> This was the only study to evaluate specific dental hygiene clinical aspects and found that 6 of 19 dimensions assessed significantly improved.<sup>8</sup>

Educational methodologies should continuously

be assessed in order to ensure the goals are being met. Therefore, the outcomes of practicum experiences should be assessed to determine the success of the program. CODA requires dental hygiene programs to support the development of students that are competent in the dental hygiene process of care.<sup>2</sup> A successful practicum experience would show that students are gaining clinical self-confidence in all areas of the dental hygiene process of care.

### **University of North Carolina School of Dentistry's Dental Hygiene Program Practicum Experience**

The curriculum in the University of North Carolina-Chapel Hill School of Dentistry's (UNC SoD) Dental Hygiene Program includes a 3-week practicum experience in students' senior year, last semester of the program. The goal for the practicum experience is for the dental hygiene students to gain strong and diverse clinical experiences, and to participate in a practical application of their education. Students choose from a list of practicum sites, including health departments, hospitals, prisons, veterans' dental clinics and UNC SoD's Graduate Periodontology Clinic. Students participate 35 hours per week at their site in clinical patient care, for a total of 105 hours at the completion of 3 weeks. The dentist and/or dental hygienist at the site mentor the student throughout the practicum experience. Students are typically scheduled the same number of patients the practicum site's licensed dental hygienist treats in a normal day. Although the practicum experience has been in place for many years, no study has been conducted to determine the outcomes of the students' experience on clinical self-confidence. Therefore, the primary purpose of this study was to determine the effect of practicum experiences on UNC SoD's senior dental hygiene students' clinical self-confidence in the dental hygiene process of care.

## **METHODS AND MATERIALS**

The UNC Biomedical Institutional Review Board rendered this study no more than minimal risk to human subjects and exempted this study.

### **Scheduling of the Practicum Experience**

Thirty-two students were separated into 2 groups for the practicum experience so that sites could be utilized twice. While one group was participating in the practicum for 3 weeks (group 1, n=16), the other group remained in UNC SoD's clinic. When the first group returned, the second group of students (group 2, n=16) participated in the practicum. Practicum sites for the study period included the following: health departments, a prison, UNC SoD

Graduate Periodontology Clinic, hospitals, veteran's dental clinics and community health centers.

### **Clinical Self-Confidence Survey**

In order to quantitatively measure the change in dental hygiene students' clinical self-confidence in the dental hygiene process of care following the practicum experience, the investigators created a clinical self-confidence survey. The survey consisted of 20 statements based on the American Dental Hygienists' Association's (ADHA) Standards for Clinical Dental Hygiene Practice which include: assessment, dental hygiene diagnosis, planning, implementation and documentation.<sup>25</sup> Self-confidence levels were reported on a 5-point Likert scale from "not at all confident" to "totally confident." The survey was pilot tested with 6 UNC dental hygiene graduates from the previous year (2012), and revisions were incorporated based on respondents' suggestions. Senior dental hygiene students (n=32) were asked to complete the pre-practicum clinical self-confidence survey 1 week before their practicum experience. The post-practicum survey was completed upon return from the practicum after 1 week of patient care in UNC SoD's clinics. The survey was confidentially coded in order to encourage honest responses, protect the identity of the respondent, and to match pre- and post-surveys to assess for change. Students were aware that participation was voluntary and they could choose not to participate at any given time without penalty.

The stratified Mantel Haenszel row mean score test with the subject as strata as a repeated measures was used to assess whether there was change in the respondents' pre- to post-practicum scores on average across subjects. The Mantel Haenszel row mean score test of the change in score from pre- to post-practicum was used to compare the 2 groups. Level of significance was set at  $\alpha < 0.05$ .

