THE DEVELOPMENT OF A MENTAL HEALTH LOW-FIDELITY SIMULATION TO ENHANCE UNDERGRADUATE NURSING STUDENT KNOWLEDGE AND COMPETENCY

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Abstract

Background: The purpose of this practicum project was to develop a low-fidelity mental health simulation to enhance knowledge and competency among Cape Breton University undergraduate nursing students. Low-fidelity simulation is an active learning strategy to enhance traditional teaching methods and introduce students to mental health concepts prior to clinical placement. **Methods:** A literature review was conducted to compare active learning techniques and undergraduate nursing student learning outcomes. An environmental scan was completed with undergraduate nurse educators and institutions in Atlantic Canada to identify current mental health teaching strategies and barriers to mental health learning. Consultations were completed with Cape Breton University nursing students and nursing faculty to identify perceived mental health learning needs. **Results:** Published literature showed that low-fidelity simulation benefits undergraduate nursing students by developing cognitive and affective knowledge; enhancing confidence; and improving overall satisfaction. The environmental scan helped identify that universities differ in their teaching strategies (e.g., mental health theoretical course versus a concept-based approach). Mental health simulation is not often utilized, and clinical placements vary in duration. Nurse educators identified there is limited mental health laboratory time with competing demands of the programs and limited funding for implementation. Consultees identified the laboratory as necessary to prepare students for mental health clinical and the use of low-fidelity simulation is a solution to funding challenges. Low-fidelity simulation was favored among students when compared to other mental health simulation techniques. A mental health low-fidelity simulation was developed for undergraduate nursing students at Cape Breton University. The simulation consists of student learning objectives, a case scenario, a detailed facilitative approach to delivery, preparation material, pre-brief, debrief, and methods for evaluating student learning outcomes. **Conclusion:** Low-fidelity simulation will provide students

with the necessary practice and guidance to expand their knowledge of mental health concepts to enhance competency in engaging with clients seeking mental health treatment.

Keywords: *Low-fidelity; Simulation; Nursing Student; Clinical Placement*

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Introduction

Cape Breton University's undergraduate nursing program has newly adopted a comprehensive concept curriculum design. This involves the use of core concepts as the focal point of the curriculum construction. In doing so, this helps students learn how these concepts are connected to explain a variety of conditions and situations they will encounter in clinical practice (Sullivan, 2020). While there is an expectation that nurses graduating from university-based programs can address the mental health needs of clients, students often feel unprepared to practice independently in this area (McGough & Heslop, 2021). Nurse educators are challenged to develop creative and innovative ways to provide nursing students with nurse-client interactions to meet mental health learning objectives (Becker et al., 2006).

To foster the achievement of undergraduate nursing student mental health learning outcomes, low-fidelity simulation can be used as a feasible learning intervention. This active learning strategy involves using real people to act as clients in a controlled and safe environment (Center for Addiction and Mental Health [CAMH], 2021) to maximize learning in the cognitive, psychomotor, and affective domains (Bannister, 2002). It can also prepare students for clinical placement by connecting mental health theoretical content to real-life situations (Phillips, 2020). In this report, I intend to outline and discuss the process and outcomes of developing a low-fidelity mental health learning intervention for undergraduate nursing students at Cape Breton University. The use of this intervention is supported by data gathered via the completion of a comprehensive literature review, an environmental scan with undergraduate nurse educators in Atlantic Canada, consultations with Cape Breton University nursing students, and focus groups with nurse practice educators.

The overall goal of the learning intervention is to develop a safe learning environment for nursing students to enhance their knowledge and competency to engage and communicate with clients seeking mental health treatment in clinical practice. Additional benefits of low-fidelity simulation include exploring students' personal feelings and biases; gaining insight into one's abilities, values, and perceptions; developing problem-solving skills and attitudes; and understanding the experience with peers to gain different perspectives (Brown, 2008; Fossen & Stoeckel, 2016; Gjestvang et al., 2021; Goh et al., 2016; Lehr & Kaplan, 2013; Martin & Chanda, 2016; Olasoji et al., 2020; Robinson-Smith et al., 2009; Witt et al., 2018). Further, low-fidelity simulation may help to decrease university institutional (Becker et al., 2006; Pfeiffer & Wands, 2021) and health care organizational barriers (Brown 2008; Brown, 2015; Kameg et al., 2010) to client-centered mental health nursing care.

It is recommended that nursing students are provided with concreate learning experiences through theory and lecture along with opportunities to practice and rehearse prior to clinical practice (McAndrew et al., 2014). Providing students with diverse educational opportunities is an essential component of improving nursing education (Lowell & Alshammari, 2018). The simulation can provide such an opportunity to connect mental health theoretical concepts to real-life situations to prepare students for clinical encounters (Phillips, 2020).

Objectives

The overall goal of this practicum project was to develop a low-fidelity mental health simulation for Cape Breton University undergraduate nursing students to enhance their knowledge and competency to engage and communicate with clients in clinical practice. The key practicum objectives were:

- describe the various ways mental health learning occurs in undergraduate nursing programs through consultations with nurse educators across Atlantic Canada and determine how they can be improved;
- identify barriers for nursing students in communicating and engaging with individuals living with mental health disorders through consultations with Cape Breton University students; determine the mental health learning strategies that are currently implemented at Cape Breton University for nursing students;
- determine appropriate options for developing mental health learning strategies for Cape Breton University nursing students; develop a safe learning environment for nursing students to practice therapeutic communication and increase engagement with mental health clients through low-fidelity simulation;
- and demonstrate application of the advanced nursing practice competencies: research, leadership, education, and direct comprehensive care.

Overview of Methods

The practicum project started with an integrative review of the literature to identify active teaching strategies in undergraduate nursing education and the considerations that must be taken in their implementation in a mental health nursing course. Following the literature review, an environmental scan was conducted with four nurse educators from across Atlantic Canada to identify if simulation is utilized in mental health learning in the Atlantic Canadian undergraduate nursing programs. Consultations were held with two Cape Breton University students and two nurse educators to identify perceived student mental health learning needs, identify perceived barriers to mental health knowledge and competence, and determine the need for the practicum project to develop a mental health active learning intervention.

Summary of Literature Review

The literature review aided in identifying the facilitators and barriers to undergraduate nursing students' engagement and communication with mental health clients in the clinical setting, as well as the feasible learning interventions that can improve students' mental health knowledge and practice competence. The complete literature review is found in Appendix A. The databases used in the search were Cumulative 7 Index to Nursing and Allied Health Literature (CINAHL) and PubMED. The keywords and Medical headings Search (MeSH) terms used were "simulation" "role-play" "nurse" "nursing student" and "mental health." Current articles published between 2006 and 2021 were preferred and only articles published in English were reviewed. The search yielded 203 full text articles and 37 articles were relevant for inclusion: 15 primary research studies, one meta-analysis, and 21 other forms of scholarly literature such as narrative reviews and best practice guidelines.

Active Learning Strategies

High-fidelity and low-fidelity simulation learning outcomes, applicability, and feasibility for undergraduate nursing students were compared for use. It was found that the use of mannequins, computer-based simulations, and simulators lacked the development of affective knowledge in undergraduate nursing students. As the focus of the practicum project was to identify learning interventions to improve undergraduate nursing students' mental health knowledge and competency in all domains, I explored varied methods of simulation. However, simulation using standardized patients and role-play were determined to be comprehensive interventions for undergraduate nursing students to engage in an immersive, secure, and safe learning environment to prepare for clinical placement experiences (Alexander & Dearsley, 2021). Nurse educators can use these interventions beyond application (e.g., psychomotor skills) to address higher levels of learning in the affective domain (Olasoji et al., 2020). Accomplishing

this requires student engagement by exploring personal feelings and values, gaining insight, and developing problem-solving skills with peers in a group-based environment (Bannister, 2002; Joyner & Young, 2006; Kirkpatrick & Dewitt, 2020). The learning outcomes identified in the literature using standardized patients and role-play were further compared for appropriate use among undergraduate nursing students.

Cognitive Domain

Studies using standardized patients and role-play enhanced learning in the cognitive domain, as nursing students were able to develop an understanding of mental health problems and feel more prepared for mental health clinical placements (Olasoji et al., 2020; Robinson-Smith et al., 2009; Witt et al., 2018). Awareness that clients' symptoms are "real" results in students developing a new approach to caring through communication such as showing genuine interest, asking about mental health symptoms, and asking how the diagnosis impacts clients' lives (Fossen & Stoeckel, 2016; Gjestvang et al., 2021; Martin & Chanda, 2016). Further, work by Afles (2015) found improvements on nursing students' test scores of therapeutic communication knowledge and psychiatric mental health assessment, supporting the use of mental health simulation in undergraduate nursing programs.

Affective Domain

Using role-play and standardized patient interventions positively contributes to affective learning through engagement during the simulation actively and self-reflection during debrief, resulting in the development of self-awareness (Fossen and Stockel, 2016; Gjestvang et al., 2021; Goh et al., 2016; Olasoji et al., 2020; Pfeiffer and Wands, 2021; Robinson-Smith et al., 2009). It also provides students with an opportunity to acknowledge mistakes and learn from them (Gjestvang et al., 2021). Interestingly, Chua et al. (2021) found that role-play was significantly

more effective than the use of standardized patients to enhance students' empathy when they played the role of both the client and care provider. Students identified personal biases as they better understood what it could be like to experience mental health problems and how to help someone in need (Pfeiffer & Wands, 2021). In addition, an added benefit of role-play and standardized patient simulation is the positive effects of students observing their peers (rather than active participation) in developing self-awareness and improving attitudes towards stigmatized individuals (Alfes, 2015; Fossen & Stoeckel, 2016; Gjestvang et al., 2021; Stegmann et al., 2012).

Self-Confidence and Student Satisfaction

In reviewing the available literature, I found attention given to the experiencing of nursing student satisfaction and self-confidence in relation to simulation and role-play. For example, significant differences in students' satisfaction and confidence were found before and after the mental experience (Becker er al., 2006; Gjestvang et al., 2021; Goh et al., 2016; Kameg et al., 2014; Martin & Chanda, 2016, Pfeiffer & Wands, 2021; Robinson-Smith et al., 2009; Witt et al., 2018). In particular, the feedback given to students after the simulation was valued as it further enhanced their confidence in communication (Witt et al., 2018).

Follow-up Sessions

Alfes (2015) measured learning outcomes following two simulation sessions and found statically significant improvements in self-efficacy, student attitude toward stigmatized individuals, knowledge of communication, and mental health assessment skills after the second session. For example, role-play and standardized patient interventions with healthcare professional students lasting one to seven months compared to one-day interventions had statistically significant effects (Chua et al., 2021). Students who had previous exposure to

individuals with mental health concerns (i.e., cared for someone with a mental illness) had higher self-confidence during simulation and higher satisfaction following simulation (Goh et al., 2016). These findings support the need for exposure and practice by repeated simulation sessions.

Experiential Learning Theory

A realistic simulation intervention was created focusing on collaboration between faculty and students and to guide students' own learning (Parker & Myrick, 2009). This framework was chosen based on the population of interest, simulation objectives, and context of the experience while considering participants' knowledge, skills, attitudes, and behaviors (Canadian Association of Schools of Nursing [CASN], 2015; Davis et al., 2013; International Nursing Association for Clinical Simulation and Learning [INACSL], 2016a). The conceptual framework of the experiential learning theory was used to act as a guide in developing the intervention and in planning for implementation with undergraduate nursing students (Davis et al., 2013). Experiential learning occurs when students are actively engaged in knowledge acquisition through "hands on experience" with problem solving, decision making, and reflection (Davis et al., 2013, p. 158). Kolb's theory also supports follow up sessions after the initial simulation to enhance knowledge retention (Lowell & Ashammari, 2018). The intervention will be implemented prior to clinical practice to foster appropriate reflection and build knowledge, skill, and confidence when introduced to the clinical area (Kameg et al., 2014). Given the evidence available, the reviewed literature supports the use of the experiential learning theory as a reasonable theoretical framework to guide the development and implementation of the low-fidelity learning intervention.

Summary of Environmental Scan

The objectives for the environmental scan were to identify the various ways mental health learning occurs in undergraduate nursing programs through consultations with nurse educators in Atlantic Canadian universities; identify teaching barriers for nurse educators to provide nursing students with active learning strategies in mental health education; identify facilitators who implement active learning strategies with nursing students; and determine options for developing mental health active learning strategies as identified by nurse educators in undergraduate nursing programs. The environmental scan report is found in Appendix B. Four nurse educators from Nova Scotia, Newfoundland and Labrador, Prince Edward Island, and New Brunswick completed a 19-part questionnaire via email. The universities' websites were also reviewed to identify current mental health teaching methods used in the Atlantic Canadian undergraduate nursing programs.

Mental Health Learning

Through searching universities' websites, it was identified that all the universities incorporate experimental learning in their programs through mental health clinical placements (Cape Breton University, 2021; Dalhousie University, 2021; Memorial University, 2021; Saint Francis Xavier University, 2021; University of New Brunswick; University of Prince Edward Island, 2021). The four nurse educators identified how mental health theoretical learning is complete. Two of the universities have a three-credit hour mental health course offered in the second or third year of the program while two use a concept-based curriculum where mental health concepts are threaded throughout the program.

Overall, mental health clinical placements were comprised of a three-credit hour course that ranged from 72 to 108 clinical hours at different institutions. When nurse educators are solely responsible for students, the usual ratio is seven or eight students to one educator. When

preceptors are providing direct student support and guidance, the nurse educator is responsible for 15 to 20 students. Two universities identified that nurse educators providing mental health clinical support may not have clinical experience in mental health nursing. The four nurse educators identified mental health clinical placement as a vital component of undergraduate nursing education.

The universities that provide a mental health theoretical course includes a lab component that spans 20 to 108 hours in total. During these labs, students have an opportunity to perform a mental status exam. One university has incorporated standardized patients into their mental health lab while another university invites people living with mental illness into the classroom who volunteer to interact with students. Finally, mental health virtual simulation has been introduced into three of the programs by the use of CanSim, Ryerson and Virtu-WIL.

Facilitators to Mental Health Simulation

The nurse educators identified benefits of using the lab to enhance mental health learning. Two universities identified lack of mental health clinical placement experiences due to rural settings, large class sizes, and decreased client admissions to hospital. They described the mental health lab as a safe and controlled environment where students can learn and make mistakes which are not harmful to themselves or the client. Further, they felt they had a professional obligation to support and advocate for mental health learning using multiple strategies. Debrief was identified as necessary following the scenario to clarify how to talk to clients with mental health problems as they can work through communication difficulties as a group.

Barriers to Implementing Mental Health Simulation

Nurse educators identified lack of time, physical space, resources/supports, and high cost as barriers to providing students with mental health simulation experiences. Three nurses stated

there is difficulty with buy-in and prioritizing mental health simulation with other learning demands of the program. Inconsistent funding is provided provincially and/or by the institution and is a challenge for implementing high-fidelity simulation (i.e., standardized patients). Low-fidelity simulation through role-play was identified as a cost saving solution. Lastly, nurses identified the timing of the simulation as important as it is most beneficial prior to clinical experiences but this is not always possible.

Summary of Consultations

Consultations were completed with two undergraduate nursing students enrolled at Cape Breton University who completed a 14-part questionnaire. In addition, two Cape Breton University nurse educators who acted as intermediaries in the recruitment process participated in a focus group. Two other consultations were completed to identify key information about creative and innovative learning strategies which contribute to positive learning outcomes. Nurse faculty from the Registered Nurses Professional Developmental Center (RNPDC) discussed mental health simulated client case scenario development. The University of New Brunswick hosted a focus group to review their developed mental health simulation scenario prior to implementation with undergraduate nursing students. The consultation report is provided in Appendix C.

Perceived Barriers to Mental Health Knowledge and Competence

Both students had very little experience in communicating with someone with mental health symptoms and felt uncomfortable as they did not know what to say and feared that they would make things worse for the client. Other fears included a lack of self-awareness and personal judgement that may affect client care.

Perceived Mental Health Learning Needs

Both students identified a need to practice caring for clients living with mental illness to learn skills of listening, communication, and building rapport. They were interested in mental health acute care and community wellness clinical placements but felt they needed to learn more to feel prepared for these experiences.

Mental Learning Interventions

Both students and Cape Breton University nurse educators identified role-play as a practice tool to build confidence in communicating with people with mental illness. Nurse faculty from RNPDC introduced me to INACSL. Used by Canadian universities, it provides guidance for simulation through standards of best practice for simulation development and evaluation. The focus group consisted of four nurse educators, mental health nurses working in acute care, and a nursing student in Calgary. The information gathered during the focus group was valuable in understanding the process of scenario development and the need for feedback from key stakeholders to identify missing or incomplete components of the simulation prior to implementation.

Summary of the Intervention Developed

The final component of the practicum project was the development of a low-fidelity mental health simulation. The goal of this was to create a safe learning environment for nursing students in which they could enhance their knowledge and competency to engage and communicate with clients seeking mental health treatment. The development of the intervention was guided by the Canadian Association of Schools of Nursing (CASN, 2015) guidelines for simulation and INACSL (2016a) national standards to meet identified student learning objectives and optimize achievement of expected learning outcomes. The development process included: constructing measurable learning objectives for undergraduate students using SMART objectives and Bloom's taxonomy; determining an appropriate scenario design to provide the context for

the simulation-based experience; maintaining a facilitative approach that is student-centered and driven by learning objectives, participant's knowledge or level of experience, and the expected outcomes; following a pedological approach to guide simulation development and facilitation; developing pre-brief and debrief sessions; using reliable and valid evaluation methods for evaluating student learning and the overall simulation experience; and providing preparation materials to promote students' engagement and learning. The complete report detailing the development of the low-fidelity simulation is provided in Appendix D.

Student Learning Objectives

The broad objective for the project was to develop a low-fidelity mental health simulation for Cape Breton University undergraduate nursing students to enhance their knowledge and competency to engage and communicate with clients in clinical practice. In consultation with three Cape Breton University nurse practice educators, the expected learning outcomes were designed to be consistent with Cape Breton University's undergraduate nursing programmatic goals and followed INACSL standards of best practice guidelines (2016a,b). Bloom's taxonomy provided a framework for developing the learning objectives to meet expected outcomes in the cognitive, psychomotor, and affective domains (Bannister, 2002; Phillips, 2020).

Scenario Design

The simulation was designed to mimic practice situations that all students should experience as part of their preparation for clinical practice (CASN, 2015). A scenario design template was developed to organize flow of the scenario (Harrington & Simon, 2021). The simulation exercise will be completed prior to the mental health clinical placement and preferably after relevant mental health theoretical concepts have been introduced (CASN, 2015). Timeframes of 20 minutes of pre-briefing, 20 minutes of role-play, and 40 minutes of debriefing were allotted to

facilitate the progression of the scenario and ensure there is time to achieve learning objectives (INACSL, 2016a; National League for Nurses [NLN], 2016).

Students will portray the role of the registered nurse and be given a client report to set the scene while senior students will act as the client. To ensure consistency, senior students will be given responses to mental health assessment forms to prepare for the simulation and will participate in a practice scenario with the facilitator and other actors prior to the simulation. The student acting as the nurse will be responsible to complete a mental health assessment and assess for suicide risk with the client in a supportive and therapeutic manner to determine an appropriate plan of care in collaboration with other health professionals. It will be recommended that nursing students have repeated simulation practice over their program duration (Chua et al., 2021; Goh et al., 2016).

With documented permission, as a member of the Canadian Alliance of Nurse Educators using Simulation (2022), I received access to a previously developed scenario to use with undergraduate nursing students to meet the expected student learning outcomes. Clinical progression and standardized cues will be present for the facilitator to use to provide students with hints to advance the scenario in response to students' actions if they require assistance (INACSL, 2016c). Physical and psychological fidelity will be ensured by creating a realistic environment during the simulation to include distractions of a support person voicing their concerns, time pressure, and competing priorities.

Facilitator Approach

A guide will be provided to facilitators. It will include the following: a confidentiality contract; fiction contract; psychological safety and sensitivity statement; expected learning outcomes; ice breaker questions; mindfulness exercise; learner preparation; facilitator materials

for simulation; learner forms; scenario outline; learner expectations; time allotment; actor roles; and facilitator cues with rationale. The level of facilitator involvement will be proportional to the participant's knowledge and experience (INACSL, 2016a).

Preparation Materials

Preparation materials will be provided one month prior to the simulation (CASN, 2015). The learner preparation package includes the psychological safety and sensitivity statement; learning objectives; and icebreaker questions. Students will be provided with two assessment tools: the suicide risk assessment and intervention tool and the mental health assessment tool as these are used in clinical practice. Four readings from Varcarolis's *Canadian Psychiatric Mental Health Nursing* (Halter et al., 2019) previously purchased by Cape Breton University undergraduate nursing students are required. Six questions adopted from the textbook will also be presented and findings will be shared among the group during the debrief. Finally, students are encouraged to watch a video demonstrating therapeutic communication approaches to assess suicide risk (Grande, 2015).

Pre-brief

The pre-brief will be completed immediately before the scenario. A learner pre-brief form for mental health simulation will be shared and reviewed as a group. This includes a confidentiality contract; fiction contract; psychological safety and sensitivity statement; learning objectives; scenario outline; learner expectations; and time allotment (Monaco et al., 2022). This will also be a time to orientate students to the environment and evaluation tools (INACSL, 2016a; McGough & Heslop, 2021; Phillips, 2020). Participants will partake in a brief three-minute mindfulness exercise to enhance students' focus and decrease distractions during the simulation (NLN, 2021).

