The Impact of Income and Social Status on Population Health: A Scenario Based Simulation for Nursing Students

By

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Abstract

The development of critical thinking and communication skills is an essential part of Baccalaureate and Practical Nursing education. Scenario-based simulation, a form of experiential learning, directly engages students in the learning process. This teaching learning method has been shown to increase students' understanding of the influence of their personal beliefs and values when working with clients and to improve therapeutic communication and critical thinking skills. Students in both the BN (Collaborative) and PN Programs at the Centre for Nursing Studies demonstrate a strong theoretical understanding of the impact of income and social status on population health but often experience difficulty applying this knowledge to the clinical situations involving clients and families. The purpose of the project was to develop a scenario-based simulation activity to provide nursing students with first-hand experiences of the impact of income and social status on health service accessibility. A literature review and stakeholder consultations were conducted to inform the project. The findings of these initiatives and Kolb's Experiential Learning Theory were used to guide all aspects of the project. This report is an account of how the income and social status simulation and its accompanying materials were developed. This project provided an excellent learning opportunity that demonstrated the use of advanced nursing competencies.

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Faculty members are struggling to find safe learning opportunities and clinical environments for their students in the community setting. This has been attributed to the increasing amounts of pre-placement documentation required from students prior to entering community agencies and the reluctance of some staff to allow students into these areas (Larew et al., 2006; Robinson & Dearmon, 2013; Shinnick & Woo, 2013; Waldner & Olsen, 2007). Researchers have suggested that the lack of student knowledge, critical thinking and competency development is related to the existence of a gap between the classroom and clinical practice. Simulation, the replication of real life situations in a safe, controlled learning environment, is an increasingly popular interactive teaching strategy in nursing education that is being utilized to address these issues (Azzopardi et al., 2013; Bland, Topping & Wood, 2011; Gobbi et al., 2011; Jefferies, 2005; Mills et al., 2014; Schiavenato, 2009; Zigmont, Kappus & Sudikoff, 2011). Active engagement in simulation activities has been shown to enhance the confidence, clinical judgment, knowledge, and competence of students (Berndt, 2014; Bremner, Aduddell, Bennett & VanGeest, 2006; Fisher & King, 2013; Lapkin, Levett-Jones, Bellchambers & Fernandez, 2010).

Students in the Bachelor of Nursing (BN) (Collaborative) and Practical Nursing (PN) programs at the Centre for Nursing (CNS) have limited exposure to individuals from a variety of income and social status levels. This has resulted in students experiencing difficulty in their ability to identify the impact of this social determinant of health on nursing's approach to the delivery of healthcare to various populations. This is limits nursing students' understanding of the impact of income and social status on health and prevents full development of their capacity for empathy toward individuals living with inadequate resources. Kolb's Theory of Experiential

Learning (2008) guided the development of the scenario-based simulation activity regarding income and social status for nursing students. Throughout the development of the project I was able to apply and strengthen Advanced Nursing Practice (ANP) Competencies.

Background and Rationale

Teaching and learning strategies that address cultural sensitivity have been shown to be effective; however, strategies for addressing all forms of discrimination are not readily available (Allen, 2010; Allen et al., 2013). Scenario-based simulations are a positive teaching and learning strategy that can be utilized in nursing education to facilitate a link between theory and practice (Butler & Veltre, 2009; Shin, Park & Kim, 2015; Swanson et al., 2011; Tosterud, Hedeling & Hall-Lord, 2013). Poverty simulations, for example, have been found to be an effective strategy for increasing empathy toward clients living with inadequate income among nursing students. However, students did not demonstrate improved understanding of the link between income, social status and population health as a result of their participation in the simulation activity (Einhellig, Hummel & Gryskiewicz, 2015; Menzel, Wilson & Doolen, 2014). This may be attributed to student concerns regarding the lack of clarity and direction provided for their participation in simulation activities. These concerns negatively impact upon the experience for students and the knowledge they are able to acquire as a result of their participation in simulation experiences (Harman et al., 2014; Landeen et al., 2013; Yang & Yang, 2012).

Faculty members in the Community Health Courses in the BN (Collaborative) and PN Programs at the CNS apply the social determinants of health to all topics presented in the course. Students have demonstrated, in written evaluations, that they possess a strong theoretical understanding of the impact of income and social status on health, however, faculty members have observed that students' application of this knowledge in the clinical setting is difficult for

students. Students also experience difficulty in recognizing the impact of this particular social determinant of health on the health of the population. In an effort to assist students to link theory to practice, faculty members are often providing students with examples from nursing practice in the form of case studies or personal experiences from their own practice. Students have indicated that these strategies were beneficial in assisting their attempts to link the theory covered in the classroom setting to practice. Students have indicated that these strategies have also challenged their thought processes and problem solving abilities. Students feel that their clinical experiences have not provided them with a wide enough range of the income and social status levels to enable them to determine the impact on population health. Students have indicated that this lack of exposure and experience to issues regarding income and social status in the clinical setting as a significant factor in their inability to apply their knowledge to nursing practice.

Based upon these findings a multidimensional simulation strategy was developed for nursing education. This strategy was developed to facilitate greater understanding and increased feelings of empathy among nursing students regarding the impact of income and social status on population health. The content of the scenario based simulation activity is reflective of issues present in society that challenge students to apply their theoretical knowledge, communication skills and critical thinking abilities in order to work through the simulation activity.

Overview of the Practicum Project

The work I conducted in the N6660 and N6661 practicum courses involved the development of a scenario-based simulation related to income and social status. Kolb's Theory of Experiential Learning (2008) served as the theoretical framework the activity. This teaching-learning activity is intended to provide faculty in nursing education with a resource that will allow faculty to incorporate simulation into their courses.

The impact of income and social status on population health was an important topic that I feel needs to be addressed in nursing education. During my time working in the community health setting I witnessed an increase in the complexity of the issues related to income and social status and its impact upon the health of individuals, families and populations. Developing this simulation activity was important to me because I wanted to provide nursing students with a meaningful learning experience that would provide them with increased knowledge and feelings of empathy towards the struggles faced by those disadvantaged in these areas. I wanted this simulation to provide them with the opportunity to formulate new concepts and ideas that they will carry forth into their future nursing practice.

To address these educational challenges for faculty and nursing students I developed my practicum experience to meet the following objectives:

1. To participate in the program development process as it relates to the development of the simulation program
2. To demonstrate application of the advanced practice nursing competencies through the development of the practicum project
3. To utilize the information obtained through the literature review and consultation processes to develop the simulation program, and
4. To develop an implementation plan for piloting the simulation program, and the evaluative methods to be utilized

The Scenario-Based Simulation Manuel

The broad goal for this scenario-based simulation activity is to enhance understanding and strengthen feelings of empathy among BN (Collaborative) and PN students towards clients who struggle with inadequate income and its impact on their health and quality of life. The

simulation role-play is designed to challenge students to problem solve and apply critical thinking and communication skills to perform their assigned roles and complete the required tasks during the scenario. The scenario-based simulation manual includes: 1) a simulation orientation; 2) a simulation scenario which will include an environmental set-up; 3) roles and role descriptions; 4) briefing guidelines; 5) faculty observation form; 6) faculty debriefing guidelines; 7) faculty and student evaluations forms; and 8) a digital storytelling assignment.

Students and faculty will be required to attend a short orientation to the scenario-based simulation one week prior to the activity. This orientation will highlight the purpose of the activity, the components of the activity and the role of faculty members and students in the simulation activity. The environmental set-up provides guidelines to help create a real-life environment that minimizes confusion among students. Twenty-five roles are included in the simulation. These roles are created to facilitate the development of simulated situations in which students experience first-hand the realities of living complicated lives with less than adequate resources. Students and faculty will attend a short briefing session prior to the prior to the start of the activity. This session will outline the general guidelines for the simulation and provide opportunity for questions and clarification. The role-play will then be conducted for approximately 30 minutes. A Faculty Observation Form will be used by faculty members during the scenario to record pertinent events, interactions, and other observations. Following the role-play, a structured debriefing session is held with participants. Debriefing guidelines serve as a guide for faculty to facilitate a reflective discussion with students to begin the process of transforming experience into learning (Kolb, 2008).

Students and faculty will complete evaluation surveys found following the debriefing session that address all aspects of the simulation. This information will be used to refine and

improve the simulation. The final step in the learning process is for students to complete a digital storytelling assignment, which is designed to further engage the students in reflection through the use of various forms of technology. The process of creating a digital story allows the students to take a concrete experience (the simulation activity) and create a story based on their reflections and observations of the experience.

Overview of Methods

The methods that were utilized to develop this income and social status scenario-based learning activity included a literature search and consultations with my colleagues at the CNS. A literature search was initiated on the CINAHL, PubMed and Cochrane data bases. The literature focused on scenario-based simulation as a teaching learning strategy and articles that discussed simulations related to income, social status, social justice or the social determinants of health were explored. The search terms included: *simulation, simulation design, scenario- based learning, problem based learning, affective learning, nursing students, nursing education, nurse educators, debriefing, social justice, income, social status, and social determinants of health*. The consultation process involved interviews with CNS faculty members involved in the community health courses in the BN (Collaborative) and PN Programs. The key informants, also faculty members at the CNS, were experienced in simulation development and implementation.

Summary of the Literature Review

The Canadian Nurses Association [CNA] (2009) recognizes that for individuals and populations, income and social status influence the overall illness experience including frequency of an illness, recovery times, and mortality. The CNA (2008) promotes assessment of the social determinants of health by nurses to ensure a comprehensive understanding of the strengths and challenges of individuals, families and populations. This will require an

understanding of the impact of income and social status on population health which develops through knowledge acquisition achieved through nursing education curriculum and clinical experiences. Therefore, nursing education will need to continue to expand its teaching regarding the social determinants of health to prepare students for practice (Einhellig, Hummel & Gryskiewi, 2015; Mahoney & Jones, 2013).

Scenario-based simulation is a form of low-fidelity simulation involving role play and requires students to become active participants in the learning process (Clark, Anten & Macy, 2013; Butler & Veltre, 2009; Kong, Zhu & Gao, 2014; Mikkelsem, Reime & Harirs, 2008; Neimer, Pfendt & Gers, 2010; Sharpnack & Madigan,2012; Tocher & Smith, 2008). The scenario-based simulation environment enables students to enhance their understanding through the application of theoretical knowledge to a scenario that mimics nursing practice and provides students with an opportunity to understand the consequences of their actions, judgments and decisions without causing harm to clients (Berragan, 2011; Bland, Topping &Wood, 2011; Jarzemsky, 2012; Neil, 2009; Onda, 2012; Robinson & Dearmon, 2013; Schiavento, 2009; Tosterud, Hedelin & Hall-Lord, 2013; Waxman, 2010).

Benefits of scenario-based simulation. Scenario-based simulation is an efficient and integrative teaching methodology that is effective that links theory to practice and accommodates the various learning styles that exist among students (Berragan, 2011; Butler & Veltre, 2009; Neil, 2009; Onda, 2012; Sharpnack & Madigan, 2012; Tocher & Smith, 2008). Student have indicated that these teaching-learning activities enhanced their critical thinking, self-directed and reflective learning abilities (Butler & Veltre, 2009; Choi, Lindquist & Song, 2014; Pollard & Wild, 2014). The emphasis on collaboration and team building was found by students to be reflective of the interactions they would encounter in their future practice as they are required to

implement positive communication skills during the scenario (Harman et al., 2014; Pollard & Wild, 2014; Sharpnack & Madigan, 2012).

Simulation-based scenarios challenge students to incorporate higher level thought processes as they adapt and apply their critical thinking skills to sort through the information provided (Clark, Anten, Macy, 2013; Harman et al., 2014; Niemer, Pfendt & Gers, 2014; Tacher & Smith, 2008). Reflections during debriefing and collaboration with peers encourages students to connect the events of the simulation to previously acquired knowledge and concepts. This enables students to retain knowledge through knowledge application in the scenario and the identification of areas in which they require improvement (Bland, Topping &Wood, 2010; Harman et al., 2014; Mikkelsem, Reime & Harris, 2008; Neil, 2009; Niemer, Pfendt & Gers, 2010; Pollard & Wild, 2014 Shinnick, Woo & Mentes, 2011;).

Disadvantages of scenario-based simulation. A major disadvantage and barrier to the integration of simulation into nursing education are the costs associated with implementation and integration into the nursing curriculum (Berragan, 2011; Curtin & Dupis, 2008; Jarzemsky, 2012; Neil, 2009; Schiavenato, 2009: Shinnick, Woo & Mentes, 2011). An increase in faculty resources is required to ensure that the scenarios are authentic. This includes time spent writing and revising scenarios and organizing lab space to conduct simulation activities (Mikkelsem, Reime & Harris, 2008; Shapnack & Madigan, 2012). Scenario-based simulation offers an alternative to decreased time spent in the clinical setting but educators have indicated in several studies that simulations, no matter how realistic, may not provide students with an accurate representation of reality. The literature indicates that nursing students who participated in simulation were concerned about the limited information provided to them regarding their roles in the scenario and the lack of an orientation to the activity. This lack of preparation has been

suggested to create feelings of anxiety, frustration and uncertainty among students which inhibited learning (Harman et al., 2014; Mikkelsem, Reime & Harris, 2008; Sharpnack &Madigan, 2012; Yang & Yang, 2013).

Simulations regarding the social determinants of health. Few studies were found related to the impact of low fidelity income and social status simulations as a teaching strategy. One randomized control trail (RCT) examined the effect of a virtual poverty simulation in nursing students (Menzel, Wilson & Doolen, 2014). Results were mixed but overall there was no significant difference between the intervention and control group on attitudes about poverty or their understanding of the connection between poverty and health. A one-month simulated period of living in poverty for undergraduate nursing students also failed to make this connection between income and health (Einhellig, Hummel & Gryskiewicz, 2015). The activity did, however, evoke new insights and feelings of empathy among the group.

