A Simulation Structure Model for Nurse Education in Mental Health

IO4 Report

Satakunta University of Applied

GNurseSIM

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1 Introduction

Mental health nursing was chosen to be the area of nurse education in the Intellectual Output IO 4 of the GNurseSIM project. Nurses require the skills and knowledge to provide mental health care in every area of health care. According to previous literature reviews, simulation-based learning such as high-fidelity mental health simulation had the outcomes of increased confidence, knowledge gains and improved communication skills (Brown 2015; Hall 2017; Kunst, Mitchell & Johnston 2016). Simulation is shown not only to decrease anxiety and increase critical thinking and clinical reasoning (Brown 2015; Hall 2017) and risk assessment (Brown 2015) but also to increase psychomotor skills and empathy (Hall 2017.) It is a valuable tool for teaching and is accompanied by many desired outcomes (Hall 2017).

Different forms of simulation have been used in nurse education. Especially in mental health education, the use of high-fidelity manikin simulation can be effective in developing the knowledge and confidence of students to provide mental health care (Kunst, Mitchell & Johnston 2016) and decreasing students` fear and anxiety (Brown 2015). Simulation is an effective method of facilitating teaching and learning in the affective domain (Ward 2015). In this GNurseSIM project, the high-fidelity simulation is defined as physical resemblance (Engström et al. 2016), that is, the learning environment is following the real-life environment. In addition, the functional pre-tasks are supporting the learning outcomes of the simulation.

Fanning and Gaba (2007) have stated that an awareness of the vulnerability of the students is needed and must be respected at all times. Therefore, teachers should pay especially more attention to and use debriefing models or frameworks. However, there is no previous literature on cultural considerations in debriefing and it may lead to debriefing practices that are not culturally responsive or appropriate (Palaganas, Chan & Leighton 2021).

One of the aims of the GNurseSIM project is to focus on intercultural aspects of geriatric care. All the partners in this project are educating multicultural nursing students, and the scenarios contain intercultural such as religious factors in end-of-life care and stigmatizing factors like HIV-positive patients. According to Palaganas, Chan, and Leighton (2021), culture can refer to global, organizational, generational, professional, socioeconomic, and religious communities and practices. In the case when the cultural factors are ignored, not only the nursing students and the nurse educators but also the student-teacher relationship are a risk. Ignorance of cultural factors may reinforce teacher-centered approaches, and in some cultures like East Asia, it may be ineffective to begin the debriefing directly with emotions. Therefore, if the cultural considerations are not addressed, it may harm the teacher-student relationships in certain cultures and lead to miscommunication. (Palaganas, Chan & Leighton 2021.)

2 Aim and purpose

This IO4 of the GNurseSIM project aimed to present similar schemes in other areas of nursing and we chose mental health nursing as the example. The purpose of the IO4 was to develop a model of simulation that is useful in other areas of nursing and give examples for blended learning simulation which were classroom simulation, hybrid model simulation (students are in a classroom and online), and online simulation.

3 Results

3.1 The content of Intellectual Output 4

Satakunta University of Applied Sciences was responsible for IO4 which was divided into three tasks. The content of the output was:

"The output IO4 consists of framework policies, which provide guidance, direction, and recommended standards to help governance and administration of HEIs to develop and/or strengthen policies on blended/distance learning and teaching in the area of nursing. The model policy frameworks will be set out in such a way as to allow institutions to formulate policy text based on a standardized set of questions/statements. This will allow higher educational institutions offering nursing education to quickly deploy and/or strengthen policies, based on best-practice in the field, and incorporate them into the existing curricula."

3.2 Task 1

During Task 1 GNurseSIM partners screened evidence about mental health and conducted a literature review during spring 2022. First, the GNurseSIM partners were asked to review the literature on simulation used in mental health nurse education. The data extraction was: (mental health or mental illness or mental disorder or psychiatric illness AND nurse education or nursing education or training or development AND simulation training or simulation education or simulation learning AND blended or distance). The databases

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such as Cinahl and PubMed were used, also grey literature was searched. In total 33 articles were retrieved by the partners of the GNurseSIM project.

Second, the SAMK team read through all the articles on the heading and abstract levels. The inclusion criteria were articles that focus on simulation in mental health nurse education, undergraduate nurse students, peer-reviewed articles, and English language, with no other limitations. Exclusion criteria were not a simulation in mental health education, also other professionals than nurse students, literature reviews, and not peer-reviewed articles. At his point, 14 articles were excluded. The final number of articles was 19.

Third, the SAMK team read through the articles as a whole text, tabulated the authors, year of the publication, objective, and intervention (if research), sample size, and outcomes. Also, the best practices were tabulated. (Appendix 1)

Fourth, a team of literature review had a meeting. The team had four partners from the GNurseSIM project: three partners from SAMK and one from Centria University of Applied Sciences. Also, two mental health professionals from SAMK, senior lecturers, participated in the literature review outcomes discussion.

A total of 19 articles were read through. The year's publications were between 2013 to 2021, five of which were published in 2021. All the articles focused on simulation in mental health in undergraduate nurse education but the scenario topics and settings varied from children and adolescents to adults and from suicide attempts to interact with mental health patients with different diagnoses. A simulation was an effective method of facilitating teaching and learning in the affective domain. Sample sizes in articles changed between 12 and 161. The sample size was not expressed in every article. All of the articles used specific outcome measures to determine the impact of a simulation-based education session.

Simulation structure

Simulation should be designed so that first-year students focused only on interaction with patients, second-year students focus on interaction and hands-on skills, and third-year students focus on interaction, hands-on skills, and overall patient care (Furnes et al. 2018). In addition, one article pointed out a bio-psycho-social assessment of the simulation scenario (Calohan et al. 2016). In psychiatric care simulations could promote students' independent communication skills (Furnes et al. 2018; Felton et al. 2013; Donovan & Mullen 2019; Raynor et al. 2021; Saunder 2021), knowledge development (Calohan et al.2016; Furnes et al. 2018; Pfeiffer & Wands 2021), critical thinking (Donovan & Mullen 2019; McGough & Heslop 2021; Raynor et al. 2021), reflection (Donovan & Mullen 2019; McGough & Heslop 2021), co-operational skills (Raynor et al. 2021) and problem-solving ability (Holliday et al. 2020).

Used pretask materials

Some articles described the use of quizzes for students before debriefing (Lee, Kyung Kim & Eom 2020), digital learning environments were used as pre-material before simulation (Furnes et al. 2018; Saunder 2021) or students listened to a podcast before simulation (Ward 2015). One simulation happened in Moodle

platform as a whole (Saunder L. 2021). Pre-task material in a digital learning environment was used in one study (Koetting & Freed 2017).