Debrief

The debrief will take place immediately after the simulation. The focus of the debrief is to clarify actions and determine alternative decisions to enhance learning (Benner et al., 2010; INACSL, 2016d; Phillips, 2020). The Promoting Excellence and Reflective Learning in Simulation (PEARLS) framework will be used to guide the debrief (Eppich & Cheng, 2015; INACSL, 2016d).

Evaluation

Students will be evaluated using formative methods during the simulation to facilitate critical thinking, reflection, and knowledge development towards achieving learning outcomes (INACSL 2016e; Phillips, 2020). Summative evaluations will be used to focus on achieving learning objectives at the end of the simulation (Forneris, 2020; Rudolph et al., 2014). The PEARLS debrief framework presents summative evaluation questions to be asked during the debrief. The learning outcomes assessment rubric will be used to assess preparation for the simulation, performance during the simulation, and to guide debriefing to identify further learning requirements. It includes a description of competency indicators which are leveled from the novice to competent learner (Canadian Alliance of Nurse Educators using Simulation, 2022; Harrington & Simon, 2021). An evaluation of the overall experience will be provided as nursing students will complete a modified version of the student evaluation of the clinical setting form termed Learner Evaluation of the Simulation (Bonnel, 2020).

Discussion of Advanced Nursing Practice Competencies

A Clinical Nurse Specialist is a registered nurse with advanced nursing knowledge and skills in making complex decisions with expertise in a clinical nursing specialty (Canadian Nurses Association [CNA], 2021). The advanced practice nurse competences that were demonstrated in this practicum project are in the categories of research, leadership, education, and direct comprehensive care.

The research competency of: “Identify, appraise, and apply research, practice guidelines, and current best practice” (CNA, 2019, p.32) was met through completion of the literature review, including a critical appraisal of qualitative and quantitative research articles, and through consultation with nursing students and nurse educators.

The leadership competency of: “Identify problems and initiate change to address challenges at the clinical, organizational, or system level” (CNA, 2019, p.33) was completed. Problems of students feeling unprepared for mental health clinical placement and educators feeling unsupported in providing students with diverse mental health educational experiences were identified during consultations. Consultation with the RNPDC nurse educator and the virtual simulation focus group highlighted key components of developing and evaluating simulations. Change was initiated by developing the simulation for nursing students to improve learning outcomes and to support nurse educators in providing a creative learning opportunity for students. The leadership competency will further be completed by implementing the intervention with nursing students.

The education competency of: “Identify the learning needs of nurses and other members of the healthcare team and find or develop programs and resources to meet those needs” (CNA, 2019, p.31) was met. Consultation with nurse educators identified the learning needs related to undergraduate mental health nursing education. It was found that university institutions in Atlantic Canada differ in the way mental health learning is delivered; that barriers are present to mental health learning; and that there is a need for creative interventions to develop mental health knowledge prior to clinical placement. These needs were addressed by developing the mental health simulation to foster student knowledge growth in a consistent manner.

The direct comprehensive care competency: “Disseminate knowledge, using appropriate delivery methods (e.g., pamphlets, visual aids, presentations and publications)” (CNA, 2019, p.30) was met by presenting the final practicum project to Memorial University nursing faculty and fellow graduate students.

Next Steps

The principal goal of this practicum project is for the low-fidelity mental health simulation to be adopted by the Cape Breton University nursing program. Prior to implementation, a virtual focus group is planned to be held in the spring with four Cape Breton University nursing educators, two undergraduate nursing students, and an experienced mental health nurse who have agreed to participate. The focus group will ensure conceptual fidelity as participants will have an opportunity to make suggestions or ask questions prior to finalizing the scenario. The scenario design template will be used to assist in this process and a scenario validation checklist developed by Laerdal (2022) will be used to determine the validity of the scenario. It is expected that modifications to the scenario design may be needed. On completion of the design, a pilot test offering will be conducted to ensure physical and psychological fidelity of the simulation in relation to accomplishing its intended purpose and to clarify and missing or underdeveloped elements (INACSL, 2016a; McGough & Heslop, 2021; Polit & Beck, 2017). Upon completion, Cape Breton University plans to incorporate the simulation into the curriculum for use with the undergraduate nursing students.

To measure overall success of the simulation, I plan to host two focus groups with nursing students following mental health clinical placement. One focus group will consist of students who did not participate in simulation (but will receive the standard “usual” mental health educational activities by Cape Breton University), and the other will consist of students who

participated in simulation. The two groups will be compared to evaluate learning outcomes. Consultation with nursing unit staff and nurse educators will also be completed to determine if there are noticeable knowledge and competency differences between students who participated in simulation versus those who did not.

The project may also be implemented within the Nova Scotia Health Authority. I will present my project at the Nova Scotia Mental Health and Addictions Provincial Center for Training, Education, and Learning (PCTEL) during their monthly virtual education sessions. The acute care and community mental health and recovery manager of the Cape Breton Regional Hospital is interested in incorporating the simulation into the orientation process for newly hired nurses. If used, I will work with the mental health nurse practice educator to provide education support for my colleagues.

Conclusion

Undergraduate nursing students often do not develop affective knowledge prior to clinical placements which can negatively influence the development of forming therapeutic nurse-client relationships (Fossen & Stoeckel, 2016). Therefore, providing students with diverse educational opportunities is an essential component of improving nursing education (Lowell & Alshammari, 2018). Following a comprehensive literature review and consultations with nurse educators and nursing students, low-fidelity simulation was identified as a feasible and safe learning intervention to foster the development of cognitive and affective knowledge, enhance engagement, and improve communication with client (Chua et al., 2021; Fossen & Stoeckel, 2016; Gjestvang et al., 2021). The development of this project is supported by Cape Breton University nurse educators and the Nova Scotia Health Authority and if implemented, will foster the development of mental health knowledge prior to clinical experiences.

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Appendix A: Literature Review

Literature Review

Development of a Mental Health Low-Fidelity Simulation to Enhance Nursing Student Knowledge and Competency

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NURS 6660: Practicum 1

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Mental health clinical placement experiences can be a source of stress and anxiety for undergraduate nursing students (Fossen & Stoeckel, 2016). They often have limited knowledge and experience of caring for someone with mental illness when first introduced to the mental health clinical area. Students gain cognitive knowledge through classroom lecture and examination, but these learning strategies can lack the development of psychomotor and affective knowledge (Bannister, 2002). The active learning strategy of simulation is an option to foster the development of psychomotor, cognitive, and affective learning in undergraduate nursing students. It can be used to imitate real life clinical nursing experiences in a secure and safe environment in preparation for clinical placements (Cant & Cooper, 2009). The purpose of this literature review is to explore the current literature concerning active teaching strategies in undergraduate nursing education and the considerations that must be taken in their implementation in a mental health nursing course. The aim is that, by reviewing the literature, I will identify the facilitators and barriers to undergraduate nursing students' engagement and communication with mental health clients in the clinical setting, as well as the feasible learning interventions that can improve students' mental health knowledge and practice competence.

In conducting this literature review, I compared high-fidelity and low-fidelity simulation best learning outcomes, applicability, and feasibility for undergraduate nursing students. Many researchers were found to use humanism, specifically Kolb's (1984) experiential learning theory as their guiding framework for the development and implementation of simulation in undergraduate nursing education (Alfes, 2015; Chua et al., 2021; Fossen & Stoeckel, 2016; Goh et al., 2016; Kameg et al., 2014). Standardized patients and role-play were found to be the most beneficial in achieving learning outcomes, and role-play may be more appropriate for implementation among this population (Chua et al., 2021; Fossen & Stoeckel, 2016; Gjestvang et

al., 2021). Other pertinent findings were increases in students' self-confidence, satisfaction with the overall simulation experience, and the recognition of the importance of follow up sessions (Alfes, 2015; Chua et al., 2021; Becker et al., 2006; Gjestvang et al., 2021; Goh et al., 2016; Martin & Chanda, 2016; Pfeiffer & Wands 2021). Overall, the current literature supports the use of low-fidelity simulation to improve mental health knowledge and competency among undergraduate nursing students, thereby also supporting the rational for my current practicum project: *The Development of a Low-Fidelity Mental Health Simulation for Undergraduate Nursing Students to Enhance Engagement and Improve Communication.*

Background

Mental health is finding a balance across all aspects of one's life socially, physically, spiritually, economically, and mentally by developing the skills to cope with stress and having a positive support system (Canadian Nurses Association [CNA], 2005). Mental and physical health are interrelated as individuals experiencing physical symptoms often also experience anxiety or depression, ultimately worsening the response to the illness. Approximately 20% of the Canadian population personally experiences a mental illness over a one-year period; the two most common are major depression (4.6%) and anxiety (12.2%) (CNA, 2005; 2012). Individuals may develop mental illness due to genetic or biologic factors, trauma, overwhelming stress, environmental injustice, or violence (Centre for Addictions and Mental Health [CAMH], 2021a)**.** Mental health nurses are expected provide vulnerable people with a positive care experience to develop a "culture of compassionate care" at any point in treatment (McAndrew, 2014, p.213) but nurses who fear and misunderstand mental illness may demonstrate prejudice against people with mental illness and add to the feelings of hopelessness in those who are struggling (CAMH, 2021a). Stigma towards mental health creates a barrier for individuals experiencing these

symptoms to access treatment and receive adequate nursing care. It estimated that stigma prevents 40% of individuals experiencing depression or anxiety from seeking help (CAMH, 2021a). Stigma towards mental health creates a barrier for individuals experiencing these symptoms to access treatment and receive adequate nursing care. In 2005, CNA projected changes to mental health nursing care to evolve from medical treatment in hospital (i.e., medication administration, monitoring, and electroconvulsive therapy), to specialized skills of assessment and counselling in institutions and communities. They also recommended improving mental health nursing education to reduce stigma and improve nursing attitudes in engaging with people seeking care. Unfortunately, acute mental health nursing treatment continues to follow the traditional medical method and nurses often feel unprepared and unsupported in providing appropriate supportive counselling (McAndrew, 2014).

There are numerous factors to consider as student nurses are prepared for practice. While classroom lecture is valuable as it allows for the development of cognitive knowledge, according to Bloom's taxonomy, it is not a reliable method of forming affective knowledge (Bannister, 2002) which involves developing critical thinking skills and acknowledging personal attitudes and biases (Jack, 2014). Comprehensive learning requires not only acquiring theoretical understanding of concepts, but also engaging in their application to enable transfer of learning to real world clinical interactions (Lowell & Alshammari, 2018). To foster this, clinical placements for nursing students provide experiences to develop all domains of learning (i.e., cognitive, affective, and psychomotor) (Bannister, 2002). However, they can be anxiety provoking for students and further impact student-client interactions (Fossen & Stoeckel, 2016; Olasoji et al., 2020). Students' personal biases and stigma regarding mental illness can also make them fearful of mental health clinical placements (Brown, 2008; Lehr & Kaplan, 2013). For example, Fossen

and Stoeckel (2016) found that undergraduate nursing students felt intimidated in mental health clinical settings and feared they would say something wrong to upset clients. Many students also had inaccurate perceptions of mental illness and were reluctant to communicate with clients, therefore resulting in poor learning outcomes during these placements (Goh et al., 2016).

Nursing faculty are sometimes challenged to provide nursing students with client interactions to meet mental health learning objectives during clinical placements. Nurse faculty in clinical settings are often responsible for 8-12 students at the same time (Becker et al., 2006). This can pose challenges to nurse educators as they may not always be able to observe interactions between students and clients, thus limiting opportunities for formative feedback (Pfeiffer & Wands, 2021). The varied complexity of nursing care experiences makes it difficult to evaluate student learning as mental health symptoms can range from mild to severe and therapeutic communication approaches differ depending on the diagnosis (i.e., Borderline Personality Disorder versus Major Depressive Disorder) (Alexander & Dearsley, 2013; Becker et al., 2006). In addition, there may be a disconnect on measuring learning outcomes between nursing faculty who teach theoretical courses and those in the clinical setting (Becker et al., 2006). Clinical educators may have limited knowledge of core curricular objectives which can lead to discrepancies in learning objectives and practice expectations.

There are health care organizational limitations to students' clinical learning as well. Nursing students have limited opportunities to care for clients with mental illness due to nursing shortages, limited clinical hours in programs, higher client acuity beyond students' skill sets, and competition for clinical placements (Brown, 2015). Due to emotional discomfort, some clients request that students are not present during nursing care encounters, therefore reducing opportunities for students to learn how therapeutic communication is achieved (Brown, 2008).

The presence of a nurse educator can also negatively impact the development of the student-client relationship in the mental health setting as students sometimes feel uncomfortable when being watched, thus hindering their ability to communicate therapeutically (Kameg et al., 2010; Mullen & Murray, 2002). Student safety concerns have also been reported when caring for high acuity clients (e.g., a person experiencing psychosis) which limits their ability to learn essential communication skills (e.g., de-escalation techniques) during clinical placements (Kameg et al., 2010).

Nurses who are assigned to preceptor students in clinical settings can feel apprehensive about the experience. They might not feel competent in their mental health knowledge and communication skills, and therefore do not feel confident in their ability to be a mentor (Pauly, 2008; Wong et al., 2011). This lack of confidence could be fostered by a dearth in professional development opportunities for clinical skill development for working nurses themselves. A central component in all nurse-client interactions is the ability to develop effective interpersonal communication techniques (Williams et al., 2017). It is estimated that only 6.75% of nurses' working day is devoted to psychotherapeutic one-to-one communication with clients as a disproportionate amount of time being used for administration, coordination, and managerial activities (McAndrew et al., 2014). This is concerning as the treatment and health outcomes of clients in mental health settings can be greatly affected by their interactions with nurses (Wong et al., 2011).

Despite the extra duties, nurses want to provide clients with therapeutic experiences, and they acknowledge the importance of it. In a national review of mental health nursing in England, 326 key stakeholders including nursing directors responded to the question: How can mental health nurses best improve service users' experiences and outcomes in inpatient care settings?

The responses were categorized as: Service users need to be involved in their own care (29%), service users influence services (31%), and a need for increased direct clinical time (26%) (McAndrew, 2013). Nurses highlighted that treatment is client-centered and nurses' role is to provide support, guidance, and advocacy. Despite organizational barriers, mental health education that is focused on the foundational skill of communication improves treatment in the clinical setting (Goh et al., 2016). The nurse-client relationship must be reciprocal; nurses need to provide serious interest in and sensitivity to clients' perceived needs in a consistent, respectful, affirmative, empathetic, and trustworthy manner (McAndrew et al., 2014). When nurses spend sufficient time with clients, provide a safe space for interaction, and encourage them to tell their story, engagement will be enhanced.

Background Summary

Providing students with diverse educational opportunities is an essential component of improving nursing education (Lowell & Alshammari, 2018). Low-fidelity simulation may help to decrease stigma associated with students' perceptions of a person experiencing symptoms of mental illness, and to decrease university institutional and health care organizational barriers to client-centered mental health nursing care.

It is recommended that concreate learning experiences through theory and lecture are provided to nursing students and that along with opportunities to practice and rehearse care experiences, they are facilitated to reflect on those experiences with faculty and peers to enhance all domains of learning and engagement (McAndrew et al., 2014).

In completing the practicum project, I will aim to answer the key question: Can a low-fidelity mental health simulation enhance mental health knowledge and competency in undergraduate nursing students? To accomplish this, I must first examine the available literature

regarding this topic. Therefore, in this literature review, I will complete the following: compare active learning techniques; critically appraise the available literature; synthesize learning outcomes according to Bloom's taxonomy; and provide evidence that low-fidelity simulation by role-play is an appropriate learning strategy for implementation with undergraduate nursing students.

Literature Review

Methods

The search method for the literature review began with searching "simulation in nursing" into the Google Scholar search engine. This provided a broad range of literature to inform the scope of the search. The databases used to narrow the search included: Cumulative 7 Index to Nursing and Allied Health Literature (CINAHL) and PubMED. The keywords and Medical headings Search (MeSH) terms used were "simulation" "role-play" "nurse" "nursing student" and "mental health." Current articles published between 2006 and 2021 were preferred. Only articles published in English were reviewed as it is the only language in which I (as the reviewer) am proficient. The search yielded 203 full text articles and the titles and abstracts were reviewed for relevance to use in the review. A total of 37 articles were screened for review which included 15 primary research studies, one meta-analysis, and 21 other forms of scholarly literature such as narrative reviews and best practice guidelines. Qualitative studies were critiqued using the Critical Appraisal Skills Programme ([CASP], 2017) and Lincoln and Guba's evaluation criteria (Wood Johnson Foundation, 2008). They were rated as high, medium, or low credibility (or dependability). Quantitative studies and the meta-analysis were critiqued using the Public Health Agency of Canada's (PHAC) Critical Appraisal Tool Kit (2014). Two of the studies used qualitative methodologies (one phenomenological and one narrative description) and both were

rated as medium quality. The quantitative primary research studies and meta-analysis were all rated medium quality. The literature summary table in Appendix provides details of each study including naming the study design, strength of the design, study limitations and overall quality.

Active Learning Strategies

Active learning strategies are innovative methods for teaching and engaging undergraduate nursing students in learning. These interventions include high-fidelity and low-fidelity simulation that can be used in undergraduate nursing education as an adjunct to classroom and clinical teaching to enhance clinical placement learning (Benner et al., 2010; Jack et al., 2014; Lehr & Kaplan, 2013). With a concrete plan for its use in teaching and learning, simulations can enhance traditional teaching methods and introduce students to mental health clinical concepts (Benner, 2010; Jack, 2014). Examples of simulations include the use of mannequins, role-play, computed based resources, simulators, and standardized patients (Benner et al., 2010). Role-play and basic mannequins are considered low-fidelity while simulators (e.g. SimMan), computer resources, and standardized patients are high-fidelity (Lehr & Kaplan, 2013). The purpose of using these interventions is to provide students with nursing experiences replicating real-life situations to enable them to practice providing nursing care in a controlled learning environment with no risk to clients (CAMH, 2021b; Phillips, 2020). This is important as classroom learning and textbook descriptions cannot always adequately communicate the lived experience of a difficult care situation and how students can appropriately respond (Ronning & Bjorkly, 2019).

Both high-fidelity and low-fidelity simulations can range in difficulty and complexity to suit learning objectives and experience level of students (Williams et al., 2017). Students may observe or actively participate in exercises (Brown, 2008) and all students can be presented with

the same scenario to objectively evaluate performance (Becker et al., 2006). Using simulation, undergraduate nursing students should have access to the following: theoretical content regarding the topic or situation being simulated; a briefing to prepare for the simulation; the simulated session in which students are engaged; and a debrief during which learners reflect on the overall experience (Benner et al., 2010; Lowell & Alshammari, 2018). In mental health education, simulation through role-play or standardized patients can be used for learning skills of interpersonal communication as mannequins and simulators cannot portray the full range of human interaction such as expressing nonverbal cues or psychological withdrawal (Benner et al., 2010). Overall, simulation provides undergraduate nursing students the opportunity to practice skills that they would normally not have the chance to experience prior to entering the clinical area (Becker et al., 2006).

High-Fidelity Simulation

As previously noted, high-fidelity simulation is used in undergraduate nursing education in the form of standardized patients, computer generated scenarios, and simulators. Standardized patients are trained professional actors who present symptoms of a particular diagnosis and can provide constructive feedback to students on their communication style in a role-play type of learning activity (Alexander & Dearsley, 2021; Ronning & Bjorkly, 2019). Standardized patients were first introduced in the 1960s for teaching and evaluating medical students in clinical assessment techniques (Barrows, 1993). Their use has broadened to include training for actively practicing clinicians to assess the effectiveness of communication training programs (Ronning & Bjorkly, 2019). As well, nurses in the mental health field often rehearsing care encounters with standardized patients who have depression, bipolar disorder, anxiety, and schizophrenia (MacLean et al., 2017). Practicing effective communication skills is beneficial as nurses often

respond to diverse and unpredictable care encounters in mental health nursing (Ronning & Bjorkly, 2019). The importance of the actor's role is to portray emotions and nonverbal communication in an authentic, accurate, and consistent manner (Goh et al., 2016; Kameg et al., 2014; Olasoji et al., 2020). If implemented appropriately, the use of standardized patients is the most effective way to educate health care professionals in communication (Olasoji et al., 2020; Williams et al., 2017).

Computer generated scenarios include virtual environments, voice simulation, and virtual reality technologies that are used in undergraduate nursing education (Williams et al., 2017). Web based technologies enable students to think beyond the classroom and enhance cognitive knowledge by providing flexible learning (Lowell & Alshammari, 2019). Virtual clients display specific symptoms and nursing students are responsible to demonstrate the ability to perform mental status examinations, record psychosocial history, and better understand their professional role in assessment, monitoring, and treatment. This learning tool has been highly beneficial for nursing students of the millennial generation as they are often familiar with web-based and virtual environments (Parker & Myrick, 2009). Where web-based technologies lack the development of psychomotor skills, simulators can be helpful (Kameg et al., 2014). Students can benefit from actively participating or observing high-tech simulator scenarios as they can engage in two-way communication, and practice intervening with individuals experiencing altered level of consciousness and receiving medication (Laerdal, 2021a; Lehr & Kaplan, 2013).