A patient advocacy learning course for nursing students discussed by Bell and Belo (2014) begins with an online poverty simulation which introduces the types of situations faced by those living in poverty and highlights the difficulties related to the decisions that the impoverished must make in these situations. Students participating in the course highlighted that this simulation experience increased their awareness of the challenges faced by those in lower socioeconomic classes and assisted them to develop an understanding of the complexities of social exclusion (Bell & Belo, 2014).

Conceptual framework. The scenario-based simulation activity was developed based upon Kolb's Theory of Experiential Learning (Kolb& Kolb, 2008). Kolb viewed learning as a lifelong process of creating knowledge. Knowledge is created through the transformation of experiences through the continuous interaction that occurs between individuals and their

environments (Kolb & Kolb, 2008). According to this theory experiences must be transformed in order for learning to occur and students must be active participants in the process. This occurs during a four stage learning cycle that encompasses; 1) concrete experience, 2) reflective observation, 3) abstract conceptualization, and 4) active experimentation (Kolb & Kolb, 2008; Lisko & O'Dell, 2010).

Learners must grasp experiences through participation in the actual experience or through comprehension (abstract conceptualization) outside of the actual experience. Concrete experiences enable the learner to become immersed in actual situations to form the basis of their observations. During reflective observation a variety of perspectives regarding the concrete experience are voiced and assimilated into abstract conceptualizations which allows the learner to develop representations or symbols of their experiences. The learners' individual logic and ideas are then used to understand the experience presented. Providing learners with feedback regarding their attempts to acquire new knowledge will actively engage them in the learning process through exploration of their individual beliefs, thoughts and ideas regarding the experience. This provides the opportunity for the development of newer and more refined ideas (Kolb & Kolb, 2008).

The process of debriefing and reflection following simulation experiences provides students with the opportunity to critically reflect upon their decisions and performance to identify further learning needs (Cromer, 2005; Jefferies, 2005, 2007; Parke et al., 2013; Sullivan-Mann, Perron & Fellner, 2009; Swanson et al., 2011; Waldner & Olsen, 2007). During active experimentation the opportunity to test theories is provided in an attempt to solve practical problems. Implications for new actions can then be drawn upon in order to form a guideline to create new experiences. Past experiences in combination with repeated interactions allow

individuals to develop a greater level of learning proficiency in comparison to other learners (Kolb & Kolb, 2008; Laschinger, 1990; Lisko & O'Dell, 2010). The learner then utilizes the newly combined knowledge in future situations and the cycle begins again (Waldner & Olsen, 2007).

Key findings. The relevant literature on simulation has shown that scanerio-based activities improve the knowledge and critical thinking skills of students while increasing their self-confidence (Baillie & Curzio, 2009; Baxter et al., 2009; Dillard et al., 2009; Mills et al., 2014; Roh, Kim & Kim, 2014; Shin, Park & Kim, 2015; Tosterud, Hedelin & Hall-Lord, 2015). However, the need for an increase in faculty time and resources are impeding the successful integration of simulation into the nursing curriculum (Akhtar- Danesh et al., 2009; Baillie & Curzio, 2009; Miller & Bull, 2013; Wilson & Klein, 2012). It is evident in the literature that a shortage of teaching interventions to increase students' knowledge and understanding of discrimination exists (Allen, 2010; Allen, Brown, Duff, Nesbitt & Harper, 2013). Discrimination in nursing education needs to have a focus greater than that of cultural sensitivity and must reflect the variety of forms of discrimination that exist in society (Allen, 2010), including income and social status. Teaching strategies in nursing education need to be formulated to address issues related to social justice that exist in practice and society.

Summary of Key Stakeholder Consultations

Consultations with faculty members teaching courses regarding the social determinants of health in the BN (Collaborative) and PN Programs ensured that the scenario-based simulation contained the appropriate content to ensure course objectives are met thorough its use. The consultations also allowed for the exploration of the value of a video reflective assignment regarding income, social status and the simulation experience. The results also addressed

possible barriers that would affect the use activity Consultation with key informants in scenario-based simulations provided some insight into the key design aspects of scenario based simulation

The purpose of this consultation process was (1) to determine the objectives and content covered in the theory courses of the BN (Collaborative) and PN Programs regarding the social determinant of health, income and social status, and its impact upon population health (2) to determine the effectiveness of current evaluation methods for nursing students and to explore the value of a video reflective assignment for the social determinant of health-income and social status (3) to determine which courses in the BN (Collaborative) Program and the PN Nursing Programs that this scenario based simulation could be utilized (4) to determine faculty's willingness to incorporate a simulation scenario regarding the social determinant of health, income and status, into their course and (5) to identify any barriers to the implementation of the simulation program in the BN (Collaborative) and PN Programs. A total of four faculty members teaching community health theory in the BN (Collaborative) and PN Programs participated in face to face and telephone interviews which followed scripted interview questions. The content of the interviews with faculty members was coded into general categories and compared. Two key informants, also faculty members at the CNS, were also interviewed following scripted interview questions.

Key Findings

The consultation process has determined that students in the BN (Collaborative) and PN Programs receive introductory course lectures regarding the social determinants of health. Following this introduction, the social determinants of health are discussed in relation to the remaining topics in the course and are applied across the entire lifespan. The students understanding of this course content is then evaluated in the form of test questions on midterm

and final exams. Faculty members indicate that this evaluation indicates a strong theoretical understanding of the impact of income and social status on health but that student application of this knowledge is area of weakness. This application of knowledge is limited due to the lack of appropriate clinical placements in the community setting. Faculty at the CNS indicated that they are in support of the incorporation of a simulation regarding income and social status during seminar time to assist students in this area. Faculty members are concerned regarding the limited space available to conduct scenario based simulations but feel that by ensuring small group sizes that the activity could be implemented. Faculty members are also concerned regarding a lack of resources in the area of simulation development and indicate that they lack the time required to develop scenario based simulations.

Key informants indicate that the environment is the most critical aspect in the design of a simulation based scenario. These individuals indicate that the environment should promote learning by allowing students to feel safe and comfortable. Key informants have also identified that no formal method of evaluation of student performance or understanding of simulation content exists. They also identified that no established orientations to simulation for faculty and staff are conducted at the CNS. Key informants indicated during the consultation process that students and faculty require an orientation to simulation prior to participating in these types of activities. These individuals also indicated that debriefing is the most critical learning point in the activity and can be challenging if students do not actively participate in the discussions held at this time.

Evaluation of Activity

Evaluation of the activity serves to determine the effectiveness of the content in achieving the goals and objectives of the activity (Morrison, Ross, Kallman & Kemp., 2013).

This activity will need to be evaluated in terms of its delivery and the learning outcome achieved by students participating in the activity.

Formative Evaluation and Revision

Formative evaluation occurs during the delivery of the activity and serves the general purpose of providing the designer with immediate feedback regarding the content and its delivery. This enables revisions to be made to the activity as necessary (Morrison et al., 2013). This simulation activity will need to be conducted a minimum of two times in order to effectively evaluate its delivery. This will require that I observe the preparation and implementation of the activity from beginning to end while making detailed notes regarding the process. Interviews will also be conducted with the faculty members involved in the simulation activity to determine which aspects of the simulation worked really well and which aspects of the activity require improvement. This process will also be completed with a focus group of student participants as well. Based upon the data collected from all of these methods revision will be made to the activity as required.

Summative Evaluation

Summative evaluation focuses on the measurement of the final instructional results and reporting. The data collected in this area will indicate whether or not a programs goals and objectives have been met (Morrison et al., 2013). The debriefing session and the digital storytelling assignment have been structured according to Kolb's Theory of Experiential Learning (2008). The debriefing session which occurs immediately following the simulation activity is utilized by faculty to identify the learning strengths of students and to evaluate students' performance of the concrete experience. The digital storytelling assignment expands on

this evaluation by having the students reflect on the concrete experience and the discussions that occurred during the debriefing session. In addition to their reflection on their experience students are encouraged to expand on their reflections and develop strategies based on the experience to implement in their future practice. These forms of reflection in combination with faculty observation of the role-play will determine if the goals of the activity have been achieved.

Advanced Nursing Competencies

The Canadian Nurses Association [CNA] (2008) refers to advanced nursing practice (ANP) as nursing practice involving graduate level education in order to meet the health care needs of the clients they serve at an advanced level. The ANP competencies identified by the CNA (2008) were utilized during the development of this practicum project. Each of these competencies and how they were demonstrated throughout the practicum project will be discussed.

Clinical

ANP involves the development and advancement of nursing practice. This involves working work with clients and other practice disciplines to provide safe, competent, ethical, and comprehensive health care. In order to demonstrate this competency nurses with ANP education must utilize research data when making decisions in the clinical area and when acting as agents of change. This involves the development, coordination and delivery of educational programs based on the needs observed in practice areas that consider organizational priorities and resources in their planning (Canadian Nurses Association, 2008). This practicum project was developed based upon my previous clinical experiences in the community health setting. During this period of time in my nursing practice I witnessed the increasingly complex issues related to income and social status and their impact upon the health of the individuals, families and

populations. It was through these experiences and my attempts to assist these clients that I was fully able to comprehend the impact of income and social status on health and well-being.

The development of this practicum project has changed my approach to the delivery of nursing education in this area. During the development of this project I utilized the evidence complied during my literature review to develop the scenario-based simulation activity presented in my final product. This research enabled me to produce a teaching-learning activity that would provide students with the experience of assuming the role of an individual facing struggles in terms of income and social status. By providing this concrete opportunity, students will be able to experience firsthand some of these struggles and the attempts made by individuals to achieve health and well-being within these limitations.

I also utilized my personal experience with simulation development and implementation as part of my job current position to develop this scenario-based simulation activity. While the individuals I consulted with did not represent those from a variety of other health related disciplines they do represent a team of educators working together to deliver a high quality curriculum that graduates nurses and practical nurses that are prepared for entry level practice.

Research

ANP involves the interpretation and application of nursing research and theories. This involves those working at this level of nursing practice to actively seek and utilize innovations based on current and validated research to improve client care and to positively impact on the organizations in which they practice. One of the major goals of ANP is conducting and participating in research with peers to benefit nursing practice. ANP promotes sharing knowledge with others through engagement in the publication process, as well as, thorough presentations of work (CNA, 2008).

This competency was demonstrated through my utilization of simulation, a relatively new and emerging teaching modality in nursing education, to enhance the understanding of BN (Collaborative) and PN students regarding the social determinants of health. I also decided to incorporate a digital storytelling into the activity based on the research findings indicating its effectiveness in encouraging reflective thinking. I have also disseminated my knowledge regarding simulation and the process of developing my simulation program during my presentation to The School of Nursing. The development of this practicum project has also assisted me as a member of a research team regarding the use of hybrid simulation in the Nurse Practitioner Program. The knowledge I have gained in research utilization will assist me in my future research goals.

Leadership

Individuals with ANP preparation assume the role of leaders in their areas of clinical practice and often initiate changes to improve nursing practice and health policy. The key to this leadership role is the ANP education that provides it graduates with the ability to identify the learning needs of other nurses and to develop, deliver, and evaluate programs that address these needs (CNA, 2008). Through consultation with faculty members involved in the community health courses in the BN (Collaborative) and PN Programs at the CNS I was able to identify a focus for this practicum project. I demonstrated a professional leadership role through the collaborative identification of a need for a simulation activity regarding the impact of income and social status on population health. I also demonstrated this competency during my consultations with key informants with experience in simulation regarding the content, design and evaluation of the activity.

Consultation and Collaboration

ANP involves working with all members of the interdisciplinary team to develop strategies and programs for improvements at the client and organizational levels. This collaboration also includes the collection and interpretation of research data from various sources in order to develop programs and strategies (CNA, 2008). During this practicum project I consulted with the course leaders of the community health courses in the BN (Collaborative) and PN Programs at the CNS to determine the course objectives and the content that would be required in the simulation activity to meet these objectives. I also consulted with two key informants regarding the development and implementation of the simulation activity. Both of these individuals have attended simulation conferences and have been involved in the development and implementation of simulation activities at the site. During the practicum project I also consulted with my practicum supervisor. Collaboration with all of these individuals was essential in the development of this practicum project as they were experts in the community health courses of both programs or experts in the area of simulation. Their input was important in the development of this project to ensure the activity met the objectives of the community health courses and followed the correct format.

Limitations and Next Steps

A limitation of this project is that it has not been implemented in the BN (Collaborative) or PN Programs at the CNS. The approval and support of CNS Director Dr. Kathy Watkins will need to be obtained in order for implementation of the simulation to occur in these programs at the site. Following this approval meetings and consultations will be conducted with the Simulation Lead at the site and faculty members involved in the community health courses in the BN (Collaborative) and PN Programs. Following the implementation and review of the

subsequent evaluations the scenario-based simulation can be modified based on the feedback provided from students and faculty.

Conclusion

Scenario-based simulation is a form of low fidelity simulation that requires the student to become an active participant in the learning environment (Clark, Anten & Macy, 2013; Butler & Veltre, 2009; Kong, Zhu & Gao, 2014; Mikkelsem, Reime & Harirs, 2008; Sharpnack & Madigan, 2012; Tocher & Smith, 2008). These role-play activities provide students with an opportunity to understand the consequences of their actions, judgments and decisions without causing harm to individuals or populations (Berragan, 2011; Bland, Topping &Wood, 2011; Jarzemsky, 2012; Neil, 2009; Onda, 2012; Robinson & Dearmon, 2013; Schiavento, 2009; Tosterud, Hedelin & Hall-Lord, 2013; Waxman, 2010). Scenario-based simulations are an efficient and integrative teaching methodology (Tacher & Smith, 2008) that enhance the problem solving, self-directed learning and reflective abilities of students (Butler & Veltre, 2009; Choi, Lindquist & Song, 2014; Pollard & Wild, 2014).