### **Reflective Journaling**

As an assignment for the practicum course, the students submitted 1 reflective journal entry per week regarding their practicum experience. The assignment was to write about a critical incident by reflecting on events that occurred while on practicum that were either positive or negative and had a lasting effect on them.<sup>23</sup> They were asked to discuss how the event made them feel, the professional implications and what could have been done differently. The students were asked not to use any names of patients or dental personnel in their reflective journal entries. The content of the entries were not graded, but credit was given for the completed assignment. To encourage honesty in students' reflections, the reflective journal entries were coded for the purpose of the study in order to protect the

identity of the students. Representative comments were selected by the primary investigator from students' reflective journal entries to support survey results.

## RESULTS

Completed pre- and post practicum clinical self-confidence surveys were obtained from 31 out of the 32 senior dental hygiene students for a 97% response rate. One student was absent on the day the pre-practicum survey was administered. All 32 students submitted their reflective journal entries to the study.

The average change in clinical self-confidence from pre- to post-practicum was statistically significant for all of the 20 statements, indicating an overall positive gain in clinical self-confidence from the practicum experience (Table I). Greater than 50% of the students reported an increase in confidence for 14 out of the 20 statements. Several students reported no change in confidence from pre- to post-practicum, while a small number of students reported a decrease in confidence for many of the statements (Table I)

Groups 1 and 2 were significantly different in the average change scores for statement 9 ( $p=0.001$ ) and 19 ( $p=0.001$ ). For both statements, the proportion of students that participated in the first practicum who reported positive changes was substantially higher than the proportion of students in the second practicum (Statement 9: 75% vs 40%; Statement 19: 56% vs 20%) (Table I).

Although the findings from the pre- and post-practicum surveys indicated a significant increase in confidence following the practicum experience, the students' reflections provided a more in-depth understanding of what experiences were related to the increased confidence: treating diverse patients, speed of treatment, practicing in a practical setting and overall clinical self-confidence. Table II reports a representation of comments from students' reflective journal entries that support the survey results. Figure 1 reports a representation of comments from students' reflective journal entries in which students discussed their overall self-confidence.

Eighty-seven percent of the students reported an increase in confidence in treating multiple patients per day in a timely and thorough manner. In the reflective journal entries, many students commented on treating patients at a quicker pace during their practicum experiences (Table II). One student wrote, "This second week of practicum rotation, I was able to finish patients much quicker than I did on the first few days of the first week of my rotation."

The reflective journal entries also revealed that many students treated a variety of patients. Fifty-eight percent of students reported an increase in confidence in treating all patient types. In their reflective journal entries, students reported treating children, geriatric patients and pregnant patients, as well as patients with mental or physical disabilities (Table II).

Seventy-seven percent of students reported an increase in confidence in practicing as a registered dental hygienist in a private practice setting after the practicum experience. One student reflected, "I am so grateful I got to experience a more 'real-life' setting for three weeks to better prepare me when I graduate from dental hygiene school" (Table II). Furthermore, many students' reflections included statements about their overall confidence in their clinical abilities. One student stated, "I have learned greater independence and greater confidence in my ability as a clinician" (Figure 1).

## DISCUSSION

As dental hygiene students approach graduation and the beginning of their careers as licensed professionals, it is necessary to ensure that they are confident in implementing all parts of the dental hygiene process of care. CODA requires dental hygiene programs to support the development of dental hygienists who are competent in providing the dental hygiene process of care.<sup>2</sup> The results of this study indicate a significant increase in the clinical self-confidence of 31 dental hygiene students at UNC SoD for each of the surveyed aspects of the dental hygiene process of care after a 3-week practicum experience. Comments from students' journal entries also reflected an increase in clinical self-confidence in particular aspects.