Low-Fidelity Simulation

Low-fidelity simulation such as the use of role-play and mannequins are considered simple interventions and can be just as beneficial or more beneficial than high-fidelity simulation depending on student learning goals (Laerdal, 2021b). Overall, they are particularly useful in

controlling development and implementation costs when compared to high-fidelity simulation (Laerdal, 2021b; Weekley et al., 2015). Using role-play, faculty or nursing students portray a client experiencing mental health problems while students provide nursing care (Ronning & Bjorkly, 2019). Israel Scheffler, an American philosopher of science and education was one of the first to introduce this method of teaching in the 1970's with students playing the roles of both the clinician and the client experiencing psychiatric symptoms. Using this approach, educators were able to evaluate learning of both the client and the clinician. Students portraying the client were expected to characterize specific symptoms both objectively and subjectively then provide explanation of their actions following the scenario. Today, role-play prepares undergraduate nursing students for clinical placement by practicing new skills, engaging in meaningful learning and reflection, and evaluating personal and academic learning goals (Fossen & Stoeckel, 2016). To achieve learning outcomes and evaluate learning goals, nurse educators must ensure that learning outcomes are developed in a curricular design with specific learning objectives (Alfes, 2015). Importantly, students report enjoying role-play experiences and retain more information than what is learned in a standard lecture, helping them to achieve the identified learning objectives (Joyner & Young, 2006).

Simulation Challenges

There are limitations for both high-fidelity and low-fidelity simulation. A major limitation of many simulation activities is their inability to entirely replicate the human communication experience. The use of mannequins and virtual simulation lack nonverbal communication and the ability to form and continue meaningful verbal communication which is integral to the affective domain of learning (Brown, 2008; Goh et al., 2016; Kameg et al., 2014). The cost of a high-fidelity simulator can range between $15,000 to more than $200,000 in the

United States, depending on the complexity of the learning tool and the standardized scenarios which are often sold separately (Brown, 2008). Most Canadian companies that supply simulators do not provide online pricing and interested buyers must request an online quote (Laderal, 2021; Sentinel U, 2021). More advanced simulation labs can cost millions of dollars, which is prohibitive for many post-secondary education institutions (Hanberg et al., 2007). Online or virtual programs can be affordable at approximately $99 per student for lifetime use (e.g., the Shadow Health Digital Clinical Experience Program) but they lack improvements in application of communication skills in the affective domain (Taglieri et al., 2017).

While the use of a standardized patient can offset some of the concerns of accurately replicating human interactions, it can be difficult to recruit well trained actors to play this role (Goh et al., 2016). There is often limited time to familiarize them with the scenarios and symptoms, and to create an environment that is authentic (Davis et al., 2013; King & Ott, 2012). To use standardized patients or role-play, faculty must determine the optimal level of complexity for each scenario and be competent in providing useful feedback while making debriefings a positive experience (Davis et al., 2013). The time involved in using standardized patients can result in high costs. For example, Jack et al. (2014) used a standardized patient which cost $28 (USD) per hour. The total cost of the simulation experience was $1065 and not every student could participate.

While standardized patients and role-play could be most beneficial in helping students apply concepts in the affective domain, undergraduate nursing program objectives often focus on the evaluation of psychomotor skills in simulation. Hui et al. (2021) examined 848 faculty designed learning objectives for simulated learning most of which were created by the School of Medicine and School of Nursing. Using Bloom's taxonomy, 53% of simulation sessions were

focused on application, 21.4% on knowledge, and only 12.2% on comprehension and 3.7% on evaluation, where affective learning is developed. The learning outcomes of application and knowledge alone are not aligned with the standards of simulation education as they reside in the lower half of Bloom's taxonomy. Establishing simulation learning objectives based on Bloom's higher order cognitive skills and developing curricular focused simulation activities can optimize the learning experience by forming affective knowledge through analyzing, synthesizing, and evaluating the simulation (Chatterjee & Correll, 2017).

Interventions for Implementation

The use of standardized patients and role-play in undergraduate nursing education facilitates students in gaining competency to care for clients' physical and emotional needs, respond to nonverbal communication, and engage in therapeutic communication (Alexander & Dearsley, 2021). These experiences strengthen learning outcomes in the cognitive and affective domains (Bannister, 2002; Barbagallo, 2020; Bonnel, 2020; Speakman, 2020). Both active learning techniques require high levels of engagement by exploring personal feelings and values, gaining insight, and developing problem solving skills with peers in a group-based environment (Bannister, 2002; Joyner & Young, 2006; Kirkpatrick & Dewitt, 2020). When students hear their peers' perspectives of the scenario and receive constructive feedback, it often leads to self-reflection and the development of self-awareness (Chua et al., 2021; Joyner & Young, 2006). Further, group reflection among students allows them to acknowledge their personal thoughts, feelings, biases, make sense of the learning experience (Bonnel, 2020) and identify further learning needs (Ronning & Bjorkly, 2019).

As the focus of the practicum project is to identify learning interventions to improve undergraduate nursing students' mental health knowledge and competency in all domains, the

use of mannequins, computer-based simulations, and simulators will not be explored further in the literature review. Mental health simulation using standardized patients and role-play were determined to be comprehensive interventions for undergraduate nursing students to engage in an immersive, secure, and safe learning environment to prepare for clinical placement experiences (Alexander & Dearsley, 2021). Nurse educators can use these interventions beyond application (e.g., psychomotor skills) to higher levels of learning in the affective domain (Olasoji et al., 2020). Moving forward in this review, learning outcomes identified in the literature using standardized patients and role-play were compared for appropriate use among undergraduate nursing students.

Simulation Learning Outcomes

The literature was reviewed for undergraduate nursing learning outcomes using role-play and standardized patients. The quantitative and qualitative studies were examined, synthesized, and the learning outcomes were categorized into cognitive and affective learning domains according to Bloom's taxonomy. Two other categories identified in the literature were: improved confidence and overall satisfaction; and the importance of follow up sessions. The feasibility of implementing both interventions were considered to conclude that low-fidelity simulation of role-play is an appropriate active learning option for use among undergraduate nursing students (Chua et al., 2021; Dawood, 2013; Gjestvang et al., 2021; Fossen & Stoeckel, 2016).

Cognitive Domain

Using standardized patients and role-play can enhance learning in the cognitive domain as nursing students develop an understanding of mental health problems and feel prepared for mental health clinical placements (Olasoji et al., 2020; Robinson-Smith et al., 2009; Witt et al., 2018). Fossen and Stoeckel (2016) found that using a combination of role-play and standardized

patient simulation changed nursing students' perception of clients as they voiced that mental health symptoms are real. Developing such an awareness resulted in students developing a new approach to caring through communication such as showing genuine interest, asking about mental health symptoms, asking how the diagnosis makes them feel, how it impacts their day-to-day life, and what makes it better or worse. Following role-play, communication techniques of speaking slowly and clearly, making eye contact, actively listening, and therapeutic silence to enhance the nurse-client relationship were also identified by nursing students as necessary to form therapeutic nurse-client relationships (Gjestvang et al., 2021; Martin & Chanda, 2016). Further, the importance of a calm, low stimuli, and comfortable environment was important to students which may not have been identified through classroom lecture (Gjestvang et al., 2021). After a standardized patient scenario, a student participating in one study stated "It is easy for me to visualize on how to conduct mental health assessment examination. I feel that this will prepare us for the future" (Goh et al., 2016, p. 170). It has also been reported that cognitive learning is associated with improvements on nursing students' test scores measuring knowledge of therapeutic communication and psychiatric mental health assessment, further supporting the use of mental health simulation in undergraduate nursing programs (Alfes, 2015).

Affective Domain

The use of role-play and standardized patient interventions has been identified in the literature as positively contributing to affective learning through engagement during simulation experiences and self-reflection during the debrief, resulting in the development of self-awareness. Engagement can also be enhanced through role-play by being truly present, being immersed in the situation, processing one's own natural feelings, and being enthusiastic about the experience (Gjestvang et al., 2021; Robinson-Smith et al., 2009). Similarly, Fossen and

Stockel (2016) found that a combination of role-play and standardized patient simulation enhanced nursing students' engagement as they were empathetic, open minded, nonjudgmental, and truly caring rather than "just going through the motions" (p. 206). Interestingly, a meta-analysis using 11 studies with nursing students provided evidence that role-play was significantly more effective than standardized patients to enhance students' empathy when they played the role of both the client and care provider (Chua et al., 2021).

The debrief process following the simulation has been identified as enhancing self-awareness and improving self-efficacy by creating a trusting environment and prioritizing time to reflect. (Olasoji et al., 2020). In Pfeiffer and Wands' (2021) study, 99% of students strongly agreed that debriefing provided opportunities to self-reflect. As well, the reflection process can also result in further self-awareness of understanding students' current communication styles and skills (Fossen & Stoeckel, 2016; Goh et al., 2016). By giving students an opportunity to reflect, they also have an opportunity to acknowledge mistakes and learn from them. For example, Gjestvang et al. (2021) found that students voiced a need to be open minded, more inquisitive, and direct when speaking with clients. Importantly, they also identified their personal biases and used this as a tool to improve clinical interactions in the future (Goh et al., 2016). According to one student in Goh et al.'s study, debriefing "made me think about the gaps in my understanding of the content and what I need to work on" (p. 170). Consequently, students have an opportunity to learn what it could be like to experience mental health problems and how to help someone in need (Pfeiffer & Wands, 2021). In addition, an added benefit of role-play and simulation is the positive effects of students observing their peers (rather than only engaging in active participation). Student observation can improve student self-awareness as individuals can

identify what worked well in the scenario and lessons to be learned for the future care encounters (Fossen & Stoeckel, 2016; Gjestvang et al., 2021; Stegmann et al., 2012).

Both role-play and standardized patients enhanced student self-awareness and improved student attitudes towards stigmatized individuals regardless of which intervention was used or in what order (role-play first versus standardized patient first) (Alfes, 2015). Both self-awareness and students' attitudes were enhanced after the second learning experience which supports the use of repeated simulation to effectively learn mental health therapeutic communication techniques.

Self-Confidence and Student Satisfaction

In reviewing the available literature, I found attention given to the experience of facilitating nursing student satisfaction and self-confidence in relation to simulation and role-play. For example, Goh et al. (2016) found a significant difference in students' satisfaction and confidence before and after the standardized patient experience. One student stated, "It is more interactive, and I get the opportunity to build my confidence in communicating" with clients with mental illness (p. 170). Other researchers identified significant improvements in students' confidence in communication skills after a standardized patient simulation (Martin & Chanda, 2016; Pfeiffer & Wands, 2021; Robinson-Smith et al., 2009; Witt et al., 2018). In particular, the feedback given to students after simulation was particularly valued as it further enhanced their confidence in communication (Witt et al., 2018).

Students have reported being satisfied with learning following simulation experiences (Robinson-Smith et al., 2009). Specifically, Witt et al. (2018) noted that students requested to start standardized patient simulations earlier in the BScN program. In another study, one student stated, "We should do MUCH MORE (*client simulation*) throughout the full programme. I have

learned more from this than anything else" (Gjestvang et al., 2021, p.4). Adding to this positive regard for simulation is its closeness to reality. Students have described the experience as feeling real, which was positively enhanced by "a low-pressure environment" (Martin & Chanda, 2016, p.212). Such a relaxed approach was also noted by Kameg et al. (2014) as decreasing anxiety among nursing students in caring for clients with mental illness after the simulation. Overall, nursing students have been satisfied with the simulation experience, describing it as positive, creative, and meaningful to prepare them for the mental health clinical area (Becker et al., 2006)

Follow-up Sessions

Of the primary studies with nursing students, only Alfes (2015) measured learning outcomes following two simulation sessions and found statically significant improvements in self-efficacy following the second session. There were also improvements identified in students' attitude toward stigmatized individuals, knowledge of communication, and mental health assessment skills. Chua et al. (2021) found that role-play and simulation interventions with healthcare professional students lasting one to seven months compared to one-day interventions had statistically significant effects. Exposure to individuals with mental health concerns also favourably influenced student outcomes. For example, students who have previously cared for someone with mental illness reported higher self-confidence during the simulation exercises and higher satisfaction following the simulation experience (Goh et al., 2016). These findings support the need for exposure and practice by repeated simulation sessions.

Guiding Framework

A conceptual framework should be used and act as a guide in developing and implementing simulations for undergraduate nursing students (Davis et al., 2013). The pedagogy should be based on collaboration and participation in students' own learning, using

multiple learning strategies, and providing realistic scenarios for application (Parker & Myrick, 2009). Of the fifteen research articles critically appraised and included in the literature review, eight primary studies and one meta-analysis mentioned the inclusion of a theoretical or conceptual framework. Kaplan et al. (2012) and Becker et al. (2006) referred to the problem-based learning pedagogical method while Robinson-Smith et al. (2009) used a combination of problem-based learning and the adult learning theory. As well, Olasoji et al. (2020) identified constructivism as an appropriate paradigm to use in simulation.

The experiential learning theory was identified in several studies as guiding the development and implementation for simulations in nursing education (Alfes, 2015; Chua et al., 2021; Fossen & Stoeckel, 2016; Goh et al., 2016; Kameg et al., 2014). Experiential learning occurs when students are actively engaged in knowledge acquisition through "hands on experience" with problem solving, decision making, and reflection (Davis et al., 2013, p. 158). For example, Kolb's (1984) experiential learning theory is based on the humanistic and person-centered philosophy of Carl Rogers who believed in individuals' power for healing and learning (Ronning & Bjorkly, 2019). Role-play enhances and facilitates personal and professional growth as it allows students to better understand how clients may be feeling. This way of thinking facilitates a meaningful reflective process which increases empathy and enhances care practices.

Following Kolb's theory, learning occurs in a four-stage process: concrete experience where learners are involved in the role-play scenario; reflective observation where the learners review what happened in their experience (i.e., self-reflection, peer observation, debrief, and discussion); abstract conceptualization where learners make sense of the situation (i.e., debrief and discussion); and active experimentation in which learners translate what they learned into

clinical placement practices (Chua et al., 2021; Davis et al., 2013; de Oliveira et al., 2015; Goh et al., 2016; Lowell & Ashammari, 2018; Schuster, 2013). Kolb's theory also supports including follow up sessions after the initial simulation to enhance knowledge retention (Lowell & Ashammari, 2018). Active experimentation allows nursing students to evaluate the concrete experience and practice what was learned to build practice competence. Using the experiential learning theory, simulation interventions should be provided prior to clinical placements. This will foster appropriate reflection on the experience to have knowledge, skill, and confidence when introduced to the clinical practice area (Kameg et al., 2014). Given the evidence available, the reviewed literature supports the use of the experiential learning theory as a reasonable theoretical framework to guide the development and implementation of the low-fidelity learning intervention.

Conclusion

Students often do not develop affective knowledge prior to clinical placements which can negatively influence the development of forming therapeutic nurse-client relationships (Fossen & Stoeckel, 2016). The literature supports the need for nurse educators to address nursing student knowledge gaps prior to entering clinical placements. Role-play fosters the development of cognitive and affective knowledge by allowing students to practice, observe, analyze, and evaluate mental health nursing care interventions to prepare for real life scenarios (Chua et al., 2021; Fossen & Stoeckel, 2016; Gjestvang et al., 2021). Other benefits of role-play are improvements in students' self-confidence, students' satisfaction with overall simulation experiences, and the request for follow up sessions (Alfes, 2015; Becker et al., 2006; Chua et al., 2021; Gjestvang et al., 2021; Goh et al., 2016; Martin & Chanda, 2016; Pfeiffer & Wands 2021). Role-play was also identified as a feasible option in undergraduate nursing education as it

requires minimal funding and resources (Benner et a., 2010). From reviewing the literature, I have concluded that there is sufficient evidence to support the use of role-play as a useful learning strategy to enhance engagement and improve communication among undergraduate nursing students in mental health settings, thereby also supporting the rational for my current practicum project.

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Appendix

Literature Summary Table: Mental Health Simulation

Key question: Can a low-fidelity mental health simulation enhance mental health knowledge and competency in undergraduate nursing students?

Study/Design	Participants/Methods	Results	Comments
Author: Chua et al. (2021) Design: Meta-analysis Purpose: Examine the effectiveness of simulation-based interventions in improving empathy among healthcare students	Country/Setting: Iran (n=1), Italy (n=1), Spain (n=1), Ghana (n=1), Taiwan (n=1), China (n=2), Brazil (n=1) and USA (*n*=8) N: • 16 studies • seven RCTs, one cluster RCT, eight CCTs Data Collection: Studies in English language from PubMed, Embase, CINAHL, PsycINFO, Web of Science, Scopus and ProQuest Dissertations & Theses Global) until October 2020. • Keywords not identified • Nursing students: 11 studies • SP: two studies	**Enhanced empathy:** Role play was significantly more effective than standardized patients • $p<.001$ Statistically significant small, medium, and very large effect sizes Healthcare students: • SMD=0.46 • 95%CI= 0.25-0.66 SPs: • SMD=0.65 • 95%CI=0.41-0.89 Individual-based vs group-based simulation statistically non-significant subgroup differences • $p = 0.76$	Design: **Strong** Quality: **Medium** Issues: • Reliance on self-reported scores • Social desirability bias • Difficult to compare results from variations of scales • Large variation in interventions and limited number of RCT

	• Role-play: eight studies Outcomes: • Studies measured by self-reported empathy at pre and post intervention. Secondary outcome health care students' empathy reported by SPs, faculty members, independent observers, & examiners. • Follow up measures		
Author: Becker et al. (2006) Design: RCT Purpose: Describe nursing faculty members' response to the challenges in teaching and application of clinical skills	Country/Setting: USA, university Sample: 147 undergrad nursing students Control group • n=89 • Usual education Treatment group • n=58 • SP experience Data Collection: Videotape CKT Pre/post with 20 MC • Not R/V	**No significant difference in CKT pre/post scores** • Control group: • *t*=-2.817 • Intervention group: • *t*=-4.95 **No significant difference in unannounced SP evaluations comparing control and intervention** SPIR: • *t*=.0005 • *p*=.043 SSPE: • *t*=1.461 • *p*=.238	Design**: Strong** Quality: **Medium** Issues: • Risk of information bias • Most participants had another undergrad degree • Type II Error • Limited generalizability

	• Input from 6 psychiatric APN in development SSPE form • 6-point Likert scale • 2 open-ended questions • Not R/V Demographic Data form SPIR form • 5-point Likert • SP's rated students' performance • Valid <u>Data Analysis:</u> • Frequencies • Measures of central tendency • *t*-tests Qualitative: • Content analysis on narrative responses	**Mixed Methods:** • Improved critical thinking • Provided a benchmark for self-assessment • Ability to test different interviewing techniques on the same client • Took notice of phrasing and tone of voice • Video tape helped to critique approaches	
<u>Author:</u> Witt et al. (2018) <u>Design:</u> RCT <u>Purpose:</u>	<u>Country/Setting:</u> USA <u>Sample:</u> 32 final year BSN students <u>Control group:</u> • n=15 • Usual education	**Exam Scores:** No differences in final examination scores between groups: • 87.9 +/- 7.6 vs 85.8 +/ 5.7 • *p*=.30 **Satisfaction Survey:**	<u>Design:</u> **Strong** <u>Quality:</u> **Medium** <u>Issues:</u> • Author developed surveys • Researchers participated (bias)

Examine if SPs in a simulated home environment enhanced nursing students' competency in assessment and communication with clients with mental health disorders	Intervention group: • n=17 • Usual education & SP experience • Six MH scenarios Data Collection: Demographic survey Pretest/posttests intervention group: • 10 item MC National Council Licensure Examination Satisfaction survey Videotaped sessions Data Analysis: Descriptive statistics Nonparametric tests: • Wilcoxon signed rank test • Wilcoxon rank sum tests Qualitative: • Content analysis	Students strongly agreed that SP improved confidence in communicating with clients **Mixed Methods:** • Improved their confidence in communicating with clients • Students valued feedback given after experience • Made the situation more real • Improved focus on client • Improved communication and assessment • Should start earlier in program	• Time constraints • Small sample • One recruitment site • Limited generalizability
Author: Alfes, C. (2015) Design: Adequate ITS Purpose:	Country/Setting: University Sample: 77 second year nursing students Group 1: • 46 BSN students Group 2:	Self-efficacy was the only statistically significant variable from the BSN sample All groups improved significantly at time points two and three: • $p \leq .001$	Design: **Moderate** Quality: **Moderate** Issues: • Small sample size • Surveying students from two programs over two semesters

Compare knowledge, attitudes, and self-efficacy outcomes following peer-to-peer RP and SP intervention for pre-licensure students in psychiatric mental health nursing	• 31 MN students • Same level of the nursing curriculum as the BSN students <u>Data Collection:</u> Mental Health Nursing Clinical Confidence Scale • 20-item four-point scale Attitudes to Mental Illness Questionnaire: • Measures attitude toward stigmatized individuals • 5-item instrument • scale of 0-4 • Closer to zero indicate the least negative attitude toward the client • Content R&V • Test-retest validity Student knowledge of therapeutic communication and psychiatric mental health assessment: • 8-item MC • Content validity • Researchers developed Video recordings	No statistically significant difference in outcomes related to order of strategy All the BSN students expressed higher levels of self-efficacy over time	• Some *p* values not reported • Limited generalizability

