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Zohra Kurji
Aga Khan University, zohra.kurji@aku.edu

Azaina Aijaz
Aga Khan University, azainaaijaz.ali.gn12@student.aku.edu

Amina Aijaz Khowaja
Aga Khan University, amina.aijaz@aku.edu

Zohra Asif Jetha
Aga Khan University, zohra.jetha@aku.edu

Shanaz Hussein Cassum
Aga Khan University, shanaz.cassum@aku.edu

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Review Article

Telesimulation Innovation on the Teaching of SPIKES Model on Sharing Bad News

Zohra Kurji, Azaina Aijaz, Amina Aijaz, Zohra Jetha, Shanaz Cassum

School of Nursing and Midwifery, Aga Khan University, Karachi, Pakistan

Corresponding author: Zohra Jetha, MScN, School of Nursing and Midwifery, Aga Khan University, Karachi, Pakistan. E-mail: zohra.jetha@aku.edu

ABSTRACT

Coronavirus disease 2019 (COVID-19) brought to the world, an unprecedented emergency, which dramatically affected the face-to-face teaching in higher education academia. University faculty and students had to shift overnight to an online and remote course instruction. They were neither trained nor prepared and had limited resources and infrastructure. Palliative Care and Oncology Stream Faculty at Aga Khan University, School of Nursing and Midwifery, Pakistan, piloted an innovative academic project using telesimulation (TS). Trainee nurse interns were taught communication skills and the art of breaking bad news to palliative clients using the SPIKES model through TS. To incorporate best practices for simulation-based experiences, we used the International Nursing Association for Clinical Simulation and Learning to standardize and implement TS with 141 interns. This review article documents how the faculty planned and implemented the TS strategy during COVID-19. It outlines the challenges and the lessons learnt from implementation and feedback from faculty and students. This information could be useful in the future execution of TS, in any communication and counseling course, since COVID-19 has impacted the future educational course design and pedagogy worldwide.

Key words: Nursing, SPIKES model, telesimulation

Introduction

The coronavirus disease 2019 (COVID-19) has drastically affected the global community impacting around 1.5 billion school and university students.[1] Many higher education institutions closed their physical campuses to follow social distancing protocol and to prevent the spread of COVID-19. With the increased toll of infection cases, the Higher Education Commission, Pakistan,[2] has instructed all public and private universities to suspend face-to-face classroom teaching and to use online modality. However, there are numerous challenges that students and educators have to face in lower middle-income countries such as Pakistan. Lack of online infrastructure at both learners' and teachers'

homes, poor access to internet in certain remote areas, power failure, and limited preparedness of teacher and student are among major obstacles while shifting to the online teaching in emergency.[3-5] Nevertheless, some universities switched to complete online delivery of education overnight, while others closed their facilities completely until the technological infrastructure and rudimentary skillset to teach and learn online was worked out. The Aga Khan University School of Nursing and Midwifery, Pakistan declared a mid-semester break of 2 months for students and initiated digital boot camps for building faculty capacity to transit to the online learning. Amid COVID-19, the nursing

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faculty innovated a telesimulation (TS) for trainee nurse interns (TNIs) who needed to complete the continuing education hours.

At the Aga Khan University Karachi, Pakistan, the School of Nursing and Midwifery and the Nursing Education Services jointly conduct the continuing education program for the TNIs. Palliative Care and Oncology Stream faculty pioneered the online synchronous teaching through Microsoft Teams for 141 TNIs and used TS in the end of life care (EOL) module. TNIs are interns who have completed their Bachelor of Science in nursing program and are doing internship in the university hospital as per Pakistan Nursing Council licensure requirement. EOL module is a 20-h module with theory and simulation-based education to meet theoretical and clinical learning needs. This year, amid COVID-19 pandemic, as the campus educational activities were suspended, and high tech simulator laboratory was inaccessible, this module was modified and offered remotely through the university virtual learning environment and Microsoft Teams, and TS strategy for teaching the SPIKES model for sharing bad news which remained successful.

Project Execution

Teaching SPIKES model to break bad news is an important learning objective of the palliative care (EOL) module. Using SPIKES model is an evidence-based practice which can help nurses in an oncology and palliative care setting to communicate bad news to patients and their families in an effective way.[6] Sharing bad news with palliative patients could be very complicated if proper disclosure process is not followed, thus health-care providers hesitate to initiate such conversations. The best way of breaking bad news involves the use of therapeutic communication skills and fitting it in six steps of SPIKES. This model is found to be useful to nurses and clinicians while disclosing bad news in an effective manner.[7] The acronym SPIKES stands for:
- S: *Setting* up the interview
- P: Assessing the patient's *perception*
- I: Obtaining the patient's *invitation*
- K: Giving *knowledge* and information to the patient
- E: Addressing patient *emotions* with empathic responses
- S: *Strategy* and *Summary.*

To teach the theory component of SPIKES model, a faculty's voice over PowerPoint, an article on breaking bad news, and a communication challenge activity were uploaded on course site to help TNIs grasp the taught concept. While the communication challenge activity assessed their knowledge of therapeutic communication skills, application of SPIKES model was planned through a TS. TS is a modern and innovative pedagogical strategy in which telecommunication and simulation resources are used in providing training, education, or conducting assessment of learners from a distant off site location.[8] TS works on cognitive and affective domains primarily which requires duplication of resources at learners' and facilitator's location for psychomotor domain when learners and facilitators are distanced from simulation lab.