During the practicum experience, students face practical situations where they get to practice being a part of the dental team. Unlike the UNC SoD's clinic where students have long appointment times, a homogenous patient pool and little experience with a dental team, it is quite different during the practicum experience. At the practicum sites, students treat multiple patients per day, often in settings where the patients are diverse and have a variety of needs. The repetitive practice over a 3-week period may explain the students' increase in clinical self-confidence. Furthermore, the practicum experience reinforces what the students have been learning throughout their dental hygiene education. Keselyak et al also suggested that service learning with special needs patients might increase an understanding of applying theory to practice.<sup>26</sup>

Butters et al found dental hygiene students to have an increased perception of clinical competence in clinical speed after an extramural education pro-

Table I: Dental Hygiene Students' Clinical Self-Confidence After a Practicum Experience (n=31)

Clinical Self-Confidence Survey Statement	Change from pre- to post-practicum	n	Positive Change in Confidence (Percent)	p-value
1. Evaluate a patient's medical history and vitals and incorporate findings into a dental hygiene treatment plan.	Negative	3	45	0.007
	None	14		
	Positive	14		
2. Accurately perform an extraoral/intraoral assessment and use findings to create and implement a dental hygiene treatment plan.	Negative	2	39	0.008
	None	17		
	Positive	12		
3. Determine a patient's level of risk to develop periodontal disease by using medical history and assessment findings.	Negative	1	55	<0.001
	None	13		
	Positive	17		
4. Determine a patient's level of risk to develop caries by using medical history and assessment findings.	Negative	2	42	0.005
	None	16		
	Positive	13		
5. Utilize assessment data to formulate a dental hygiene diagnosis and incorporate into patient's overall treatment plan.	Negative	3	39	0.016
	None	16		
	Positive	12		
6. Determine the necessity for a patient to be referred to a periodontist.	Negative	3	54	0.002
	None	11		
	Positive	17		
7. Determine which of the following procedures are needed: a prophylaxis, periodontal maintenance, or periodontal debridement.	Negative	1	61	<0.001
	None	11		
	Positive	19		
8. Expose diagnostic radiographs and interpret them to assist in making a dental hygiene diagnosis and treatment plan.	Negative	0	61	<0.001
	None	12		
	Positive	19		
9. Create a dental hygiene diagnosis and treatment plan with the priorities arranged according to the patient's clinical assessment, needs, and values.	Negative	3	58	0.001
	None	10		
	Positive	18		
10. Utilize all possible resources to facilitate patient care including communication with dental specialists and medical providers.	Negative	1	65	<0.001
	None	10		
	Positive	20		

gram.<sup>8</sup> Similarly, the students in this study were more confident in treating multiple patients per day in a timely and through manner, with 87% of the students reporting a positive change from pre- to post-practicum. This can likely be attributed to repetitive practice and is an indicator that students may benefit more from a multiple-week practicum experience. Studies conducted on dental students have also shown that the students did more procedures in less time as a result of practicum experiences.<sup>13,27</sup> Mascarenhas et al found that as each week of the dental students' externship progressed, more

procedures were performed.<sup>27</sup> Likewise, Mashabi et al found that revenue increased as a result of increased productivity after dental students' returned from a 10-week externship.<sup>13</sup>

Lynch et al found that dental students reported an increase in confidence in taking radiographs and treatment planning after participating in a community-based teaching program.<sup>11</sup> This is similar to this study's findings with 61% of dental hygiene students reporting an increased confidence in exposing and interpreting radiographs and 58% reporting an

Table I: Dental Hygiene Students' Clinical Self-Confidence After a Practicum Experience (n=31) (continued)