	Data Analysis: • Repeated measures of ANOVA		
Author: Stegmann et al. (2012) Design: Experimental cross-over Purpose: Determine if the type of SP simulation affects knowledge in communicating with clients	Country/Setting: Germany Sample: 200 undergrad medical students • Performed simulation then observed or observed then performed • No significant differences at baseline between groups (p=.10, F=2.69) Data Collection: Knowledge test • Six sections • Test reliability Open ended questions Peer feedback Videotaped Data Analysis: • Descriptive statistics • ANCOVA	**Vicarious learning vs learning by doing:** Prior knowledge explained 26% of the variance in knowledge after the first learning session • F=67.43 • p<.001 Vicarious learning was more effective than learning by doing on knowledge of communication	Design: **Moderate** Quality**: Medium** Issues: • Learners asked how they would act, did not measure actual actions • Only one observer to measure outcomes
Author: Goh et al. (2016) Design: UCBA	Country/Setting: Singapore, university	**Satisfaction:** Significant difference before and after SP • t=15.12	Design: **Weak** Quality: **Medium**

Purpose: Explore undergraduate nursing students' learning experiences with the use of SP for mental health nursing	Sample: 95 second year undergrad nursing students • Response rate 79.1% • SP experience Data Collection: Pre\post-test: • Anonymous • Demographics • NLC: 5-point Likert scale • Internal consistency • Interrater reliability Open ended questions Data Analysis: Descriptive statistics Parametric tests: • Paired *t*-tests • One-way ANCOVA Qualitative: systematic classification	• $p<0.001$ • small ES (.07) **Confidence:** Significant difference before and after SP • $t=5.29$ • $p<0.001$ • large ES (.23) Taken care of mentally ill as a nurse had a significant difference on satisfaction on learning after adjusting for pre-test • F=0.001 • $p<0.001$ **Previously cared for someone with mental illness:** • 16% • Difference in satisfaction: $p=0.001$, 95%CI=.821-3.21 • Difference in confidence after adjusting for pre-test: $p=.046$, 95%CI=.036-3.8, F=.046 **Qualitative Themes:** • Increased confidence • Applicability • Knowledge integration • Valuable session	Issues: • Selection bias • Small sample size • Lacked a comparison group • Faculty conducted scenarios rather than trained actors

Author: Kameg et al. (2014) Design: UCBA Purpose: Investigate the impact of a depression and anxiety SP simulation scenario on nursing student anxiety before attending clinical placement	Country/Setting: USA, university Sample: 69 undergrad nursing students • SP simulation experience • 89.3% had previous simulation experience Data Collection: **Pre/post simulation** Anxiety VAS: • R&V STAI: • 40-item • 4-point Likert scale • R&V Simulation Evaluation Survey: • Nine questions • 4-point Likert scale • Content validity • Internal consistency Videotaped Data Analysis: Descriptive statistics: • Percentages • Means & SD Parametric tests: • Paired *t* test (one tailed)	Significant decrease in anxiety after the simulation experience with SP • t=2.07 • df=67 • p=.022 Significant improvement in students' confidence with communication skills after simulation • p=.000 **Qualitative:** • "It felt real" • "a low-pressure environment" • Allowed them to reflect • Silence can be helpful	Design: **Weak** Quality: **Medium** Issues: • Convenience sample • Confounding • Lacked a control group • Faculty SP had limited acting training • Lacked generalizability

Author: Lehr & Kaplan (2013) Design: UCBA Purpose: Implement, debrief, and evaluate a mental health simulation with undergraduate nursing students in critical thinking, confidence in communication, decision making skills, and anxiety levels	Country/Setting: USA, university setting Sample: 54 undergraduate nursing students • Groups of 4-5 students • Observed each other in SP experience Data Collection: Demographic survey METI tool • R&V Pre/post surveys • Measured anxiety • 5-point Likert scale Data Analysis: Percentages	**% of high anxiety in the idea of caring for clients with mental illness:** • Pre simulation: 28% • Post simulation: 7% **METI tool strongly agreed responses:** Instructors' questions helped to think critically • 78% Challenged thinking and decision-making skills • 80% Learned as much from observing peers as participating • 78% Value in debriefing • 83%	Design**: Weak** Quality: **Medium** Issues: • Student performance not evaluated • MH experience differed among students • Recall bias on post surveys
Author: Martin & Chanda (2016) Design: UCBA Purpose: Introduce therapeutic communication simulations for mental	Country/Setting: USA, university Sample: 28 undergrad nursing students • Nine students per group • Two SP simulations	**VAS Confidence with communication** Significant improvement post simulation: • $p<.001$	Design: **Weak** Quality: **Medium** Issues: • SPs not actors • T statistic not reported • Small sample

health theory and clinical courses	Data Collection: VAS Confidence with Communication • Pre/post simulation • Scores ranged 0-100 • Construct validity Therapeutic communication MC • Pre/post simulation Data Analysis: • Percentages • Means Parametric test: • Dependent *t*-tests		• Confounding (previous experience with mentally ill were not accounted for) • Limited generalizability
Author: Olasoji et al. (2020) Design: UCBA Purpose: Measure the impact of a simulation workshop on the skills and confidence of nursing students	Country/Setting: Australia Sample: 89 BScN students • 12 in each group • 96% of class participated • Four SP scenarios Data Collection: Anonymous Pre/post surveys: • Pre survey 15-items • 5-point Likert scale • content and face validly	**Pre/post significant difference in scores:** MH therapeutic engagement: • Z=-4.37 • *p*<.001 • r=.47 MH assessment skills: • Z=-.7.78 • *p*<.001 • r=.84 MH placement preparedness: • Z=7.67 • *p*<.001 • r=0.83	Design: **Weak** Quality: **High** Issues: • Small sample • Varying performance of the SP • Limited generalizability

	Two open ended questions (preparation and expectations) Post evaluation survey: • 37 items 5-point Likert scale • Three open ended questions (participants' experiences) • Content and face validly <u>Data Analysis:</u> • Counts • Percentages • Means • SD • EFA Nonparametric test: • Wilcoxon signed rank	**Survey:** • Agreed to strongly agreed that improvements were made in all learning domains	
<u>Author:</u> Pfeiffer & Wands (2021) <u>Design:</u> UCBA <u>Purpose:</u> Examine learning outcomes between theater and nursing programs by creating trained SP	<u>Country/Setting:</u> USA <u>Sample:</u> 147 nursing students • Groups of four to six • Learning modules • Two SP scenarios <u>Data Collection:</u> SET-M	• **% agreed to strongly agreed:** • 83% gained confidence and improved communication with clients • 99% debriefing provided opportunities to self-reflect	<u>Design:</u> **Weak** <u>Quality:</u> **Medium** <u>Issues:</u> • No control group • Response bias • Variation in nursing instructor skill • Lacked dependability

encounters for psychiatric mental health simulations	• Internal consistency Surveys • Online evaluation • 70% provided feedback <u>Data Analysis:</u> • Percentages Qualitative • Thematic content analysis • Constant comparative analysis • Confirmability • Transferability • Credibility	• 90% strongly agreed that debriefing contributed to learning <u>Qualitative Themes:</u> • Improved knowledge/skills • Working as a group • Supportive environment for learning • Observing was beneficial	
<u>Author:</u> Robinson-Smith et al. (2009) <u>Design:</u> UCBA <u>Purpose:</u> Develop and evaluate nursing students' satisfaction with an SP psychiatric clinical encounter	<u>Country/Setting</u>: USA, university <u>Sample:</u> N=112 undergrad nursing students • Groups of six to eight • Video of MSE • SP experience at the beginning of clinical rotation • Two scenarios <u>Data Collection:</u>	**Mean scores of agreed to strongly agreed on NLC tool** Developed self-confidence in learning through SP: • Mean=4.28 Satisfied with learning through SP: • Mean=4.60	<u>Design:</u> **Weak** <u>Quality:</u> **Medium** <u>Issues:</u> • Convenience sample • No control group • Students learned role of SP • No thematic analysis of qualitative data • Only means reported • Student forms not reliable

	NLC tool • 5-point Likert scale • Interrater reliability Student Preparation Form • Content validly Student Interview Findings Form • Content validly Observation Form • Content validly Formative evaluations Data Analysis: Means		
Author: Dawood (2013) Design: Cross-sectional Purpose: Investigate nursing students' perspectives about RP as a teaching strategy in psychiatric nursing	Country/Setting: Saudi Arabia Sample: N=139 nursing students • 90.9% response rate • Students created two RP scenarios for MH disorders Data Collection: Two part: • Anonymous • 20 item questionnaires • Content validity • Test reliability Analysis:	**Responses to questionnaire in %:** • 69.1% reported RP as their favorable method of learning • 79.9% reported RP improved psychiatric nursing knowledge • 8.4% RP improved confidence • 76.3% improved communication skills No significant relationship between academic level and perspectives of RP as a teaching strategy • r=.047 • *p*=.581	Design: **Weak** Quality: **Medium** Issues: • Convenience sample • No control group • CIs not reported • T statistic not reported

	• Frequencies • Percentages • Means • SD Parametric test: • *T*-tests • Persons r	Higher GPA was significantly associated with favoring RP as a teaching strategy • r=.669 • *p*=.039	
Author: Gjestvang et al. (2021) Design: Narrative Description Purpose: To investigate how Master students of mental health care experienced RP as an educational method to strengthen relational competence	Country/Setting: Norway Sample: 44 Masters students • nurses, SW, OT, educators • six to eight per group • Two three-day sessions • Two hours of lecture • RP: client, care provider, observer Data Collection: • Anonymous • Four open ended questions Analysis: • Content analysis	**Qualitative Themes:** • A deeper understanding of self and others • Different positions (provider, client, or observer) and situations provide comprehensive understanding • Engagement strengthens relational competence	Quality: **Medium** Issues: • No interviews • No gathering data during role play • Recall bias (data collected weeks after lab) • No follow up questions in reflection
Author: Fossen & Stoeckel (2016)	Country/Setting: USA Sample: 40 BScN students	**Pre-lab Themes:** • Fear of the unknown	Quality: **Medium** Issues:

Design: Qualitative Phenomenological Purpose: Understand students' perceptions of their experiences in hearing voices through role-play and simulation	• Combination of RP and SP experience • Hearing Voices That Are Distressing simulation package and role play activity Data Collection: • Preclinical survey • Post written survey Analysis: Thematic analysis Constant comparative analysis • Data saturation • Triangulation • Confirmability • Transferability	• Misperceptions of mental illness **Post-lab Themes:** • New attitudes • New approach to care • New nursing skills	• Debrief Q&A only • Recall bias • Social desirability bias • Lacked interviews • Unknown bracketing

Legend: APN=advanced practice nurse; BPD=borderline personality disorder; CCT=controlled clinical trials; CI=confidence interval; CKT=Communication Knowledge Test; EF=effect size; EM=estimated mean; ICC=intercorrelation coefficient; MC=multiple choice; MDD=major depressive disorder; METI = Medical Education Technologies, Inc., Simulation Effectiveness Tool; MH=mental health; MHS=mental health simulation; MSE=mental status exam; NLC=NLN Student Satisfaction and Self-Confidence in Learning scale; OSCE= Objective Structures Clinical Examination; OT=occupational therapist; Q&A= question & answer; R=reliability; RP=role-play; SD=standard deviation; SE=standard error; SET-M=Simulation Evaluation Tool-Modified; SMD=standardized mean difference; SPIR=Standardized Patient Interpersonal Ratings; SSPR= Student Self-Evaluation of SP Encounter; Patient Interpersonal Ratings; SW=social worker; UCBA= uncontrolled before and after; V=validity; VAS= visual analog scale

Appendix B: Environmental Scan Report

Environmental Scan Report

Development of a Mental Health Low Fidelity Simulation to Enhance Knowledge and Competency

Lauren O'Donnell

Memorial University of Newfoundland

NURS 6660: Practicum 1

Dr. Nicole Snow

The final practicum project is the development of a low-fidelity mental health simulation for undergraduate nursing students to enhance their knowledge and competency to engage and communicate with clients in clinical practice. This topic was chosen as nurse educators are challenged to develop creative and innovative ways to provide nursing students with nurse-client interactions to meet mental health learning objectives (Becker et al., 2006). In Cape Breton Nova Scotia, there are limited mental health clinical opportunities for nursing students and a shortage of nurses specialized in mental health to provide preceptorship. Unlike other clinical settings where priority is placed on psychomotor skills, engagement and communication are the foundational skills required in mental health nursing (Goh et al., 2016; Kameg et al., 2014). Clinical placements provide experiences to develop these skills but can be anxiety provoking for nursing students which impacts student-client interactions (Fossen & Stoeckel, 2016; Olasoji et al., 2020). Low-fidelity simulation is an active learning strategy to maximize learning in the cognitive, psychomotor, and affective domains (Bannister, 2002). It involves using real people to act as clients in a role-play scenario in a controlled and safe environment (Centre for Addiction and Mental Health [CAMH], 2021). Simulation can be used to enhance traditional teaching methods and introduce students to mental health clinical concepts prior to clinical placements (Jack, 2014). It is an innovative education modality that replicates real-life situations to increase students' confidence, enhance communication skills, and establish therapeutic nurse-client relationships (Brown, 2008; CAMH, 2021; Phillips, 2020). Students who feel prepared entering the mental health clinical area have reported positive clinical placement experiences and have contributed to recruitment and retention of mental health nurses (Brown, 2015).

The environmental scan was used to identify if simulation is utilized in mental health learning in the Atlantic Canadian undergraduate nursing programs. The specific objectives for

the environmental scan were: describe the various ways mental health learning occurs in undergraduate nursing programs through consultations with nurse educators in Atlantic Canadian universities; identify teaching barriers for nurse educators to provide nursing students with active learning strategies in mental health education; identify facilitators who implement active learning strategies with nursing students; and determine options for developing mental health active learning strategies as identified by nurse educators in undergraduate nursing programs.

Methods

Data Collection

Universities in the geographical area of Atlantic Canada were used for the environmental scan: they included Nova Scotia, New Brunswick, Prince Edward Island, and Newfoundland and Labrador. The environmental scan was completed through consultations with nurse educators from these universities currently offering BScN programs. The universities' websites were also reviewed to identify current mental health teaching methods used in the Atlantic Canadian undergraduate nursing programs. The environmental scan was limited to Atlantic Canada as the undergraduate nursing programs are comparable in class size, program structure, and program duration. The gathered consultation information was used to identify the need for a mental health active learning intervention for undergraduate nursing students. Further, the Canadian Association Schools of Nursing (CASN) (2021), a national voice for nursing education, research, and scholarship for nursing programs in Canada provides national standards for nursing simulation which will be used in developing the simulation for this project.

Nursing faculty from Cape Breton University, St. Francis Xavier University, Memorial University, University of New Brunswick, Dalhousie University, and University of PEI were contacted by email to request participation in the environmental scan. The email included an explanation of the purpose of the project, rational for the environmental scan (Appendix A), and

a request to complete the environmental scan questionnaire (Appendix B). My contact information was also provided if faculty were interested in asking questions regarding the project. The questionnaire was developed based on the specific objectives for the practicum project. The participants' response emails and completion of the questionnaires were returned to a secure Memorial University email (lmodonnell@mun.ca) and only I have the password to the account. The returned emails were saved using a code with no participant identifiers and placed into a secure folder on my passcode protected laptop. As a storage backup, the data were put on a USB drive to access the files off site. The relevant data were extracted, and no participant identifiers were attached to the data. The data is being stored until completion of N6661 in April 2022. This timeline was determined in case of a need to review the questionnaires for further data extraction as the project evolves or if the original extracted data is accidently destroyed.

Data Analysis

Qualitative content analysis was used to identify themes and patterns among the themes by condensing the responses into smaller content categories. A combination of a deductive and inductive approach was used to compare categories to other obtained data from consultations and to validate relevant findings in the literature. Participants were referred to as nursing faculty or educator to maintain anonymity.

Ethical Considerations

The Health Research Ethics Authority (HREA) Screening Tool (Appendix C) was completed and was exempt from ethical approval as the information gathered is publicly available through the universities' websites, policies, and procedures and will be used for program evaluation. Consent was implied based on completion of the environmental scan questionnaire. To maintain confidentiality, categories were used to refer to participants responses

and information was not used that could identify a participant. Terms such as 'nurse educators,' 'nurse faculty,' or 'nurse' were used without connecting them to a specific university.

Environmental Scan Results

The Atlantic Canadian universities' websites were reviewed to determine: the duration and structure of the programs, the learning strategies used, and the incorporation of mental health education in the curriculum. CASN (2015) provided national, consensus-based guidelines for simulation practice learning in baccalaureate nursing education. The guidelines target the following: the timing of practice experiences within the program; the intensity of practice experiences in terms of their length, frequency, and continuity; the selection of practice experiences; the quality of the instruction; and the pedagogical process which I will refer to in NURS6661 in developing the simulation intervention. Nursing faculty from four universities responded to the email requesting participation in consultation for the environmental scan. Three nurse educators completed questionnaires and one provided general information about the program.

The following program characteristics were noted: Cape Breton University (2021a) and Dalhousie University (2021) provide a three-year program and an accelerated two-year program. University of New Brunswick (2021a) offers a four-year program in Fredericton and Saint John, New Brunswick, and an accelerated program in Moncton, New Brunswick (University of New Brunswick, 2021b). St. Francis Xavier University (2021) and University of Prince Edward Island (2021) offer a four-year and a two-year accelerated program. Memorial University (2021) has a four-year program at the Center for Nursing Studies, Memorial University sites in St. John's, and at the Western Regional School of Nursing (WRSON) site in Corner Brook, Newfoundland. Also at Memorial University, a three-year accelerated program is offered at the Memorial

University site in St. John's and at the WRSON site in Corner Brook. Cape Breton University (2021b) uses experiential learning in the form of problem-based studies in the classroom, simulation in the laboratory, and clinical placements. They view experiential learning as essential to deepen knowledge and skill through practice, reflection, and to construct new understanding for further theoretical and clinical learning. Similarly, Dalhousie University (2021) and Memorial University (2021) highlight experiential learning as important as they incorporate laboratory testing and clinical placement into their program. Dalhousie University provides the option for students to complete the Canadian Nurses Association Mental Health Nursing Certification Program in semester five for a more in-depth level of learning in the specialty area. Experiential learning was also identified in University of New Brunswick, St. Francis Xavier University, and University of Prince Edward Island websites through clinical placement experiences.

Consultation with nurse educators in the undergraduate nursing programs was required as the websites did not provide precise information on mental health simulation to determine a need for the practicum project. The participants included: two nurse practice educators who educate students in the mental health clinical area and laboratory setting; one mental health nursing professor who has extensive experience in mental health clinical teaching; and an acting Dean of Nursing and nursing professor. One of the nurse educators is also responsible for coordinating and developing undergraduate laboratory simulations. The number years of nursing experience ranged from 12 years to 38 years. The experience in teaching undergraduate nursing students was between eight to 20 years. The emerged themes found through the websites and consultations were: mental health learning through strategies of theory, clinical, and simulation; facilitators to mental health simulation; and barriers to implementing mental health simulation.

Mental Health Learning

Two of the universities have a three-credit hour mental health course offered in the second or third year of the program. Rather than a dedicated mental health course, two of the universities use a concept-based curriculum and mental health concepts are threaded throughout the program. One university also provides a therapeutic communication and relationships course in the first year of the program which helps students to engage with clients as they progress through the program. It was suggested that a second communication course in the second year of the program would be beneficial due to the time span between the current communication course and the mental health course. One university also provides a community health four-credit hour course which intersects with mental health concepts (e.g., social determinants of health and social justice).

The four nurses identified mental health clinical placement as a vital component of undergraduate nursing education. All students are required to care for clients living with mental health disorders in acute care treatment as a part of their program. Mental health clinical placements were identified as a three-credit hour course that ranged from 72 to 108 clinical hours in duration. These experiences are largely provided in adult general admission units. Two of the universities offer mental health clinical placements in pediatrics and one in federal corrections that are not available for all students enrolled in the courses. One university offers a six-credit hour combined acute mental health and community clinical course. The community component involves vulnerable populations (e.g., people who use substances, homelessness, and people with mental health living in the community). Three nurses identified that students may only get to experience community mental health, community substance use recovery, or inpatient withdrawal management if they choose it as a co-op placement or for the extended clinical hours

at the end of the program. Students may desire these types of placements but are unable to experience due to limited availability.

The role of the educator in the mental health clinical setting is similar in all four universities. The universities may have full time nursing faculty, nurses who are hired by term, or nurses who are contracted and called 'clinical instructors' to educate and support students in the clinical area. Practice nurses who are specialized in the field are asked to mentor students in more independent type clinical hours. While these preceptors are employed through the health authorities, often there is no remuneration for taking on the additional role. When nurse educators are solely responsible for students, the usual ratio is seven or eight students to one educator. When preceptors are providing direct student support and guidance, the nurse educator is responsible for 15 to 20 students. Two universities identified that nurse educators providing mental health clinical support may not be specialized in mental health nursing.

The four nurses identified that the clinical instructors or nurse practice educators can develop, facilitate, and teach mental health labs. For example, the universities that provide a mental health theoretical course include a lab component where students perform a mental status exam. Participants also described communication and relationships courses that include a lab in which students participate in group discussion and student role-play. The students self-record their interaction with each other and analyze it to maximize learning. As well, one university invites people living with mental illness into the classroom who volunteer to interact with the students and ask questions.

Mental health virtual simulation has been introduced into three of the programs. The value of virtual simulation was identified by the nurses during a reduction in clinical placement opportunities for students during the COVID-19 pandemic. One university recently gained

provincial funding to support the development of virtual resources for mental health learning. They are integrating mental health virtual simulation across all undergraduate programs at the primary and satellite sites as a part of a national project (Virtu-WIL). These simulations are in pilot testing phase and should be available for use next year. Two universities currently use open-source virtual simulation resources (e.g., CanSim/Ryerson).