Debriefing methods

In some studies, students have watched recordings of their actions while simulating the scenario (Schwindth & McNeils 2015; Furnes et al. 2018). One study reported the use of a written assignment after simulation (Schwindth & McNeils 2015), one study used an evaluation form (Huggins et al. 2019), and one study a simulation satisfaction questionnaire (García-Mayor et al. 2021). Pre and post-test before and after the simulation was used in one study (Koetting & Freed 2017) and one study reported the use of writing a narrative description of what students have learned in simulation (Ward 2015).

A virtual patient simulation was also used, and it has a potential for collaborative learning for nurse students in psychiatric care (Raynor et al. 2021; Sunnqvist et al.2016; Koetting & Freed 2017) but one study reported that didn't improve students' communicational skills (Lee, Kyung Kim & Eom 2020). Virtual simulation game was reported to be one type of simulation and students stated that the gaming was easy to learn and realistic (Verkuyl, Romaniuk & Mastrilli 2018).

Standardized patients

Standardized patients were widely used while scenarios and especially their participation in the debriefing were seen as important (Schwindth & McNeils 2015; Calohan et al. 2016; Felton & Wright 2017; Booth et al. 2017; Donovan & Mullen 2019; García-Mayor et al. 2022). All the standardized patients had at least a pre-briefing on the topic of the scenarios and guidelines on how to play the role of the patient. Some articles described standardized patients' roles also as a part of debriefing discussions and they had given feedback to the students in roles (Calohan 2016; Felton & Wright 2017; Felton et al. 2013; Donovan & Mullen 2019). A student saw standardized patient feedback as an important part of learning (Calohan et al. 2016). Scenarios with standardized patients helped students to be more prepared for clinical practices (Booth et al. 2017; Calohan et al.2016). Also, in one study students were in the role of patients and it helped them to be more prepared for clinical practice (Huggins et al. 2019).

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3.3 Task 2

On Task 2 SAMK as an output 4 leader put together the findings of the literature review and suggested the model for simulation in nurse education. The content of the model followed the structure developed in GNurseSIM project IO1 but some changes were made according to the best practices of the literature review of IO4. Some changes were made to the structure to meet the needs of other fields of health education. Details such as the stage of the student's studies (first, second, or third-year student) and how to prepare the simulation environment were added to the structure according to the literature review.

3.4 Task 3

Task 3 purpose was to set the model of simulation in the area of nursing during the transnational partner meeting in Pori, Finland. The model was developed further with the GNurseSIM partners in the transnational meeting workshop in Pori on the 21st and 22nd of September 2022. The GNurseSIM partners together discussed the simulation structure, and some changes were made such as English terms being clarified.

The structure was evaluated by nurse lecturers (n=25) from eight universities in four countries during the autumn period of 2022. All the nurse lecturers had experience teaching multicultural nursing students and were familiar with geriatric or mental health care. Also, some nurse lecturers had expertise in internal diseases, paediatrics and family care, surgical care, and acute care. The simulation structure was tested by two nurse lecturers from Satakunta University of Applied Sciences in a mental health simulation held with English-speaking nurse students in December 2022.

Feedback from nurse lecturers

A total of 25 nurse lecturers from four countries gave feedback on the structure of the simulation model designed as an outcome of IO4. The 14 lecturers were from four Finnish Universities of Applied Sciences, six lecturers from two Spanish universities, three lecturers from one Mexican university, and two lecturers from one UK university. All the nurse lecturers had experience teaching multicultural nursing students and were familiar with geriatric or mental health care. Also, some nurse lecturers had expertise in internal diseases, paediatrics and family care, surgical care, and acute care. The simulation structure was tested by two nurse lecturers from Satakunta University of Applied Sciences in a mental health simulation held with English-speaking nurse students in December 2022.

The lecturers' overall experience was positive. The Background, Preparation, Scenario, and Prebriefing parts of the structure were seen as valuable. Hence, the whole simulation structure had some suggestions for changes. The structure was seen to be too long and should be shortened, and some parts were difficult to fill since the same issues were repeated in many parts of the structure. Also, the part of learning objectives should contain clear technical and non-technical objectives since the objectives lead the simulation, and the objectives should be easy to evaluate.

In the Simulation part, some lecturers did not see video recordings as important while running scenarios and were questioning the students' data security; how to ensure that there is no risk if the scenario is streamed? What is the point if the whole scenario is recorded? Instead of that, teachers suggested recording only the most important parts of the scenario and showing them to students in debriefing. The student's understanding of the simulation as a pedagogical method was highlighted, and students should have an opportunity to familiarize themselves with the simulation environment before the scenario.

The Debriefing- part had suggestions to change the name with another and more positive concept, Learning Discussion. Also, using the model of Fanning and Gaba (2007) was mentioned which has three phases: description, analytical, and implementation phase. The learning objectives should be discussed in the debriefing more clearly and they should be written down in the debriefing part.

To summarize, the revised model was presented in a partner meeting in London on the 8th and 9th of February, 2023. Some clarifications were made such as the concept of "non-technical skills" being revised to follow the formal description of the concept. The final version of the model is in Appendix 2.

4 Discussion

According to this literature review, it is essential to include pre-brief, tasks, and debriefing to simulation and the structure should be clear to students before simulation. The first step in designing a simulation is mapping the background; the areas of nursing work to be dealt with, the degree of study, the name of the course, the topic to be simulated, and the background information of the students are mapped. The learning objectives are also defined in this phase. Cultural issues were not found in the studies of the literature review. In the future nurse, lecturers should pay more attention to multicultural students' needs and design the simulations more culturally sensitive.

In the briefing, the scenario is described to the students. There might be also some pretasks before the simulation. The implementation phase of the simulation includes information for the lecturer of the simulator preparation and information for every participant of the simulation. Every participant must know what they are expected to do in the simulation and when. The debriefing phase should deal with the feelings of all

participants that the simulation situation evoked. The simulation debriefing also includes an analysis phase where the course of the simulation is discussed. In the final part, a summary of the simulation is made. One important issue is to give a "Take Away Message" to participants; what is the most important thing they remember from the exercise?