During this practicum project I identified the need for the integration of scenario-based simulation activity regarding the impact of income and social status on population health. This has resulted in the development of this scenario-based role play simulation, its accompanying materials and surveys to be used in the BN (Collaborative) and PN Programs community health courses. The implementation of this simulation activity with provide students with an opportunity to increase their understanding and feelings of empathy regarding the impact of income and social status on the health of individuals, families and populations. The data collected from the student and faculty surveys will be used to make improvements to future

implementations of the activity. The development of this project allowed me to meet the objectives of the practicum courses and demonstrated advanced nursing competencies.

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Appendix A

Literature Review

Scenario-Based Learning: A Review of the Literature

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Abstract

The purpose of this integrative literature review is to explore the research on the use of simulation in nursing education to better understand the impact of income and social status on population health. Studies included in the review relate specifically to scenario based simulation, undergraduate nursing education and social justice. Findings in the literature support the use of simulation as an active learning strategy in nursing education that is viewed positively by students as a teaching and learning tool. Also, literature was found supporting the use of low-fidelity simulation in the form of scenarios to facilitate the understanding by nursing students. However, the literature regarding the efficacy of simulation to facilitate student understanding of the impact of income and social status on population health was much more limited; nonetheless the results of this literature review highlight evidence that scenario- based simulation- when incorporated into the nursing curriculum -will fulfill this task.

Keywords: *simulation, nursing education, income, social status, population health*

Simulation, an increasingly prevalent active learning strategy, can serve as a substitute for nursing students' contact with live patients (Azzopardi et al., 2013: Bland, Topping & Wood, 2011; Gobbi et al., 2011; Jefferies, 2005; Mills, 2013; Neil, 2009; Schiavenato, 2009; Zigmont, Kappus & Sudikoff, 2011). Azzopardi et al. (2013) define simulation as a "learning strategy to support, educate and provide rehearsal for those students preparing to work in the delivery of health care (p.404). In her earlier definition Jeffries (2005) referred to this learning strategy as "activities that mimic the reality of a clinical environment" (p.97). Cannon –Diehl (2009) expands on these definitions by indicating that simulation can be as complex as the utilization of a birthing simulator to as a simple as the use of a case study. The majority of the literature simply defines simulation as the replication of real life situations for students in a safe and controlled environment in order to facilitate learning (Azzopardi et al., 2013; Bland, Topping & Wood, 2011; Gobbi et al., 2011 Jefferies, 2005; Mills, 2013; Neil, 2009; Schiavenato, 2009; Zigmont, Kappus & Sudikoff, 2011). Despite a recent increase in its utilization in nursing education, simulation is not a new concept in teaching and learning. In fact, for many years it has been proven to be effective for in several other disciplines for training and practice (Baxter, Akhtar-Danesh, Valaitis, Stanyon & Sproul, 2009; Bland, Topping& Wood, 2010; Gobbi et al., 2011; Hayden et al., 2014; Onda, 2012; Robinson & Dearmon, 2013; Schiavenato, 2009; Waxman, 2010).

A literature review was conducted to determine what is known regarding the utilization of simulation in nursing education specifically in relation to income and social status in order to develop a simulation program for Bachelor of Nursing (Collaborative) and Practical Nursing Students. The purpose of the simulation program is to enhance the students' understanding of the impact of income and social status on population health. The literature search was initiated on

the CINAHL, PubMed and Cochrane data bases and the search terms including: *simulation, simulation design, scenario- based learning, problem based learning, affective learning, nursing students, nursing education, nurse educators, debriefing, social justice, income, social status, and social determinants of health*. Articles included in the review consisted of those published in English, those which involved scenario- based simulation, those that addressed simulation as a teaching and learning strategy, and those which discussed simulation in relation to income, social status, social justice or the social determinants of health. Several other articles were rejected due to the focus on advanced nursing skills and or were not published in English. Critical appraisal of these articles was based upon the *Infection Prevention and Control Guidelines: Critical Appraisal Tool Kit (2014)*.

Background

The World Health Organization (2008) defined the social determinants of health as the "conditions in which people are born, grow, live, work and age". Braveman and Gottlieb (2014) added that they are "factors apart from medical care that can be influenced by social policies and shape health in powerful ways" (p.9). Income and social status is identified in the literature as the most important of the social determinants of health because of its impact and influence upon the others (Massey & Durrhiem, 2008; Mikkonen & Raphael, 2010). It has been recognized worldwide that those living in positions of higher income and social statue experience higher levels of health and wellness (Association of Faculties of Medicine in Canada [AFMC], 2015; Braveman & Gottlieb, 2014; Massey & Durrhiem, 2008). Individuals and populations that cannot meet the basic human needs for food, clothes, shelter and education lack the ability to make positive choices in that will ensure their health (AFMC, 2015; Massey & Durrhiem, 2008). Therefore, the strong associations that exist between poverty and health cannot be ignored.

The Canadian Nurses Association [CAN] (2009) recognized that the income and social status of individuals and populations influence the overall experience and frequency of an illness, recovery times, and mortality rates. The CNA (2008) also indicated that nurses address the social determinants of health in their personal practice as they promote the health and wellbeing of individuals, families and communities through the provision of care they provide. It is recommended that nurses consider income and social status in their assessments at all levels of care (Massey & Durrheim, 2008). Nurses promote justice thorough through the fair and equitable distribution of resources in which they control. Through their collaboration with other disciplines and by advocating for healthy public policy nurses can ensure that the social determinants of health are addressed (CNA 2009; 2008).

Nursing students will be expected to uphold the ethical values of justice and health and well-being. In their future practice they will be expected to include the social determinants of health in all of their assessments and to be leaders of change in an increasingly diverse society (Mahoney & Jones, 2013). This will require an understanding of the impact of income and social status on population health which develops through knowledge acquisition from the theoretical components of the nursing education curriculum and experience. Therefore, nursing education will need to continue to expand its teaching regarding social justice issues and the social determinants of health to prepare students for entry level nursing practice (Einhellig, Hummel & Gryskiewi, 2015; Mahoney & Jones, 2013)

Nurse educators have been faced with significant challenges in finding clinical opportunities for students to facilitate this understanding. Increased numbers of students competing for a limited number of clinical spaces that provide safe and supportive learning environments is a major challenge in nursing education (Baxter et al., 2009; Schiavenato, 2009).

Clinical areas are also becoming over burdened with these increased student numbers as they attempt to provide patient care and have become unsupportive environments for student learning as a result (Baxter et al., 2009; Onda 2012; Schiavenato, 2009). For example, implementation of patient safety policies and programs has limited the number of students permitted in clinical settings. In some areas only student observation is permitted (Bland, Topping &Wood, 2011; Gobbi et al., 2011; Hayden et al., 2014; Jarzemsky, 2012; Neil, 2009; Schiavenato, 2009) and this lack of practical exposure and resultant subject understanding has caused difficulties for students entering practice (Baxter, Akhtar-Danesh, Valaitis, Stanyon & Sproul, 2009; Jarzemsky, 2012; Gobbi et al., 2011; Hayden et al., 2014; Onda, 2012; Robinson & Dearmon, 2013; Shinnick, Woo & Mentes, 2011). In addition, clinical placements are often inconsistent and inequitable in the learning opportunities they provide for students (Bland, Topping &Wood, 2011; Gobbi et al., 2011; Hayden et al., 2014; Jarzemsky, 2012; Neil, 2009; Schiavenato, 2009).

Simulation has become a newly implemented strategy in nursing education to combat these concerns. Fidelity, the term used to describe the realism and accuracy provided by the simulation, is essential to its effectiveness as a teaching strategy (Bland, Topping& Wood, 2010; Gobbi et al., 2011; Wang, 2011). High- fidelity simulation involves the utilization of a manikin that is closely designed to mimic human responses. They appear life like, must be controlled via computer, and can be administrated medications, catheterized, etc. (Neil, 2009; Parker & Myrick, 2010; Schiavenato, 2009: Shinnick, Woo & Mentes, 2011; Wang, 2011). Moderate -fidelity simulation involves the use of manikins that produce sounds and are most often used for evaluative purposes (Neil, 2009; Shinnick, Woo & Mentes, 2011; Wang, 2011). Low- fidelity simulation involves the use of models of isolated body parts that provide no response from the manikin and include task trainers such as IV arms (Neil, 2009; Shinnick, Woo & Mentes, 2011).

Other forms of low- fidelity simulation include screen- based simulations, role play, scenarios, moulage, live actors and standardized patients (Schiavenato, 2009).

To increase the understanding of BN (Collaborative) and PN students regarding the impact of income and social status a low- fidelity, scenario -based simulation program will be developed. Scenario -based learning is an in-depth method of active learning requiring students to apply previously acquired knowledge to make decisions, judgments or educated guesses regarding the events presented in the scenario (Clark, Anten & Macy, 2013; Harman et al., 2004; Mikkelsem, Reime & Harris, 2008; Niemer, Pfend & Gers, 2010; Sharpnack & Madigan,2012). The program will include a faculty and student orientation to simulation and the program; a simulation scenario including roles for all participants and environmental set up; a faculty checklist to structure observations during the simulation scenarios; debriefing guidelines; evaluation surveys for both students and faculty to be completed following the simulation experience. Students will be required to complete a video reflective assignment appraising their participation in the simulation.

Simulation Design

The design of a simulation has several components which must be considered in its development. The fidelity of the simulation must be appropriate for the objectives to be achieved by learners (Bland, Topping, Wood, 2010: Gobbi et al., 2011; Wang, 2011). The environment should be non-threatening and facilitators must act as resources for students (Berragan, 2011; Bland, Topping and Wood, 2011; Neil, 2009; Onda, 2012; Robinson & Dearmon, 2013; Schiavento, 2009; Shinnick, Woo & Mentes, 2011; Tosterud, Hedelin, Hall-Lord, 2013; Waxman, 2010**).** The debriefing following a simulation is a critical aspect of its design as this is where the majority of student learning occurs (Jefferies, 2007). Finally, the

design of a scenario based simulation should include a form of evaluation in order to ensure student learning has occurred (Jefferies, 2007; Mills et al., 2014; Robinson & Dearmon, 2013; Roh, Kim &Kim, 2014; Tosterud et al., 2013; Waxman, 2010).

Fidelity

Simulation can be delivered through a variety of different methods and fidelity refers to the degree to which a simulation scenario reflects real life experiences (Bland, Topping, Wood, 2010; Gobbi et al., 2011; Wang, 2011). Little evidence exists in the literature to support one method of simulation over the other in any setting. The lack of an operational definition pertaining to fidelity as it related to simulation is a major criticism of the National League of Nursing (NLN)/Jeffries Simulation Framework and it has been suggested that there is no evidence to support the supposition that increases in the fidelity of the simulation have resulted in enhanced learner outcomes (Groom, Hedderson & Sittner, 2014). Several studies involving the comparison of different forms of simulation from a student perspective have found that all forms of scenario based learning were thought to assist in the learning process and were satisfying to the learner (Butler & Veltre, 2009; Shin, Park & Kim, 2015; Swanson et al, 2011; Tosterud, Hedeling & Hall-Lord, 2013). A major limitation of these studies is that students were assigned to a single form of simulation and asked to completed surveys regarding their experience. The validity of findings would have been increased had the students in the study participated in all forms of the simulation prior to completing questionnaires.

Case- based, scenario -based and problem- based simulation are used interchangeably to describe low -fidelity simulation involving role play or actors (Clark, Anten & Macy, 2013; Butler & Veltre, 2009; Kong, Zhu & Gao, 2014; Mikkelsem, Reime & Harirs, 2008; Sharpnack & Madigan, 2012; Tocher & Smith, 2008). For the purposes of this literature review the single

term “scenario- based simulation” will be utilized. Effectively designed scenario based learning activities require students to become active participants in the learning process and collaborate while in small groups to solve a simulated situation (Clark, Anten & Macy, 2013; Neimer, Pfendt & Gers, 2010; Tocher & Smith, 2008; Sharpnack & Madigan,2012)

Environment

Simulation provides a safe, controlled, and non-threatening learning environment for students to apply knowledge acquired in the classroom (Berragan, 2011; Bland, Topping & Wood, 2011; Neil, 2009; Onda, 2012; Robinson & Dearmon, 2013: Schiavento, 2009; Shinnick, Woo & Mentes, 2011; Tosterud, Hedelin & Hall-Lord, 2013; Waxman, 2010). The scenario-based simulation environment enables students to enhance their understanding of the topics presented in the classroom by applying theoretical knowledge to a scenario that mimics those in nursing practice. This provides students with an opportunity to understand the consequences of their actions, judgments and decisions without causing harm to individuals or populations (Berragan, 2011; Bland, Topping &Wood, 2011; Jarzemsky, 2012; Neil, 2009; Onda, 2012; Robinson & Dearmon, 2013; Schiavento, 2009; Tosterud, Hedelin & Hall-Lord, 2013; Waxman, 2010).

