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Research Article

Dental clinical supervision: Perceptions of faculty

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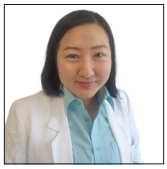

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ABSTRACT

Objectives: Dental education is a multifaceted process that requires a combination of intellectual, technical, and interpersonal skills. It is not just about acquiring knowledge but also about developing psychomotor skills and the right attitudes, which come with practice over time. This complexity makes teaching and learning challenging for both teachers and students. Dental education involves not only reading and memorization but also skill development, which progresses as students advance through their education. This skill transfer occurs when students work with tooth models, and eventually, patients in the dental operatory (clinics). This study outlined the perspectives of faculty members regarding clinical supervision within a dental school in the Philippines. **Materials and Methods:** In this research, a qualitative approach was employed, utilizing Focus Group Discussion (FGD). The intended group size ranges from 6 to 10 participants. The researcher prepared a set of guide questions for the discussion. An experienced facilitator guided the FGD. The conversations were recorded in audio format, and the transcripts were created to aid in analysis. These transcripts were then shared with the facilitator and participants for validation after one week. **Results:** Ten faculty members participated in the FGD. Analysis of responses using NVivo 12 revealed common themes across respondents. The first theme which arose from the faculty perceptions was the apparent lack of time due to the high faculty-student ratio. A second theme which arose is the variable faculty competence as a function of years of teaching. The third theme which arose was a perceived lack of improvement in interaction between faculty and senior students due to high expectations which led to a strained learning environment. **Conclusion:** The faculty highlighted challenges such as limited time, varying faculty skills, and seniors' perceived lack of improvement during dental clinical supervision. These issues are complex and have multiple causes, with the faculty's good intentions presumed. What is crucial is granting faculty the necessary resources and support to consistently enhance their skills as supervisors. In addition, universities should assess student burnout and offer proactive support measures.

Keywords: Clinic supervision, Dental faculty, Dentistry, Perceptions, Qualitative research

INTRODUCTION

Dental education is a multifaceted process that requires a combination of intellectual, technical, and interpersonal skills. It is not just about acquiring knowledge but also about developing psychomotor skills and the right attitudes, which come with practice over time. This complexity makes teaching and learning challenging for both teachers and students. Dental education involves not only reading and memorization but also skill development, which progresses as students advance through their education. This skill transfer occurs when students work with tooth models and eventually with patients in the dental operatory (clinics).

The Doctor of Dental Medicine program in the Philippines spans 6 years and encompasses three main components: Basic science, clinical science, and dental public health. Clinical training takes place during the 5th and 6th years. This is where the transition to working with actual patients in a dental clinic setting. Initially, students perform limited dental procedures under close

faculty supervision as part of their clinical requirements for graduation. In their final year, students are expected to undertake more complex procedures with reduced faculty oversight.

The clinics serve as the stage where the dynamic interaction between patients, faculty, and students unfolds. This collective interaction is what is referred to as clinical supervision. Adults, whether they are trainees or experienced clinicians, are driven to acquire knowledge when they encounter real-world problems that demand practical solutions, which are seen as crucial for progress and enhancement.[1] Patients play a key role in nurturing the student's ability to think critically, communicate effectively, and empathize. Likewise, educators bear a substantial duty in molding students into critical thinkers and individuals committed to lifelong learning, ensuring that their learning path continues well beyond graduation. Literature indicates that faculty members frequently find themselves in a clinical teaching position without receiving sufficient preparation to meet the unique requirements of the role.[2] This study outlined the perspectives of faculty members regarding clinical supervision within a dental school in the Philippines.

MATERIALS AND METHODS

In this research, a qualitative approach was employed, utilizing focus group discussion (FGD). The intended group size ranges from 6 to 10 participants. Six to 12 participants is enough if the research scope is narrow and the target audience has a similar background.[3] The faculty members were grouped according to sex, highest educational attainment, years in teaching, teaching hours in a week, number of departments involved, and employment status. Purposive sampling was done such that there was diversity in the FGD.

The researcher prepared a set of guide questions for the discussion. The following were some of the guide questions used: (1) How much does your clinical supervisor (CS) demonstrate a clinical skill? Describe the experience. (2) Describe the way your CS gave feedback. Do you perceive any difference according to clinical year level? (3) What are the qualities of a good questioner? Do your CS use questioning? How? (4) When clinical supervision is taking place, are you conscious of the learning goals/objectives? (5) What do you understand as a safe learning environment in the clinics? (6) Explain your given rating in the overall judgment.

An informed consent was also explained, including the use of audio recordings. An experienced facilitator guided the FGD. The conversations were recorded in audio format, and the transcripts were created to aid in analysis. These transcripts were then shared with the facilitator and participants for validation after one week.

Those who agreed to participate in the FGD were asked to fill up an attendance sheet which was stored and sealed. Participants were also assigned numbers to maintain their anonymity. The data collected were secured with stringent measures to prevent unintentional access to them. All data were stored in a password-protected computer in a secure place before data processing and analysis.