According to the nurse, and the lecturer's feedback some changes were made to the simulation structure. The overall structure was clarified and terms such as non-technical skills (cognitive skills such as decision-making and situational awareness, and interpersonal skills such as communication, teamwork, and leadership) were detailed on the structure under the Learning objective part according to Magill and Tolley (2020). Also, the debriefing part was discussed. According to Fanning & Gaba (2007), nurse teachers should tailor the debriefing session not only to the learning objectives but also to the participant and team characteristics. Also, the debriefing part was discussed. Nurse lecturers should tailor the debriefing session not only to the learning objectives but also to the participant and team characteristics. Finally, examples of blended learning simulation were given: classroom simulation, hybrid model simulation (participants are in the classroom and online,) and online simulation, and places at the end of the simulation structure.

To conclude, all simulations discussed in this literature review had a positive effect on students' learning. There are several different ways to implement simulation teaching that achieves positive learning results. Simulations, working practices, learning goals, and examinations must be linked together.

6 Conclusions

Simulation is a wide concept and allows nurse lecturers to implement the pedagogy as they see it best. The Simulation structure helps especially beginners to follow the simulation as a process. The structure eases the planning phase as well as the debriefing part of the simulation. In the future, simulation games and virtual, online simulations will be more typical ways to conduct a simulation.

References

Brown A.M. 2015. Simulation in Undergraduate Mental Health Nursing Education: A Literature Review. *Clinical Simulation in Nursing* 11: 445-449

Booth R.G., Scerbo C.K., Sinclair B., Hancock M., Reid D. & Denomy E. 2017. Exploring learning content and knowledge transfer in baccalaureate nursing students using a hybrid mental health practice experience. *Nurse Education Today* 51:57-62.

Calohan J., Pauli E., Combs T., Creel A., Convoy S. & Owen R. 2016. Using Simulation in a Psychiatric Mental Health Nurse Practitioner Doctoral Program. *Journal of Professional Nursing* 32(6):458-462.

Donovan L.M. & Mullen L.K. 2019. Expanding nursing simulation programs with a standardized patient protocol on therapeutic communication. *Nurse Education in practice* 38:126-131.

Engström, H., Andersson Hagiwara, M., Backlund, P. *et al.* 2016. The impact of contextualization on immersion in healthcare simulation. *Advanced in Simulation* **1** (8) https://doi.org/10.1186/s41077-016-0009-y

Fanning & Gaba. 2007. The Role of Debriefing in Simulation-Based Learning. *Society for Simulation in Healthcare* 2(2):115-125

Felton A., Holliday L., Ritchie D., Langmack G. & Conquer A. 2013. Simulation: a shared learning experience for child and mental health pre-registration nursing students. *Nurse Education in Practice* 13(6):536-540.

Felton A. & Wright N. 2017. Simulation in mental health nurse education: The development, implementation, and evaluation of educational innovation. *Nurse Education in Practice* 26:46-52.

Furnes M., Kvaal K.F. & Høye S. 2018. Communication in mental health nursing - Bachelor Students' appraisal of a blended learning training program - an exploratory study. *BMC Nursing* 15:17:20 https://10.1186/s12912-018-0288-9

García-Mayor S., Quemada-Gonzalez C., Leon-Campos A., Kaknani-Uttumchandani S., Gutierrez-Rodríguez L., Carmona-Segovia A., Martí-García C. 2021. Nursing students' perceptions on the use of clinical simulation in psychiatric and mental health nursing using objective structured clinical examination (OSCE). *Nurse Education Today* 100: 104866.

Hall K. 2016. Simulation-Based Learning in Australian Undergraduate Mental Health Nursing Curricula: A Literature Review. *Clinical Simulation in Nursing* 13: 380-389

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Koetting, C. & Freed, P. 2017. Educating Undergraduate Psychiatric Mental Health Nursing Students in Screening, Brief Intervention, and Referral to Treatment (SBIRT) Using an Online, Interactive Simulation. *Archives of Psychiatric Nursing* 31: 241-247.

Lee Y., Kim S.K. & Eom R-M. Usability of mental illness simulation involving scenarios with patients with schizophrenia via immersive virtual reality: A mixed methods study. *PloS One* 5(9):e0238437

Magill J.C. & Tolley N. 2020. Non-technical Skills Simulation Training. Current Otorhinolaryngology Reports 8:106–110

Palaganas J.C., Chan A.K.M. & Leighton K. 2021. Cultural Considerations in Debriefing. *Simulation in Healthcare* 16:407–413.

Pfeiffer K.M. & Wands LM. 2021. Setting the Stage for Psychiatric Mental Health Nursing Education: Outcomes of a Simulated Patient Pilot Program. *Clinical Simulation in Nursing* 59: 75-80.

Schwindt R. & McNelis A. 2015. Integrating Simulation into a Reflection-Centered Graduate Psychiatric/Mental Health Nursing Curriculum. *Nursing Education Perspectives* 36(5):326-328.

Sunnqvist C., Karlsson K. Lindell L. & Fors, U. 2016. Virtual patient simulation in psychiatric care e A pilot study of digital support for collaborative learning. *Nurse Education in Practice* 17:30-35.

Verkuyl M, Romaniuk, D & Mastrilli, P. 2018. Virtual gaming simulation of a mental health assessment: A usability study. *Nurse Education in Practice* 31: 83-87.

Ward T.D. 2015. Do You Hear What I Hear? The Impact of a Hearing Voices Simulation on Affective Domain Attributes in Nursing Students. *Nursing Education Perspectives* 36(5): 329-331.

Appendix 1

Authors and year	Topic	Aim/intervention or study setting/ size of participants	Results	Best practices
Schwindth R. & McNeils 2015	*Integrating Simulation into a Reflection-Centered Graduate Psychiatric/ Mental Health Nursing Curriculum*	-to explore reflections of (3rd year) student learning following a simulation experience integrated into a mental health nurse practitioner course -completed in pairs: a provider F2F or online + an observer via live video feed (faculty observed the student performances in real-time by video) -two scenarios (an initial intake interview): A -a female patient diagnosed with major depression -active suicidal ideation/ a male patient exhibiting acute psychotic symptoms -30 minute videotaped encounter with a standardized patient -45 minutes of structural debriefing -within a week, students watched recordings of their encounter-> written learning assignment following the DEAL model-> individual session about their experience -N=15, *n*=13 in classroom, *n*=2 on line	-the importance of feedback (the standardized patient gave direct feedback) -insight gained (reflection-on-action & self-reflection) -improved confidence & increased motivation (learner understanding about knowledge and the gaps for further learning) -integrated simulation into a course was feasible	-STANDARDIZED PATIENTS -video recordings of student encounters for individual use -written learning assignment after the simulation -DEAL model (Describe, Examine, Articulate Learning) by Ash & Clayton 2009)
Calohan J., Pauli E., Combs T., Creel A., Concoy S. & Owen R. 2016	*Using Simulation in a Psychiatric Mental Health Nurse Practitioner Doctoral Program*	-the article describes a framework for using simulation with standardized patients -three primary objectives: 1. to enhance student learning through the application of didactic content 2. maximize experiences by expanding student preparation for clinical rotations 3. to provide students with a standardized clinical framework that meets current standards of care and is consistent with the competencies	-students report a high level of satisfaction and they felt more prepared for clinical rotations	-STANDARDIZED PATIENTS -immediate written feedback from the standardized patient following eight domains: -open the discussion, build a relationship, gather