The facilitators in scenario based simulation are essential to creating an effective learning environment (Zong, Zhou & Goa, 2014) and are required to act as resource persons for students (Yang & Yang, 2013). Effective facilitators have been identified as those who provide students with support and encouragement on both an individual and group basis (Mikkelsem, Reime & Harris, 2008; Yang & Yang, 2013). Students also indicated that these facilitators posed appropriate questions to assist with progression through the scenario in addition to providing students with post-scenario feedback, comments and advice. Students also placed value on the

facilitators' knowledge of the events of the simulation and their utilization of hypothetical examples (Mikkelsem, Reime & Harris, 2008; Yang & Yang, 2013).

Scenario based simulations require a large area with specific sections assigned for designed activities or task presentation. Props or equipment that students will require to complete these activities are located in the specific areas in which they are to be used. Students would be provided with the opportunity to explore the simulation environment prior to the start of the scenario so that they are aware of the resources available to facilitate their participation in the simulation events and to minimize the time wasted during the scenario attempting to find the materials needed.

Debriefing

Debriefing is recognized as the most critical element of scenario based learning and is guided by a facilitator with a small group of 8-12 students. The debriefing session immediately follows a 20 to 30-minute scenario and is longer in duration than the scenario itself lasting anywhere from 40 minutes to an hour (Brackenreg, 2004; Burke & Mancso, 2012; Groom, Henderson & Sittner, 2014; Jeffries, 2005; Waldner & Olsen, 2007; Waxman, 2010; Wilson & Klein, 2012; Zigmont, Kappus & Sudikoff, 2011). The majority of student learning occurs at this time as students engage in the reflective process, ask questions and are provided with peer and faculty feedback (Brackenreg, 2004; Groom, Henderson & Sittner, 2014; Jeffires, 2005; Tocher & Smith, 2008; Waldner & Olsen, 2007; Wang, 2011; Waxman, 2010; Zigmont, Kapus & Sudikoff, 2011)

Debriefing should be a structured process (Gardner, 2013; Groom, Henderson & Sittner, 2014) and many methods of debriefing are discussed in the literature. However, in the literature

reviewed here, the only significant findings were related to the presence or absence of structure to the process. That is when faculty followed structured debriefing models students perceived the process as both focused and student centered. In contrast, students felt unstructured debriefing was facilitator focused, with little student input. The studies found no statistically significant differences in test scores among groups; however, rich qualitative data were collected during focus group sessions (Dreifuerst, 2012; Mayville, 2011; Mariani, Cantrell, Meakim, Prieto & Dreifuerst, 2013). Significant gaps in the findings regarding the debriefing process exist as the thoughts and perceptions of those facilitating the debriefing session have not been explored. There is also a lack of evidence from randomized controlled trials (RCTs) with large sample sizes to support the preferential utilization of one particular method of debriefing.

Evaluation

Robinson and Dearmon (2013) suggested that student centered summative and formative forms of evaluation be utilized in the evaluation of scenario- based simulations. However, most of the reviewed literature places very little attention to the process of evaluating the simulation scenario that goes beyond the use of the Student Satisfaction in Learning Scale, Student Perceptions of Learning Scale and the Simulation Design Scale (Jefferies, 2007; Mills et al., 2014; Roh, Kim &Kim, 2014; Tosterud et al., 2013). Waxman (2010) suggested that scenarios should undergo peer review to ensure that the content reflects nursing practice and is accurate. The author also recommended that scenario -based simulations be pilot tested on a group of students in order to identify and address areas of concern prior to implementation into the curriculum. The consultation process with faculty and key informants is essential to ensuring that the content and design of scenarios related to income and social status meet course objectives and are reflective of the practice setting. More research is needed to determine effective methods

of evaluation for the content of scenario based simulations and other design critical aspects in other to ensure the delivery of high quality simulations to nursing students.

Advantages of Scenario -Based Simulation in Nursing Education

Scenario -based simulations are an efficient and integrative teaching methodology (Tacher & Smith, 2008). Students participating in this form of simulation have indicated that the scenario enhanced their problem solving, self-directed learning and reflective abilities (Butler & Veltre, 2009; Choi, Lindquist & Song, 2014; Pollard & Wild, 2014). Findings also indicate that scenario- based simulation required students to utilize and refine their communication skills as they worked with group members throughout the scenario. Students felt the emphasis on collaboration and team building was reflective of the interactions they would encounter in their future practice (Harman et al., 2014; Pollard & Wild, 2014; Sharpnack & Madigan, 2012). These advantages of scenario- based simulation are useful in developing inter- professional collaboration; additional main advantages discussed in the literature include enhanced critical thinking abilities, knowledge acquisition and application, increased student confidence, and decreased student anxiety.

Enhanced Critical Thinking Abilities

Nursing students have often not fully developed strong critical thinking skills throughout the course of their education which results in difficulty providing care for increasingly complex patients and populations following graduation (Bland, Topping& Wood, 2010). Faculty can assist students to develop these essential skills by incorporating scenario -based simulations into their curriculum without any risk to patient and population safety (Jeffries, 2005; Neil, 2009). The literature suggests that the use of simulation in nursing education supports students' attempts

to develop their critical thinking skills, competence, clinical reasoning and judgment (Bland, Topping, Wood, 2010; Jarzemsky, 2012; Neil, 2009; Schiavenato, 2009; Sharpnack & Madigan, 2012; Shinnick, Woo & Mentes, 2011). Simulation experiences allow students to recognize their own strengths and weakness through their performance and faculty feedback (Bland, Topping &Wood, 2010; Neil, 2009; Shinnick, Woo & Mentes, 2011). Simulation scenarios can be altered to suit the knowledge and skill level of the students. This accommodates the various learning styles within a group of students while concurrently increasing their confidence (Berragan, 2011; Butler & Veltre, 2009; Neil, 2009; Onda, 2012; Sharpnack & Madigan, 2012).

Scenario- based simulations are designed to encourage students to adapt and apply their critical thinking skills to work through the scenario (Tacher & Smith, 2008). Research into simulation based scenarios has shown that this form of simulation challenges students to incorporate higher level thought processes in order to sort through the information provided and determine its relevance to the case presented (Clark, Anten, Macy, 2013; Harman et al., 2014; Niemer, Pfendt & Gers, 2014). Kon, Qin, Zhou, Mou and Gao (2014) meta-analysis of 8 RCT of scenario- based simulation from 1965 to December 2012 found the method to improve students' critical thinking in comparison to traditional lectures. These authors determined that these studies contained a low risk of bias based on the Cochrane Collaboration Risk of Bias Tool and sensitivity analysis determined that the results of the meta- analysis were reliable (Kon, Qin, Zhou, Mou & Gao, 2014).

Choi, Linquist and Song (2014) incorporated a non-equivalent pretest posttest design of 90 first year Korean nursing students from two different junior colleges in two South Korean cities. The critical thinking scores of the 46 students participating in scenario -based learning increased by more points than those of the traditional lecture group. However, the findings were

not found to be statistically significant (Choi, Lindquist & Song, 2014). Sample sizes may have not been large enough to detect statistically significant differences despite increased critical thinking scores. Therefore, replication of the study with a larger more representative sample size is needed.

Critical thinking is a skill that develops over a period of time (Choi, Lindquist &Song, 2014). The absence of longitudinal data in the literature may also contribute the lack of statistically significant findings in terms of enhanced critical thinking as a result of participation in scenario- based simulations. This data would demonstrate the long term effects of this teaching strategy on nursing students' critical thinking abilities over time. Findings of these studies may have also been affected by the amount of student exposure to scenario- based simulations and their placement in the nursing program.

Knowledge Acquisition and Application

Scenario based simulations provide students with the opportunity to experience various situations that may be encountered in their future practice and the different levels of action they will be required to implement (Harman et al., 2014). Through discussions during debriefing and collaboration with their peers' students are encouraged to connect the events of the simulation to previously acquired knowledge and concepts taught in the curriculum. This enables students to retain knowledge through application in the scenario and identification of areas in which they require improvement (Harman et al., 2014; Mikkelsem, Reime & Harris, 2008; Niemer, Pfendt & Gers, 2010; Pollard & Wild, 2014).

Scenario- based simulations are an effective in linking theory with practice and should be designed to provide the student with some insight into the topic presented (Tocher & Smith,

2008). Qualitative data was collected from 21 second year nursing students randomly selected from 141 students participating in infection control scenario -based simulations. These students participated in focus group sessions with predetermined topics and interview guides. Data was coded and triangulated to increase the validity of interpretation. The students indicated to researchers that the unexpected events in the scenario increased their awareness of the complexity of the topic. These students also indicated that participation in the simulation heightened their awareness of caring for the patient as a whole and not just in terms of controlling the spread of infection. In fact, the student assigned the role of an observer indicated to researchers that being assigned to this role enabled her to recognize that patients are constantly observing the care they receive (Mikkelsem, Reime & Harris, 2008). Similar findings were noted in a scenario -based simulation addressing incivility in nursing. In that study, students indicated that participation in the simulation heightened their awareness of incivility in nursing and enhanced their ability to recognize its impact on patient care and the overall practice environment. Students reported that during debriefing they began to reflect on their own behaviors in the clinical setting and how it could be perceived by others (Clarke, Ahten & Macy, 2013).

Student knowledge gains have been observed in the literature as a result of participation in simulation and have been found to be an independent predictor of achieving higher scores on tests (Glidewell & Conley, 2014; Shinnick & Woo, 2013; Shinnick, Woo & Evangelista, 2012; Dillard et al., 2009; Wolfgram & O'Leary Quinn, 2012). Students participating in the control group of a repeated measures study were found twice as likely to have poor knowledge scores when compared to those that participated in simulation. The test scores for the control improved following their opportunity to participate in the simulation (Shinnick, Woo & Evangelista, 2012).

Waukesha County Technical College in the USA has successfully embedded simulation into their nursing curriculum. Each clinical course has one 5-hour clinical day during which students participate in scenarios related to their specific clinical areas. Optional simulations are also offered for students, such as, simulation scenarios related to experiences in clinical practice in which students are unable to participate. In Waukesha improvements have been noted in the test scores of students and faculty have reported increased accuracy in health assessment skills in first year students. Retention rates have increased from the 40^{th} to 70^{th} percentile since the introduction of simulation to the curriculum and NCLEX pass rates are in the 90^{th} to 95^{th} percentiles (Wolfgram& O'Leary-Quinn, 2011). Clinical faculty at MacEwan University in Alberta, Canada have reported to researchers that since the implementation of a leadership and followership simulation exercise students entering clinical settings are more knowledgeable and are demonstrating increased levels of preparedness relative to those in the years prior to its implementation (Pollard & Wild, 2014)

Further research is needed to determine the preparation required for students prior to their participation in simulation, as well as, the amount of exposure students require to improve their knowledge test scores though longitudinal randomized control studies. The first study of this nature was conducted in 10 undergraduate programs across the United States from Fall 2011 to May 2013. The study found no significant difference in comprehensive nursing knowledge assessments between students receiving traditional clinical experiences and those who had 25% or 50% of their clinical hours replaced with simulation. Also, no significant differences in NCLEX pass rate were noted between the groups (Hayden et al., 2014). These findings support the use of simulation to replace time in the clinical setting as no negative effects have been noted

related to students' abilities to successfully complete licensure requirements as a result of the replacement.

Increased Student Confidence and Decreased Student Anxiety

Students who have participated in scenario -based simulations have reported that these experiences have assisted in the development of their independence and confidence (Harman et al., 2014; Sharpnack & Madigan, 2012). The literature addressing the effects of simulation on the confidence levels of students is somewhat conflicting and is based primarily on self-reported data collected from nursing students.

Baillie and Curizo (2009) noted that 93% of the students who participated in simulation agreed that the repetition it provided increased their confidence; however, only 47% of these students felt that they were well prepared for clinical placements as result of their participation in simulation. Other studies have found that the confidence levels of students participating in simulation were not statistically different from comparison groups (Swanson et al., 2011; Tosterud et al., 2015; Kahlaila, 2014). The majority of these studies did not measure confidence levels prior to simulation interventions to determine if these confidence levels improved or if scores were high among participants to begin with. Qualitative data from standardized patients in one study noted that some students lack confidence in caring for and touching a live patient (Mills et al., 2014). Eighty- seven percent of third year nursing students in an anonymous survey reported that participation in simulation increased their confidence in areas of decision making and assessment skills. However, no data was collected from faculty to validate these findings (Wolfgram &O'Leary Quinn, 2012).

The simulation environment has been said to decrease student anxiety as it is less stressful than incidental learning (Neil, 2009) and sources of student anxiety should be considered in the development of scenario- based simulations (Roh, Kim & Kim, 2014). A study of anxiety levels of first year nursing students in Israel found that following participation in simulation these levels decreased significantly (Khalaila, 2014). Similar findings were reported in a USA college whose students' reported decreased anxiety levels following a 2-hour scenario that involved caring for a simulated patient (Wolfgram &O'Leary Quinn, 2012). While these results are encouraging it remains unclear as to whether the simulation relieved the students fear regarding the clinical areas or if the simulation decreased student anxiety regarding their performance.

Concerns Regarding Scenario- Based Simulation Implementation

A major disadvantage and barrier to the integration of simulation into nursing education is the associated costs (Curtin & Dupis, 2008; Neil, 2009; Schiavenato, 2009; Shinnick, Woo & Mentes, 2011). The increased need for faculty resources related to scenario- based simulations and other concerns are similar among nurse educators in Australia, Canada, USA and the United Kingdom (Akhtar- Danesh et al., 2009; Bailie & Curzio, 2009; Miller& Bull, 2013). Students have also identified various concerns regarding their preparation for participation in scenario-based simulation experiences. It is essential that these concerns be considered and addressed in the design of a scenario- based simulation program in order to ensure it success.