The time allocated for the mental health lab ranges from 20 to 108 hours. One university has incorporated standardized patients into their mental health lab. Every nursing student participates in one scenario with a standardized patient who acts as a person experiencing a mental health disturbance. The learning intervention involves providing students with a back story and scenario; using a basic script for the standardized patients to display symptoms of anxiety, anger, and/or psychosis; acting out the case; allowing the students to respond and interact with the individuals in real time; and participating in a debrief. The interaction takes place in an interview room with cameras and a recorder. During the debrief, the actor provides feedback on student communication perceived by a person living with mental illness. Students then access their recording and analyze it to enhance learning. Faculty can also review the recorded interaction and analysis, and then provide feedback to the students.

Facilitators to Mental Health Simulation

The nurse educators identified benefits of using the lab to enhance mental health learning. Two universities identified lack of mental health clinical placement experiences due to rural settings, large class sizes, and decreased client admissions to hospital. They stated the mental health lab as a safe and controlled environment where students can learn and make mistakes which are not harmful to themselves or the client. Students can feel comfortable and respond to difficult care situations that would not otherwise be possible until clinical placement. Using role-

play or standardized patients, students can learn how to appropriately respond to clients' nonverbal communication. Students have reported understanding what it means to be empathetic, respectful, and caring. They have a better understanding of their responsibilities and expectations in the clinical area. Engaging in a debrief following the scenario was identified as necessary to clarify how to talk to clients with mental health problems as they can work through communication difficulties as a group.

Two nurses stated that students in their own evaluations of the simulation experience, often request that simulation to be provided sooner in the program and more often. Students have also identified feeling nervous prior to the simulation but after starting, they perceived the scenario to be real, and became more engaged. Students expressed an appreciation for the opportunity to learn and practice in a supportive space prior to mental health clinical placement. The need to provide comprehensive mental health nursing learning opportunities was stressed by the participants. For example, one nurse stated that educators have an ethical obligation to the nursing and education profession to support and advocate for student learning using multiple strategies. She felt that mental health simulation supports her role as an educator.

Barriers to Implementing Mental Health Simulation

The nurse educators identified lack of time, physical space, resources/supports, and high cost as barriers to providing students with mental health lab experiences. Three nurses identified the difficulty of buy-in and prioritizing mental health simulation with other learning demands of the program. Two of the nurses voiced feeling frustrated as they have difficulty accessing laboratory time for mental health learning. Some faculty have not supported the development and implementation of mental health simulation and therefore mental health educators have not had the opportunity to pilot test a simulation with students. They voiced a need for teaching and

learning supports from their colleagues to facilitate the active process. One nurse stated, “It would be helpful to know how other departments or universities are making learning more fun and engaging.” Funding is often provided provincially and/or by the institution and was identified as a challenge for high-fidelity simulation (i.e., standardized patients and virtual simulation). All participants stated that funding differs yearly, and it is not guaranteed that an expensive learning intervention can continue. This makes it difficult to invest time into developing and implementing a simulation. Low-fidelity simulation through role-play was identified as a solution to cost. Lastly, nurses identified the timing of the simulation as important as it is most beneficial prior to clinical experiences but this is not always possible.

Conclusion

By using an environmental scan with nurse educators, I have identified that the implementation of mental health simulation in undergraduate nursing programs in Atlantic Canada is limited. Nurse educator participants described mental health simulation as an effective learning intervention to enhance knowledge and practice competency in preparation for clinical placement. In addition, simulation using standardized patients or role-play were favored as students can practice therapeutic communication by interacting with peers or actors verbally and responding to non-verbal cues in a controlled and safe environment. Implementation of simulation is challenging due to the extensive development process and pilot testing, a lack of buy-in from colleagues and institutions, a lack of funding or inconsistent funding, and competing demands for laboratory time. Developing a low-fidelity mental health simulation for undergraduate nursing students as a part of this practicum project will support mental health educators in utilizing the active learning strategy.

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Appendix A

Email to Nurse Educators

Hello,

My name is Lauren O'Donnell and I am a graduate nursing student at Memorial University of Newfoundland (MUN). I reside in Cape Breton, Nova Scotia and I am completing the Master of Nursing program through online distance education. My final practicum project for the program is the development of a low-fidelity mental health simulation for undergraduate nursing students to enhance their engagement and improve communication with clients in mental health settings. This topic was chosen as there are limited mental health clinical opportunities for nursing students in Cape Breton and a shortage of nurses specialized in mental health to act as clinical preceptors. The aim of this project is to develop a creative and innovative learning strategy for nursing students to meet undergraduate mental health learning objectives.

There is ambiguity as to how undergraduate nursing programs are incorporating simulation into their mental health learning experiences for students in Atlantic Canada. I am contacting you as part of completing an environmental scan with nurse educators in the Eastern Canadian region. The aim of the environmental scan is to understand current undergraduate nursing mental health learning practices, explore the challenges and facilitators encountered, and to identify potential learning options for Atlantic Canadian undergraduate nursing programs. The data will also be used to refine the research problem for the practicum project and possible learning strategies to resolve it.

Attached to this email, please find the environmental scan questionnaire. I respectfully ask that you consider reviewing and completing it. Confidentiality will be maintained as responses will be deidentified via codes and only themes will be extracted and used in the

practicum report. Consent will be implied based on completion of the questionnaire and returned to me via email (lmodonnell@mun.ca). If you have any questions prior to completing the questionnaire, I can be contacted at lmodonnell@mun.ca. We can also arrange a telephone meeting upon request.

Thank you for your time,

Lauren O'Donnell, Registered Nurse

Appendix B

Environmental Scan Questionnaire

Completion and return of this questionnaire to the investigator implies that you agree to participate in this consultation. The shared information will be used for a practicum project as a part of the investigator's Master of Nursing Degree at Memorial University of Newfoundland. Your shared personal information will remain confidential and no identifying information will be used.

1. How long have you been a Registered Nurse?

2. At which university are you employed?

3. How long have you been a nurse educator at this university?

4. How does theoretical mental health learning occur in the undergraduate nursing program?

5. How many credits are allocated to theoretical mental health nursing education?

6. What is the duration of mental health clinical placements in the undergraduate nursing program (measured in hours)?

7. How many credits are allocated to mental health clinical placement in the undergraduate nursing program?

8. In what settings do mental health clinical placements occur?

9. Who performs the role of the preceptor for students during mental health clinical placements (e.g., nursing university faculty, nurse practice educators, random nurse assignment, etc.)?

10. Are the preceptors/clinical educators specialized in mental health nursing?

11. What active learning strategies incorporated into mental health education (e.g., simulation such as, role play, computer-based interventions, standardized patients, etc.)?

12. How much time is allocated to these active learning opportunities in mental health (measured in hours)?

13. How are active learning strategies funded (government, institutional, private sector) in undergraduate mental health education?

14. If used, where are the active learning activities housed (e.g., simulation activities offered by nursing, a health sciences facility, medicine, interdisciplinary body)?

15. How are the active learning strategies monitored and evaluated?

16. What are some of the benefits of using active learning strategies in mental health education?

17. What are the challenges you encounter in offering active learning activities to students (i.e.., time, space, cost, resources/support)?

18. If you do not use active learning activities, what is preventing your school/faculty from doing so?

19. Are there new strategies for mental health learning that are in the planning/development stage that will be implemented in the future?

Appendix C

Health Research Ethics Authority (HREA) Screening Tool

Student Name: Lauren O'Donnell

Title of Practicum Project: The development of a low-fidelity mental health simulation for undergraduate nursing students to enhance their knowledge and competency to engage and communicate with clients in clinical practice

Date Checklist Completed: September 19, 2021

This project is exempt from Health Research Ethics Board approval because it matches item number ____1,3_____ from the list below.

1. Research that relies exclusively on publicly available information when the information is legally accessible to the public and appropriately protected by law; or the information is publicly accessible and there is no reasonable expectation of privacy.
2. Research involving naturalistic observation in public places (where it does not involve any intervention staged by the researcher, or direct interaction with the individual or groups; individuals or groups targeted for observation have no reasonable expectation of privacy; and any dissemination of research results does not allow identification of specific individuals).
3. Quality assurance and quality improvement studies, program evaluation activities, performance reviews, and testing within normal educational requirements if there is no research question involved (used exclusively for assessment, management or improvement purposes).
4. Research based on review of published/publicly reported literature.
5. Research exclusively involving secondary use of anonymous information or anonymous human biological materials, so long as the process of data linkage or recording or dissemination of results does not generate identifiable information.
6. Research based solely on the researcher's personal reflections and self-observation (e.g. auto-ethnography).
7. Case reports.
8. Creative practice activities (where an artist makes or interprets a work or works of art).

For more information please visit the Health Research Ethics Authority (HREA) at https://rpresources.mun.ca/triage/is-your-project-exempt-from-review/

Appendix C: Consultation Report

Consultation Report:

Development of a Mental Health Low Fidelity Simulation to Enhance Knowledge and Competency

Lauren O'Donnell

Memorial University of Newfoundland

NURS 6660: Practicum 1

Dr. Nicole Snow

The final practicum project is the development of a low-fidelity mental health simulation for undergraduate nursing students to enhance their knowledge and competency to engage and communicate with clients in clinical practice. This topic was chosen as nurse educators are challenged to develop creative and innovative ways to provide nursing students with nurse-client interactions to meet mental health learning objectives (Becker et al., 2006). In Cape Breton Nova Scotia, there are limited mental health clinical opportunities for nursing students and a shortage of nurses specialized in mental health to provide preceptorship. Low-fidelity simulation can be used to enhance traditional teaching methods and introduce students to mental health clinical concepts prior to clinical placements (Jack, 2014). This active learning strategy involves using real people to act as clients in a controlled and safe environment (Centre for Addiction and Mental Health [CAMH], 2021) to maximize learning in the cognitive, psychomotor, and affective domains (Bannister, 2002). Low-fidelity simulation has also been shown to increase students' confidence, enhance communication skills, and establish therapeutic nurse-client relationships (Brown, 2008; CAMH, 2021; Phillips, 2020). Following simulation, nursing students feel prepared entering the mental health clinical area and have reported positive clinical placement experiences which contributes to recruitment and retention of mental health nurses (Brown, 2015).

Consultations with nursing students and faculty were conducted to gather pertinent information for the development of this project. The purpose of the consultations is to: identify perceived mental health learning needs; identify perceived barriers to mental health knowledge and competence; and determine the need for the practicum project to develop a mental health active learning intervention.

Methods

Sample

Consultations were completed with two undergraduate nursing students enrolled at Cape Breton University. This group is an information rich data source to guide the practicum proposal and answer the research questions (Polit & Beck, 2017). The two Cape Breton University nurse educators who act as intermediaries in the recruitment process also participated in a discussion on mental health learning strategies. The questions used to guide the discussion are presented in Appendix A. It was anticipated that nurse educators would identify key information about creative and innovative learning strategies which contribute to positive learning outcomes. Nurse faculty from Registered Nurse Professional Development Center (RNPDC) was consulted to discuss the process of developing simulated client case scenarios for mental health. Also, I participated in a mental health simulation scenario development focus group hosted by the University of New Brunswick.

Data Collection

Cape Breton University nurse educators were emailed to connect with nursing students and offer the opportunity to participate in consultation (Appendix B). The email to nurse educators included the purpose of the project, rational for the consultations and contact information for students to email if interested in participating. Bulletins were also displayed in the Cape Breton University nursing department describing the practicum project and the request for student feedback (Appendix C). Consent to send student participation email (Appendix D), informed consent form (Appendix E), and questionnaire (Appendix F) was implied based on clients' agreeable response to the recruitment email or bulletin. In the email containing those documents, the importance of reviewing and signing the consent form prior to completing the questionnaire was explained. Students were asked to phone or email me if they have any questions prior to submitting the questionnaire. Due to time constraints to complete

consultations, lack of equipment (i.e., tape recordings and transcriptionists), COVID-19 restrictions, and lack of funding, face-to-face consultation interviews for qualitative data collection was not feasible. The questionnaire was developed based on the specific objectives for the practicum project. Following Cape Breton University Review Ethics Board (REB) approval, the consultations were completed with undergraduate nursing students.

Data Analysis

The participants' response emails and completion of the questionnaires were returned to my secure Memorial University email (lmodonnell@mun.ca). The returned emails were saved using a code with no participant identifiers and placed into a secure folder on a passcode protected laptop. As a storage backup, the password protected data was put on a USB drive to access the files off site. The USB drive is kept in a locked cabinet and only I have a key to access it. I requested that participants complete the questionnaire within one week of receiving it. The relevant data were extracted, and no participant identifiers were attached to the data.

The consultation questions were formed to identify perceived mental health learning needs and barriers to mental health knowledge and competence, and to determine the need for the practicum project to develop a mental health active learning intervention. Qualitative directive content analysis was used as codes identified in the literature review were examined and was expanded on and compared to the relevant codes found in the consultation data (Polit & Beck, 2017). The patterns in the data were then grouped into themes. Participants were referred to as nursing students, students, or nurse educator to maintain anonymity.

Ethical Considerations

The Health Research Ethics Authority (HREA) Screening Tool (Appendix G) was completed as part of the preparatory work for this project. Despite it being considered exempt

based on the criteria identified, Cape Breton University stipulated that I submit the project for review to its REB to gain approval to access nursing students. They are considered a vulnerable group on campus and therefore approval processes are in place for any investigations involving their input. In the request, I outlined how student informed consent would be reviewed and signed prior to completing questionnaires. According to Cape Breton University's REB, consultations with nurse educators and faculty are exempt from ethical approval as the information gathered will be exclusively used for learning needs assessment for potential mental health education improvement purposes. This is included in the HREA item number three. Consent was implied based on completion of the questionnaire. To maintain confidentiality, categories were used to refer to participants' responses in the practicum report such as 'nursing student' 'student' or 'nurse educator' and information was deidentified. Any identifying information is kept separate from the data. Individuals were informed they could refuse to participate without any negative repercussions on their schooling or work. They could also stop taking part in the process if they became upset or did not wish to answer any question. There were no benefits to participating. There was a risk for personal upset due to the potential link of personal or family experiences with mental health issues. The Cape Breton University resources for mental health support were highlighted in the consent form including: The Nova Scotia Mental Health Crisis Line at 1-888-429-8167 in case of emergency; Mental Health Resources for Domestic and International Students; and Healthy Minds Nova Scotia which is Cape Breton University's primary online mental health support program. Cape Breton University also offers free personal counselling by Clinical Social Workers who can be contacted through the Max Bell Health and Counselling Centre.

Consultation Results

Nurse Educators

I consulted with a nurse educator from the RNPDC virtually to discuss simulation scenario development and evaluation. She introduced me to the International Nursing Association for Clinical Simulation and Learning (INACSL) which provides standards of best practice for: simulation design, simulation facilitation, developing learning objectives, operations, measuring outcomes, and evaluation, providing guidance for simulation and is used by Canadian universities. I also participated in a mental health virtual simulation scenario development focus group hosted by the University of New Brunswick. The focus group consisted of four nurse educators, mental health nurses working in acute care, and a nursing student in Calgary. The information gathered during the focus group was valuable as I now understand the dynamic process of mental health simulation development. It is a teamwork approach using multiple experts in the education and medical field, and feedback is needed from key stakeholders prior to finalizing the implementation plan.

Nursing Students

Two Cape Breton University nursing students participated in consultation. Both students were enrolled in their second year of the three-year program and have not experienced mental health clinical placements. One student identified learning mental health concepts in theory during lecture while the other student did not.

Perceived Barriers to Mental Health Knowledge and Competence

Both students had very little experience in communicating with someone with mental health symptoms. One student had personal experience in safety planning and counselling a friend who was having suicidal ideation. They both stated they currently feel uncomfortable communicating with people experiencing mental health symptoms. They do not know what to

say and fear that they will make things worse for the client. One student stated, “I am overly concerned with being ignorant with my approach.” In addition, both students identified fearing unexpected situations such a client acting violently. Other fears include a lack of self-awareness and personal judgement that may affect client care. They both look forward to their clinical placement but state they may hesitate to ask nurses questions as they do not want to bother them.

Perceived Mental Health Learning Needs

Both students identified a need to learn by actively doing to care for clients living with mental illness. One student suggested learning from a person with lived experience would be helpful. They stated, “I want to hear the experience from the client’s perspective. I want to know what it [symptoms] feel like.” The other student stated, “I want to ask them what makes them feel better and what makes them feel worse.” They were interested in learning skills of listening, communication, and building rapport. While both students were also interested in mental health acute care and community wellness clinical placements, they felt they needed to learn more before feeling prepared for clinical placements.

Mental Learning Interventions

Both students identified role-play as a practice tool to build confidence in communicating with people with mental illness. One student stated, “We can try to put ourselves in difficult situations to better understand how to help them.” They both have some experience with role-play (i.e., a dementia assessment and medical skills development) and stated mental health role-play would be helpful prior to clinical placement.

Conclusion

Through consultation with Cape Breton University students, mental health learning needs were identified, and this information will provide guidance in developing learning strategies for

the group (Plitcher, 2016). Consultation with RNPDC nurse faulty and participation in a simulation scenario focus group provided guidance in the extensive processes involved in simulation development which will be utilized in NURS 6661. Nursing students identified low-fidelity simulation as a useful learning strategy to develop knowledge, communication skills, and to improve confidence to prepare for mental health clinical placement. Developing a low-fidelity mental health simulation for undergraduate nursing students as a part of this practicum project will support undergraduate nursing students in developing the skills necessary for clinical practice.

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Appendix A

Nurse Educator Discussion Topics

The Development of a Low-Fidelity Mental Health Simulation for Undergraduate Nursing Students to Enhance Engagement and Improve Communication

The shared information will be used for a practicum project as a part of the primary investigator's Master of Nursing Degree at Memorial University of Newfoundland. Your shared personal information will remain confidential and no identifying information will be used.

1. What are the facilitators students encounter in mental health clinical placements?

2. What are the challenges you encounter in mental health teaching?

3. What would you like to teach more about in mental health?

4. What active learning strategies incorporated into mental health education (e.g., simulation such as, role play, computer-based interventions, standardized patients, etc.)?

5. Do you have any experience using role-play or standardized patients in learning? Yes No Please elaborate.

6. If used, how are the scenarios developed?

7. How is learning evaluated or measured for these activities?

8. How do you best teach? (e.g., lecture, independent study, study groups, projects, role-play, simulation?)

Appendix B

Consultation Email to Nurse Educators

Hello,

My name is Lauren O'Donnell and I am a graduate nursing student at Memorial University of Newfoundland (MUN). I reside in Cape Breton, Nova Scotia and I am completing the Master of Nursing program through online distance education. My final practicum project for the program is titled: *The Development of a Low-Fidelity Mental Health Simulation for Undergraduate Nursing Students to Enhance Engagement and Improve Communication*. This topic was chosen as there are limited mental health clinical opportunities for nursing students in Cape Breton and a shortage of nurses specialized in mental health to act as clinical preceptors. The aim of this project is to develop a creative and innovative learning strategy for nursing students to meet undergraduate mental health learning objectives.

There is ambiguity as to how undergraduate nursing programs are incorporating simulation into their mental health learning experiences for students in Atlantic Canada. Through consultation with Cape Breton University undergraduate nursing students, I aim to gain understanding of current undergraduate nursing mental health learning practices, explore the challenges and facilitators encountered in learning, determine learning style preferences of nursing students, and identify potential mental health learning options for Atlantic Canadian undergraduate nursing programs. The consultation data will also be used to refine the research problem for the practicum project and possible learning strategies to resolve it.

I respectfully ask that you offer students the opportunity contact me if interested in participating in consultation. Bulletins will also be posted in the nursing department at Cape Breton University explaining the purpose of consultation and my contact information.

Confidentiality will be maintained as questionnaire responses will be deidentified via codes and only themes will be extracted and used in the practicum report. Informed consent will be completed when students connect with me via email – lmodonnell@mun.ca. If you have any questions, I can be contacted at lmodonnell@mun.ca. We can also arrange a telephone meeting upon request.

Thank you for your time,

Lauren O'Donnell, Registered Nurse

Appendix C

Participation Bulletin

Are you a CBU undergraduate nursing student?

Are you interested in talking about your experiences in mental health learning?

I want to hear from you!

- How does mental health learning occur at CBU?
- How do you like to learn?
- How do you currently communicate and engage with clients living with mental illness?

If interested in participating in a 30-minute consultation, please contact:

Lauren O'Donnell at **Lmodonnell@mun.ca**

This project has been approved by CBU Research Ethics Board

Appendix D

Consultation Email to Participants

Hello,

My name is Lauren O'Donnell and I am a graduate nursing student at Memorial University of Newfoundland (MUN). I reside in Cape Breton, Nova Scotia and I am completing the Master of Nursing program through online distance education. My final practicum project for the program is titled: *The Development of a Low-Fidelity Mental Health Simulation for Undergraduate Nursing Students to Enhance Engagement and Improve Communication.* This topic was chosen as there are limited mental health clinical opportunities for nursing students in Cape Breton and a shortage of nurses specialized in mental health to act as clinical preceptors. The aim of this project is to develop a creative and innovative learning strategy for nursing students to meet undergraduate mental health learning objectives.