		-a database with a diversity of cases, evaluation with grading rubric (USA standards...) -1. Year: subjective/objective -a sole clinical experience for graduate students focuses on subjective and objective data gathering, clinical assessment and diagnostic reasoning, and treatment planning. -Therapeutic relationship building, communication, bio-psycho-social assessment -student peers and faculty watch and listen to the encounter outside the interview room-> give verbal feedback (the recorded interview is required to watch afterward) -4 event days per semester, 4 hours each, each student spends 60 min with SP -2. Year: Assessment -students begin to incorporate didactic concepts of diagnostic reasoning and assessment -6 event days per semester, 4 hours each, 60 min minimum with the SP & peer review feedback to the students -3. Year: Plan -selecting appropriate treatment interventions based on the student's diagnostic conclusions in cooperation with the SP -students are required to provide a brief case presentation and a clinical rationale for selected treatment interventions. -multiple perspective feedback -3 event days, 4 hours each, 60 min minimum with the two 30 min follow-ups with the SP		information, reach an agreement, provide closure, and overall rating -Bio-Psycho-Social assessment -sound clinical documentation skills that meet current standards of care, documentation template -feedback from multiple perspectives help shape the student's understanding of how to therapeutically interact with patients

Furnes M., Kvaal K.S. & Hoye S. 2018	*Communication in mental health nursing- Bachelor Students' appraisal of a blended learning training program- an exploratory study*	-to explore nursing students' appraisal of blended learning methods for enhancing communication skills in mental health nursing -3rd-year students -Objectives: -enhancement of students' communicational skills in mental health nursing Knowledge of basic therapeutic communication terms Knowledge of and skills in verbal and non-verbal communication between nurse and patient Knowledge of and skills in affective awareness and tolerance when nurses encounter challenging emotions from patients and relatives Ability to connect theory and practice and reflect on one's communication in various situations Intervention (3 weeks) : -e-learning materials 2 weeks in advance (weeks one & two) objectives, learning outcomes, schedule, videos of lectures on communication theory, examples of communication situations, and detailed descriptions of patient cases (not F2F lectures at all) -simulation by role play-> videotaped and formed for the subsequent reflection group comparing the teacher and students (week three) -4 patient case stations with one topic each: depression, psychosis, dementia, and relatives.	-students' appreciated teachers' participation in role play and immediate feedback was considered important for learning outcomes -students perceived that their communication skills and knowledge had improved after completing the blended learning methods	-blended learning makes it possible to build flexible courses with limited resources -videotaped roleplay training

		-roles, 4 students group: patient played by a teacher, nurse, video photographer, and observers-> each student had a chance to play a role of a nurse -immediately feedback from SP -reflection with a teacher was held the next day of the simulation and video recordings were watched together		
Felton A. & Wright N. 2017	Simulation in mental health education: The development, implementation, and evaluation of an educational innovation	-managing care in an acute inpatient ward and community older persons' team -no specific replanned script or series of steps had to follow -max 8 student groups -objectives: -to examine the transition from student to qualified nurse -to reflect on the use and development of mental health nursing skills -to practice interpersonal skills in managing conflict -to explore ethical and legal frameworks that influence decision-making in practice -to reflect on the impact of the environment of care on decision-making and the service user experience -N=24 Includes a summary of the scenario of acute care and community older persons	Three themes: -Reflective on real-life situations -practicing skills in real-life situations -being in control of situations	-STANDARDIZED PATIENTS who participated in debriefing
Booth R.G., Ko Scerbo C., Sinclair B., Hancock M., Reid D. & Denomy E. 2017	*Exploring learning content and knowledge transfer in baccalaureate*	-to explore the content learned, and the knowledge transferred, in a hybrid mental health course (simulation & clinical setting experience)	-students' learning content in both simulation and agency-based practice:	-STANDARDIZED PATIENTS

	nursing students using a hybrid mental health practice experience	Intervention: -clinical practice 6x 10 h, simulation 6 x 2 h simulations once per week -10 hours per week in mental health placement -N=19->n=12	Professional nursing behaviors & understanding of the mental health nursing role -Knowledge transfer between agency and simulation: The confidence gained in interview skills & unexpected learning	-strengthen the role of mental health nurse -simulation supports learning if there has been a lack of mentoring in clinical practice
Felton A., Holliday L., Ritchie D., Langmark G. & Conquer A. 2013	*Simulation: A shared learning experience for child and mental health pre-registration nursing students*	-the focus of the simulation was working with young people who experience emotional distress -Scenario: -a young are admitted to health services following self-harm -a young person has taken an overdose of paracetamol -3. Year students - 60 min preparation session +45 min scenario + 60 min debriefing -N=16	-students entailed and identified the benefits of the shared learning experience across the different fields of practice of nursing -helped students to develop skills for caring for young people -building relationships, communicating with young people, understanding different perspectives on how to manage emotional distress -themes: simulation as a learning strategy, learning from and with each other, areas for scenario development	-Young actors/ standardized patients from the theatre -embedded in current clinical practice -theatre director participated in the debriefing