Faculty Concerns and Associated Costs

Nurse educators agree that simulation offers a new and exciting opportunity for student learning although its role in nursing education has not been strongly established through

longitudinal data or sufficiently defined (Baillie & Curizo, 2009). Despite this support, educators felt that time spent in real clinical settings enables contact with individual clients and populations and should not be entirely replaced with simulation (Akhtar- Danesh et al., 2009; Baillie & Curzio, 2009; Miller & Bull, 2013; Wilson & Klein, 2012). Scenario- based simulation offers an alternative to decreased time spent in the clinical setting and can present scenarios representative of practice environments in which a lack of placement opportunities exists. Simulators, no matter how realistic, are not real patients and may not provide students with an accurate representation of reality (Berragan, 2011; Jarzemsky, 2012; Neil, 2009).

Scenario -based simulation requires the support and increased commitment of faculty in order for its integration simulation into the nursing curriculum (Berragan, 2011; Jarzemsky, 2012; Neil, 2009). However, this form of simulation does not require nor is it limited by the utilization of high fidelity simulators (Clark, Anten & Macy, 2013). Integration of scenario-based simulation into the nursing curriculum does however require an increase in faculty resources to ensure that the scenarios are authentic (Mikkelsem, Reime & Harris, 2008). One study found that more than 80 hours of faculty time was spent writing scenarios and the repeated revisions were felt to be "tiring and cumbersome" (Shapnack & Madigan, 2012; p. 267). This does not include the time spent by faculty organizing lab space in order to create a realistic environment (Shapnack & Madigan, 2012).

Student Concerns

Literature addressing students' perspectives of simulation in the nursing curriculum has found that students have felt that very limited information was provided regarding their roles in the scenario during orientation. Students also felt that the expectations for participation and progression through the scenario are not provided. This resulted in feelings of anxiety and

uncertainty among students which inhibits learning (Mikkelsem, Reime & Harris, 2008; Yang & Yang, 2013). Harman et al. (2014) also found that students became very frustrated and discouraged when all members of the group participating in the simulation failed to perform at the level required or made no effort to participate in the scenario. Students also indicated that they needed to be provided with clear objectives related to the simulation scenario, specific guidelines for participation, and support from faculty (Sharpnack &Madigan, 2012). Students felt that in order to receive maximum benefits from simulation scenarios timely correction of their behaviors should occur and faculty should provide direction to students in order to achieve the correct behaviors (Yang & Yang, 2013).

These student concerns should be addressed in the design of scenario- based simulation proposed here. Faculty developing the scenarios should present students with clear objectives for their participation in the scenario which also includes an explanation of the process and purpose of its use in order to facilitate learning and understanding (Landeen, Jewiss, Vajoczki & Vine, 2013). Students should also be encouraged to maintain responsibility for their own learning through constant communication with faculty (Harman et al., 2014; Landenn et al., 2013).

A major concern of nursing students attending MacMaster University in Ontario was the level of consistency in that institutions scenario- based simulations. Students indicated that all of the simulation activities should be identical to ensure that all students were treated fairly. Students' felt that inconsistency between groups created feelings of stress due to the level of uncertainty created by unknown scenario content. These nursing students recommended that common practices among faculty be presented during a faculty orientation. They indicated that this orientation should include teaching regarding facilitation of scenario- based simulation and that rubric and deadlines are identical among groups. These sources of student stress can be

decreased by emphasizing to faculty the importance of creating a supportive environment for students to facilitate learning which includes consistency among faculty when possible.

Simulations Regarding the Social Determinants of Health

A review of the literature retrieved a RCT of Las Vegas nursing students' participation in a virtual poverty simulation. Overall there were no significant differences among the intervention and control groups in the Attitude toward Poverty Questionnaire following the simulation. Higher scores on the questionnaire indicate a belief that structural determinants result in poverty; lower scores indicated that individual behaviors were a function of poverty experienced by a person. The intervention group did however demonstrate significant improvements in questions regarding Personal Deficiency Factor and Stigma and Structural Perspective factors. No significant differences were found in the questions which related to the connection between poverty and health (Menzel, Wilson& Doolen, 2014). A one-month simulated period in poverty for undergraduate nursing students also failed to make this connection but did evoke feelings of empathy among the group. These students were assigned the role of a member of one of 26 families and were expected to complete activities of daily living with limited resources. During their 60- minute debriefing session students expressed that the simulation provided them with a new appreciation for the struggles and experiences of individuals living in poverty. Following the simulation students were able to identify the lack of resources that resulted in difficulties for those living in poverty to obtain education. Several students also indicated that the attempts made by individuals to overcome poverty were often disrupted and affected by events that were outside of their control (Einhellig, Hummel & Gryskiewicz, 2015).

A patient advocacy learning course for nursing students discussed by Bell and Belo (2014) begins with an online poverty simulation which introduces the types of situations faced

by those living in poverty. This simulation also highlights the difficulties related to the decisions that the impoverished must make in these situations. Students participating in the course highlighted that this simulation experience increased their awareness of the challenges faced by those in lower socioeconomic classes. In an attempt to increase the knowledge of psychology students' knowledge regarding social exclusion researchers had the students participate in a role play simulation. These students indicated that their assignment to the role of a formerly incarcerated female promoted affective learning and empathy for this component of the population. The students also indicated that the simulation assisted them to develop an understanding of the complexities of social exclusion. These results are promising although the absence of a control group does not allow for comparisons to be made (Bell & Belo, 2014).

It is evident in the literature that a shortage of teaching interventions to increase students' knowledge and understanding of discrimination (Allen, 2010; Allen, Brown, Duff, Nesbitt & Harper, 2013). Discrimination in nursing education needs to have a focus greater than that of culturally sensitivity and must reflect the variety of forms of discrimination that exist in society (Allen, 2010) which includes income and social status. Teaching strategies in nursing education need to be formulated to address issues related to social justice that exist in practice and society.

Theoretical Frameworks

Theories of adult learning are based on the principle that adult learners are self-directed and self-regulated individuals who are motivated to learn. In order to increase and maintain this motivation the learning environment must be perceived as supportive and knowledge gains must be practical and immediately applicable. This enables the adult learner to utilize previous knowledge and experiences as foundation upon which to build their knowledge (Wang, 2011; Zigmont, Kappus & Sudifoff, 2011). Participation in simulation scenarios allows students to be

active participants in the learning environment, as the learning needs of the student are the main focus, and enables the student to bring together all components of their education. The experience promotes peer interaction and increases student competency and autonomy; all of which are successful motivators for student learning and participation (Berragan, 2011; Schiavenato, 2009; Wang, 2011). Experiential learning activities provide an avenue for students to repeat skills, receive feedback and to engage in the reflective process (Bland, Topping & Wood, 2010; Neil, 2009).

Kolb's Theory of Experiential Learning

Kolb's Experiential Learning Theory will be used to guide the development of a scenario- based teaching learning strategy related to income and social status. According to Kolb concrete experiences are the catalyst for learning and during this phase the learner is able to identify gaps in knowledge (Kolb & Kolb, 2008; Walson & Olsen, 20007; Wang, 2011; Zigmont, Kappus & Sudikoff, 2011). The reflective phase involves learner self-reflection and critical appraisal of actions taken during these experiences (Kolb & Kolb, 2008; Walson & Olsen, 20007; Wang, 2011; Zigmont, Kappus & Sudikoff, 2011). During the abstract conceptualization phase learners process their reflections and develop methods to improve performance (Kolb & Kolb, 2008). When learners reach the active experimentation phase of the theory ideas formed during abstract conceptualization are implemented actively and explored (Kolb & Kolb, 2008) which can occur in a variety of ways for nursing students. This could include further practice of skills or the application of newly formed ideas and acquired knowledge into future practice (Walson & Olsen, 2007; Wang, 2011; Zigmont, Kappus & Sudikoff, 2011).

Conclusion

Effectively designed scenario -based learning activities encourage students to be engaged in the learning process and to implement positive communication skills to collaborate with others to solve a simulated problem mimicking reality (Clark, Anten & Macy, 2013; Neimer, Pfendt & Gers, 2010; Tocher & Smith, 2008; Sharpnack & Madigan, 2012). The relevant literature on simulation has shown that it improves the knowledge and critical thinking skills of students while decreasing their anxiety and increasing their self-confidence (Baillie & Curzio, 2009; Baxter et al., 2009; Dillard et al., 2009; Mills et al., 2014; Roh, Kim & Kim, 2014; Shin, Park & Kim, 2015; Tosterud, Hedelin & Hall-Lord, 2015). However, the need for an increase in faculty time and resources are impeding the successful integration of simulation into the nursing curriculum (Akhtar- Danesh et al., 2009; Baillie & Curzio, 2009; Miller & Bull, 2013; Wilson & Klein, 2012).

Qualitative findings from studies involving students suggests that scenario- based simulations are a positive teaching and learning strategy that facilitates a link between theory and practice (Butler & Veltre, 2009; Shin, Park & Kim, 2015; Swanson et al., 2011; Tosterud, Hedeling & Hall-Lord, 2013). However, student concerns regarding the lack of clarity and direction provided for their participation should be addressed in the design of the scenario and an orientation for both themselves and faculty (Harman et al., 2014; Landenn et al., 2013; Yang & Yang, 2012). Teaching and learning strategies are present that address cultural sensitivity and they have been shown to be effective; however, strategies for addressing all forms of discrimination are not readily available (Allen, 2010; Allen et al., 2013). Poverty simulations presented in the literature have shown to be effective in increasing empathy for the impoverished clients among nursing students (Baillie & Curzio, 2009; Einhellig, Hummel & Gryskiewicz,

2015; Menzel, Wilson& Doolen, 2014). None of the findings demonstrated that students understood or recognized the link between income, social status and population health.

Based upon these findings a simulation strategy that includes a student and faculty orientation is needed in order to address many of the concerns presented in the literature. In order to increase and facilitate the learning among nursing students regarding issues of social justice that will be encountered in nursing practice, a simulation with a focus on income and social status is needed. Utilization of an interesting, relevant scenario based simulation that closely resembles reality and has clearly defined objectives will assist students to acquire knowledge and understanding regarding the impact of income and social status on population health.

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Author	Study Objective	Sample/Groups	Design and Methodology	Key Findings/ Results	Strengths and Limitations	Conclusion and Rating
O'Hagen, S., Manias, E., Elder. C., 20, J., Woodward-Kron, R., McNamara, T. Webb, G. & McColl, G. (2013).	To examine the feedback given by nurse educators and clinicians on the quality of communication skills of nurses in interactions with simulated patients.	Purposive Sampling 15 Nurse Educators	**Exploratory** Thematic Analysis -Individual Interviews -Focus Groups -Written notes from participants -Field notes from researchers August 2010-September 2011	**Four major themes**: 1.Approach to patients and patient care (over reaching theme for the other 3) 2.Manner towards patients 3.Techniques used for interacting with patients 4.Generic aspects of communication	**Strengths:** Effective use of videotaped interactions to elicit participant views Member checking at end of each focus group Multidisciplinary research team Inter-coder reliability established **Limitations:** Small number of video stimuli were used in focus groups Scenarios were provided in only 2 settings	Contributes grounded evidence on the aspects of communication that are relevant for effective nurse-patient interactions in clinical practice. Rich data that should be used in training intervention tools for improving nurse-patient communication. **MODERATE**

Author	Study Objective	Sample/Groups	Design and Methodology	Key Findings/ Results	Strengths and Limitations	Conclusion and Rating
Mikkelsen, J., Reime, M. & Harris, A.K (2008)	To determine the most efficient teaching strategies for managing cross-infections and determining the teachers role by comparing 3 different methods: scenario-based study groups with and without a teacher and simulation training.	Class of 141 2nd year nursing students participated as part of their learning program on infection control 21 of these students were randomly selected to take part in three focus groups assigned to evaluate the program.	**Typographical Coding Approach of Focus Groups** Two infection control scenarios. Scenario-based groups=12 students and a teacher Study groups=12 students and no teacher Simulation training= 4 students and a teacher	Simulation increased the awareness of the complexity of infection control All groups indicated a teacher was important	**Strengths:** Collection and coding of data **Limitations**: Respondents may influence each other Moderators may have influenced students' responses	Simulation increased the awareness of the complexity of infection control Teacher's role was crucial in both teaching strategies **STRONG**

Author	Study Objective	Sample/Groups	Design and Methodology	Key Findings/ Results	Strengths and Limitations	Conclusion and Rating
Shin, S., Park, J. & Kim, J. (2015).	To identify the best available evidence about the effects of patient simulation in nursing education through meta-analysis	Quantitative evidence of 22 studies from electronic databases	Meta- Analysis	Medium to large effect size (0.71) in post intervention improvements in various domains for participants who received simulation education compared to control group The evaluation outcome of evaluation is psychomotor skills, the subject of learning was clinical, learners were clinical nurses and senior undergraduate nursing students simulators were high fidelity	**Strengths:** Possible publication bias assessed **Limitations:** Only studies published in English Excluded unpublished data Limited number of studies Studies included had small sample sizes	Simulation education demonstrated medium to large effect sizes and could guide educators to the conditions under which patient simulation is more effective that traditional learning methods. **STRONG**