Audio recordings were transcribed; then, a content analysis of the validated transcriptions was done. NVivo 12 was used to identify the words which the participants often mentioned, thus identifying the common themes. A constant comparative approach[4] for analyzing data was taken to ensure a rigorous approach. To establish credibility, meticulous checking was done to validate the derivation of themes from the statements of the participants.[5] To establish confirmability and dependability, peer review by a healthcare professional with a Master's degree in Health Profession Education was done to gather insights, feedback, and inputs for data analysis and interpretation.

RESULTS

The clinics are situated on the whole floor of the college building. Each department has a range from 20 to 35 dental chairs placed side by side, with 2–3 clinical supervisors on duty. A glass wall separates the supervisors' area from the operatory area. The supervisors' area is where case discussions, grading of clinical forms, and even classroom concerns take place. On the other hand, the operatory area is where patient encounters, approval of cases, and checking of procedures take place.

Faculty believed in the importance of coaching and asking the students questions. The learning environment was also one of the highest perceived contributing factors of clinical supervision. It was the general notion that students are expected to have prior knowledge of their pre-clinical subjects. Laboratory and other classroom activities were expected to bridge the theoretical and practical aspects of learning. At times, especially if certain cases were not done during the pre-clinical course, the faculty demonstrates certain procedures when needed. The majority of the faculty members admitted that the difficulties they encounter are that they are short-handed in the clinics. Even with this difficulty, they believed that they generally tried their best to make the students feel safe during their interaction by showing genuine interest and concern. Although, at times, they suspect that one really cannot take away the notion that students are intimidated. Another difficulty is that most faculties felt that the high faculty-student ratio played a role in why the students perceived a poor learning environment in the clinics. Faculty also believed that the stress that the students were experiencing in the clinics might affect the ratings of the students. Formulation and pursuance of

learning goals were considered difficult because the faculty did not see the same students every day. There is a fast turnover of students when the bell strikes after 2 h, signaling the end of their clinic time. Faculty admit that they are not perfect teachers; they acknowledge their shortcomings and try to deal with any given situation the best they know how.

Apparent lack of time

The first theme which arose from the faculty perceptions was the lack of time due to the high faculty-student ratio. From their collated interviews, a common perception is that time is an important factor in all domains of clinical supervision. According to some faculty, showing interest to the student is important; but rushing from one student to another might make the latter feel disrespected. Case discussions are additional clinical teaching encounters with students. This is on top of the ongoing dental procedures that the faculty is supervising. A majority said that they ask students questions to increase their understanding, which is a valuable clinical interaction, but they feel trapped because the case discussion might take a long time especially if the student was not prepared. It was the general perception that formulating learning goals is an important step to self-directed learning, but time is essential for conversations.

- Faculty 1 said, "Actually, with the number of students, we are close to 12–13 per supervisor, you don't have time to really... (faculty makes an expression that signifies helplessness). Not only that, we are discussing on the side, so honestly, it's a disadvantage for the student…"

Variable faculty competence

A second theme which arose is the variable faculty competence as a function of years of teaching. The number of years in teaching was the one faculty characteristic which showed a significant effect on faculty perceptions. It refers to the developmental career stage of a teacher regardless of one's age. The majority of the faculty believed that as the number of years in teaching increases, they become more knowledgeable in the field, in the clinics, and in the manner of teaching. Since there is expertise in the clinics with regard to protocols, the faculty can concentrate on the students. Experiences with different types of students and teaching strategies and the integration of both were considered important for being an effective faculty. The faculty was asked to describe how they perform coaching and articulation and if they believed that the number of years in teaching affects clinical supervision. From the novice up to the expert, all agreed that the more experienced one is, the more confident and effective one becomes. Most novice faculty have hesitations when it comes to handling students in the clinics. They usually shadow those who are in the proficient and expert stages and apply the same techniques to their students.

The following statements were acquired from the FGDs:

- Faculty 6 said, "It takes mastery of the subject to be able to give meaningful feedback to the students. Years of clinical supervision also provide the clinical supervisor with the experience to determine the level of understanding of students based on the student's behavior and response. As such, a more experienced clinical supervisor can adjust his/her teaching style and expectations from the students. A new clinical supervisor might be more concerned with the procedures and the protocol in the infirmary to customize the questions and instruction to their clinicians."
- Faculty 4 said, "It's still my third semester in teaching, so I am still learning how to navigate. I am still learning."

Perceived lack of improvement

Third theme which arose was a perceived lack of improvement in interaction between faculty and 4th-year clinicians due to high expectations, which led to a strained learning environment. Most faculty noted that they were inclined to think that as the year level increases, the student would have a better perception of the faculty due to two reasons. First, a 4th-year clinician has more experience and should, therefore, be more relaxed in the clinics because they already know what to expect. Second, the faculty themselves had more confidence in the 4th-year clinician, making the interaction more pleasant and focused on learning. Fourth-year students were supposed to have a better grasp of the clinical interaction already, having experienced the ins and outs of the clinics. Still, most of the faculty noted that the attitudes of the 4th-years were similar to the 3rd-years wherein they expect to be spoon-fed with diagnosis and instructions on what to do during their patient encounters.