Clinical Self-Confidence Survey Statement	Change from pre- to post-practicum	n	Positive Change in Confidence (Percent)	p-value
11. Communicate with the dentist about a patient's overall care.	Negative	2	58	<0.001
	None	11		
	Positive	18		
12. Detect suspicious restorations and/or areas of possible decay and relay these findings to the dentist.	Negative	0	68	<0.001
	None	10		
	Positive	21		
13. Discuss dental hygiene treatment plan with a patient (and/or their legal guardian/caregiver) including rationale, risks, benefits, possible outcomes, alternatives, and prognosis.	Negative	3	58	0.004
	None	10		
	Positive	18		
14. Treat all patient types, including all ages of patients, medical conditions, physical or mental disability, economic status, or culture.	Negative	2	58	<0.001
	None	11		
	Positive	18		
15. Use hand instruments and determine where and when an unfamiliar instrument is to be used based on its design.	Negative	1	74	<0.001
	None	7		
	Positive	23		
16. Treat multiple patients per day in a timely and thorough manner.	Negative	1	87	<0.001
	None	3		
	Positive	27		
17. Evaluate outcomes of dental hygiene care and determine the need for further treatment, oral hygiene instruction, or referral.	Negative	1	65	<0.001
	None	10		
	Positive	17		
18. Document all parts of the dental hygiene process care: assessment, dental hygiene diagnosis, dental hygiene treatment plan, implementation, and evaluation.	Negative	2	26	0.046
	None	21		
	Positive	8		
19. Document discussions and interactions between the patient and all dental personnel that are relevant to the patient's dental care.	Negative	0	39	0.001
	None	19		
	Positive	12		
20. Practice as a Registered Dental Hygienist in a private practice setting.	Negative	1	77	<0.001
	None	6		
	Positive	24		

increased confidence in creating a dental hygiene diagnosis and treatment plan. Furthermore, Butters et al found that dental hygiene students perceived an increase in clinical competence in radiographic technique after a 4-week extramural rotation.<sup>8</sup>

Comments from the reflective journal entries also revealed that many students treated a variety of patients. Students reported treating children, geriatric patients, pregnant patients as well as patients with mental or physical disabilities. Fifty-eight per-

cent of students reported an increase in confidence in treating all patient types. This is consistent with literature that has found that students were more aware and comfortable in treating underserved and vulnerable populations after practicum experiences.<sup>3-5,7,28,29</sup> As for students who did not increase in self-confidence in this aspect, perhaps their practicum site did not provide them with a variety of patients or perhaps they already felt confident prior to their practicum in treating all patient types.

Table II: Representative Comments Supporting Survey Results

Statement from clinical self-confidence survey	Representative sample of comments from students' journal entries	Percent Positive change in self-confidence from pre- to post-practicum (n=31)
Utilize assessment data to formulate a dental hygiene diagnosis and incorporate into patient's overall treatment plan.	<ul style="list-style-type: none"> <li>• "I am learning how to adapt treatment plans for immunocompromised and severely disabled patients."</li> <li>• "...through creativity and patience, I was able to adapt his treatment plan to his needs."</li> </ul>	39
Treat all patient types including all ages of patients, medical conditions, physical or mental disability, economic status, or culture.	<ul style="list-style-type: none"> <li>• "I am being challenged with a plethora of special needs patients."</li> <li>• "The patients at my facility are compromised in their health—mental and physical disabilities and disease..."</li> <li>• Throughout their reflective journal entries, many students wrote about treating a variety of patients: children, patients on Medicaid, wheelchair bound patients, mentally handicapped patients, geriatric patients, pregnant patients, ADHD patients...</li> </ul>	58
Treat multiple patients per day in a timely and thorough manner.	<ul style="list-style-type: none"> <li>• "I learned to increase my pace this week."</li> <li>• "This second week of practicum rotation, I was able to finish patients much quicker than I did on the first few days of the first week of my rotation."</li> <li>• "I feel so much more confident with time management."</li> </ul>	87
Practice as a RDH in a private practice setting.	<ul style="list-style-type: none"> <li>• "I am so grateful I got to experience a more "real-life" setting for three weeks to better prepare me when I graduate from dental hygiene school."</li> <li>• "It has honestly felt as if I was actually starting a first job as an actual hygienist!"</li> <li>• "It has helped me to see what the "real world" of dental hygiene is like beyond school."</li> </ul>	77

Student reflections supplied several comments that relate to an overall increase in clinical self-confidence. One student stated, "I have learned greater independence and greater confidence in my ability as a clinician." Likewise, other studies have found practicum experiences to produce an increase in overall clinical self-confidence in dental and dental hygiene students.<sup>4,8,11-14,19</sup> Similarly, 77% of the students in this study felt more confident to practice as a registered dental hygienist in a private practice setting after the practicum experience. A few students referred to their experiences in their reflections as giving them a sample of the "real world."