Author	Study Objective	Sample/Groups	Design and Methodology	Key Findings/ Results	Strengths and Limitations	Conclusion and Rating
Zenni, E.A., Ravago, L., Ewart, C., Livinggood, W., Wood, D. & Goldhagen, J. (2006).	To implement and evaluate the effectiveness of scenario-based learning as a method for teaching systems based practice to pediatric residents	12 pediatric residents at the University of Florida/Jacksonville from January 2003 to April 2004	Qualitative-Content Analysis Case Study Measures: Resident portfolios Resident written evaluation surveys Resident exit interviews	**Five themes:** 1.Development of empathy and compassion 2.Increased understanding of the barriers facing patients and families 3.Increased appreciation of the social determinants of health 4.Self-perceived increased ability to serve patients 5.Advantages of active learning	**Strengths:** Content analysis independently performed by two authors. Triangulation of data **Limitations:** Small sample size Self-report data Not collected anonymously	Active learning experiences that simulate patient situations can be incorporated into this are of resident training and increased their perceived competence in systems based practice. **MODERATE**

Author	Study Objective	Sample/Groups	Design and Methodology	Key Findings/ Results	Strengths and Limitations	Conclusion and Rating
Roh, Y.S, Kim, S.S., & Kim, S.H. (2014).	To identify the effects of an integrated course with problem based learning and simulation by evaluating college-based stress, student perceptions on their competence and small group learning, and comparing stress and student perceptions level by grade point average.	Convenience sample of 280 second year nursing students enrolled in a 7 block integrated circulo-respiratory course with problem based learning and simulation 66.1% response rate	One Group Post Test only **Student Perceptions Learning Scale** Internal consistency reliability between 0.87 to 0.93 Cronbach's Alpha = 0.94 Descriptive and F test statistics with a 0.05 level of significance	Nursing students evaluated their stress as moderate with the academic subdomain as the highest stressor. Students reported favorable perceptions on competence and small group learning. Nursing students viewed problem based learning with simulations based learning favorably irrespective of their course grade	**Strengths:** Integration of the elements of content in traditional courses into an integrated course using problem based learning and simulation **Limitations:** Few outcome variables Post teat only group	Integration of problem based learning with simulation should be considered for broader application in nursing education **MODERATE**

Author	Study Objective	Sample/Groups	Design and Methodology	Key Findings/ Results	Strengths and Limitations	Conclusion and Rating
Aktar-Danesh, N., Baxter, P., Valaitis, R.K., Stanyon, W. & Sproul, s. (2009).	Exploration of nursing faculty perceptions of the implementation of simulation in the schools of nursing across Ontario, Canada	28 faculty from 17 schools of nursing	Q Methodology 104 statements collected from faculty and students with exposure to simulation to determine what people had to say about the topic Statements were classified into 6 domains and were refined into 43 final statements	**Four Major Viewpoints:** Positive, Enthusiasts Traditionalists Help Seekers Supporters **Clinical simulation requires:** Additional support in terms of time required to engage in simulation Additional human resources to support its use Other types of support to reduce the time from development of a scenario to its implementation	**Strengths:** Examines faculty attitudes on a large scale Provided descriptors for faculty types Provides insight into barriers to simulation **Limitations:** Not all schools participated Data collected within 2-3 years of new equipment in schools	With the correct support and training, faculty members would embrace simulation as it could support and enhance nursing education **MODERATE**

Author	Study Objective	Sample/Groups	Design and Methodology	Key Findings/ Results	Strengths and Limitations	Conclusion and Rating
Arthur, C., Levett-Jones, T. & Kable, A. (2013).	To achieve consensus of expert opinion both nationally and internationally regarding the use of HPSM.	Purposive sample of 32 international experts in HSPM in nursing education	Delphi 3 rounds; participants provided with a list of potential quality indicators to rank in relation of order of importance Round1: Data Round 2: Questionnaire Development and Analysis of Results Round 3: Verification of Quality Indicator Statements	Quality Indicator Statements: 1.Pedagogical Principles 2.Fidelity 3. Student preparation and orientation 4. Staff preparation and training 5. Debriefing	**Strengths:** International panel High level of credibility and experience among participants **Limitations:** Small sample size Limited views	Findings will be a benefit to educators interested in the design, implementation and integration of simulation **MODERATE**

Author	Study Objective	Sample/Groups	Design and Methodology	Key Findings/ Results	Strengths and Limitations	Conclusion and Rating
Miller, A. & Bull, R. (2013).	To present the findings of that explored the influences on nurses academics' attitudes' and choices about simulation	7 staff members at an Australian regional university School of Nursing and Midwifery. Participants utilized simulation in their teaching	Qualitative Exploratory Cross Comparative Approach	**Simulation as a separate entity** No concrete place or role in the school Restricted access to HFS Getting political Lack of staff consultation Sense of competition More focus on simulation equipment and not the quality of teaching Pressure to utilize **Academic Adoption** Small spaces Unsure of the technology Frustrated by dependence on technology Increased observation of their performance	**Strengths:** Cue sheet for interviews Cross coding Peer to expert checking Expert review of interview transcripts **Limitations:** Small participant group	In order to successfully integrate simulation into a university curriculum, the factors influencing nurse academics' attitudes and choices around simulation must be understood and addressed to avoid fragmentation of teaching and learning and to support strong learning outcomes. **MODERATE**

Author	Study Objective	Sample/Groups	Design and Methodology	Key Findings/ Results	Strengths and Limitations	Conclusion and Rating
Khalaila, R. (2014).	To evaluate the effectiveness of simulations in reducing anxiety and promoting self- confidence, caring ability, and satisfaction with simulation; and to investigate the predictors and mediators for caring efficacy among nursing students.	61 2nd year nursing students at their first clinical practice at Zefat Academic College in Zefat, Israel	Descriptive Quantitative Data collected before the first clinical and simulation practice and four months later finished first clinical practice in the hospital setting. Pre- test: State Trait Anxiety Inventory= alpha 0.70 Caring Ability Inventory= alpha 0.68. Internal consistency 0.79 to 0.84, test retest coefficient of 0.75 and content validity index of 0.80 Caring Efficacy Scale= alpha 0.73	Anxiety scores decreased, while self-confidence and caring ability scores increased after using simulations Caring efficacy was negatively predicted by anxiety and positively with self-confidence, caring ability and satisfaction with simulation Anxiety level T1-T2 decreased: P=0.02 Self-confidence increased between T1-T2: P=0.001 Caring ability increased from T1-T2: P=0.001	**Strengths:** All instruments translated in Hebrew by two bilingual translators. **Limitations**: No control group Small sample size Non random sample	The use of simulations before and during nursing students' first clinical practice is a useful and effective learning strategy. **MODERATE**

Author	Study Objective	Sample/Groups	Design and Methodology	Key Findings/ Results	Strengths and Limitations	Conclusion and Rating
Shinnick, M. A. & Woo, M.A. (2013).	Study knowledge and critical thinking before and after HPS in pre licensure nursing students and to attempt to identify the predictors of higher critical thinking scores.	154 pre licensure nursing students from 3 schools at the same point in their curriculum	One group, quasi-experimental, pretest post-test design	Mean improvement in knowledge scores of 6.5 points ($P<0.001$). No statistically significant change in critical thinking scores Logistic regression revealed 3 predictors of higher critical thinking scores: Greater age ($P=0.01$) Baseline Knowledge ($P=0.04$) Low self-efficacy score in baseline self-efficacy in managing a patient's fluid levels ($P=0.05$)	**Strengths:** Faculty not involved with the study did lecture at researchers' site Participants did not have any other HPS events during study time frame Confidentiality agreement regarding simulation content **Limitations:** Emphasis on HF may have varied site to site Possible cross talk among students.	Gains in knowledge with HPS do not equate to changes in critical thinking but greater age, baseline knowledge, low self-efficacy score in baseline self-efficacy in managing a patient's fluid levels are predictive of higher critical thinking ability **MODERATE**

Author	Study Objective	Sample/Groups	Design and Methodology	Key Findings/ Results	Strengths and Limitations	Conclusion and Rating
Glidewell, L. & Cloney, C. (2014).	To examine the relationship between academic test score and the use of HPS	184 students over 3 full semesters	RCT Random assignment to Pre simulation (Group A) and Post Simulation (Group B) groups	Cardiac Exam Higher score variance in Group A Renal Exam Group A scored an average of 951 Group B scored an average of 1,036 The evaluation of the results of students in Group B were statistically significant when both exams combined ($p<0.01$)	**Strengths:** Course faculty were not permitted to preview the exam **Limitations:** Post simulation group had more time between lecture and exam Groups tested at different or staggered intervals Researcher bias	The use of HPS improves academic test scores **STRONG**

Author	Study Objective	Sample/Groups	Design and Methodology	Key Findings/ Results	Strengths and Limitations	Conclusion and Rating
Brackenreg, J. (2004).	To explore the perception that experienced nurse educators have on the process of experiential learning and how reflection is mediated.	9 educators from 48 nurse educator respondents	Descriptive Telephone interviews Pre-determined questions	All educators performed explicit steps and a time frame for introducing the activity, explaining conduct and explaining the action stage of the exercise 5 had no specific pre-planned guidelines for reflection-stressed their flexibility Debriefing viewed as highly important and was frequently described as a discussion	**Strengths:** Wide geographical distance of participants **Limitations:** Difficulty in refraining from pre-empting the answers of the interview Low response rate	Debriefing is not planned and is viewed as a discussion. Expectations for learning were very broad with limited emphasis on reflection **WEAK**

Author	Study Objective	Sample/Groups	Design and Methodology	Key Findings/ Results	Strengths and Limitations	Conclusion and Rating
Shinnick, M.A., Woo, M. & Evangelist, L.S. (2012).	To determine predictors of higher scores on the Heart Failure Knowledge Questionnaire during HPS experience.	Convenience sample of 4 cohorts from 3 Schools of Nursing	Two group repeated measures experimental design Kolb Learning Style Inventory: well established HF Clinical Knowledge Tests: 100% agreement on content by panel of judges. Piloted The Self-Efficacy for Nursing Skills Evaluation: Reliability had coefficient alpha of 0.87	Membership in the experimental group was the only statistically significant independent predictor of knowledge gains ($p<0.01$) Members of the control group were 2 times more likely than those in the experimental group in be in the higher scored group ($p<0.001$) but changed once the control group participated in HPS	**Strengths:** Coin toss determined assignment Both groups completed pretest assessments prior to simulation **Limitations:** Different resident faculty gave lectures Emphasis on HF may have varied from school to school Students may have had different and unequal clinical experiences One group of students had previous experience with simulation	HPS can independently improve test scores and is an effective teaching method for pre licensure nursing students regardless of age, learning style or critical thinking ability **MODERATE**

Author	Study Objective	Sample/Groups	Design and Methodology	Key Findings/ Results	Strengths and Limitations	Conclusion and Rating
Tosterud, R., Hedelin, B. & Hall-Lord, L. (2013).	Examine nursing students' perceptions of scenarios played out in different simulation methods and whether their educational level influenced their perception	86 baccalaureate nursing students in a university college in Norway	Quantitative, evaluative and comparative design Student satisfaction and Self Confidence in Learning Scale (SSS) Cronbach's alpha= 0.82 Educational Practices Questionnaire (EPSS) Presence of simulation features=Cronbach's alpha 0.84 Importance of features= Cronbach's alpha=0.85 Simulation Design Scale (SDS) Presence of simulation features=Cronbach's alpha 0.90 Importance of features= Cronbach's alpha=0.92	Nursing students reported satisfaction with implementation of scenarios regardless of the simulation methods used. Educational level hardly affected how students perceived the simulation methods used Paper and pencil scenario group most satisfied Paper and pencil rated higher than HFS p=0.008	**Strengths:** Random assignment to groups **Limitations:** Small sample size Students may have had a positive attitude toward simulation in advance Participants participated in only one the three simulations Groups were facilitated by different individuals	Independent of educational level, simulations with varying degrees of fidelity can be used in nursing education **MODERATE**

Author	Study Objective	Sample/Groups	Design and Methodology	Key Findings/ Results	Strengths and Limitations	Conclusion and Rating
Tocher, J.M. & Smith, G.D. (2008)	To examine the applicability of scenario-based learning (SBL) in undergraduate nurse education in Edinburg UK	24 1st year undergraduate students of a four-year Bachelor of Nursing (Hons) program and the staff involved n delivering SBL	Mixed Methods: **Descriptive** Students and staff were asked to evaluate their overall satisfaction with SBL; intellectual challenge of SBL; relevance/interest of SBL; the best features of SBL; suggested changes to SBL approach Rated in a five pointe Likert Scale from 1-5 **Qualitative:** Comments made by students and staff	SBL interesting way of learning and linked with clinical placements Still too much traditional teaching took place Too many scenarios in the first term	**Strength**: Evaluation consistent throughout full academic year **Limitations:** Sample contained only 1st year students Small sample size Not longitudinal	SBL was viewed as a positive approach to teaching. **WEAK**

Author	Study Objective	Sample/Groups	Design and Methodology	Key Findings/ Results	Strengths and Limitations	Conclusion and Rating
Allen, J., Brown, L., Duff, C., Nesbitt, P. & Hepner, A. (2013)	To develop, implement and evaluate an evidence-based teaching and learning approach in cross-cultural care and antidiscrimination for undergraduate nursing students.	Academics and 33 2nd year nursing students in the Bachelor of Nursing Program in an Australian University	Pre-measure/post measure Quantitative Design Measured confidence to practice cross-cultural nursing (Transcultural Self-Efficacy Tool=TEST) and about their discriminatory attitudes (Quick Discrimination Index= QDI)	TEST= significant difference between pre and post test in terms of students' perceived confidence in preforming cross-cultural nursing care=improvement No other significant differences noted	Strengths: Paired sample t- test Limitations: 13.2% response rate for both survey Reliability and Validity of Instruments not provided	Improved student confidence. No change in students' antidiscrimination attitudes or confidence in practical skills **MODERAT**E