- Faculty 2 said, "For us, we feel we were doing our best to do all these things for all the students to the best of our capabilities. So the tendency is we'll rate ourselves high. Because for us, we've done our part."
- Faculty 8 said, "Students think that the faculty is out to make it hard for them."
- Faculty 3 said, "But then, this is what is puzzling to me. Even with all of this information out there on the Net, with all of the videos, how come the majority of them still cannot follow? …I think it also depends on the attitude and disposition of the clinician. It does not really matter if you are a 3-year or 4th-year."

DISCUSSION

In the clinics, students acquire knowledge through hands-on experience.[6] This experiential learning exposes them to scenarios they will encounter professionally. Cox[7] described the clinical learning cycle, comprising teaching and learning activities. This cycle includes two linked parts: experience and

explanation. In the experience cycle, the students get briefed on expectations and learning prospects, and engage in clinical interaction, followed by debriefing. In the explanation cycle, there are detailed discussions between teachers and students about the clinical encounters, addressing potential issues and solutions. Students reflect on these encounters, integrating them with prior knowledge to build their skills.

In Philippine clinical dentistry, the experience cycle commences with classroom preparation. Most clinical subjects combine lectures with practical components, typically in laboratory settings. At the start of the clinics, a student clinician assembly is led by the clinical chairman, outlining details on learning prospects and regulations. Actual patient treatment serves as instructional material for clinical practice. Clinical supervisors employ a range of teaching methods to create chances for students to enhance their clinical skills. In contrast to medical settings, where clinical encounters occur in hospitals with numerous patients, dentistry students in the Philippines often bring in patients to fulfill specific requirements and manage their clinical schedules.

The explanation cycle, on the other hand, refers to the reflection and discussion that occurs following the patient encounter. Four out of the ten stressors of Philippine dentistry students involve clinical requirements. This includes completion of requirements, absent or late patients, the volume of requirements, and difficulty in looking for specific requirements. According to year level, stress due to faculty factor increases as the student becomes a clinician, which is attributed to having more one-on-one student-teacher interactions.[8] Due to this stressful environment, there is little to no opportunity for reflection or explication of the experience into working knowledge by the student.

The apparent lack of time due to the high faculty-student ratio affected clinical supervision negatively. Clinic time is valuable for the students because they are given numerous clinical requirements to finish for the semester. Feelings of being rushed were heightened because most procedures required evaluation at every step before advancing. Faculty members need to review these numerous steps for all 12–13 students that they concurrently supervise during their clinical duties. In contrast, other countries maintain a 1:6 ratio of faculty to students in the clinics.[9] Students value feedback.[10-13] Since time is valuable but limited, that faculty should utilize their and students' time wisely. Providing clear feedback and asking considerate questions are among the methods used to optimize time while ensuring essential reflection on experiences, a crucial element within the clinical teaching explanation cycle.[7]

An additional factor in the teaching and learning process is faculty competence.[14] Not all those who have Masters or Doctorate degrees have training in teaching. Mentoring of "novice" by "expert" teachers is usually done in lecture subjects. A similar practice – for example, instituting the practice of "shadowing" of "expert" by "novice" teachers can improve the clinical supervision skills of beginners.[10] On the other hand, it was observed that academicians focus on education theory and critical thinking, while practitioners believe in doing a supervisory role rather than teaching, and intuitive teachers emphasize practical learning.[15]

A lack of improvement of the senior students in the clinics, which affects the learning environment is multifactorial in nature. Students understand the higher expectations and feel burdened when they do not remember the requisite information. This can also be possibly because students do not all learn at the same pace. But still they expect the faculty to help them integrate knowledge and practical skills in the clinics to facilitate learning.[10] Dental education is extremely rigorous, and while some stress can be a stimulus for learning, ongoing and unmanaged stress can lead to burnout.[16-18] A study in Korea concluded that burnout and depression levels of senior students were relatively high. Likewise, the burnout level experienced was associated with academic workload.[19] This can be what senior students feel, aside from their insecurity in their ability to translate knowledge into skill. To support learning, faculty should offer precise feedback, exhibit a passion for teaching, inspire students, translate theoretical knowledge into practical patient scenarios, demonstrate empathy, and take a proactive approach to patient care.[20,21] In addition, for students with actual burnout, universities can provide counseling programs to teach coping strategies for daily stressors.[19] Improvement in students' coping skills will be beneficial later on in their careers as future dentists.

CONCLUSION

Faculty highlighted challenges such as limited time, varying faculty skills, and seniors' perceived lack of improvement during dental clinical supervision. These issues are complex and have multiple causes, with the faculty's good intentions presumed. What is crucial is granting faculty the necessary resources and support to consistently enhance their skills as supervisors. In addition, universities should assess student burnout and offer proactive support measures such as counseling services, mindfulness programs, and academic advising. Recommendations for future studies include expanding the scope of the study, adding student perspectives, and a detailed analysis.

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