TS facilitates learners' knowledge retention, provides satisfaction by providing goal-directed interaction with simulated patients (SP), and improves clinical, procedural communication along with decision-making skills.[9] According to a systematic review, 24 out of 33 studies reflected that SPs are effective in helping students develop clinical competence.[10]

For executing the TS strategy, faculty prepared the objectives, case scenario, and guidelines for facilitators and students. To be SPs, 3rd year nursing students who were willing to volunteer, were invited. The goal of TS and the case scenario was explained to SPs prior to the activity and they were given a script with specific questions and dialogs. Furthermore, the required gestures and behaviors were explained to them in mock online training session. Later, SPs had an opportunity to reflect upon the case scenario and ask queries related to their role performance. The goal of conducting the TS was to assist the interns to apply SPIKES model on simulated clients requiring disclosure of bad news. The 141 TNIs were divided into seven breakout groups, among seven faculty members, and each faculty had 20–21 students in their group. The students were further divided into pairs to perform TS activity and each pair had 5–7 min interaction time with the SP. Students were explained that in case if one person gets disconnected or confused during the conversation with SP, they can say "time out" and the other partner may continue the interaction from where it was left. Then, the scenario was read out to the students and SP was invited to join the online classroom and TS started. During the interaction only communicating pair of interns' and involved SP's cameras were on to allow eye contact. Other peers were instructed to be silent/muted and to switch off their cameras to avoid distraction. Faculty and interns took notes of their observations to share during debriefing session. Once all the pairs interacted with the SP, debriefing session was conducted where TNIs and SPs shared their experiences and feelings. TNIs also shared difficulties they faced while performing the nurse's role and comforting client during disclosure of bad news. The discussion ensured on how to say and what to say to a palliative client at each step of SPIKES protocol and the session enlightened learners with the importance of using SPIKES protocol to communicate therapeutically.

Guide for Standards of Best Practice (International Nursing Association for Clinical Simulation and Learning)

To incorporate best practices for simulation-based experiences, we used the International Nursing Association for Clinical Simulation and Learning (INACSL) Standards of Best Practice[11] while planning and execution of TS activity. The 11 criteria for the simulation-based experience guided us in designing and implementing the TS based on standards of best practice.

The need assessment was conducted by assessing the knowledge and skills of TNI through communication challenge activity. The simulation-based learning objective was formulated in the planning of the module as it was a required learning outcome; thus adequate hours for TS were allocated in the module. The goal for TS was clear which was to develop competency of breaking bad news among nurses through SPIKES model during COVID-19 pandemic. Planning for the proper structure of TS and relating the theory-based knowledge to simulation modality was thoroughly discussed in the simulation team meetings. Clear instructions, guidelines, and resources were developed and made accessible to the TNIs through course site on university's virtual learning environment for review and referral.

The communication challenge activity and an online quiz were conducted before TS to ensure students read the article on sharing the bad news through SPIKES model, watch and review faculty presentation before coming for TS. For the development of a clinical scenario, a real practical example was identified. The case was about a 40-year-old female who came for a follow-up appointment with the complaint of excessive menstrual bleeding and weight loss. The patient was a mother of three young children and seemed anxious to hear about her reports of tests done last week. She came to clinic alone and now needs to be informed of her reports which is showing ovarian cancer.

To prepare and train SPs, a faculty member, who was simulation champion, was assigned to share the real case scenario and conduct mock training with SPs for breaking bad news. To create realism in the scenario, different fidelity modes were kept in mind. SPs were encouraged to add dialogs to match their verbal and nonverbal communication and mimic a real patient. SPs were given an opportunity to reflect upon their own performance in the mock drill and they were also given feedback on their performance to improve their gestures, behaviors to bring realism in the TS experience. The SPs physical and psychological stances were identified and they were requested to be dressed up as a 40-year-old woman and demonstrate anxiety and sobbing behavior. They were given specific questions to ask to the nurse, such as, "Will I die?" or "How do I tell this to my children?" and say certain dialogs during the interaction to give synergy to their psychological behaviors.

To ensure facilitative approach by faculty conducting the TS, the Palliative stream faculty was assigned to all seven groups for conducting the TS activity, and faculty members had discussed the flow of events to take place. To ensure consistency between all seven faculty, written guidelines for faculty for prebriefing, simulation and debriefing were prepared and shared in advance. The lead faculty also did a demo on how to run the scenario and how to conduct the online debriefing on the Microsoft Teams. Furthermore, the questions and concepts to be reinforced were written in the guidelines.

