Perceptions of Medical Students on E-learning Platform as Mode of Teaching Family Counseling in a Medical School: A Case Series

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ABSTRACT

Medical students need the basic skills and techniques in family counseling to holistically manage a family. E-learning as a mode of teaching family counseling was experienced by medical students due to the COVID-19 pandemic. This was a case series of ten medical students in a tertiary training hospital who described their thoughts and feelings about the e-learning platform used. A focused group discussion composed of seven students was conducted independently. The students' perceptions on the use of e-learning were generally negative in nature. The volume of online learning materials to be studied and the poor-quality videos reflected the sudden shift to e-learning due to the pandemic. Limitations on the e-learning format resulted in the inability to recognize non-verbal gestures which was crucial in counseling. The poor internet connectivity within the students' learning environment was a hindering factor as it prolonged the counseling. Positive perception was mainly due to the effectiveness of the instructor in teaching online family counseling. The adeptness in navigating online platforms and guidance to students during the demo-return-demo resulted in the achievement of the expected outcomes of the workshop. The high preference to face-to-face mode may be attributed to the number of negative perceptions by the students.

Keywords: medical students, e-learning, CEA, family counseling, case series

INTRODUCTION

Medical students need the basic skills and techniques in counseling as part of the patient-centered, family-focused, and community-oriented care practice framework to holistically manage a family's chief complaint.[1] Specifically in family counseling, this is a usual highlight in managing patients where the focus on families should include health education for family members, family meeting or even capacity building for caregivers.[1] Counseling demonstrations and lectures through online (e-learning) platforms were experienced by medical students during the COVID-19 pandemic. This was a challenging step because there are skills in family counseling that are difficult to deliver online specifically establishing a rapport with the counselee.[2]

E-learning is the use of technologies to serve learners who are not physically present for interaction. It is proven to be a convenient alternative platform to traditional teaching-learning methods.[3,4] However, there are advantages and disadvantages when adopting an online teaching modality. These could be related to aspects of technology, individual, domestic, institutional, pedagogical, or the community.[5,6] One limitation of e-learning is its dependence on the internet especially in the context of online counseling that needs a real-time interaction. There are other conditions that hinder

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the conduct of successful online learning. These are mostly inherent human factors and include poor time management skills, easy distractibility, increasing anxiety and stress, longer screen time, and lack of student-teacher or peer interaction.[5] This shift to e-learning could eventually affect the effectiveness of the counselor specifically if applied to family counseling.[2]

There have been few studies done on the effectiveness of e-learning platform specifically on teaching family counseling. One study showed that health care professionals who are into counseling and physical therapy programs have one of the lowest scores on comfort with the use of technology in their practice.[7] This connotes the importance of patient-practitioner interaction. The comfort brought by patient-practitioner interaction cannot be disregarded in the pursuit of e-learning; hence, one study sought a call to address the challenges in integrating technology.[8] In contrast, another study which analyzed the perspectives of students enrolled on face-to-face versus online counseling courses, found a stronger self-reported efficacy, motivation, and self-confidence when lectures were done via e-learning platform.[9]

In this study, the e-learning platform was used in the subject FCH 251 or Family and Community Health given to 4th year medical students (Clinical Clerks) in a tertiary hospital. The subject is focused on family dynamics with clinical exposure to actual and simulated patients (role-playing) which are usually done in a face-to-face manner. The role playing applied the concept of CEA (catharsis, education, action) method. CEA is a procedural interview following a step-by-step process of understanding the total illness of a person which was employed in a compassionate manner with specific active listening skills. This was usually demonstrated by students by following a sample simulated case (e.g., dysfunctional family due to a family member with specific illness) designed by the instructor/teacher given prior to the workshop. Other activities included watching pre-recorded videos and reading materials using the Virtual Learning Experience (VLE), an online platform or classroom for both educators and learners. All study materials were provided to the students ahead. During the COVID-19 pandemic, the shift to online platforms was done and the online teaching modality for family counseling was eventually pursued even after the pandemic. These included transforming actual face-to-face lectures into recorded videos to be delivered both synchronous and asynchronous, and the demo-return-demo workshop via synchronous virtual platform.