Although a significant increase in self-confidence was found for each statement in the survey, a notable amount of students reported no change in self-confidence for the statements. This indicates that some students were already confident in the surveyed aspects before their practicum. Furthermore,

a small number of students reported a decrease in confidence for many of the statements. Perhaps after the practicum experience, some of the students realized their initial confidence was misplaced. In both cases of no change or decreased change in self-confidence, perhaps students' practicum sites did not provide them with experiences needed to increase confidence. The various practicum sites should be individually evaluated for effectiveness and similarity of patient experiences.

An unexpected finding of this study was that Group 1 had a significantly higher change in row mean score than Group 2 for statements 9 and 19 on the clinical self-confidence survey. These results indicate that in regards to these 2 statements, Group 2 appeared to be more self-confident than Group 1 before participating in the practicum experience. Although these results cannot be explained, Group 2 participated in their practicum experiences 3 weeks

after Group 1, therefore Group 2 was treating patients in UNC SoD's clinic throughout that time. By having more time in UNC SoD's clinic before practicum, with the dental hygiene instructors for guidance, Group 2 may have had more experience in creating a dental hygiene diagnosis and treatment plan and documenting discussions and interactions, resulting in being confident prior to beginning the practicum experience.

It can be argued that just because a student reports being confident, it does not necessarily mean that student is competent. Each individual is different and some students may evaluate themselves harder than others. Hopefully, if a student is confident in implementing the dental hygiene process of care, it means that they feel they have enough knowledge and experiences to feel comfortable in caring for their patients without very much supervision. If anything, a pre- and post-practicum survey may be useful in making the student more aware of their strengths and weaknesses. The reflective journal entries may also contribute to making the student more aware of their clinical self-confidence. Both a pre- and post-practicum survey and reflective journals may also be useful as an outcomes assessment for practicums and could also be used as a self-assessment measure for students. Burch has also recommended reflections and self-assessment measures to be utilized as strategies for assessing service learning in dental hygiene education.<sup>30</sup>

As this study was conducted at only one university with a limited number of subjects, the results cannot be generalized. A response-shift bias may affect the validity of the pre- and post-survey design. Due to the practicum experience being a requirement for students in UNC SoD's dental hygiene program, a control group was not feasible for this study; however, students' comments from their journal entries supplied evidence that practicum experiences provided valuable, practical experiences that they would not otherwise have obtained. Further studies including more dental hygiene programs and subjects should be done to confirm results, using a control group if possible. Future studies could also compare faculty members' opinions of students' abilities in the dental hygiene process of care after a practicum experience. Another study could assess how many dental hygiene programs are currently requiring students to participate in a multiple week practicum.

The outcomes of this study may encourage dental hygiene programs to require students to par-

Figure 1: Representative Comments on Overall Clinical Self-Confidence

- "Moments like these help build confidence and help form special revision skills for appointments..."
- "(My supervising RDH) told me that she has seen many hygiene students rotate through the site and that she thinks I am prepared for the "real world." I was so happy to have this confidence boost."
- "This week really helped my confidence level with patient care."
- "I have learned greater independence and greater confidence in my ability as a clinician."

ticipate in a multiple-week practicum if they do not already do so. This study's results may also encourage reflecting on clinical experiences to increase awareness of students' strengths and weaknesses. These results add to the limited existing knowledge about the learning outcomes of dental hygiene students' practicum experiences.

## CONCLUSION

Educational methodologies, such as practicum experiences, should be regularly assessed to determine the success of the program. The results suggest that a 3-week practicum experience in dental hygiene students' final semester will increase students' clinical self-confidence in providing the dental hygiene process of care. Dental hygiene programs may want to consider the benefits of requiring students to participate in a practicum experience if they do not already do so.

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