TS began with a prebriefing session in which scenario and objectives were explained by the faculty to TNIs. Group norms were established, and TS was performed for 1 h followed by a debriefing and feedback session. In the debriefing session, TNIs and SPs both were given a chance to share their feelings on being a nurse/client. Some SPs shared that they felt sad on relating to self as a patient with terminal illness, and even shared that they were crying in real and not acting at certain times. Most TNIs shared that it was a reality-based simulation and they learnt in a safe and meaningful environment, and the TS strategy with real clinical scenarios provided them an opportunity to learn in a controllable, secure, respectful learning environment. Some TNIs shared that they could connect with the client and remembered someone who had a similar disease and found it difficult to control their own feelings of sadness so did not know how to comfort the simulated client. Thus, efforts to fulfil all INACSL standards of best practice were put in to conduct a structured, reflective, interactive, and reality-based TS experience for TNIs with the goal to improve their clinical and communication skills performance,[12] and we concur that when SP are trained fully to understand students' questions, they can answer appropriately and improve the script in depth[13] and make learning meaningful.

Challenges and Learning

The main challenge in the TS activity was that some SPs were not able to connect through Microsoft Teams on time due to IT issues and connected with group after some delay. By the time they contacted the IT personnel from home for assistance, the simulation session had started, and they were late. Fortunately, the faculty had planned an alternate option and was prepared to become the alternate SP while the real SP contacted the IT department to enrol self in the

assigned group. As soon as the real SP entered the virtual classroom, the camera was put off after the interaction, and the real SP came on board subtly for the next interaction. We learnt that SPs' virtual training should have been conducted on MT only instead of zoom, so that enrolment issues could be catered prior. Moreover, IT department should have ensured that SPs are enrolled a day before. Another challenge reported by SPs was that it was physically and mentally tiresome to repeat the same scenario for ten pairs of students consecutively within the given time frame. We realized that having the same SP throughout the session was mentally tiring and we could have arranged 14 SPs (2 for each group) for 30 min session to ease the SPs.

The TNIs rated the TS activity from good to excellent and wrote in the feedback that simulation based activity was a positive and engaging learning experience. They felt motivated throughout the session. However, some TNIs with personal experiences of caring for terminally ill clients/ family member, felt that it was a depressing scenario, and they felt a need to go offline to cry out quietly and came back after some time. Some TNIs even suggested to have the TS on 1:1 basis without peers' presence. Interestingly, most of them responded that they liked the TS activity the most in the entire end of life module. Few TNIs shared that although they tried being empathetic toward the SP, but when the client started crying, it was hard for them to comfort or touch the client virtually to offer a comforting touch to the client and show their presence. In future, learners could be informed prior of the ways to show empathy and comfort such as therapeutic touch through sending some emoji icon of hand or touch or showing their own hand on another on the screen to depict offering comfort to clients when required. Many TNIs stated that they feel confident after this TS activity about how to help clients in such situations in their practical life.

The faculty shared that they felt challenged on multitasking in an online class as well as noting down feedback for 10 pairs of TNIs. They found it tedious and exhausting. Some of the views were that immediate individual feedback after each TS was not planned but could have been quietly recorded on their cell phones and shared with TNIs later separately. Furthermore, the 5–7 min time duration for each pair to interact with SP was a limitation as some interns got so much involved that they could not stop themselves and went overtime comforting the client. Since breaking bad news is a sensitive issue, it requires intensive training. It is important to create realism in simulation by preparing SPs. TS can also go hand in hand with clinical training in a way that students can book time slots with employed SPs or faculty (role modeling as SPs) to practice different skills before and after clinical. In

this way, the students' or nurses' confidence will be built in building rapport with the patient, and education will be continued using TS during COVID and Post-COVID time. Facilitators need to enforce netiquettes of TS. Furthermore, psychological safety of participants, facilitators, and SPs is imperative in TS as during difficult scenarios they may get emotional. Thus, online counseling and support services may be required to provide psychological support.

Conclusions

TS is an innovative and helpful tool for teaching intense communication skills to nurses in palliative care courses and can also be implemented in other courses such as Adult health nursing and mental health nursing. TS can play an imperative role in learning clinical skills that students, interns or nurses use in patient education, counseling, interviewing, history taking, decision making, clinical reasoning, and conflict resolution. Although TS cannot be a replacement for onsite clinical experience as complex psychomotor skills require hospital environment, this tool can be relocated to on campus simulation laboratory and combined with procedural psychomotor skills learning by involving manikins, during the COVID-19 and post pandemic era.[14] Following the standards of best practice can assure quality in TS activity resulting in student's confidence level.

Conflicts of interest

There are no conflicts of interest.

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