Understanding the learning environment offers additional input on curriculum development most especially during periods of transition or experimentation on what works best for medical students/trainees or residents. This study served as baseline information on understanding the perceptions of students on the ongoing online platform being utilized in a medical school specifically in teaching family counseling which requires skillful steps and approaches and rapport-building which works best in a face-to-face manner. Learning these perceptions is crucial to further improve the design of the curriculum in family counseling of the Family and Community Medicine courses in the Philippine General Hospital, a tertiary training hospital in Manila.

This case series described the perceptions (thoughts and feelings) about utilizing the e-learning platform in teaching family counseling, specifically the Family Catharsis Education Action.

METHODS

This was a case series of ten medical students who rotated with the Department of Family and Community Medicine from March 1, 2023 to June 30, 2023. Students had completed at least one online/virtual counseling workshop on the subject Family and Community Health (FCH 251). As part of the teaching method, the subject FCH 251 included a synchronous online workshop for family counseling demonstration using the CEA method where the instructor provided a case scenario (not an actual patient) and assigned a role to the chosen student who will act as the doctor/counselor. Another student was chosen to act as a patient or a family member of a patient. Based on the case scenario, the student-actors will simulate the interviews online. The rest of the students in the virtual class will observe the demonstration. Immediate feedback by the instructor was provided. Both actors were usually informed of their roles ahead prior to the actual demonstration; however, the process on how these students will approach the simulated situation depends on how they understood the counseling method.

An Informed Consent Form provided the study information and secured the students' agreement to participate and record the interview.

An independent focus group discussion was done via face-to-face mode. Participants from the in-depth interviews were not included in the focus group discussion. Both the in-depth interviews and the focus group discussion were guided by a simple open-ended questionnaire about thoughts and feelings: after attending the e-learning/online session or sessions on family counseling skills by the department, how do you feel about the overall process and execution, and what are your thoughts regarding the conduct of e-learning/online lectures as applied in family counseling? Recurring themes and issues from the case series were then described.

The study proposal was approved by the UP Manila Ethics Review Board (UPMREB 2023-0232-01) and was done in accordance with the Data Privacy Act of 2012.

RESULTS

Ten fourth year medical students composed of four females and six males were interviewed separately. All students had used the Zoom™ platform for synchronous sessions, and Virtual Learning Experience (VLE) for asynchronous lectures, videos, and didactics. All students have prior knowledge and experience on how to use the Zoom™

platform since the pandemic period which was in the year 2000. The use of Zoom™ platform was eventually adopted only in 2021 as a response to the pandemic situation; however, the adoption remained until 2023 with no existing evaluation of its effectiveness.

The FCH 251 subject started with provision of the online reading materials and prerecorded videos for asynchronous learning using the University's virtual learning platform. After going through with the reading materials, this was followed by a synchronous online family counseling workshop by the students guided by a faculty using the Zoom™ platform.

Negative and positive feedback by the students were elicited during the in-depth interviews; all of which pertained to the format of the platform, content of the workshop, teaching effectiveness of the instructor/faculty, outcomes of the workshop, and the students' off-campus learning environment.

Case 1

A 24-year-old male performed the role of a doctor-counselor. The student identified weak internet connection and video malfunction as barriers to the effective use of online platform. The limited ability to analyze and observe the non-verbal cues of the counselee was pointed out as crucial in family counseling and an interruption to this skill was considered a drawback.

The student appreciated the skillfulness of the instructor in conducting an online family CEA. The demonstrations made by the instructor on how to manage time during prolonged counseling was perceived as an enabling factor. The student was generally satisfied with the use of e-learning as it facilitated in achieving the objectives of the session, but a preference to face-to-face mode was expressed.

Case 2

A 24-year-old male had posed as a doctor-counselor. The student expressed being overwhelmed with the limited time allotted to study the e-learning materials and recorded videos. This resulted in skimming the lecture materials instead of reading them thoroughly. The student described having a shorter attention span when studying online counseling materials due to prolonged screen time, distractions at home, and eye strain. This eventually resulted in taking long intermittent breaks that delayed overall study time.

The use of VLE as an e-learning platform made it difficult to clarify counseling concepts with the instructors. The presence of several links to be clicked also discouraged the student from using VLE as a platform for learning. It was perceived that adopting an online platform was sufficient for learning family counseling only if the basic e-learning principles were fully understood.

The in-depth contents of the recorded lectures were recognized to be an advantage. The concepts presented in the demo-return-demo videos were regarded as useful in practice. The freedom to study the content of the materials at own pace was appreciated by the student.