There is ambiguity as to how undergraduate nursing programs are incorporating simulation into their mental health learning experiences for students. I am contacting you to gain understanding of current undergraduate nursing mental health learning practices, explore the challenges and facilitators encountered in learning, determine learning style preferences of nursing students, and identify potential mental health learning options for Atlantic Canadian undergraduate nursing programs. The data will also be used to refine the research problem for the practicum project and possible learning strategies to resolve it.

Attached to this email, please find two forms: informed consent and the consultation questionnaire. I respectfully ask that you consider reviewing and completing them. Confidentiality will be maintained as responses will be deidentified via codes and only themes will be extracted and used in the practicum report. The forms can be returned to me via email –

lmodonnell@mun.ca. If you have any questions prior to completing the questionnaire, I can be contacted at lmodonnell@mun.ca**.** We can also arrange a telephone meeting upon request.

Thank you for your time,

Lauren O'Donnell, Registered Nurse

Appendix E

Informed Consent

Project Title: The development of a low-fidelity mental health simulation for undergraduate nursing students to enhance engagement and improve communication

Research Purpose

The final practicum project for the Master in Nursing program at Memorial University of Newfoundland is the development of a low-fidelity mental health simulation in the form of role-play for undergraduate nursing students to enhance their knowledge and competency to engage and communicate with clients in clinical practice. This topic was chosen as nurse educators are challenged to develop creative and innovative ways to provide nursing students with nurse-client interactions to meet mental health learning objectives. In Cape Breton Nova Scotia, there are limited mental health clinical opportunities for nursing students and a shortage of nurses specialized in mental health to provide preceptorship. The benefit of this research is the intervention will support students in feeling prepared entering the mental health clinical area which results in positive clinical placement experiences and contributes to recruitment and retention of mental health nurses. Student participants are integral to the project to identify and develop active learning strategies for their learning needs.

A consultation report is a required component of the final practicum project for the Master in Nursing program at Memorial University. The consultations will be used to identify issues concerning current mental health education strategies and to answer the questions: What are the current strategies being used to facilitate nursing students' learning in mental health? What are the facilitators and barriers to nursing students forming therapeutic relationships with individuals receiving treatment for mental health disorders? Can a low-fidelity simulation give nursing students the opportunity to improve knowledge and competency caring for individuals receiving mental health treatment?

Researcher

Lauren O'Donnell, RN

lmodonnell@mun.ca

Supervisor

Nicole Snow, PhD, RN, CPMHN (C)

nicole.snow@mun.ca

Research Description

All information collected through the questionnaire is confidential and will only be used as part of research work being carried out by Lauren O'Donnell and supervised by Nicole Snow.

The exchange of information will be stored in a secure email which is password protected. All questionnaire data will be collected through email and will be stored on a secure, password protected laptop. Access to questionnaires will only be granted to the people listed above. After the data is extracted from the questionnaires, the originals will be stored and held until completion of the project in April 2022 then permanently deleted. The data will be reported in aggregate form (e.g., nursing student). Identifying information will be kept separate from the data files. No personally identifiable information will be given out at any time barring any duty to disclose.

There is a risk for personal upset due to the potential link of personal or family experiences with mental health issues. Please email me if you have questions or concerns. You may choose to cease your participation in this research at any time or not answer any question. The CBU mental health resources link (https://www.cbu.ca/current-students/student-services/health-wellness/mental-health-resources) provides student support to prioritize and enhance wellbeing to cope with varying challenges. The Nova Scotia Mental Health Crisis Line at 1-888-429-8167 is provided in case of emergency. Other resources include the Mental Health Resources for Domestic and International Students, and Healthy Minds NS: CBU's primary online mental health support program. CBU also offers free personal counselling by Clinical Social Workers who can be contacted through the Max Bell Health and Counselling Centre. Keep.meSAFE is a 24/7 digital mental health support program with professional counsellors for international students. Additional supports include TAO (Therapy Assistance Online), Mindfulness in Nova Scotia (MindWell-U), and CBU Chaplaincy (email**:** doug_macdonald@cbu.ca or call: 902-563-1173).

The final practicum project will be finalized in April 2022 and the consultation report will be included in the final report. If you are interested in accessing a copy of the report, please email me at lmodonnell@mun.ca.

Informed Consent I _____have been informed of the purpose of this research and agree to participate in this survey.

If you have any questions that have not been answered satisfactorily by the researcher(s) or supervisor(s) named above, please contact:

▪ Co-chair of the Research Ethics Board at CBU: Dr. Andrew Molloy, andrew_molloy@cbu.ca and Dr. Bishakha Mazumdar, bishakha_mazumdar@cbu.ca

▪ REB Administrator: Jared Walters, phone (902) 563 – 3196 or email ethics@cbu.ca

Note: Participants are to be informed of the researcher(s)' "Duty to disclose" suspected abuse or neglect of a child or an adult in need of protection. Under section 23(1), Nova Scotia Children and their Family, The Protection of Children and Adoption (1990) states that "Every person who has information, whether it is confidential or privileged, indicating that a child is in need of protective services shall forthwith report that information to an agency." Agency is defined as "an agency continued by or established and incorporated pursuant to the act…" that

is, Nova Scotia Department of Community Service Child Welfare. This may vary across provinces within Canada and different regions outside of Canada.

Appendix F

Student Consultation Questionnaire

The Development of a Low-Fidelity Mental Health Simulation for Undergraduate Nursing Students to Enhance Engagement and Improve Communication

Please review and sign the Informed Consent document prior to completing and returning the Project Consultation Questionnaire to Lauren O'Donnell at lmodonnell@mun.ca. The completion and return of this questionnaire to the primary investigator implies that you agree to participate in this consultation. The shared information will be used for a practicum project as a part of the primary investigator's Master of Nursing Degree at Memorial University of Newfoundland. Your shared personal information will remain confidential and no identifying information will be used.

1. What year of the undergraduate nursing program are you enrolled in?

2. Have you experienced mental health clinical placements? Yes No
   If yes, please describe.

3. Have you completed mental health theory in lecture? Yes No
   If yes, please describe.

4. What is your experience in caring for someone with mental illness?

5. Please describe your comfortability in communicating with people about mental illness.

6. Do you have any fears or hesitation in caring for someone with mental illness? Yes No Please elaborate.

7. What help to facilitate learning in mental health (i.e., supportive nurse educators, helpful nurses working on the units, assigned to one client versus 'floating' on the unit, different clinical learning environments, ability to practice care encounters prior to clinical placement, orientation to unit, etc.)?

8. Where would you like to complete mental health clinical placements?

9. What are you most looking forward to in the mental health clinical placement?

10. What are the challenges you encounter in mental health learning?

11. What would you like to learn more about in mental health?

12. What active learning strategies incorporated into mental health education (e.g., simulation such as, role play, computer-based interventions, standardized patients, etc.)?

13. Do you have any experience using role-play in learning? Yes No
    Please elaborate.

14. How do you best learn? (e.g., lecture, independent study, study groups, projects, role-play, simulation?)

Appendix G

Health Research Ethics Authority (HREA) Screening Tool

Student Name: Lauren O'Donnell

Title of Practicum Project: The development of a low-fidelity mental health simulation for undergraduate nursing students to enhance engagement and improve communication

Date Checklist Completed: October 14, 2021

This project is exempt from Health Research Ethics Board approval because it matches item number ___3_____ from the list below.

Research that relies exclusively on publicly available information when the information is legally accessible to the public and appropriately protected by law; or the information is publicly accessible and there is no reasonable expectation of privacy.

1. Research that relies exclusively on publicly available information when the information is legally accessible to the public and appropriately protected by law; or the information is publicly accessible and there is no reasonable expectation of privacy.
2. Research involving naturalistic observation in public places (where it does not involve any intervention staged by the researcher, or direct interaction with the individual or groups; individuals or groups targeted for observation have no reasonable expectation of privacy; and any dissemination of research results does not allow identification of specific individuals).
3. Quality assurance and quality improvement studies, program evaluation activities, performance reviews, and testing within normal educational requirements if there is no research question involved (used exclusively for assessment, management or improvement purposes).
4. Research based on review of published/publicly reported literature.
5. Research exclusively involving secondary use of anonymous information or anonymous human biological materials, so long as the process of data linkage or recording or dissemination of results does not generate identifiable information.
6. Research based solely on the researcher's personal reflections and self-observation (e.g. auto-ethnography).
7. Case reports.
8. Creative practice activities (where an artist makes or interprets a work or works of art).

For more information please visit the Health Research Ethics Authority (HREA) at https://rpresources.mun.ca/triage/is-your-project-exempt-from-review/

Appendix D: Development of the Intervention

Development of a Mental Health Low-Fidelity Simulation to Enhance Nursing Student Knowledge and Competency

Lauren O'Donnell

Memorial University of Newfoundland

NURS 6661: Practicum 2

Dr. Nicole Snow

Cape Breton University's undergraduate nursing program has newly adopted a comprehensive concept curriculum design. This involves the use of core concepts as the focal point of the curriculum construction. In doing so, this helps students learn how these concepts are connected to explain a variety of conditions and situations they will encounter in clinical practice (Sullivan, 2020). While there is an expectation that nurses graduating from university-based programs can address the mental health needs of clients, students often feel unprepared to practice independently in this area (McGough & Heslop, 2021). To foster the achievement of undergraduate nursing student mental health learning outcomes, low-fidelity simulation can be used as a feasible learning intervention. In this report, I intend to outline and discuss the process and outcomes of developing a low-fidelity mental health learning intervention for undergraduate nursing students at Cape Breton University. The use of this intervention is supported by the completion of a comprehensive literature, review, an environmental scan with undergraduate nurse educators in Atlantic Canada, consultations with Cape Breton University nursing students, and focus groups with nurse practice educators (Canadian Association of Schools of Nursing [CASN], 2015). The simulation will be used to prepare students for clinical placement by connecting mental health theoretical content to real-life situations (Phillips, 2020).

The overall goal of the learning intervention is to develop a safe learning environment for nursing students to enhance their knowledge and competency to engage and communicate with clients seeking mental health treatment in clinical practice. Additional benefits of low-fidelity simulation include: exploring students' personal feelings and biases; gaining insight into one's abilities, values, and perceptions; developing problem-solving skills and attitudes; and understanding the experience with peers to gain different perspectives (Fossen & Stoeckel, 2016;

Gjestvang et al., 2021; Goh et al., 2016; Martin & Chanda, 2016; Olasoji et al., 2020; Robinson-Smith et al., 2009; Witt et al., 2018;).

The Development of a Low-Fidelity Mental Health Simulation for Undergraduate Nursing Students

The development of the low-fidelity simulation was guided by CASN (2015) guidelines for simulation and the International Nursing Association for Clinical Simulation and Learning (INACSL) (2016a) national standards to meet identified student learning objectives and to optimize achievement of expected learning outcomes. A needs assessment to provide the functional evidence for a well-designed simulation was completed in NURS6660 by a comprehensive literature review, an environmental scan with undergraduate nurse educators in Atlantic Canada, consultation with Cape Breton University nursing students and nurse educators, and focus groups with nurse practice educators. The remaining criteria for developing the simulation were met in NURS6661 by: constructing measurable learning objectives for undergraduate students using SMART objectives and Bloom's taxonomy; determining an appropriate scenario design to provide the context for the simulation-based experience; maintaining a facilitative approach that is student-centered and driven by learning objectives, participant's knowledge or level of experience, and the expected outcomes; following a pedagogical approach to guide simulation development and facilitation; developing pre-brief and debrief sessions; using reliable and valid evaluation methods for evaluating student learning and the overall simulation experience; and providing preparation materials to promote participants engagement and learning. Further, I plan to host a virtual focus group with key

stakeholders and pilot test the simulation in collaboration with Cape Breton University faculty prior to implementation.

Student Learning Objectives

The broad objective for the project was to develop a low-fidelity mental health simulation for Cape Breton University undergraduate nursing students to enhance their knowledge and competency to engage and communicate with clients in clinical practice. This objective reflects the purpose of the simulation related to organizational goals (INACSL, 2016a). Student learning objectives to measure performance were also created following the INACSL (2016a,b) standards of best practice guidelines. Bloom's taxonomy provided a framework for developing the learning objectives to meet expected outcomes in the cognitive, psychomotor, and affective domains (Bannister, 2002; Phillips, 2020). In consultation with three Cape Breton University nurse practice educators, the expected learning outcomes were designed to be consistent with Cape Breton University's undergraduate nursing programmatic goals to include:

1. Learner identifies and explains the limits of client confidentiality and privacy;
2. Learner will identify the signs and symptoms of post-traumatic stress disorder (PTSD) accurately and comprehensively (knowledge, comprehension, application);
3. Learner will demonstrate verbal and nonverbal therapeutic communication skills with the client, support person, and health care providers that reflects cultural awareness to addresses the client's psychological needs (knowledge, comprehension, application);
4. Learner will demonstrate comprehensive mental health assessment skills using the Mental Health Assessment tool (knowledge, comprehension, application);
5. Learner will assess client risk for suicide using the Suicide Risk Intervention and Assessment tool (knowledge, comprehension, application, evaluation);

6. Learner will demonstrate competency in implementing appropriate nursing interventions related to suicidality (knowledge, comprehension, application, evaluation);
7. Learners will identify any other client safety concerns (knowledge);
8. Learners will develop and implement a safety plan with the client in response to safety concerns (synthesis);
9. Learners will summarize client needs to determine and develop a nursing plan of care (synthesize); and
10. Learners will reflect on their personal attitudes, biases, and stigma following the simulation (knowledge, metacognitive)

Scenario Design

The simulation experience was designed to mimic practice situations that all students should experience as part of their preparation for clinical practice. In designing the scenario, consideration was given to the length, frequency, and intensity of the simulation experience; and continuity of the simulation (CASN, 2015). A scenario design template was developed to organize flow of the scenario (Appendix A) (Harrington & Simon, 2021). Appropriate timing of the simulation experience within the program will ensure that students have learned the foundational knowledge and skills to be applied in the simulation (CASN, 2015). The simulation will be completed prior to mental health clinical placement and preferably after mental health theoretical concepts have been introduced. Time frames were allotted to facilitate the progression of the scenario and ensure there is time to achieve learning objectives (INACSL, 2016a). The simulation will include 20 minutes of pre-briefing, 20 minutes of role-play, and 40 minutes of debriefing as it is recommended that debriefing is twice the length of the role-play (National League for Nursing [NLN], 2016).

It is recommended that novice developers do not design their own simulations as it takes considerable knowledge and experience to create good scenarios (NLN, 2016). With permission from the Canadian Alliance of Nurse Educators Using Simulation (2022), I chose a reliable and valid previously developed scenario to meet the expected student learning outcomes. Using simulation, nursing students will care for a client experiencing anxiety symptoms who was previously diagnosed with PTSD. The student is responsible to complete a mental health assessment and assess for suicide risk with the client in a supportive and therapeutic manner to determine an appropriate plan of care in collaboration with other health professionals.

During role-play, students will portray the role of the nurse and be given a client report to set the scene. Senior students' role will be to act as the client as a learning opportunity to become aware of their personal biases as stigma often prevents individuals from seeking mental health care (Kirkpatrick & Dewitt, 2020). The development of self-awareness will foster metacognitive knowledge according to Bloom's taxonomy (Phillips, 2020). This collaborative approach also enhances knowledge retention and student engagement by sharing comprehension of the learning activity during the debrief. Senior students will participate in a practice scenario with the facilitator and other actors prior to the simulation. Finally, it is recommended that Cape Breton University nursing students have repeated simulation practice over their program duration to reduce stigma towards clients and achieve mental health learning outcomes (Chua et al., 2021; Goh et al., 2016).

Case Scenario

The back story of the scenario provides a realistic starting point for the simulation (INACSL, 2016a) and will be provided in written format as a report to the nursing student. A standard script will be used for all students for consistency, standardization, and to increase scenario

repeatability and reliability. The client is a 35-year-old female, Isabella who is currently employed with the military. She has a history of PTSD and it has been confirmed two weeks ago that she is pregnant with her second child. This was an unplanned pregnancy, and her husband is currently deployed overseas in the military. She presents to the community collaborative care clinic with her friend Gina with increased anxiety (Canadian Alliance of Nurse Educators Using Simulation, 2022). Clinical progression and cues will be present for the facilitator to use to provide students with hints to advance the scenario in response to students' actions. The cues will be standardized to guide students' decision-making process when they drift from intended learning objectives to maintain fidelity of the scenario (INACSL, 2016a,c).

Environment

INACSL (2016a) recommends physical, conceptual, and psychological aspects of fidelity to attain simulation learning objectives. Physical fidelity relates to the environment and how realistic the activity replicates the actual setting in which the situation would occur in real life. Conceptual fidelity ensures that all elements of the scenario make sense to the students (i.e., the presenting symptoms match the diagnosis). Psychological fidelity mimics the contextual elements in the clinical environment which will be ensured by allowing realistic conversation between the nurse and client within the simulated settings such as distractions of family members, time pressure, and competing priorities. During the simulation, Gina will be present for the interview and voice her concerns. There will also be disruptions of the administrative person knocking on the door and stating the nurse is wanted on the phone. The nursing student will be aware that following their assessment, the client will see the nurse practitioner for further assessment.

Facilitator Approach

I will be conducting the initial implementation of this learning activity. My role as a facilitator is to guide students in their development of psychomotor skills, critical thinking, clinical reasoning, and clinical judgment, and to help them apply mental health theoretical knowledge to client care experiences. I have experience working in community and acute mental health care and possess the relational skills to support student learning. A facilitator guide (Appendix B) will be provided to facilitators which includes a confidentiality contract; fiction contract; psychological safety and sensitivity statement; expected learning outcomes; ice breaker questions; mindfulness exercise; learner preparation; facilitator materials for simulation; learner forms; scenario outline; learner expectations; time allotment; actor roles; and facilitator cues with rational. The level of facilitator involvement will be proportional to the participant's knowledge and experience (INACSL, 2016a). The simulation scenario will progress with or without interruption depending on if critical learning opportunities are missed (i.e., the student does not complete the suicide risk assessment). The facilitator will also ask questions rather than giving the answer to promote critical thinking and reflection (Phillips, 2020). The standard facilitator cues provided in the facilitator guide will ensure consistency if multiple facilitators are used.

Preparation Materials

Preparation materials and activities to address the knowledge, skills, attitudes, and behaviors that will be expected of students during the simulation will be provided one month prior to the simulation (CASN, 2015). This timeline was chosen to allow students adequate time to prepare. The learner preparation package (Appendix C) will include explanation of psychological safety and sensitivity statement; learning objectives; and icebreaker questions. Students will be provided with two assessment tools: the Suicide Risk Assessment and Intervention tool (Appendix D) and Mental Health Assessment (Appendix E). Some components

of the admission assessment form will be completed and provided to the learner including demographic information, next of kin, aids to physical functioning, vital signs, and allergies. These were chosen as they have been adopted by the Nova Scotia Health Authority and are used by students in clinical practice. Four readings from Varcarolis's *Canadian Psychiatric Mental Health Nursing* (Halter et al., 2019) previously purchased by Cape Breton University undergraduate nursing students will be required including *Communication and the Clinical Interview* (chapter 10), *Anxiety and Related Disorders* (Chapter 12), *Suicide and Non-suicidal Self-Injury* (chapter 22), and the *Nursing Process and Standards of Care for Psychiatric Mental Health Nursi*ng (chapter 6 box 6-3, p. 85). Students are also required to watch a video displaying therapeutic communication approaches to assess suicide risk (Grande, 2015). Finally, six questions adopted from *Varcarolis's Canadian Psychiatric Mental Health Nursing* (2019) will be presented and findings will be shared among the group during the debrief. To ensure consistency and to prepare for the simulation, senior students acting as Isabella will also be given cues and responses to the mental health assessment forms.

Pre-brief

During the 20-minute pre-brief, I will clearly introduce the simulation activity to set the tone for the overall experience (Harrington & Simon, 2021; Rudolph, 2014). Students will be asked to identify their expectations of the experience and the learning objectives will be disclosed to clarify the facilitator's expectations (CASN, 2015). A learner pre-brief form for mental health simulation (Appendix F) will be shared and reviewed as a group which includes a confidentiality contract; fiction contract; psychological safety and sensitivity statement; learning objectives; scenario outline; learner expectations; and time allotment (Monaco et al., 2022). This will also be a time to orientate students to the environment, assessment tools, evaluation tools, participant

roles, and facilitator roles (INACSL, 2016a,c; McGough & Heslop, 2021; Phillips, 2020). We will participate in a brief three-minute mindfulness exercise to enhance students' focus and decrease distractions during the simulation (NLN, 2021). This will include a deep breathing and body scan exercise which can be guided by the facilitator or by using the Calm (2019) YouTube link provided in the facilitator guide. The pre-brief will be completed immediately before the scenario and will be structured and consistent with all students.

Debrief

Debrief is a vital component to simulation as it helps transform experience into learning through reflection (CASN, 2015; Eppich & Cheng, 2015; Phillips, 2020). This will be an opportunity to brainstorm ideas, clarify actions, and determine alternative decisions after acting-out the scenario focusing on learning and improvement (Benner et al., 2010; INACSL 2016d; Phillips, 2020). Due to the nature of the scenario, the facilitator will acknowledge and validate the students' emotional response to the simulation before engaging in reflection and analysis of actions. In the student pre-brief form, I explain the expectations of confidentiality regarding students' performance and during the debrief.