Donovan L.M. & Mullen L.K. 2019	Expanding nursing simulation programs with a standardized patient protocol on therapeutic communication	-to have nursing students self-evaluate classroom-learned communication skills through practical application on a standardized mental health patient simulated scenario -depressed patient that has recently experienced the death of a spouse -each student spent 60 min on the SP simulation experience from pre-brief through debriefing -survey measured: the nursing students' level of confidence in learned therapeutic communication skills, preparation to engage their skills in clinical experience, and satisfaction with the standardized patient's simulated experience -material before simulation: -Instructions on therapeutic communication techniques, which included video clips with a discussion on effective and ineffective therapeutic communication -a pre-simulation checklist for students (student learning objectives: simulation expectations for students including debriefing and orientation to simulation experience) -N=160, *n*=116 -a simulation program protocol	-SP was positive -students' confidence increase -satisfaction with the overall simulation experience -provided preparation for the clinical environment	-STANDARDIZED PATIENTS -Standardized patient active learning premise: Simulated experience-> active learning (role-playing)->Debriefing->reviewing, reflecting, thinking->Learned experience-> learning from experience SP Program: Recruitment Orientation Retention
Lee Y., Kyung Kim S. & Eom M-R. 2020	Usability of mental illness simulation involving scenarios with patients with schizophrenia via immersive virtual reality: A mixed methods study	-a new form of mental health virtual reality (VR) simulation that is user-friendly and engaging to improve education about schizophrenia, thereby improving its treatment -most important learning objective is for students to identify clinical symptoms and learn how to manage problematic symptoms of mentally ill patients -professional actors played in the scenarios that were recorded using 360-degree cameras	-VR simulation program was perceived as useful and exciting -the content is highly relevant -technological and user-based problems	-VR simulation is a useful tool for future practice but communicational skills were not improved -instant feedback

		-problematic behavior of patients who were admitted to the psychiatric ward in an acute setting -five different scenarios (risk of violation, auditory hallucination, visual hallucination, delusion, risk of suicide) & scenario-based quiz -N=60, last semester -VR intervention included 10 video clips, 2 per each scenario, 60-90 sec in length	-instant feedback	

Holliday, L., Carter, T., Reddy, H., Clarke, L., Pearson, M & Felton, A. (2020)	Shared learning to improve the care for young people and mental health within nurse education (SHYNE). Improving attitudes, confidence, and self-efficacy	-This study aimed to evaluate this educational experience by establishing whether student nurse's attitudes, confidense and self-efficagy were influensed by the simulated learning -Uncontrolled, pre and post design Using specific outcome measures to determine the impact of a simulation-based education session on the attitudes, confidense and self-efficagy of student nurses studying at a pre-registration level, in providing care for CYP who have self-harmed Two specific simulation scenarios. One: A the young person called Alex (16 years old) is admitted to this ward after taking an overdose of 24 paracetamol. Two: Jo/e is a 16-year-old who arrives in the Emergency Department. Her/his friend, George, has brought her/him in as Jo has multiple cuts to her arms. this is because Jo is being bullied on Facebook. Jo doesn't want to talk about it.	At post-session, the students reported a statistically significant improvement in attitudes, self-efficagy, and confidense towards children and young people who self-harm. Positive steps to influence the attitudes, confidence, and self-efficacy in caring for this client group in pre-registration nurses aim to improve the care they provide as individual practitioners, but also as role models to those they encounter in clinical practice.	Students swapped in and out of the scenario at natural points such as ‘handover time’, to allow the maximum number of students to actively partake in the simulation. The remaining students (approximately 12) in the group observed the progression of the scenario via video link. Combining children's and mental health student nurses in the same learning environment to share expertise. Two session facilitators (one mental health field lecturer and one child field lecturer) led the scenario.

		The students were asked to take on a specific role relevant to their field of nursing during the simulation such as a wound dressing change, or commencing an initial mental health assessment. 45min/ scenario. 6 students in one scenario. Final year child and mental health field nursing students across pre-registration BSc, Undergraduate Master, and Graduate Entry Nursing Courses. N=101		
Huggins, R., Mansel, B., Tait, S et al. (2019)	Role play simulation in nurse education: applying the 'I AM A STAR' mnemonic.	To evaluate the use of role-play simulation to teach mental health nursing students the components of the MSE. Feedback forms. For a holistic view of the student experience, the learning effect of the role-play simulation was evaluated at four levels: reaction, learning, behavior, and results (Kirkpatrick and Kirkpatrick 2006). Role play simulation, involving players, observers, and facilitators, was carried out by three groups of mental health nursing students on the acute care module (n=19, n=12, n=14); each group included students who had attended a previous MSE workshop. Students volunteered to role-play a service user's overt signs and symptoms of psychosis, bipolar affective disorder, and paranoid schizophrenia. The remaining students individually took part in sitting with the service user and took turns conducting part of a nurse's interview for assessment. The students observing considered the components of the I AM A STAR framework. Mental Health Nursing students N= 39	-The discrete components of the I AM A STAR mnemonic enable nurses to identify the nuances of a service user's mental state. -Demonstrates that the teaching was effective and that they could learn from the experience. -Have developed new skills that they intend to use in practice. -Using the I AM A STAR mnemonic empowers students to apply a proven framework in clinical practice as part of the continuing assessment of their patients.	The students who assimilated the character or personality of the service user learn through the exploration of ideas and can see the direct relevance of the application of theory to practice.

McGough, S & Heslop, K. (2021)	Developing Mental Health–Related Simulation Activities for an Australian Undergraduate Nursing Curriculum	This project aimed to develop a simulation activity that incorporated the National Safety and Quality Health Service standards in acute mental health for undergraduate nursing students to prepare them for their clinical practicum in mental health -This study was completed in two phases: (a) the development of the mental health SBLE and (b) the evaluation of the SBLE. - Clinical confidence was evaluated using the Mental Health Clinical Confidence scale. Intervention: Development and implementation of a mental health-related simulation-based learning experience in an undergraduate nursing program and builds on the existing knowledge of simulation-based learning in healthcare education 1. scenario: Eating disorder 2. scenario: Collapsed patient (physical deterioration in a person with a mental disorder) 3. scenario: Psychosis Undergraduate nursing students N=161	-Mental health clinical confidence increased in students following the activity. -The findings show simulation activities that build on existing knowledge improve student confidence in providing care for people with mental health conditions. The largest change: assisting *a person to clarify treatment goals *conducting a mental state examination *Provide information and education	-Simulation activities must reflect the realities of clinical encounters to be an effective pedagogical approach (Berragan, 2011) - Simulation activities that build on existing knowledge improve student confidence in providing care for people with mental health conditions. -Although the SBLEs were designed to focus on specific health and NSQHS safety standards, students identified and reflected on several other issues from the scenarios, including body language, therapeutic relationships, interpersonal skills, roles, responsibility, accountability, professional standards, and critical thinking, evidence-based practice, and medication safety.
Pfeiffer, K & Wands, LM. (2021)	Setting the Stage for Psychiatric Mental Health Nursing Education: Outcomes of a Simulated Patient Pilot Program	This mixed methods study incorporated both quantitative and qualitative data to understand the student experience and measure student outcomes. Interprofessional faculty group collaborated simulation. (Theater students as patients in psychiatric mental health SBLEs for pre-licensure nursing students. Two clinical scenarios:	-Responses to the Simulation Evaluation Tool-Modified (SET-M) and open-ended questions revealed that both student groups benefited from this learning experience and reported increased confidence in relevant skills as a result.	-Developing a training undergraduate help both program students the can theater and nursing students increase confidense in professional roles and achieve learning outcomes. From the remaining data, authors reached a consensus to