Case 3

A 25-year-old male had the role of a doctor-counselor. The student described that the e-learning platform facilitated easier access to the reading materials. Another enabling factor was the skillfulness of the instructors in presenting various methods to facilitate online family counseling. It was perceived that the use of e-learning was an opportunity to become adept in navigating the VLE and be keen in observing the body languages of counselees.

Poor internet connectivity had caused dissatisfaction as it could prolong the online session. Likewise, the observed incongruity of the voice tone with the actual statements of the counselee attributed to the distortion of sound from using computer microphones was also perceived as a limitation. The difficulty in examining body languages of the counselee and the use of counseling videos lifted from the internet also dissatisfied the student.

Recommendations included the making of counseling videos in Tagalog or English versions; development of an online counseling curriculum for future teleconsultations; and specifying family situations appropriate for online counseling.

Case 4

A 25-year-old male played the role of a doctor-counselor. The student expressed having a short attention span during the period of studying the learning materials. This was considered a drawback since it prolonged his study period. Another disadvantage with online platforms was the inability of the instructors to check if all the learners were virtually listening to the lecture. Other barriers expressed were related to the lagging videos due to weak internet connectivity and distracting background noises while in session.

An advantage mentioned with the e-learning mode was not having to wake up too early for a class. Opportunities to do other things while the camera is turned off during a session was also perceived as an advantage. The student remarked that the objectives of the counseling session were achieved since the instructors delivered the topic well. However, a face-to-face session was still the preferred teaching modality. A recommendation of having a short quiz of about 5-10 items prior to demo-return-demo was similarly expressed to determine the comprehension level of students taking the online counseling session.

Case 5

A 27-year-old female performed the role of a patient's family member. The student described that she had an opportunity to privately chat with her co-students while simultaneously doing the online demonstration. This was perceived as an advantage since a chance to exchange relevant counseling ideas and information privately was made possible.

Experiences on delays in the counseling demonstration were pointed out as limitation of the online platform. The student narrated an instance where the instructors had to step in to address the power outage while in session. The inability

to identify non-verbal cues from the counselee was also felt as a missed opportunity.

A face-to-face session was still recommended even as the student appreciated that family counseling can be taught online and can be integrated with actual practice. The e-learning mode for family counseling should be a last resort if face-to-face was not possible.

Case 6

A 28-year-old female acted as doctor-counselor. Provisions of online counseling materials was an advantage for the student as reading became easier. Likewise, a well-structured teaching style for the students on how a virtual family CEA was conducted was an advantage.

Barriers to the online counseling were the inability to properly assess the non-verbal cues, poor internet connection on the counselee's side, and inadequate time allotted for demonstration. To minimize the barriers, the student suggested adopting an online family counseling only when necessary or asking the counselee first regarding his/her preferred mode of counseling.

Case 7

A 23-year-old female acted as a student-counselee. The student valued how the instructor helped in navigating the use of breakout rooms in the Zoom™ platform. The clarity of instructions and the opportunity to ask questions were also appreciated. The way the instructors interrupt the demo-return-demo to give immediate feedback and provide prompts through the private chat box were considered enabling factors. The opportunity to consult notes while in an online session and having an early access to the asynchronous learning materials were seen as advantages.

On the contrary, the student described the difficulty in establishing a counselor-counselee rapport. The provision of comfort by showing physical affection like patting the patient/counselee's back was also not feasible through online platforms making rapport building difficult.

Case 8

A 26-year-old female had the role of a doctor-counselor. A face-to-face mode was the ideal setup for family counseling since the instructor could immediately interrupt the session to provide feedback was verbalized. However, the student generally felt fulfilled and satisfied after the online family counseling experience attributed to the self-paced learning and early access to the reading materials. The hybrid setup was suggested to maximize learning opportunities in family counseling,

A challenge experienced by the student was getting too focused on the online demo-return-demo, thereby missing the private chats for comments and counseling cues from co-students and the instructor. Organizing the counseling questions due to the presence of another doctor-counselor during the online demonstration was another difficult task.

Case 9

A 33-year-old male playacted the role of a doctor-counselor. Disapproval with the online study materials was expressed, particularly on the old pre-recorded videos described as inferior quality with poor audio and lighting. As a consequence, the student had difficulty analyzing the counselee's expressions in the pre-recorded videos and was likewise annoyed by the time lag from poor internet connection, resulting in a gap between the audio and the video.