The debrief will take place immediately after the simulation and is expected to last 40 minutes. The Promoting Excellence and Reflective Learning in Simulation (PEARLS) framework (Appendix G) is a well-established reliable and valid tool that will be used to guide the simulation debrief (Eppich & Cheng, 2015; INACSL, 2016d). As a novice facilitator, PEARLS is particularly useful as it promotes facilitator skill development. The principles of the experiential learning theory are embedded in this approach as learning is active, collaborative, self-directed, and learner centered. The PEARLS debrief script offers statements to guide the four debriefing stages: reaction, description, analysis, and application/summary. The reaction

phase starts with an open-ended question to allow students to express their initial thoughts and feelings. The description phase invites students to summarize their perspectives of key events or problems they faced during the case which helps to ensure that students and educators are on the same page. The analysis phase includes learner self-assessment. By providing directive feedback, students will be provided with a statement about the behavior by highlighting positive aspects of performance along with suggestions for future care encounters for improvement. The application is both learner and educator guided. Using this approach, the educational strategies of learner self-assessment, focused facilitation to promote critical reflection and understanding of events and providing information through directive performance feedback will be imperative to student learning outcomes.

Evaluation

The evaluation process was created in the design phase to ensure quality and effectiveness of the simulation. Students will be evaluated using formative methods during the simulation to identify current strengths or areas for improvement with respect to the specific learning objectives to facilitate learning in the moment. Questions will be provided to students to facilitate critical thinking, reflection, and knowledge development (Phillips, 2020). Some formative questions may include: What stands out to you in this situation? What are you concerned about? Are you making any assumptions? What do you already know that can help you? This formative evaluation will enhance personal and professional development to progress toward achieving outcomes (INACSL 2016e). Summative evaluations will be used to focus on achieving learning objectives at the end of the simulation (Rudolph et al., 2014). Students will learn by receiving feedback during the debrief to unfold their thinking, gain insight into their actions, or identify opportunities that were missed (Forneris, 2020). The PEARLS debrief

framework presents summative evaluation questions to be asked during the debrief. Students may struggle in acting out the simulation but will have the opportunity to reflect and developed awareness during the debrief (Kirkpatrick & Dewitt, 2020). The learning outcomes assessment rubric (Appendix H) will be used to assess preparation for the simulation, performance during the simulation, and to guide debriefing to identify further learning requirements. It includes a description of competency indicators which are leveled from the novice to competent learner (Canadian Alliance of Nurse Educators using Simulation, 2022; Harrington & Simon, 2021) to assist facilitators in evaluation. An evaluation of the overall experience will be provided as nursing students will complete a modified version of the student evaluation of clinical setting form termed learner evaluation of the simulation (Appendix I) (Bonnel, 2020).

Pedagogical Approach

The development of the simulation and the facilitation method are guided by the pedological framework of the experiential learning theory. The use of this pedagogy was supported by the literature review, environmental scan with nurse educators in Atlantic Canada, and consultation with undergraduate nursing students. Following Kolb's experiential learning theory, learning occurs in a four-stage process: concreate experience where learners are involved in the role-play scenario; reflective observation where the learners review what happened in their experience (i.e., self-reflection, peer observation, and debrief); abstract conceptualization where learners make sense of the situation (i.e., debrief); and active experimentation in which learners translate what they learned into clinical placement practices (Chua et al., 2021; Davis et al., 2013; de Oliveira et al., 2015; Goh et al., 2016; Lowell & Ashammari, 2018; Schuster, 2013). During active experimentation, nursing students will evaluate the concreate experience and practice what was learned to build practice competence

prior to clinical placements (Kameg et al., 2014). Kolb's theory also supports follow up sessions after the initial simulation to enhance knowledge retention (Lowell & Ashammari, 2018). Given the evidence available, the use of the experiential learning theory is determined a reasonable theoretical framework to guide the development and implementation of the low-fidelity simulation (Alfes, 2015; Chua et al., 2021; Fossen & Stoeckel, 2016; Goh et al., 2016; Kameg et al., 2014).

Focus Group

Conceptual fidelity will be ensured by reviewing the case with key stakeholders in a virtual focus group prior to implementation (McGough & Heslop, 2021). It is expected that modifications to the scenario design, flow, or the case may be needed. Four Cape Breton University nursing educators, two undergraduate nursing students, and an experienced mental health nurse have agreed to participate in the focus group. The scenario design template will be used to organize flow of the scenario during the focus group with space for participants to add comments, questions, concerns, or suggestions (Harrington & Simon, 2021). The scenario validation checklist (Appendix J) developed by Laerdal (2022) will be used to determine the validity of the scenario.

Pilot Testing

Once the design is completed the simulation will be piloted to ensure its physical and psychological fidelity (McGough & Heslop, 2021). Specifically, pilot testing ensures the simulation accomplishes its intended purpose, provides opportunity to achieve objectives, and will be effective when used with students (INACSL, 2016a). It will be used to identify confusing, missing, or underdeveloped elements of the simulation with time to correct it prior to implementation with students. The allotted timeframes for the pre-brief, role-playing, and debrief

will also be tested during this time. Finally, the evaluation tools will be used to assess their appropriateness within this context and to ensure consistency and reliability (Polit & Beck, 2017).

Conclusion

Undergraduate nursing students often do not develop affective knowledge prior to clinical placements which can negatively influence the development of forming therapeutic nurse-client relationships (Fossen & Stoeckel, 2016). Providing students with diverse educational opportunities is an essential component of improving nursing education (Lowell & Alshammari, 2018). Following a comprehensive literature review and consultations with nurse educators and nursing students, low-fidelity simulation was identified as a feasible and safe learning intervention to foster the development of cognitive and affective knowledge, enhance engagement, and improve communication with clients (Chua et al., 2021; Fossen & Stoeckel, 2016; Gjestvang et al., 2021). The development of this project was supported Cape Breton University nurse educators and if implemented with undergraduate nursing students, will foster the development of mental health knowledge and preparation for mental health clinical placement.

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Appendix A

Scenario Design Template

		Comments/Suggestions
Scenario Outline	Isabella is a 35-year-old female who is currently employed with the military. She has a history of post-traumatic stress disorder (PTSD). Her husband is currently deployed overseas in the military and left one month ago. She previously visited the community collaborative care clinic two weeks ago to see the primary care physician for symptoms of fatigue and nausea she has experienced since her husband's deployment. It was during this visit that an unplanned pregnancy was confirmed, and she was referred to an obstetrician for follow up. Today, while her 9-year-old son is at school, Isabella returns to the same clinic with her friend Gina. Isabella reports experiencing increased anxiety. Her vital signs are BP 134/88, HR 90, RR 24, T 36.7. The registered nurse enters the room to perform an initial assessment prior to Isabella seeing the mental health nurse. <u>Medication:</u> citalopram 10mg PO once daily zopiclone 7.5mg PO at bedtime lorazepam 0.5mg SL TID PRN Canadian Alliance of Nurse Educators using Simulation (2022)	

Description of Team Members	*Gina:* A concerned friend and is Isabella's only source of practical support at this time. *Administrative person:* Adds distraction by knocking on the door and stating the nurse is wanted on the phone *Mental health nurse:* The learner will relay pertinent assessment information to the mental health nurse as the client will be seeing her following the mental health assessment. *Isabella:* Played by a senior nurse and their role is to act out the symptoms of a person experiencing anxiety and previously diagnosed with PTSD. Prior to the simulation, the senior student is provided with responses to questions to ensure the consistency and flow of the scenario.	
Introduction	When the nurse enters the room, Isabella is pacing the room and wringing hands. She makes minimal eye contact to the nurse but will frequently look at her friend Gina for support. The learner should introduce themself to Isabella and Gina and discuss the limits of confidentiality prior to continuing with the mental health assessment. At first, Isabelle tries to minimize her symptoms by stating, "I think I am just really stressed, and I need a good night sleep." "I just wasn't ready for this pregnancy." Gina states, "You have been feeling this way for a long time." "I am worried about you."	
Complete the Mental Health Assessment	Using the Nova Scotia Health Mental Health Assessment form, the learner completes the mental health assessment including: The reason for the visit:	

	• exploring the anxiety symptoms – what caused it, how long symptoms have been present and worsening, last time she felt well, what makes her feel better and worse • client's expectations following the visit • weight and appetite changes • sleep pattern • document orientation, affect, speech pattern, hallucinations, ideas of reference, mood, behavior, thought process, delusions, concentration, relevance of conversation, content of conversation, judgement, insight, eye contact, tone of speech • financial concerns • current access to community services • identifying support people • vital signs • medical history • smoking history • previous inpatient admissions • alcohol and substance use Some components of the form will be completed prior to the assessment and provided to the learner including demographic information, next of kin, aids to physical functioning, vital signs, and allergies	
Questions to explore	Learner should ask when anxiety symptoms started and the main cause of worsening anxiety Isabelle explains that she felt anxious since returning from Afghanistan 3 years ago. It became worse when her husband was deployed one month ago. She is unable to sleep, has a decreased appetite and is constantly worrying about the future.	

	Rationale: Client care should be focused on anxiety symptoms as this is her presenting concern to the clinic today. Open ended questions to explore the symptoms promotes therapeutic communication (Canadian Alliance of Nurse Educators using Simulation, 2022) Learner should ask about her support system Isabelle explains that Gina is her only source of support. She worries what she is going to do when she moves out of town in two weeks. She explains that she comes over whenever she needs her. She also drives her to appointments and helps with her son. She makes statements such as, "I feel so overwhelmed." "I can't sleep or eat because all I do is worry about my husband and the future." "Gina is my only support person, and she is leaving in two weeks. What am I going to do with my son and a new baby by myself?" "I feel **hopeless**." "I feel like I am **trapped** and there is no way out." "I can't take this much longer." *Rationale:* Asking about support will help the nurse to identify resources available and needed to develop a plan of care (Canadian Alliance of Nurse Educators using Simulation, 2022)	
Suicide Risk Assessment	Learner should perform a suicide risk assessment when client expresses feeling hopeless using the Suicide Risk and Assessment Intervention (SRAI) tool The SRAI includes: • interview risk profile • individual risk profile • illness management	

	• circle of support • risk buffers • communication plan • management plan • suicide risk level • analysis of risk using collateral information Isabella's responses include: No past suicide attempts No family history of suicide History of trauma while in Afghanistan but doesn't wish to talk about it today "I don't have any thoughts right now" "I don't have any plans" "Sometimes I just want the feeling to go away" "Maybe I would take my pills. I don't even know if that would work but it is the only thing I can think of right now. I haven't really thought about it." *Rationale:* Statement of hopelessness and feeling trapped should prompt the learner that this is a warning sign of risk of suicide (Canadian Alliance of Nurse Educators using Simulation, 2022; Halter et al., 2019)	
Safety Planning	Learner should develop a safety plan based on Isabella's responses to the suicide risk assessment. This includes reviewing emergency supports that the client agrees to seek if she has suicidal ideation or in need of immediate help. *Rationale:*	

	Developing a safety plan will ensure that there are minimal harms when the client leaves the clinic (Canadian Alliance of Nurse Educators using Simulation, 2022). As Isabella does not meet high risk suicide criteria, the learner should provide her with appropriate community information incase her symptoms worsen, and she needs immediate support. This is especially important as Gina is leaving in two weeks. *Rationale:* Prior to completing the assessment, clients must know where they can go for help, which agencies to contact, and which people may best help the client find appropriate and helpful resources (Halter et al., 2019).	
Providing Guidance	Learner should provide the client with supportive community information based on her current needs and the need for a referral to a mental health care provider As the client does not meet high risk suicide criteria, the learner should provide her with appropriate supportive information. The client's perception of being alone without supports often blinds the person to the real support figures who are present (Halter et al., 2019). Reconnecting the client with family and friends is important as well as providing community support information including crisis hotlines, emergency crisis services, support groups for clients and families, and recreational activities to enhance socialization and self-esteem. *Rationale:* A referral to a mental health care provider is appropriate as she needs psychosocial resources to support her currently (Canadian Alliance of Nurse Educators using Simulation, 2022)	

Completing the Session	Learner should ask if the client has any questions or concerns prior to ending and consulting with the mental health nurse *Rationale:* Allowing the client to speak prior to ending the session allows them to voice their concerns and clarify questions (Halter et al., 2019). Active listening is perhaps the most important skill for nurses to master.	
Continuity of Care	Learner provides the mental health nurse with a verbal report sharing the pertinent information from the assessment *Rationale:* Nurses work to prevent or treat symptoms by assessing risk and by collaborating with others to develop and implement treatment plans (Halter et al., 2019).	

Appendix B

Facilitator Guide for Mental Health Simulation

This low-fidelity simulation involves active participation of learners and faculty to stimulate creativity and recognize learning in life experiences. Prior to the simulation, the Learner Pre-brief Form will be reviewed as a group. This is an opportunity to explain the simulation flow, evaluation process, and to answer questions or clarify learners' concerns. Due to the subject nature, learners may need to take a break or have a "time out" during the simulation (Kirkpatrick & Dewitt, 2020). Learners and facilitators will reflect on the overall experience to promote cognitive and affective learning through formative and summative evaluations in the debrief. Learners will be evaluated on their ability to conduct a mental health assessment, a suicide risk assessment, determine an appropriate plan of care, and collaborate with other health care providers. Learners will not be evaluated on their acting abilities. It is expected that learners have previously developed theoretical knowledge of anxiety and post-traumatic stress disorder. Learners will be familiar with the Mental Health Assessment tool and Suicide Risk Assessment and Intervention tool prior to acting out the scenario.

Simulation Etiquette and Norms

Psychological Safety and Sensitivity Statement: The simulation is designed for nursing students learning in a healthcare context. There is a risk for personal upset due to the potential link of personal or family experiences with mental health issues. If a learner feels uncomfortable during or after the simulation, they are advised to notify the facilitator.

CBU Supports

CBU has mental health supports in place for students. These include:

- A mental health resources link (https://www.cbu.ca/current-students/student-services/health-wellness/mental-health-resources) that provides students with information to support and prioritize and enhance wellbeing to cope with varying challenges.
- Free personal counselling by clinical social workers who can be contacted through the Max Bell Health and Counselling Centre
- Keep.meSAFE is a 24/7 digital mental health support program with professional counsellors for international students
- Mental Health Resources for Domestic and International Students
- CBU Chaplaincy (email: doug_macdonald@cbu.ca or call: (902-563-1173)

Nova Scotia Resources

- The Nova Scotia Mental Health Crisis Line at 1-888-429-8167 is provided in case of emergency
- Mental Health Resources for Domestic and International Students
- Healthy Minds NS
- TAO (Therapy Assistance Online), and
- Mindfulness in Nova Scotia (MindWell-U)

Confidentiality Contract: During the simulation, we ask that all learners and facilitators be non-judgmental and open to learning from others in the group. By maintaining confidentiality and being respectful of each other during the simulation, we will create a psychologically safe learning environment and an effective experience for all (Eppich & Cheng, 2015; INACSL, 2016d). Due to the nature of the scenario, the facilitator will acknowledge and validate learners' emotional response to the simulation experience and their concerns before engaging in reflection and analysis of actions.

Fiction Contract: During the simulation, learners and facilitators will interact in a situation based on real clinical encounters. Low-fidelity simulation allows learners to practice nursing care in a controlled and safe environment prior to clinical placements. We recognize that some aspects of the simulation may not be realistic, but we ask that you engage in the simulation as if it were real to provide the best active learning strategy possible to foster learning outcomes (INACSL, 2016f). It is expected that mistakes will happen and will be used to enhance learning in the debrief (CASN, 2015; INACSL, 2016c).

Learning Objectives

Learning objectives are outlined to clarify the expectations from learners during the simulation and debrief to increase the likelihood of meeting those expectations (Rudolph et al., 2014).

1. Learner identifies and explains the limits of client confidentiality and privacy;
2. Learner will identify the signs and symptoms of PTSD accurately and comprehensively (knowledge, comprehension, application);
3. Learner will demonstrate verbal and nonverbal therapeutic communication skills with the client, support person, and health care providers that reflects cultural awareness to addresses the client's psychological needs (knowledge, comprehension, application);
4. Learner will demonstrate comprehensive mental health assessment skills using the Mental Health Assessment tool (knowledge, comprehension, application);
5. Learner will assess client risk for suicide using the Suicide Risk Intervention and Assessment tool (knowledge, comprehension, application, evaluation);
6. Learner will demonstrate competency in implementing appropriate nursing interventions related to suicidality (knowledge, comprehension, application, evaluation);
7. Learners will identify any other client safety concerns (knowledge);
8. Learners will develop and implement a safety plan with the client in response to safety concerns (synthesis);
9. Learners will summarize client needs to determine and develop a nursing plan of care (synthesize); and
10. Learners will reflect on their personal attitudes, biases, and stigma following the simulation (knowledge, metacognitive)

Learner Preparation

Learner preparation materials were provided one month prior to the simulation day to give learners adequate time to prepare which include:

- Access to the Mental Health Assessment tool and the Suicide Risk Assessment and Intervention tool

- Review the following video displaying therapeutic communication approaches to assess suicide risk: Grande, T.L. (2015, January 28). *Suicide assessment role-play: Ideation without intent or plan* [Video]. YouTube. https://www.youtube.com/watch?v=eqIM3n7ujVA
- Required readings: Varcarolis' *Canadian Psychiatric Mental Health Nursing* (Halter et al., 2019)
    - Chapter 6 – *The Nursing Process and Standards of Care for Psychiatric Mental Health Nursing*: **Box 6-3** Mental Status Examination (p. 85)
    - Chapter 10 – *Communication and the Clinical Interview* (p. 152-170)
    - Chapter 12 – *Anxiety and Related Disorders* (p. 200-242) *** focus on anxiety and PTSD ***
    - Chapter 22 – Suicide and Non-suicidal Self-Injury (p. 495-511)

- Learners were required to respond to the following questions adopted from Varcarolis's *Canadian Psychiatric Mental Health Nursing* (Halter et al., 2019) which will be discussed during the debrief:
    1. Demonstrate the use of four techniques that can enhance communication, highlighting what makes them effective
    2. Identify the use of four techniques that can obstruct communication, highlighting what makes them ineffective
    3. Formulate four appropriate nursing diagnosis that can be used in providing care to a person with an anxiety disorder or post-traumatic stress disorder
    4. Identify nursing interventions for clients with anxiety and post-traumatic stress disorders.
    5. Describe suicide risk nursing interventions that take place in the hospital or community
    6. Identify five suicide risk factors and five protective factors

Mindfulness Exercise

Facilitators may independently guide learners in a mindfulness exercise if they are familiar with mindfulness strategies such as deep breathing, progressive muscle relaxation, or urge surfing for anxiety. If facilitators prefer, they can use the 3-minute Calm "Relax and Relief" video: https://www.calm.com/meditate

Facilitator Materials for Simulation

- Pen
- Paper
- PEARLS Debrief Form
- Learning Evaluation Rubric

Learner Forms

- Learner Pre-brief Form
- Learner Evaluation of the Simulation

Scenario Outline

Isabella is a 35-year-old female who is currently employed with the military. She has a history of post-traumatic stress disorder (PTSD). Her husband is currently deployed overseas in the military and left one month ago.

She previously visited this community collaborative care clinic two weeks ago to see the primary care physician for symptoms of fatigue and nausea since her husband's deployment. It was during this visit that an unplanned pregnancy was confirmed, and she was referred to an obstetrician for follow up.

Today, while her 9-year-old son is at school, Isabella presents to the clinic with her friend Gina with increased anxiety. The nurse assessed her vital signs as: BP 134/88, HR 90, RR 24, T 36.7. The registered nurse enters the room to perform an initial assessment prior to Isabella seeing the mental health nurse.

Medication:
citalopram 10mg PO once daily
zopiclone 7.5mg PO at bedtime
lorazepam 0.5mg SL TID PRN

Learner Expectation:

Complete the mental health assessment and assess risk for suicide in a supportive and therapeutic manner to determine the plan of care for Isabella. Provide the mental health nurse with report prior to her visiting with the client.

Time allotment:

Prebrief: 20 minutes

Acting out the scenario: 20 minutes

Debrief: 40 minutes

Roles:

Isabella is pacing the room and wringing hands. She makes minimal eye contact to the nurse but will frequently look at her friend Gina, especially when asked questions from the nurse. She tries to minimize her symptoms by statements such as "I think I am just really stressed." "I think I need a good night sleep." "I just wasn't ready for this pregnancy." After the nurse askes several questions and Gina speaks on her behalf, she begins to express how she is really feeling. She makes statements such as, "I feel so overwhelmed" "I can't sleep or eat because all I do is worry about my husband and the future." "Gina is my only support person, and she is leaving in a few weeks. What am I going to do with my son and a new baby by myself?" "I feel hopeless." "I feel like I am trapped and there is no way out." "I can't take this much longer." Isabella's response to the suicide risk assessment include: "I don't have any thoughts right now." "Sometimes I just want the feeling to go away." "I don't have any plans." "Maybe would take my pills but I don't know if that would do anything. That's the only thing I can think of right now."

Gina is a concerned friend and is Isabella's only source of emotional and practical support. When Isabella minimized her symptoms, she makes statements such as "You have been feeling this way for a long time." "I am worried about you."

Administrative person will add distraction by knocking on the door and stating the learner is wanted on the phone.

Mental health nurse will receive report from the learner following the assessment.