		(1) a patient experiencing psychosis and paranoia who begins to exhibit symptoms of tardive dyskinesia following medication administration; (2) a patient experiencing alcohol withdrawal and anxiety about treatment. Learning objectives centered on communication, assessment, and safe medication administration. Nursing students and theater students N=147 nursing students, n=13 theater students	-Simulation-based learning experiences (SBLEs) with simulated patients (SPs) provide valuable, realistic opportunities for psychiatric mental health (PMH) nursing skills development. - Most students strongly agreed that they gained confidence in various practice aspects: *including communicating with patients *reporting information to the healthcare team *debriefing provided opportunities to self-reflect. -SBLE provided a good opportunity for them to apply knowledge and gain insight into their presence and actions.	identify the following main themes: improved knowledge/skills; SPs enhanced realism; working as a group; scenarios allowed for experiences not encountered in clinical; and supportive environment important to learning
Raynor, P., Eisbach, s., Murillo, C., Polyakova-Norwood, V. & Baliko, B. (2021)	Building psychiatric advanced practice student nurse competency to conduct comprehensive diagnostic interviews using two types of online simulation methods	To describe a virtual simulation teaching methodology using online text-based simulations of patient visits before a virtual standardized patient (SP) encounter in an asynchronous online course for PMHNP students. - develop and test a teaching methodology for the effective use of telehealth simulation	-Students demonstrated professional competencies and developed self-awareness and self-efficacy through reflection and discussion - Through this innovative teaching approach, students were able to refine their skills in the three key	-Virtual text-based simulation exercises can cognitively prepare students for diagnostic interviews with SPs (Ribar & Polyakova-Norwood, 2017) -In the P21 Framework, deeper learning occurs through the intent-

		Student learning experiences were framed by the Framework for 21st-Century Learning. Two types of online simulations were employed: (1) four text-based exercises, created with a testing tool in a learning management system, allowed students to practice the critical thinking processes behind diagnostic interviewing, and (2) a telehealth simulation with an SP, where students engaged the patient, conducted a diagnostic interview and discussed the treatment plan with the patient. Following the telehealth simulation, students completed self-assessments, received individual feedback from the SP and clinical faculty, and discussed experiences in small groups.	aspects of the P21 Framework: learning and innovation skills (creativity, critical thinking, communication, and collaboration); information, media, and technology skills; and life and career skills (productivity, flexibility, adaptability, self-initiative, social and cross-cultural skills)	national integration of rigorous academic content with engaging experiential activities that promote critical thinking, communication, collaboration, and creativity skills that are essential for students to become competent practitioners in a rapidly changing 21st-century environment -Finally, our learning design also included self-assessment, feedback from clinical experts, reflection, and discussion to promote the development of self-awareness, flexibility, adaptability, leadership, and other life and career skills. As telepsychiatry is a rapidly growing career industry, the skillsets of the P21 Framework will serve to build provider competency and provider access to clients in need of psychiatric services virtually anywhere in the United States and the world.
Saunder, L. (2021)	Online role play in mental health education	To explore a method of incorporating online role play in mental health nursing education - An evaluation of a pedagogical design that used an online survey to gather responses and thematic analysis was undertaken. -PGDip had initially piloted the activity, and feedback was used to improve the experience for the BSc group.	-students engaged with the case leading to a realistic experience of case management and the development of professional communication skills - For both groups of respondents, 100 percent of students reported that they would like to undertake the task again.	-relatively simple approach can result in deep learning whereby the student can fully experience the role of a qualified practitioner. - This model could easily be adopted by other higher education institutions or as a part of continuing professional development.

		-Utilised collaborative problem-solving in an online role-play using Moodle with a group of students training to be teachers, - The PGDip group was given the task during a theory module. The task ran over four weeks. - The BSc group undertook the task as a part of their simulated practice hours over two weeks, for their participation in the activity they were credited with four practice hours Scenario: a complex multi-layered scenario about a woman named Simone. Simone was a mother of three children, was a social worker on sick leave, had depression, unstable relationships, and was living with her parents, one of whom was physically unwell and receiving support from carers. -There was the community mental health team (CMHT)manager, community psychiatric nurse, child and family social workers, school safeguarding lead, occupational health nurse, substance misuse nurse, carers for the parents, an advocate from the carers support network, housing officer, psychiatrist, and ward staff Post-graduate (PGDip) and undergraduate (BSc), pre-registration mental health nursing students. N=23+N=9 N=33	- students reported that the case conference was what they liked most - These were the importance of communication and reflections on team working and multi-disciplinary working. - The facilitators felt that they had witnessed the transition of the students from novices to experts	-previously researched methods of providing role play to mental health nursing students have been time-consuming, expensive, or lacking realism. - The end product, is low cost, manageable from the lecturer's perspective, and delivers important learning outcomes to the students. - Following an exploration of several methodologies the most practical appeared to be a model of online role-play. - It became apparent that allocating a student to the role of service user was not appropriate. The service user was played by the lecturer - Both groups of students were given the remit that they should explore the scenario from their professional perspective, make contact with other professionals if they felt they needed more information, contact the service user for additional information and then draw this all together into recommendations that would be presented and discussed at a case conference. - The case conference was held in the classroom and was chaired by a senior mental health professional and a

				facilitator to explore the student's findings methodically. - During the activity students were sent various "triggers" via an anonymous Moodle account. These triggers were events that shaped the progress of the scenario. This meant they were not working with a static scenario, but a dynamic and evolving narrative that encouraged them to reconsider initial opinions and prompt them into reflecting on decision-making.
García-Mayor, S., Quemada-González, C., Álavaro L-C, Kaknani-Uttumchandani, S., Gutiérrez-Rodríguez, L., Carmona-Segovia, A. & Martí-García, C. 2021	Nursing student's perceptions on the use of clinal simulation in psychiatric and mental health nursing using objective structured clinical examination (OSCE)	To examine the perceptions and satisfaction of nursing students after they participated in a targeted mental health course in which the main specialist skills were acquired via clinical simulation -a quantitative, descriptive, transversal study - participants in a mental health course completed a questionnaire on their satisfaction with the experience. - the mental health course focused on the main mental disorders (anxiety, depression, and severe mental disorders) and their management in non-specialized settings such as primary care consultation or emergency service. -the course combined theoretical training with clinical simulation, placing special emphasis on communication skills and the acquisition of specific mental health nursing competencies. -the practical training was conducted during 4 seminars (duration of 2 h). Firstly, they were familiarised with the	The participants reported a high degree of satisfaction with the objective structured clinal examination procedure and observed that this method should be implemented more frequently.	Debriefing was a crucial element of the process.