The student expressed feeling undervalued, as the department was supposed to provide better quality materials. This discouraged the student from further reading through the online materials provided. These feelings were aggravated by the fatigue that was carried over from his previous rotation.

A preference for face-to-face learning was expressed although the activity design and the curriculum were well-thought-of and objectives of the counseling session were generally achieved. Understanding the counselee's non-verbal cues was a big factor for choosing face-to-face over online mode of family counseling.

Case 10

A 26-year-old male acted as a doctor-counselor. The student experienced fluctuating internet connection which disrupted his flow of thought and counseling during demonstration. There was a reported instance where the setting up of breakout rooms was interrupted due to poor internet connectivity thus prolonging the counseling session.

The student expressed feeling uneasy with the use of VLE as the forum section allowed other learners to view all the comments and queries. He was worried about being judged based on the queries he had posted. Another issue with VLE was the poor quality of videos being uploaded as study materials. A face-to-face mode was still preferred as the student felt there were missed details crucial in counseling.

The non-judgmental attitude of the instructors during family counseling demonstrations motivated the student to learn. Securing a good internet connection, transforming the poor-quality videos into slide decks for easier referencing, and creating new family counseling videos with shorter duration were recommendations to minimize the barriers to learning.

Focus Group Discussion

Seven students participated in a focus group discussion to determine their perceptions on the conduct of e-learning in teaching family CEA.

The instructors were skillful in delivering online lectures as reflected in the seamless flow of the discussion on counseling. The tips and prompts sent privately by the instructors through the chat box during actual demo-return-demo were described as an enabling factor.

The contents of the online family counseling module were perceived as comprehensive, concise, organized, and accessible. However, there were lecture contents in the VLE which can be better delivered via face-to-face. The contents

of the video demonstrations were easy to comprehend due to the screenshot functionality feature of Zoom™ that enabled interruption and reflection on the counseling techniques.

Non-verbal cues cannot be assessed when facing the computer screen during counseling demonstrations but the advantages included a distinct facial expression on screen, and clearer volume during conversations and feedback.

Several barriers to learning were poor internet connectivity, simultaneous use with other gadgets, non-conducive learning environment, external noises, and doing tasks while off-camera. Studying family counseling online does not trigger easy recall of what they had studied and learned. The difficulty in simulating an ideal counseling clinic environment was perceived to be a negative factor affecting learning and was recognized as a platform limitation.

DISCUSSION

There were negative (barriers) and positive (enabling factors) perceptions on the conduct of an online counseling teaching-learning activity. The negative perceptions were on the quality of the pre-recorded videos, volume of the learning materials, format of the platform, limited opportunity to recognize non-verbal cues, and the learning environment. On the other hand, the positive perceptions were the effectiveness of the instructors and the achievement of the learning objectives.

The negative perceptions about the quality of the pre-recorded videos reflected the consequence of the sudden shift from face-to-face to virtual mode due to the COVID-19 pandemic. The faculty were forced to quickly adopt a full online method of teaching and as a result, the demonstration videos used were of poor quality and were made by a home camera without the proper acoustic setup. The use of these media (even in role plays) contributes to increasing the students' understanding of counseling skills.[10,11]

The feedback about how the students were overwhelmed with the volume of learning materials may be attributed to the incongruence between the time to finish a task, and the actual study time. It was presumed that the students have adequate time to read and watch all the learning materials at home. This means that the learning materials for the students must be regularly reevaluated to adapt to the changing circumstances (online to face-to-face mode, or vice versa). The use of pre-recorded videos and various downloadable learning resources overwhelmed the students similar to a study by Gachanja et al.[12] These overwhelming tasks could be minimized if an initial evaluation of students' capacity for online learning was done.

The perceived limitations on how the e-learning format was utilized for counseling lectures and demonstrations were similar to some commonly recognized barriers (having a shorter attention span while using the platform, being overwhelmed with the platform, and being easily distracted).[2,6,13] This can be attributed to the absence of a readiness assessment prior to adopting an online family counseling curriculum. In this case series, the preference of medical students on using e-learning was not elicited. The choice of learning platforms was set by the University (e.g., VLE, Zoom™) hence students can be trained initially on how to maximize the format of e-learning platforms while assessing their capacity to adjust. Medical student readiness assessment including proper preparation, capability, and adjustments should be considered.[14] Readiness assessment may also be supplemented by providing psychosocial support, mentoring, coaching, and spiritual services for students who were greatly affected by the sudden shift in format to e-learning.[15] This is important since students experience various mental health-related stress from rapid introduction of online platforms. Similar to one study which compared the Global Assessment of Function and Client Satisfaction scores to clients receiving either face-to-face or online counseling.[16] It was found that online clients must be screened first for familiarity with computers, technical issues, and level of understanding the online counseling before engaging on the platform.[16] Therefore, applying this to the medical students, the varying views and perceived efficacy of counseling using e-learning platforms should be evaluated further in order to develop a better curriculum as institutions shift towards technology integration.[16]