Author	Study Objective	Sample/Groups	Design and Methodology	Key Findings/ Results	Strengths and Limitations	Conclusion and Rating
Menzel, N., Willson, L.H. & Doolen, J. (2014)	To develop a poverty simulation for nursing students through a multi-user virtual environment and to evaluate the pedagogical effectiveness of this virtual active learning experience compared to a passive learning approach delivered online	51 baccalaureate students in community health nursing courses over three semesters in a state-funded university	RCT Intervention consisted of 4 15 minute weeks to equal a month of living in poverty Family groups consisting of 2-5 avatars were given a 5-minute break between each "week" to plan for the following week. Attitude Toward Poverty Scale has a Cronbach' s alpha of 0.93 and reliability of 0.87	No significant differences noted only in terms of the interventions groups pre and post test scores on three questions on the stigma factor and on three questions on the Structural Perspective Factor. These changes indicated a more favorable attitude	**Strengths:** Random assignment by use of a table of random numbers Consent obtained by investigator not in a position of authority over students Random assignment of avatars No significant difference in group composition **Limitations:** 53% response rate Inadequate sample size Generalizability No control group	The simulation did transform some attitudes but the majority of questions found no significant differences as a result of the intervention. **MODERATE**

Appendix B

Consultation Report

Enhancing Student Understanding of the Impact of Income and Social Status on Population Health Through the use of Simulation

Consultation Report

Jennifer Densmore

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The consultation process is an essential element in the development of the practicum project as the final product is to be utilized in the Bachelor of Nursing (BN) (Collaborative) and Practical Nursing (PN) Programs. Scenario-based simulation requires the support and increased commitment of faculty in order for it to be successfully integrated into the nursing curriculum (Berragan, 2011; Jarzemsky, 2012; Neil, 2009). Consultations with faculty members teaching courses regarding the social determinants of health in the BN (Collaborative) and PN Programs will ensure that the scenario-based simulation contains the appropriate content to ensure course objectives are met thorough its use. The consultations will also allow for the exploration of the value of a video reflective assignment regarding income, social status and the simulation experience. The results will address any possible barriers that may affect the use of the proposed simulation program in order for them to be considered and addressed in its design. Consultation with key informants in scenario based simulations will provide some insight into the key design aspects of scenario based simulation. The experiences of these individuals in the implementation of scenario based simulation will assist in ensuring that the simulation activity for the practicum project will be easily incorporated into the curriculum of the BN (Collaborative) and PN Programs.

The goal for the simulation program is to enhance the understanding of nursing students regarding the impact of income and social status on population health. The scenario based simulation will be designed to foster students' ability to apply critical thinking and communication skills. The simulation will enable students to experientially learn the impact of income and social status on health care accessibility and the overall health of the population. The practicum project involves the development of a scenario based simulation focused on the social determinant of health, income and social status, that can be used in both the BN (Collaborative)

and PN Programs at the Centre for Nursing Studies (CNS). The program will include faculty and student orientations to the simulation activity; simulation scenarios which will include roles for all participants and set up of the simulation environment; evaluation surveys for both students and faculty to be completed following the simulation experience; and guidelines for student video submission following participation in the simulation.

Purpose of Consultations

The purpose of this consultation process was (1) to determine the objectives and content covered in the theory courses of the BN (Collaborative) and PN Programs regarding the social determinant of health, income and social status, and its impact upon population health (2) to determine the effectiveness of current evaluation methods for nursing students and to explore the value of a video reflective assignment for the social determinant of health-income and social status (3) to determine which courses in the BN (Collaborative) Program and the PN Nursing Programs that this scenario based simulation could be utilized (4) to determine faculty's willingness to incorporate a simulation scenario regarding the social determinant of health, income and status, into their course and (5) to identify any barriers to the implementation of the simulation program in the BN (Collaborative) and PN Programs.

Participants and Methods

Recruitment

An introductory email was sent to seven faculty members and one key informants outlining the proposed project and requested their participation in the consultation processes (Appendix A). These individuals were requested to respond to the email in order to arrange a mutually convenient time for a telephone or face to face interview. A total of six faculty members at the CNS responded to the email (4 theory instructors and 2 key informants) agreed to

participate in the consultation process. An additional two faculty members at brokered sites for the PN Program in the province were also sent the introductory email but did not respond to the request for their participation in the consultation process. One key informant was identified during the interview process with faculty members and was approached as well. One key informant, a faculty member at the CNS, responded to the email request and agreed to participate in the consultation process. An additional key informant was identified by faculty theory faculty during the interview process. This key informant, also a faculty member at the CNS, was contacted vis e-mail and agreed to participate in the consultation process.

Methods

Prior to conducting the interviews, faculty members and key informants were informed of the purpose of the interview and how the information collected would be utilized in the scenario based simulation regarding income and social status. These individuals were provided with full disclosure as to how the findings from their interviews would be used to develop the scenario based simulation. Verbal consent was obtained and the interview was conducted. The interview guides for both theory faculty and key informants are contained in Appendix B and C respectively.

Data Management and Analysis

Detailed notes were taken during the telephone and face to face interviews. The content of these notes was shared with participants to ensure the accuracy of the data. The data collected from key informants were entered into a word document with names omitted to protect the privacy of participants. Each faculty member was assigned a letter to serve as an identification number. The original interview notes are locked in a secure filing cabinet along with the identification number of each participant.

Interview data from each participant were read several times and the main ideas or themes from each interview were coded. Interview codes were then compared between each interview. Common themes were identified as well as some differences. The data collected from all interviews were only shared with practicum supervisor Dr. Joy Maddigan.

Ethical Considerations

The Health Research Ethics Authority (HRE) Screening Tool was completed prior to developing the consultation plan (Appendix D). The tool determined that the purpose of the consultations was for that of quality and evaluation, not research. Therefore, it was not necessary to seek review by an ethics board prior to the implementation of these consultations. Verbal consent to participate in telephone interviews was obtained from individuals prior to their participation in the consultation process. Full disclosure was provided to the participants' regarding how the data collected would be utilized to develop the scenario based simulation. Telephone and face to face interviews were conducted in a private office with the door locked to prevent individuals from entering the office during interview times. Confidentiality of the participants' responses was ensured by having a letter assigned to each faculty member to protect privacy.

Findings

A total of six faculty members teaching in the BN (Collaborative) and PN Programs participated in face to face and telephone interviews which followed scripted interview questions. The content of the interviews with the four theory faculty members was coded into general categories and compared. Two key informants, identified through the consultation process, were also interviewed following scripted interview questions. These interviews were entered into a word document for analysis purposes. All interviews took place on an individual

basis in a private office. Notes were taken during the interview, verified by participants.

Faculty Interviews

Faculty members teaching in the Health Promotion course in the BN (Collaborative) Program and the Community Health course in the BN (Collaborative) and PN Nursing Programs indicated that the social determinants of health were addressed during the first one or two lectures of the courses. The focus of these lectures is to introduce students to the social determinants of health and their impact on populations. Faculty in both programs indicate that the social determinants of health are then "threaded" throughout the remainder of the course. Faculty indicated that the social determinants of health are applied to further topics in the course and cover the lifespan. The consensus among all the faculty members in the BN (Collaborative) and PN Programs is that income and social status is the social determinant of health that receives the most discussion and, as one faculty member referred to it is, the "umbrella" for all the others. Income and social status is viewed as a major topic in terms of lecture content. Students in the BN (Collaborative) Program cover the social determinants of health in far greater depth than those in the PN Program. BN (Collaborative) students engage in discussions and are provided with approximately 3 lectures regarding the social gradient and Canadian strategies for health. These strategies towards improving the health of Canadians take a very downstream approach towards health and wellness as opposed to working with individuals and populations to achieve this goal. Critiques of these strategies are also introduced and discussed at great length to demonstrated to students that students that these strategies are effective but areas for improvement do exist and have been suggested. The BN (Collaborative) students also have a guest speaker who talks about her experiences with global health and according to faculty provides students with real life examples of the impact of income and social status on global

health.

The predominant method of evaluating students' understanding of the impact of income and social status on population health in both programs is through midterm and final exam questions. Faculty indicated that students generally score well on these questions. In one particular course in the BN (Collaborative) Program students are required to answer several questions on their final exam regarding a case study that involves the interaction of multiple social determinants of health. Faculty members attribute this understanding as evidenced by the high response of correct answers on these exams to the fact that the social determinants of health are discussed during every class in relation to the lecture topics.

However, faculty members have noted that students do have difficulty applying these concepts to practice despite evidence of a theoretical understanding of the social determinants of health. This is evident in assignments associated with course in the BN (Collaborative) Program. Students struggle when required to apply and discuss the social determinants of health to current research articles and world events. One faculty member indicated that "the potential is there" in that students can identify the social determinants of health that apply to articles but are unable to articulate their impact on health. Faculty in the PN Program also agree that the application of the theoretical knowledge gained regarding the social determinants on health is an area of weakness for students. These faculty members feel that limited clinical placements have decreased students' exposure to areas that enable them to work with populations that demonstrate the impact of the social determinants of health. There is also a skills based focus in many of these clinical rotations and the students do not participate in discharge planning which would also provide them with an understanding of the impact of income and social status on health.

Faculty have the ability to incorporate a scenario-based simulation into their courses

regarding income and social status and indicate support for its integration into their courses. In fact, simulations are being conducted at the site in several courses in the both the BN (Collaborative) and PN Programs. However, a major concern expressed by faculty is the lack of space available to accommodate the large class sizes at the site. These faculty members suggested that in order for this type of activity to be implemented that the class would need to be broken up into smaller groups of no more than 12 students. Faculty members also indicated that scenario-based simulations involving roles play would promote students' communication and critical thinking skills. They also indicated that scenarios involving role play will increase student engagement in the learning process. These faculty members suggested that this will increase students' understanding of the impact of income and social status on health as they will be required to personally work through the scenario from the viewpoint of the populations and individuals they will encounter in practice.

Faculty also felt that a lack of time to develop these types of activity, in addition to their teaching assignments, has resulted in the absence of simulations in their courses. It was also indicated by faculty members that a lack of resources in terms of the number of faculty that would be required to conduct a simulation activity and finances to purchase props to create a realistic environment is also a significant barrier to the implementation of scenario based simulations. Faculty have explored the option of virtual simulation, but once again, there is a significant cost related to this form of simulation. Others have introduced simulation in their course in the form of paper and pencil case studies. All faculty members indicated that the site did have a simulation lead but that this individual also lacked the time to develop simulations because she is placed in the clinical setting with students every semester.

In addition to these concerns one faculty member indicated that in developing a scenario

based simulations regarding income and social status that the diverse student population should be considered. She indicated that in these large groups of students that there will be those to whom the struggles and negative impacts of income and social status are their own personal experiences. She, as do other faculty members, expressed that the simulation should be based on the knowledge base of the students. However, she also indicated that content of the scenarios should be sensitive to the personal experiences of students that may participate in the simulation activity.

Key Informant Interviews

Key informants involved in this consultation process included two faculty members at the CNS. Both of these individuals have experience in the development and implementation of scenario-based simulations. They have also attended several simulation conferences and have conducted research regarding the use of simulation in nursing education.

Scenario development. The first element to be considered in the development of a scenario based simulation is the objectives for the activity and the purpose for having students participate in the activity. This will include clearly identifying the knowledge and skill level of students for whom the activity was developed. The students and faculty will then need to be provided with a synopsis or a brief description regarding the circumstances surrounding the activity. The activity should also include topics of discussion for both the briefing and debriefing aspects of the activity. It is important to have a timing of events outlined and should indicate to faculty members the amount of time that should be allotted for different events that occur within the simulation.

Simulation environment. The setup of the environment and required equipment should also be provided. Creating a realistic environment for these simulations involves having the

space resemble as closely as possible the area in practice that the activity simulates and the appropriate equipment is available. This involves deciding if high fidelity simulators, task trainers, or standardized patients will be needed; or if students will role play a scenario. It is important that the participants feel as if they are in a safe and non-threatening environment in order to facilitate learning. It is also important to ensure that the participants buy into the concept of simulation and its value as a learning tool. The facilitators need to be knowledgeable and believe in the importance of simulation as well. Once a safe learning environment is created there are many ways to create realism. Scenario based simulations are the easiest form of simulation to implement as there are no technological constraints. By utilizing role play, the scenario can be run simultaneously for several groups.

Simulation orientation. The only orientation that students receive to simulation is when they enter the simulation environment. Simulation starts in first year with pre-briefing, role play and debriefing and continues in second year with the high fidelity simulator. In third year the high fidelity simulator is used to conduct a cardiac arrest simulation. Prior to the start of any simulation activity students are provided with an explanation regarding the purpose of the activity and are ask to sign a confidentiality agreement in order to maintain the integrity of the simulation, as it will most often be repeated. Students are then required to randomly pick a card and assume the role described. They are provided with an opportunity to ask any questions they may have regarding their role and to explore the environment. This allows the students to familiarize themselves with the layout of the room and the location of various equipment, etc. Faculty do not have a formalized orientation to simulation. Prior to the simulation activity planning meetings are held during which the events and timing of the simulation are discussed. Faculty are also assigned various roles and responsibilities at this time as well. Generally, the

same two to three people are usually involved and that helps to provide consistency.

Debriefing. Debriefing following the simulation is usually reflective in nature and is guided by a list of predetermined questions. This is a critical aspect of the activity as it is the time where the significant part of student learning takes place. Debriefing promotes student participation and allows faculty to highlight the strengths and weaknesses observed in student performance. This form of debriefing can be challenging if students do not contribute to the conversation or lack the insight or ability to engage in this higher level thought process.