		methodology and then they participated in the prepared scenarios and their subsequent debriefing. -the students were divided into groups (12 people), each of whom intervened in two different cases -resident nurses and psychiatric mental health clinical nurses acted as patients and /or relatives. -while one student took part in the simulation, the rest of the group followed the session via a video stream or live in the same place (take note of intervention, empathy, non-listening attitudes, and the use of body language). -debriefing after simulation: students were asked their feelings, and each student was shown one of their interventions, -during the final session students reviewed their self-assessment, got feedback from their classmates, and were advised by a clinical nurse specialist in mental health. 141 nursing students enrolled in a mental health course and are currently in the third year of their nursing degree studies.		
Sunnqvist, C., Karlsson, K. Lindell, L. & Fors, U. 2016	Virtual patient simulation in psychiatric care – A pilot study of digital support for collaborative learning.	-to investigate 4th term nursing students´ opinions on the use of Virtual Patients (VP)for assessment in a mental health and III-health course module. -volunteering students were asked to practice with five different VP cases instead of participating in the normal course exam in mental health and III-health - students received a short presentation about the VP system. If they were interested, they signed informed consent. -three teachers design five VP cases and two exam cases with different psychiatric conditions (major depressive disorder, psychotic behavior, substance abuse, a person	-first period: **VP-based exam** (9): 2 failed their first case, **normal exam**: (18) 7 failed -second period: **VP-based exam** (13)**:** no one failed, **normal exam** (26): 14 failed -the students were positive about the use of VPs in psychiatry and were very positive about using VPs in their continued studies.	VP system has the potential for collaborative learning for nurse students in psychiatric care. In combination with the Constructive Alignment components which mean that working practices, learning goals, and examination are linked it seems that the VP system promotes lifelong learning for nurse students in psychiatric care

		with bipolar disorder in a manic state, and schizoaffective disorder). -Students were allowed to practice with 5 different VP cases for 10 weeks before the exam. The VP-based exam was on the same day as the normal exam. During the VP-based exam, the participants had two new VP cases to choose from, but they had to use one of them. After the VP exam students received an e-mail if they had passed or not. If they failed, they had to try the second case the next day. - a week after the students were gathered together for participating in a written or oral evaluation. -first period: VP-based exam 9 students, normal exam 18 students -second period: VP-based exam 13 students, normal exam 26 students		
Verkuyl, M. Romaniuk, D & Mastrilli, P. 2018	Virtual gaming simulation of a mental health assessment: A usability study	-to ensure that the virtual gaming simulation is easy to use and useful as perceived by learners, and to provide the development team with direction for improving the game. The Technology Acceptance Model provided the framework for the study, which included expert review and testing by nursing faculty and nursing students. -**Stage 1** Heuristic Expert usability test: Two gaming experts individually played the game, then used a checklist to identify potential interface challenges for users. They also provided suggestions for design improvements. -**Stage 2** User usability test: Students (Practical Nursing, Bachelor of Science in Nursing and Nursing Bridging programs) and nursing faculty in two colleges and one university were invited to play the game and to participate in the study until a sample of 12 was achieved (six students and six nursing faculty).	-The study highlighted the importance of assessing ease of use and usefulness in a virtual game simulation and provided feedback for the development of an effective virtual gaming simulation. -The participants said the virtual gaming simulation was engaging, realistic, and similar to a clinical experience. Participants found the game easy to use and useful. Testing provided the development team with ideas to improve the user interface.	The virtual gaming simulation

		The participants played the computer game and shared their thoughts with the researcher. The researcher, using a checklist, recorded participants' comments and progression through the game. -After playing the game, the participants answered the Virtual Simulation of a Community Home Visit with Mental Health Assessment Survey. The survey consists of four demographic items and 18 items that measure the game's ease of use and usefulness using a five-point Likert scale. -The next data collection method was a brief semi-structured individual interview. Participants described their reactions to the game, shared any problems they encountered, discussed any impact on their learning, and provided recommendations to improve the game. 12 (6 students and 6 nursing faculty)		
Koetting, C. & Freed, P. 2017	Educating Undergraduate Psychiatric Mental Health Nursing Students in Screening, Brief Intervention, and Referral to Treatment (SBIRT) Using an Online, Interactive Simulation	-to use a high-fidelity type of nursing simulation designed to increase student´s knowledge of each step of the SBIRT skill set, increase knowledge of risky drinking limits and self-confidence in their ability to apply this learning to a conversation with an adolescent. -single group pretest – posttest - On the first day of the course, students were informed that the SBIRT simulation, pretest, posttest and critical reflection was a required part of the course. -Students were given the pretest in a lecture one month before the online simulations began. The simulations were conducted on four clinical days. There was a 50-min recorded lecture introducing SBIRT posted on the course website which students were to have listened to before the simulation.	- The confidence level of students increased regarding their perception of their ability to screen, discuss, advise, and refer patients when discussing healthy alcohol use and risky alcohol use.	-Using an online eLearning simulation to teach undergraduate psychiatric mental health nursing students adds to the body of nursing education knowledge -This study showed it to be successful in improving confidence and knowledge regarding screening patients for risky alcohol use.