Preparations for adopting the online platform format by the institution may even extend to invitation of the students' parents or guardians to determine perceptions similar to what was done in one medical school in Manila.[14,15]

The students' negative perception of the off-campus learning environment centered on poor internet connectivity, which affected the virtual patient-counselor interaction. This may be a reflection of the country's major problems with underdeveloped telecommunication system and information communication technology which affects students' learning.[5,17] It is also possible that some students may not have access to the right technology due to financial constraints or inequitable distribution for e-learning adoption.[6] Other medical schools addressed the concerns on internet connectivity by lending out or giving available laptops or mobile broadband devices across all year levels.[13]

The inability to read nonverbal cues online was considered as a major drawback. The nuances experienced by students with verbal and non-verbal gestures, positioning of the counselee, facial expression, or vocal tone when counseling online was consistent with the results of other studies.[18,19] Incorporating specific training to students' activities may help increase sensitivity to nonverbal, facial, and paralinguistic cues among online counselees.[20]

The students' feedback on interactions with instructors was generally positive and had counterbalanced the limitations of the e-learning platform. Interpersonal contact with instructors even in online sessions is crucial to learning. This continued interaction may account for the students who perceived that the learning objectives or outcomes were

achieved, demonstrating that the Family CEA counseling model can be taught online. Nevertheless, a preference for face-to-face over the online mode of teaching was observed.

The positive perceptions on the effectiveness of the instructors in this case series were similar to one study showing that participation was increased during online sessions due to coaching by the trainers.[21] The students also appreciated the ease with online communication with their instructors, making it more comfortable for them to express their opinions, thoughts, or queries.[21] Students being helped by instructors in navigating the online platform (e.g., how to use the online breakout rooms for counseling) contrasts those studies showing results that most faculty have limited experience or enthusiasm in online modality, or are challenged with technology and devices.[19,22,23] In this study, student-centered approaches in teaching, including coaching was practiced all throughout the workshop by giving feedback after the online demonstration by the students (both to counselor and family member actors). This is advantageous since the learner-instructor interaction was found to be one of the strongest predictors contributing to students' satisfaction.[24]

The positive perceptions were also reinforced by students who were already adept on using computers. Since younger generations are more skillful now with technology and the virtual world, e-learning may be easier to accept.[21,25] Students with optimum knowledge or self-efficacy on the use of computers and internet were found to be correlated with enriched satisfaction towards e-learning.[26]

Limitation of the Study

Limitation of the study was that the students came from one institution, hence a conclusion cannot be generalized among other institutions that adopted e-learning. Other limitations include the period of the study where students who rotated earlier in the course might have different perspectives and feedback versus those who have fresh experience with the online family counseling.

CONCLUSION

This case series described the perceptions of medical students on the use of e-learning as a mode of teaching family counseling. Negative perceptions on e-learning may be related to the poor quality of selected contents (e.g., pre-recorded videos), volume of the learning materials to be studied, format of the e-learning platform (e.g., use of Zoom™), and the limitations within the off-campus learning environment such as poor internet connectivity. The effectiveness of the instructors in teaching online family counseling resulted in the satisfaction of the medical students with the platform and may have contributed to achieving the learning objectives. The adeptness of both family counseling instructors and medical students in navigating the online platform can be an advantage. Readiness assessment on adopting an e-learning curriculum for family counseling may be necessary to mitigate the perceived negative barriers to learning. This study served as baseline information in understanding the perceptions of students about the use of online teaching methods specific for family counseling. The insights of medical students may be a basis for future discussions on curriculum revision and further refinement of tools used in family counseling.

Statement of Authorship

All authors certified fulfillment of ICMJE authorship criteria.

Author Disclosure

All authors declared no conflicts of interest.

Funding Source

None.

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