Facilitator Cues:

Facilitator Cues	Rational
Learner should ask when anxiety symptoms started and the main cause of worsening anxiety	Client care should be focused on anxiety symptoms as this is her presenting concern to the clinic today. Open ended questions to explore the symptoms promotes therapeutic communication (Canadian Alliance of Nurse Educators using Simulation, 2022; Halter et al., 2019).
Learner should ask about her support system	Asking about support will help the nurse to identify resources available and needed to develop a plan of care (Canadian Alliance of Nurse Educators using Simulation, 2022).
Learner should perform a suicide risk assessment when client expresses feeling hopeless	Statement of hopelessness should prompt the nurse that this is a warning sign of risk of suicide (Canadian Alliance of Nurse Educators using Simulation, 2022; Halter et al., 2019).
Learner should develop a safety plan based on Isabella's responses to the suicide risk assessment	Developing a safety plan will ensure that there are minimal harms when the client leaves the clinic (Canadian Alliance of Nurse Educators using Simulation, 2022; Halter et al., 2019). As the client does not meet high risk suicide criteria, the learner should provide her with appropriate community information incase her symptoms worsen, and she requires immediate support (Halter et al., 2019).
Learner should provide the client with supportive community information based on her current needs and a referral to a mental health care provider	The learner should provide her with appropriate supportive information and referral to a mental health care provider as she needs psychosocial resources to support her at this time (Canadian Alliance of Nurse Educators using Simulation, 2022; Halter et al., 2019)

Learner should ask if the client has any questions or concerns prior to ending and consulting with the NP	

Formative Evaluation

Questions that can be used during the simulation if students require assistance to achieve learning outcomes:

1. What concerns or strengths are evident in this situation?
2. Are there priority concerns in this situation?
3. Consider your responses. What preconceived ideas might you have regarding the individuals presented in this scenario?
4. What do you already know that can help you?

Appendix C

Learner Preparation Package

Psychological Safety and Sensitivity Statement: The simulation is designed for nursing students learning in a healthcare context. There is a risk for personal upset due to the potential link of personal or family experiences with mental health issues. If a learner feels uncomfortable during or after the simulation, they are advised to notify the facilitator.

CBU Supports

CBU has mental health supports in place for students. These include:

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- Free personal counselling by clinical social workers who can be contacted through the Max Bell Health and Counselling Centre
- Keep.meSAFE is a 24/7 digital mental health support program with professional counsellors for international students
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- Healthy Minds NS
- TAO (Therapy Assistance Online), and
- Mindfulness in Nova Scotia (MindWell-U)

Learning Objectives

Learning objectives are outlined to clarify the expectations from learners during the simulation and debrief to increase the likelihood of meeting those expectations (Rudolph et al., 2014).

1. Learner identifies and explains the limits of client confidentiality and privacy;
2. Learner will identify the signs and symptoms of PTSD accurately and comprehensively (knowledge, comprehension, application);
3. Learner will demonstrate verbal and nonverbal therapeutic communication skills with the client, support person, and health care providers that reflects cultural awareness to addresses the client's psychological needs (knowledge, comprehension, application);
4. Learner will demonstrate comprehensive mental health assessment skills using the Mental Health Assessment tool (knowledge, comprehension, application);
5. Learner will assess client risk for suicide using the Suicide Risk Intervention and Assessment tool (knowledge, comprehension, application, evaluation);

6. Learner will demonstrate competency in implementing appropriate nursing interventions related to suicidality (knowledge, comprehension, application, evaluation);
7. Learners will identify any other client safety concerns (knowledge);
8. Learners will develop and implement a safety plan with the client in response to safety concerns (synthesis);
9. Learners will summarize client needs to determine and develop a nursing plan of care (synthesize); and
10. Learners will reflect on their personal attitudes, biases, and stigma following the simulation (knowledge, metacognitive)

Icebreaker Questions

- What do learners hope to get out of the session?
- What do learners expect from the simulation?
- Do learners have any fears or hesitation about the learning activity?
- Do learners have any questions before beginning?

Client Assessment Tools:

1. Review the Suicide Risk and Assessment and Intervention Tool
2. Review the Mental Health Assessment Tool

Other Resources:

1. Review the following video displaying therapeutic communication approaches to assess suicide risk: Grande, T.L. (2015, January 28). *Suicide assessment role-play: Ideation without intent or plan* [Video]. YouTube. https://www.youtube.com/watch?v=eqIM3n7ujVA
2. Required readings: Varcarolis' *Canadian Psychiatric Mental Health Nursing* (Halter et al., 2019)
    - Chapter 6 – *The Nursing Process and Standards of Care for Psychiatric Mental Health Nursing*: **Box 6-3** Mental Status Examination (p. 85)
    - Chapter 10 – *Communication and the Clinical Interview* (p. 152-170)
    - Chapter 12 – *Anxiety and Related Disorders* (p. 200-242) *** focus on anxiety and PTSD ***
    - Chapter 22 – Suicide and Non-suicidal Self-Injury (p. 495-511)

Questions:

Please answer the following questions adopted from Varcarolis' *Canadian Psychiatric Mental Health Nursing* (Halter et al., 2019). These will be discussed as a group during the debrief:

1. Demonstrate the use of four techniques that can enhance communication, highlighting what makes them effective

2. Identify the use of four techniques that can obstruct communication, highlighting what makes them ineffective
3. Formulate four appropriate nursing diagnosis that can be used in providing care to a person with an anxiety disorder or post-traumatic stress disorder
4. Identify nursing interventions for clients with anxiety and post-traumatic stress disorders
5. Describe suicide risk nursing interventions that take place in the hospital or community
6. Identify five suicide risk factors and five protective factors

Appendix D

Suicide Risk Assessment and Intervention Tool

Mental Health and Addictions

SUICIDE RISK ASSESSMENT AND INTERVENTION TOOL

Date:_____ Time:_____ Assessor:_____ Diagnosis:_____
(YYYY-MM-DD)

Reason: ☐ MH Assessment ☐ Admission/Transfer/Discharge ☐ Acute deterioration

Interview Risk Profile

- ☐ Suicidal thinking or ideation
- ☐ Access to lethal means
- ☐ Suicide intent or lethal plan or plan for after death (note)
- ☐ Hopelessness
- ☐ Intense Emotions: rage, anger, agitation, humiliation, revenge, panic, severe anxiety
- ☐ Current Alcohol or Substance Intoxication /problematic use
- ☐ Withdrawing from family, friends
- ☐ Poor Reasoning/Judgment
- ☐ Clinical Intuition: assessor concerned
- ☐ Recent Dramatic Change in mood
- ☐ Recent Crisis/Conflict/ Loss

Illness Management

- ☐ Lack of clinical support
- ☐ Noncompliance or poor response to treatment

Individual Risk Profile

- ☐ Ethnic, cultural risk group or refugee
- ☐ Family history of suicide
- ☐ Trauma: as domestic violence / sexual abuse/neglect
- ☐ Poor self-control: impulsive / violent/aggression
- ☐ Recent suicide attempt
- ☐ Other past suicide attempts, esp. with low rescue potential
- ☐ Mental illness or addiction
- ☐ Depression/ anhedonia
- ☐ Psychotic
- ☐ Command hallucinations
- ☐ Recent admission / discharge / ED visits
- ☐ Chronic medical illness/ pain
- ☐ Disability or impairment
- ☐ Collateral information supports suicide intent

Circle Of Support

- ☐ Lack of family/friends support
- ☐ Caregiver unavailable
- ☐ Frequent change of home

Risk Buffers – Not to be used to determine degree of risk.

- ☐ Has reason to live/hope
- ☐ Social support
- ☐ Responsibility for family/kids/pets
- ☐ Capacity to cope/resilience
- ☐ Religion/ faith
- ☐ Strength for managing risk

Communication Plan

Verbal (V) Written/fax (W)

- ☐ Nurse:
- ☐ Physician:
- ☐ SDM/Family:
- ☐ Mobile Crisis:
- ☐ Others:
- ☐ Documentation in chart

Management Plan

- ☐ Follow patient care plan for chronic risk
- ☐ Regular outpatient follow-up
- ☐ Removal of lethal means
- ☐ Urgent outpatient follow-up
- ☐ Admit to a psychiatric unit
  - ○ Routine observation
  - ○ Close observation q 15 m
  - ○ Constant observation

Suicide Risk Level: Risk assessment is based on clinical judgment and not based on number of items checked. The checklist is intended to guide the clinical decision only.

RISK LEVEL: ☐ High ☐ Moderate ☐ Low Signature:_____

Analysis of Risk, Comments and Collateral Information:_____

Appendix E

Mental Health Assessment Form

Mental Health Admission Assessment

Unit	Admission Date	Time
Admitted from: Home ☐ Other:		
Source of Information: Patient ☐ Family ☐ Other:		
Status on Admission: ☐ Voluntary ☐ Involuntary Assessment ☐ Involuntary Admission		
Next of Kin:		Phone # :
Marital Status:		
Stature	Race	Hair Color	Eye Color
Distinguishing Features:		
Reason For Admission:		
When did it begin: ☐ 24 hr ☐ 1week ☐ 1 Month ☐ Other:		
What caused it?		
When was the last time you felt well?		

What things make you feel better?	What things make you feel worse?

What is your expectation of coming to hospital?

Do you currently have drug plan / prescription coverage? Yes ☐ No ☐

Type of coverage: Blue Cross MSI___ Workers Comp___ CPP_____Other_____

Aids to Physical Functioning						
Yes	No		Med Rm	Pt Drawer	With Patient	Sent Home
☐	☐	Denture ↑	☐	☐	☐	☐
☐	☐	Denture ↓	☐	☐	☐	☐
☐	☐	Glasses Contacts	☐	☐	☐	☐
☐	☐	Hearing Aid	☐	☐	☐	☐
☐	☐	Walker Cane	☐	☐	☐	☐
☐	☐	Prosthesis	☐	☐	☐	☐

Nutrition	Yes	No	Elaborate / Specify
Has your weight changed	☐	☐	
Has your appetite changed	☐	☐	
Do you have a special diet	☐	☐	

Sleep Rest	Yes	No	Elaborate / Specify
Difficulty Falling Asleep	☐	☐	
Difficulty Staying Asleep	☐	☐	
Nightmares	☐	☐	
Do you use medication to sleep	☐	☐	
Early Morning awakening	☐	☐	Usual waking time: Avg Length of Sleep:

Mental Status

Orientation: Person Place Time	Mood Description:
Affect Description:	Patient Behavior:
Speech Pattern:	Thought Process:
Hallucinations:	Delusions:
Ideas Of Reference:	Concentration:
Eye Contact:	Relevance of Conversation:
Insight:	Content Of Conversation:
Attention Span:	Judgment:
Tone of Speech:	

Cultural /Spiritual / Social /Supportive

Are languages or visual interpretive services required No ☐ Yes ☐ If yes, is service arranged

Please specify any religious or cultural restrictions you would like to have honored: _____

_____

Do you have any financial concerns No ☐ Yes ☐ _____

Are you currently accessing any Community Services (Home Care, Social Assistance, MH Clinic, CRT, COT) No ☐ Yes ☐

Agency Name	Worker Name	Worker Contacted	
_____	_____	No ☐	Yes ☐
_____	_____	No ☐	Yes ☐
_____	_____	No ☐	Yes ☐
_____	_____	No ☐	Yes ☐

Please identify support persons to be involved in your care (Name, relationship, phone number)

_____

_____

_____

_____

Health and Functional Assessment

Vital Signs: T P R BP Height: Weight:

Allergies: None Known ☐ Yes ☐ Specify Below

Type	Reaction	Treatment

Allergy Bracelet Applied: No ☐ Yes ☐

Medical / Surgical History:

Smoker: Yes ☐ No ☐ How Much?

Have you been a patient or had an overnight stay in any institution in the last 6 months?
Yes ☐ No ☐ if yes, where?

Appendix F

Mental Health Simulation Learner Pre-brief

This low-fidelity simulation involves your active participation to stimulate creativity and recognize learning in their own life experiences. This pre-brief session is an opportunity to explain the simulation flow and the evaluation process, and to answer your questions or clarify concerns. Due to the subject nature, you may need to take a break or have a "time out" during the simulation (Kirkpatrick & Dewitt, 2020). We will reflect on the overall experience to promote learning in the debrief. You will be evaluated on your ability to perform a mental health assessment, perform a suicide risk assessment, determine an appropriate plan of care, and collaborate with other health care professionals. You will not be evaluated on your acting abilities. It is normal to feel anxious as it takes time to build comfort with the acting technique. It is expected that you developed theoretical knowledge of anxiety and post-traumatic stress disorder (PTSD) and are familiar with the Mental Health Assessment tool and Suicide Risk Assessment and Intervention tool prior to acting out the scenario.

Simulation Etiquette and Norms

Psychological Safety and Sensitivity Statement: The simulation is designed for nursing students learning in a healthcare context. There is a risk for personal upset due to the potential link of personal or family experiences with mental health issues. If a learner feels uncomfortable during or after the simulation, they are advised to notify the facilitator.

CBU Supports

CBU has mental health supports in place for students. These include:

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Fiction Contract: During the simulation, learners and facilitators will interact in a situation based on real clinical encounters. Low-fidelity simulation allows learners to practice nursing care in a controlled and safe environment prior to clinical placements. We recognize that some aspects of the simulation may not be realistic, but we ask that you engage in the simulation as if it were real to provide the best active learning strategy possible to foster learning outcomes (INACSL, 2016f). It is expected that mistakes will happen and will be used to enhance learning in the debrief (CASN, 2015; INACSL, 2016c).

Learning Objectives

Learning objectives are outlined to clarify the expectations from learners during the simulation and debrief to increase the likelihood of meeting those expectations (Rudolph et al., 2014).

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3. Learner will demonstrate verbal and nonverbal therapeutic communication skills with the client, support person, and health care providers that reflects cultural awareness to addresses the client's psychological needs (knowledge, comprehension, application);
4. Learner will demonstrate comprehensive mental health assessment skills using the Mental Health Assessment tool (knowledge, comprehension, application);
5. Learner will assess client risk for suicide using the Suicide Risk Intervention and Assessment tool (knowledge, comprehension, application, evaluation);
6. Learner will demonstrate competency in implementing appropriate nursing interventions related to suicidality (knowledge, comprehension, application, evaluation);
7. Learners will identify any other client safety concerns (knowledge);
8. Learners will develop and implement a safety plan with the client in response to safety concerns (synthesis);
9. Learners will summarize client needs to determine and develop a nursing plan of care (synthesize); and
10. Learners will reflect on their personal attitudes, biases, and stigma following the simulation (knowledge, metacognitive)

Mindfulness Exercise

- Guided by the facilitator
- 3-minute duration

Scenario Outline

Isabella is a 35-year-old female who is currently employed with the military. She has a history of post-traumatic stress disorder (PTSD). Her husband is currently deployed overseas in the military and left one month ago.

She previously visited this community collaborative care clinic two weeks ago to see the primary care physician for symptoms of fatigue and nausea since her husband's deployment. It was during this visit that an unplanned pregnancy was confirmed, and she was referred to an obstetrician for follow up.

Today, while her 9-year-old son is at school, Isabella presents to the clinic with her friend Gina with increased anxiety. The nurse assessed her vital signs as: BP 134/88, HR 90, RR 24, T 36.7. The registered nurse enters the room to perform an initial assessment prior to Isabella seeing mental health nurse.

Medication:
citalopram 10mg PO once daily
zopiclone 7.5mg PO at bedtime
lorazepam 0.5mg SL TID PRN

Learner Expectation:

Complete the mental health admission assessment and assess risk for suicide in a supportive and therapeutic manner to determine the plan of care for Isabella. Provide the mental health nurse with report prior to her visiting with the client.

Time Allotment:

Pre-brief: 20 minutes

Acting out the scenario: 20 minutes

Debrief: 40 minutes

Appendix G

Promoting Excellence and Reflective Learning in Simulation (PEARLS) Debriefing Script

Setting the scene	We will spend 40 minutes debriefing the case. During this time, we will address the following: 1. I am interested to hear how you are feeling now that the simulation is over. 2. I would like someone to describe what the case was about to make sure we are all on the same page. 3. We will explore the aspects of the case that worked well for you and those you would manage differently and why. 4. I would like to hear what was going through your mind at various points in time. 5. We will end by summarizing the key points and how to apply them in your clinical practice.
Reaction	• How are you feeling? • Other reactions? • How are the rest of you feeling?
Description	• Can someone summarize that case so that we are all on the same page? • From your perspective, what were the main issues you had to deal with (assessment and interventions)? • Discuss the safety issues you considered when implementing care for this client. • What happened next? • What things did you do for the client? • How did you communicate with the client? • What measures did you implement to ensure safe client care? • Discuss the knowledge guiding your thinking surrounding these main problems.
Analysis	Now that we are clear about what happened, I think there were aspects that were managed effectively and others that were more challenging. I would like to explore these. • What aspects of the case do you think you managed well and why? • If you were able to do this again, how would you handle the situation differently? • What other members of the care team should you consider important to achieving good care outcomes? • How will you apply what you learned today to your clinical practice? *This is an opportunity to provide the relevant knowledge or tips to perform the action correctly (e.g., I noticed you [behavior]. It may be helpful to [suggestion] because [rational]).*

Are there any outstanding issues before we start to close?	
Application/summary	I like to close the debrief by having each you state one or two take-aways that will help you in the future.

(Eppich & Cheng, 2015)

Appendix H: Learning Outcomes Assessment Rubric

Competency	Competent Learner	Intermediate Learner	Novice Learner
Conduct comprehensive and focused behavioral and psychological assessments in a primary care setting to evaluate client status.	• Obtains objective assessment data • Obtains subjective assessment data • Identifies abnormal physical findings • Identifies abnormal psychological/behavioral symptoms	• Obtains most objective data • Obtains most subjective data • Identifies most abnormal physical symptoms • Fails to recognize some psychological/behavioral symptoms	• Struggles to obtain relevant objective data • Struggles to obtain relevant subjective • Focuses only on physical symptoms
Comments			
Identify factors which may influence or trigger changes in mental health to prioritize plan of care.	• Links past health history with current symptoms • Considers potential stress triggers which may explain current behavior	• With prompting, able to link current symptoms with past medical history • With prompting, is able to identify potential stress triggers which may explain current behavior	• Unable to link current symptoms with past medical history • Has difficulty identifying potential stress triggers
Comments			
Communicates with client and support system in a manner that illustrates caring, reflects cultural awareness to address psychosocial needs and safety.	• Appropriate communication • Communicates in a culturally sensitive manner • Maintains client confidentiality when communication with family • Address the concerns of family members	• Communication techniques not always most appropriate for client's condition • Personal cultural assumptions/biases sometimes influence communication • Some understanding of privacy legislation re disclosure of information	• Communication techniques do not promote therapeutic nurse-client relationship • Does not communicate in a culturally sensitive manner • Unsure of privacy legislation which guide disclosure of information

Competency	Competent Learner	Intermediate Learner	Novice Learner
	• Communication supports client and family's care needs	• Focus is narrowed to client's concerns and overlooks potential family's response to client's condition	• Does not include family in care practices
Comments			
Collaborate interprofessionally in the clinic setting to optimize client outcomes.	• Appropriately consults with interprofessional team members • Prompt recognition of the need to report situation to primary care provider • Provides information that accurately reflects the client's status	• Consults with most members of the interprofessional team • Some delay in reporting situation to primary care provider • Most information reflects client's status	• Minimal consulting with interprofessional team • Unsure when to report situation to primary care provider • Doesn't use communication tool when reporting • Unsure what information is important to communicate
Comments			

Additional Comment

Appendix I

Learner Evaluation of the Simulation

Please respond to the following statements with the rating that best describes your opinion.

- **SA: STRONGLY AGREE**
- **A: AGREE**
- **D: DISAGREE**
- **SD: STRONGLY DISAGREE**

If you provide a D or SD, please make a comment or suggestion to help improve future sessions.

	SA	A	D	SD
APPLICATION OF LEARNING MATERIAL				
I was able to meet the described learning objectives of this session in this setting				
POPULATION/CLIENT				
The client in the case scenario presented problems appropriate to the learning objectives of this session				
The presented client was culturally diverse (e.g., cultural, social, economic)				
HEALTH PROFESSIONALS				
The facilitator was accepting and supportive of the nurses' learning				
The facilitator was available to ask questions and provide assistance				
The facilitator was a supportive role model				
PHYSICAL ENVIRONMENT				
The space was inviting and comfortable for learning				
OVERALL IMPRESSION				
I would recommend this session to other nursing students				

Appendix J

Scenario Validation Checklist

Introduction

- Using the below criteria, determine the validity of the scenario prior to conducting a simulation.

The criteria are organized in four categories:

1. Learning Goals and Objectives
2. Current Evidence-Based Practice
3. Learner Focused Performance Based
4. Operational Efficiency

Review each indicator carefully — Italicized items must have deficiencies corrected prior to the simulation

		Yes	No
1	**Learning Goals and Objectives**		
la	*The learning objectives are clearly defined and measurable*		
1b	*Case content is matched to the learner's current skill level*		
2	**Current Evidence-Based Practice**		
2a	*Case content is clinically accurate, current, and relevant*		
2b	*Client information is culturally appropriate without bias*		
2c	*Bibliography contains references within past five years*		
3	**Learner Focused — Performance Based**		
3a	*Appropriate cues and consequences are signaled to the learner*		
3b	*Critical thinking and decision making is encouraged / supported*		
3C	*Adequate time is allocated for decision making*		
4	**Operational Efficiency**		
4a	*Programmed actions and events function as planned*		
4b	*Critical events are supported by debriefing comments / questions*		

4c	*Progressive complexity may be added to case as learner develops*		
4d	*Time for feedback and repetitive deliberate practice is allocated*		

Laerdal (2022)