		-The simulation provided an online environment where users roleplayed with emotional, responsive and intelligent virtual patients who reacted like real patients. -three 10–25-min practice conversations with virtual adolescents - Students were expected to apply the Brief Negotiated Interview and Motivational Interviewing technique learned in this role-play format, students chose what to say at each conversation turn and observed the patient's character response, with the the goal of maintaining engagement and trust to maximize a collaborative exchange of information along with the patient's motivation to adopt and support positive changes in health behaviors. - Students received support throughout the program from a virtual coach who gave feedback -After the online simulation, students answered a critical reflection on the course website (Qualitative study). After written reflections, students were given the posttest. -Finally, students were debriefed on the simulation experience. -Junior-level students enrolled in the undergraduate mental health and psychiatric nursing course (n = 59)		
Ward, T.D 2015	Do You Hear What I Hear? The Impact of a Hearing Voices Simulation on Affective Domain Attributes in Nursing Student	-to measure the impact of a simulation experience, “Hearing Voices Which Are Distressing,” on attitudes, values, and beliefs of accelerated baccalaureate students (ABSN) caring for clients with mental illness who experienced hearing voices or auditory hallucinations A cross-sectional study **- The simulation** included a didactic presentation administered by nurse faculty using a podcast via the school learning management system, along with written	-The simulation experience affected student regard for clients with mental health problems who experience hearing voices. -students could find something to help patients to feel better	Simulation is an effective method of facilitating teaching and learning in the affective domain.

		guidelines, learning objectives, and a reading assignment on stigma. - The simulation involved three components: 1) students were briefed about the experience. 2)Then students listened to a special audiotape-MP3 that simulated distressing voices characteristic of those experienced by the mentally ill. 3) Students moved (in no specific order) through four workstations and performed various tasks: a mock mini-mental status exam, numbers and alphabet word search, completion of an online job application, and a bead-making craft activity. - Following the simulation, they completed a narrative description of what they had experienced, how the experience helped them understand the concepts of hallucinations and stigma, and how the stimulation experience would influence their nursing practice. Students were encouraged to express their emotions before and after the simulation. -Participants completed a self-report questionnaire MCRS (the Medical Condition Regard Scale) n= 69 students	-the findings were further supported by narrative comments from the students in the post-simulation debriefing. -An unexpected finding after simulation revealed a few students who stated they would prefer not to work with patients who hear voices	

Appendix 2

SIMULATION STRUCTURE

BACKGROUND		
Areas of Nursing		Examples of topics such as Mental Health, Surgical Nursing, etc.
Degree of study		Bachelor of Nursing Master of Nursing
Name of the course		
Topic		
Student group analyses: **Previous/ current educational experience** **Size of group** [1]		[1] Students' previous or current personal experience -First year (Beginner) -Second year (Middle stage student) -Third/ fourth year (Advanced)
Learning objectives [2] -2-3 objectives		[2] -Non-technical skills: cognitive skills (decision-making and situational awareness) and interpersonal skills (communication, teamwork, and leadership) -Technical skills according to the learning objectives
PREPARATION		
Preparation of simulation[3]		[3] Evidence-based material: -For example books, journals, research, guidelines -Digital learning environment: eLearning platforms, simulation games, and/or Virtual Reality -Quizzes and/or pretests

SCENARIO				
DURATION OF THE SCENARIO	PREBRIEFING	SIMULATION	DEBRIEFING	
SIMULATION ENVIRONMENT[4]				[4]Technical and organizational information such as type of training equipment/phantom/ simulator, simulator parameters, reusable/ disposable material, optional accessories, necessary documentation, moulage, Standardized patients
PREBRIEFING				
Description of the patient's clinical condition and context (information for the student)				

SIMULATION [5]	[5] -SAFE ENVIRONMENT: all opinions are allowed, free to speak, mutual respect, physical safety, right to be who you are, confidentiality

	-Students get to know the scenario in advance (preparation phase) -Best practices for example: -pretest/ quiz before the simulation session to measure the knowledge of students of the topic -recorded simulations if reasonable (students' rights, GDPR) -Students, teacher/s, and/or standardized patients in roles
DEBRIEFING[6] **Emotion phase** Ask about the feelings of all participants during the exercise **Analysis phase** What happened? What went well? Why specific decisions were made? How it could be done (ideas are generated by students, and the tutor leads to the right conclusions) in a positive matter? **Intercultural aspect**: -Which cultural factors are the most important? **Implementation in practice** What do you remember from the exercise? How do you implement this in practice? **Students' questions**	[6]-Learning objectives: -What should happen based on evidence (select 3-4 issues) that should always be discussed with students regardless of whether they happened or not - cognitive skills (decision-making and situational awareness) and interpersonal skills (communication, teamwork, and leadership) Students are motivated to think reflectively while deceiving strengths and correct paths -Evaluation and feedback from participants in roles, observators, and teachers (with standardized patients) Every student tells one issue they have learned when they leave the simulation
Summary and feedback of the scenario	

How to implement simulation in different learning environments

- **First-year students:**
  depending on the learning objectives, for example, when the topic is non-technical skills such as discussion with a patient/ client, one video is appropriate to screen
- **Second-year students:**
  depending on the learning objectives, for example, when the topic is technical skills such as wound management or IV therapy, more than one video is appropriate to screen
- **Third-year students:**
  depending on the learning objectives, for example, when the topic is technical and non-technical skills such as home care visits, more than one video is appropriate to screen

Classroom simulation

- Follow the simulation structure one step at a time
- Before the simulation check the corner of the video cameras in the simulation environment, supplies for the simulation environment are available for students and the classroom is suitable for debriefing

Hybrid-model simulation: in the classroom and online

- Follow the simulation structure one step at a time
- Before the simulation:
  - the learning environment should be taken into account classroom bookings, with the possibility of both classroom and online teaching
  - check the corner of the video cameras in a simulation environment, supplies for the simulation environment are available for students and the classroom is suitable for debriefing in the classroom and online
- During simulation
  - At first, the internet connection with online students: sound and video check
  - When discussing the pretasks with students it is good to use applications for mobile phones such as Kahoot. it or Mentimeter to include students participating online
  - Video corner: one video is easier to follow online
- After simulation, Debriefing
  - Students in the classroom are divided into groups, students online are divided into breakout rooms, and there is limited time for discussion. Each group at the time gives their feedback no matter whether are they in the classroom or online

Online simulation

- Follow the simulation structure one step at a time.
- Before the simulation:
  - check that the scenario is possible to run online, for example, the patient educational scenario
  - students need to have an understanding of how to participate in an online simulation
  - what are the rules for students:
    - students participate from their laptops, not cellphones
    - students log in on time
    - the internet connection with online students: sound and video check
    - microphones are muted and videos on

        - the confidentiality of the scenario: students need to be alone in the room, only students are participating, and no family members or other people have the opportunity to watch/ listen
        - the meeting is locked so outsiders cannot log in while the simulation
- During simulation
    - When discussing the pretasks with students it is good to use applications for mobile phones such as Kahoot. it or Mentimeter to include students participating online
    - Video corner: one video is easier to follow online
- After simulation, Debriefing
    - Students online are divided into breakout rooms, and there is limited time for discussion. It is good to use applications such as Padlet
    - Each group at the time gives their feedback by speaking

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