

Development and implementation of teledentistry to support clinical practice and structural competence among undergraduate dental and dental hygiene students

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Abstract

- Dental care is traditionally delivered in-person; however, teledentistry provides an option to access dental providers when access is challenging.^{1,2}
- Unfortunately, teledentistry is not widely taught in undergraduate dental or dental hygiene education.³
- A dental helpline service, called Dental Link (DL), was established within the faculty offering:
 - oral health information/resources
 - referrals to suitable dental providers
 - aid navigating public benefits
- This project aimed to educate and train undergraduate dental and dental hygiene students in providing one modality of teledentistry to support the needs of underserved populations experiencing access to care challenges.

Objectives

- To develop, implement and evaluate teledentistry curriculum and experiential training to increase awareness of telehealth services and structural barriers to care.
- To foster more interprofessional education opportunities both within and outside of the Faculty of Dentistry.
- To increase dental and dental hygiene students' knowledge of teledentistry and structural barriers.

Development of Curriculum

- Teledentistry services and resources** informed by our 6 partnered community-based organizations.
- DL accessibility** by phone, email, and video conference through Zoom software.
- Didactic Session 1** to introduce and increase knowledge on:
 - Teledentistry, its various applications, its relation to public health concepts, and considerations for different applications.
 - Introduction to DL and conducting virtual care.
- Didactic Session 2** on DL and how to use all of the resources available during virtual care.
- Observational Session 3** observation rotation to increase awareness of the teledentistry process and DL service.
- Experiential Session 4** rotation to practice being virtual providers and to increase awareness of teledentistry service provision and structural barriers to care.
- Quality assurance/evaluation** through surveys and interviews.

Implementation

Student Cohort	Educational Content	# of Students
Dental - DMD Dental Hygiene- DH		
Academic year 2022-2023		
DH 4 th year	Session 1 & 2 Intro to teledentistry and DL	25 DH
	Session 4 Experiential rotation responding to DL users, past case scenarios, and role-playing cases • 8 sessions, 3 hrs each	22 DH
DH 3 rd year	Session 1 & 2	24 DH
	Session 3 Observation of fourth-year experiential rotations • 7 sessions, 2.5 hrs each	19 DH
Academic year 2023-2024		
DMD 4 th year	Session 1 & 2 recorded Intro to teledentistry and DL	59 DMD
DMD & DH 4 th year	Session 4 1-2 experiential rotation(s) responding to DL users, past case scenarios, and role-playing cases • DMD: 15 sessions, 2 hrs • DH: 18 sessions, 3 hrs	29 DMD 21 DH
DH 3 rd year	Session 1 & 2 Intro to teledentistry and DL	21 DH
	Session 3 Observation of fourth-year experiential rotations • 8 sessions, 2.5 hrs	19 DH
DMD & DH 1 st year	Session 1 Introduction to teledentistry	68 DMD 26 DH

Evaluation/Survey Responses

Academic year 2022-2023

4th year DH students - 20 completed

- 80% of students agreed or partly agreed to feeling prepared and confident to be a virtual provider.

"Great rotation! I found documents to be very helpful with navigating good resources and information as a dental hygienist."

3rd year DH students - 19 completed

- 100% of students agreed or partly agreed that they were satisfied with their learning experience from the observation rotation.

"The observation and lecture rotations were engaging; The inclusion of cases were great, along with frequently posed questions."

Academic year 2023-2024

4th year DH students - 32 completed

- 91% of students agreed or partly agreed to feeling prepared and confident to be a virtual provider.
- 100% of students agreed or partly agreed that they have a greater understanding of the social determinants of health.

"Great experience! Feeling more confident to help clients navigate various options to receive dental services."

4th year DMD - 27 completed

- 81% of students agreed or partly agreed to feeling prepared and confident to be a virtual provider.
- 100% of students agreed or partly agreed that they have a greater understanding of the social determinants of health.

"I think it's challenging to provide teledentistry based services as a dentist. It unfortunately feels limited, but a good resource for helping people navigate a challenging system."

Future Directions

- Revise lectures and rotations based on student feedback
- Continue to deliver and evaluate teledentistry curriculum
- Ongoing consultation with community partners and faculty

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References

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Partners