The 3D model of debriefing has been used with students at the CNS and has strong connections to experiential learning. In the first phase of this model the emotional impact of the simulation on the student and group is explored. This includes discussions regarding how students felt the simulation went, how they felt about their performance and any concerns they may have. The next phase, discovery, involves faculty commenting on an observed behavior and asking students why the behavior was performed at that time and in that order. It is not always a negative observation and it may be to reinforce positive behaviors to the group. The last step is the deepening phase during which the new information is connected to practice. At this time best practice or safety concerns of completing a task are discussed. The advantage of this form of debriefing is that it allows for a more critical learning experience by encouraging students to examine their own feelings and reflect on their actions. However, in order for this model of debriefing to be effective, the participants must be engaged and willing to talk. If students fail to participate in the debriefing discussion the activity is very short and ineffective.

Students' understanding. The students' understanding of the content is recorded in observations by faculty and no set checklist has been developed or utilized; although, grading rubrics and other forms of technology have been suggested in the literature. Often the students'

understanding of the content can be observed from their actions during the simulation. Their understanding can also be assessed during the debriefing process if participants are engaged in the discussion. A reflective writing piece would be the most effective manner in which to assess student understanding of the content presented in the simulation activity, however, the facilitators of the simulation are not always associated with the course in which the simulation occurred. This makes individual student feedback difficult to provide. Technology driven forms of evaluation would appeal to students. The simulation activity itself is evaluated by surveys completed by both faculty and staff following the debriefing session.

Conclusion

The consultation process has determined that students in the BN (Collaborative) and PN Programs receive introductory course lectures regarding the social determinants of health. Following this introduction, the social determinants of health are discussed in relation to the remaining topics in the course and are applied across the entire lifespan. The students understanding of this course content is then evaluated in the form of test questions on midterm and final exams. Faculty members indicate that this evaluation indicates a strong theoretical understanding of the impact of income and social status on health but that student application of this knowledge is area of weakness. This application of knowledge is limited due to the lack of appropriate clinical placements and faculty at the CNS are in support of a simulation regarding income and social status to assist students in this area.

Faculty members are concerned regarding the limited space available to conduct scenario based simulations but feel that by ensuring small group sizes that the activity could be implemented. Faculty members are also concerned regarding a lack of resources in the area of simulation development and indicate that they lack the time required to develop scenario based

simulations. Key informants indicate that the environment is the most critical aspect in the design of a simulation based scenario. These individuals indicate that the environment should promote learning by allowing students to feel safe and comfortable. Key informants have also identified that no formal method of evaluation of student performance or understanding of simulation content exists. They also identified that no established orientations to simulation for faculty and staff are conducted at the CNS.

Data collected from these consultations will be considered in the design of a faculty and student orientation to simulation. This will include clear outlines and role expectations for both faculty members and students participating in the activity. The scenario based simulation activity will be designed to create a safe and non-threatening environment for learning that can be implemented utilizing the current resources available at the CNS, as space has been identified as limited. The content of the simulation will address income and social status that reflect the topics discussed during lectures and students will be assigned roles that will be representative of the entire lifespan. The video reflective assignment and grading rubric will provide faculty with a method of evaluating students' understanding of the simulation content that extends beyond observations made during the activity.

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Appendix A

Introductory Email Requesting Faculty Participation

My name is Jennifer Densmore and I am currently in the process of developing my practicum **"***Enhancing Student Understanding of the Impact of Income and Social Status on Population Health Through the Use of Simulation"* in the Masters Nursing Program at Memorial University of Newfoundland.

I am requesting your input through a telephone interview to assist me in the development of this simulation program due to your involvement teaching _____ (Name of Course) _____ in the _____(PN/ BN (Collaborative) Program____. The privacy of all individuals will be protected. There will be no identifying information provided that will link participants to the interview responses provided. Please respond to this email and indicate if you are willing to participate in this consolation process. If you are willing to participate I will contact you to arrange a convenient time to conduct this interview.

Thank for your time and consideration,

Jennifer Densmore

Masters of Nursing Student

Memorial University of Newfoundland

Jennifer.densmore@mun.ca

Appendix B

Theory Faculty Interview Questions

1. What content is covered in your course related to the social determinants of health? How much time is spent on the topic? How is income and social status handled within the topic?

2. What current methods are utilized to evaluate students' understanding of the social determinant of health, income and social status, and its impact upon population health?

3. Do these evaluations indicate that students have a strong understanding regarding income and social status and its impact upon population health? If so, what do you feel contributed to this understanding among students?

4. Do you have space available at your site to conduct simulation activities? If not, have you considered any alternatives?

5. Would you support simulation activities based on the social determinants?

6. Have students at your site participated in simulation activities? If so, what types of simulation and in which course? If no, please indicate why?

7. Do you have time the time to incorporate a simulation activity regarding the social income and status, into your course curriculum?

8. Please identify any barriers or concerns you have regarding the implementation of the simulation program into your curriculum?

9. Are you aware of any individuals who have experience in the development of scenario based simulations?

Appendix C

Key Informant Interview Questions

1. What are the key elements to be included in the design of scenario based simulations?
2. How do you create a realistic environment for these types of activities?
3. Do you have a student orientation prior to simulation? If so, what does it include and how far in advance of the simulation does it occur?
4. Do you have a faculty orientation prior to simulation? If so, what does it include and how far in advance of the simulation does it occur?
5. What form of debriefing do you find to be most effective?
6. What were the advantages and disadvantages to this type of debriefing?
7. How do you evaluate student understanding of simulation content?
8. How do you evaluate scenario based simulations?
9. Who participates in this evaluation?

Appendix D

Health Research Ethics Authority Screening Tool

	Question	Yes	No
1.	Is the project funded by, or being submitted to, a research funding agency for a research grant or award that requires research ethics review	❒	☒
2.	Are there any local policies which require this project to undergo review by a Research Ethics Board?	❒	☒
	IF YES to either of the above, the project should be submitted to a Research Ethics Board. **IF NO** to both questions, continue to complete the checklist.	❒	❒
3.	Is the primary purpose of the project to contribute to the growing body of knowledge regarding health and/or health systems that are generally accessible through academic literature?	❒	☒
4.	Is the project designed to answer a specific research question or to test an explicit hypothesis?	❒	☒
5.	Does the project involve a comparison of multiple sites, control sites, and/or control groups?	❒	☒
6.	Is the project design and methodology adequate to support generalizations that go beyond the particular population the sample is being drawn from?	❒	☒
7.	Does the project impose any additional burdens on participants beyond what would be expected through a typically expected course of care or role expectations?	❒	☒
LINE A: SUBTOTAL Questions 3 through 7 = (Count the # of Yes responses)		**1**	**6**
8.	Are many of the participants in the project also likely to be among those who might potentially benefit from the result of the project as it proceeds?	☒	❒
9.	Is the project intended to define a best practice within your organization or practice?	❒	☒
10.	Would the project still be done at your site, even if there were no opportunity to publish the results or if the results might not be applicable anywhere else?	☒	❒
11.	Does the statement of purpose of the project refer explicitly to the features of a particular program,? Organization, or region, rather than using more general terminology such as rural vs. urban populations?	❒	☒
12.	Is the current project part of a continuous process of gathering or monitoring data within an organization?		**x**
LINE B: SUBTOTAL Questions 8 through 12 = (Count the # of Yes responses)		**2**	**3**
	SUMMARY It has been determined that the purpose of the consultations is for that of	**3**	**9**

	quality and evaluation, not research. Therefore, it was not necessary to seek review by an ethics board prior to the implementation of these consultations. All consultations will be conducted in the form of face to face or telephone interviews. Notes will be taken throughout the duration of the interviews and conducted in a private office to ensure privacy. No identifying information will link participants to data.		

Appendix C

Scenario-Based Simulation Manual

THE IMPACT OF INCOME AND SOCIAL STATUS ON POPULATION HEALTH: A SCANERIO- BASED SIMULATION FOR NURSING STUDENTS

Jennifer Densmore

Table of Contents

UNIT I: INTRODUCTION

The ethical values of social justice and health are among many of the values nursing students must learn to uphold. These values, often reflected clearly in an understanding of the social determinants of health, are being addressed in nursing education as students prepare for professional practice (Einhellig, Hummel & Gryskiewi, 2015; Mahoney & Jones, 2013; Shatell, 2007). As leaders of change in an increasingly diverse society, nursing students will be required to consider the impact the social determinants of health on individuals, families and populations (Mahoney & Jones, 2013). This will require a strong knowledge base and a comprehensive understanding of the impact of income and social status, a key determinant that directly affects many of the other determinants of health (Kear, 2013).

To build on students' comprehension and understanding of income and social support a teaching-learning strategy has been developed to support student learning. The scenario based simulation activity contained in this manual is a form of experiential learning and is identified as an effective teaching and learning strategy. Experiential learning engages students so that they grow and learn through their own personal experiences and through the perspectives of others involved in the shared experience (Chan, 2012; Kear, 2013; Shatell, 2007).

Scenario-based simulations using role-play provide students with the opportunity to experience the life of another, by placing oneself in another's position. These types of experiences are essential in the development of empathy, a human characteristic that gives students the capacity and capability to identify with another's situation or feelings **(**Einhellig, Hummel & Gryskiewi, 2015**)**. The income and social support simulation is comprised of scenarios that students likely have had limited exposure and which are very different from their own lives and roles (Arveklev, Wigert, Berg, Burton & Lepp, 2015; Brunero, Lamont & Coates, 2010; Chan, 2012; Shatell, 2007). Through roleplaying, the scenarios provide simulated experiences that lend themselves to application of an experiential learning process.

Kolb's (2008) experiential learning theory guided the development of the simulation and the overall learning process. It is through the reflective debriefing session that follows each simulation that new concepts and learning are realized and students acquire more effective communication and interaction skills. The experiential learning strategy generates a higher level of affective learning and encourages positive behavior changes as the experience of the student

provides the basis for their reflections (Brunero, Lamont & Coates, 2010; Story & Butts, 2010; Vanlaere, Cocke & Gastmand, 2010). Moreover, participation in experiential learning helps make explicit the values and judgments that guide student behavior making them more accessible for identification, analysis, and integration into professional nursing practice.

Kolb viewed learning as a lifelong process of creating knowledge through the transformation of experiences through the continuous interaction between individuals and their environment (Kolb & Kolb, 2008). According to this theory, experiences must be transformed in order for learning to occur and students must be active participants in the process. This occurs during a four stage learning cycle that encompasses; 1) concrete experience, 2) reflective observation, 3) abstract conceptualization, and 4) active experimentation (Kolb & Kolb, 2008; Lisko & O'Dell, 2010). According to the theory of experiential learning, the learners' concrete experiences provide the basis for learning and promote the full immersion of the learner in actual situations to form the basis of their observations. During reflective observation a variety of perspectives regarding the concrete experience are voiced and assimilated into abstract conceptualizations. These abstract conceptualizations allow the learner to develop representations or symbols of their experiences. During active experimentation, students have the opportunity to test theories as they solve practical problems. The implications for new actions can be drawn upon in order to form a guideline to create new experiences. By reflecting on their experiences, learners give meaning to the experience and incorporate newly acquired knowledge into their pre-existing knowledge base. The learner then utilizes the newly combined knowledge in future situations and the cycle begins again ((Kolb & Kolb, 2008; Laschinger, 1990; Lisko & O'Dell, 2010; Waldner & Olsen, 2007).

The overall goal of the teaching-learning strategy is the active involvement of students in their own learning of the social determinants, particularly income and social status. The use of low fidelity simulation in the form of role-play provides the experiential learning opportunity. Kolb's (1999) experiential learning cycle provides the structure for the overall strategy to facilitate a deeper, more personal understanding of the impact of income on the health of individuals. Three additional objectives include:

1. Students will demonstrate improved communication, problem solving and critical thinking skills through reflection and analysis of their role play experiences;

2. Students will identify and discuss implications of the values and judgments that influenced their interaction throughout the role play;
3. Students will demonstrate an increased awareness regarding the impact of income and social status on population health through their participation in the role-play and their analysis of the experience.

Using the Simulation Procedure Manual

This manual is a resource for faculty members in nursing education who wish to integrate a scenario-based simulation activity regarding income and social status into their curriculum. The manual contains information regarding the overall scenario-based simulation and the implementation process. All the resources for conducting the simulation are contained in the manual. Resources include:

- Guidelines and a PowerPoint presentation for a student and faculty orientation to the simulation;
- Guidelines and equipment for the environmental set-up for the area in which the role play will be conducted;
- Twenty-five role descriptions and supplemental materials that will be assigned to students;
- Guidelines for the pre-implementation briefing session;
- Faculty teaching tools such as Faculty Observation Forms, debriefing guidelines and a digital storytelling assignment for students
- Faculty and student simulation evaluation forms

UNIT II: THE SCENARIO-BASED SIMULATION

Description of the Teaching-Learning Strategy

The scenario-based simulation activity is an experiential teaching-learning strategy that aligns with and builds on the nursing curriculum related to the social determinants of health. This curriculum content is covered predominately in the community health courses of both the BN and PN programs. Effective implementation of the simulation activity requires ongoing consultation with faculty responsible for the community health courses to ensure goals and objectives remain consistent. The seminar portion of the community health courses provides an ideal setting for the integration of the simulation.

The teaching-learning strategy is organized into three distinct phases, including: 1) the pre-implementation phase, 2) the scenario implementation phase and 3) the post- implementation phase. Each phase is comprised of a number of activities. The following is a brief description of the activities in each phase.

The pre-implementation phase. This phase includes all preparations required for conducting a successful simulation. It begins one week prior to the actual scenario with an orientation session involving both community health students and faculty. The orientation gives participants a comprehensive overview of the simulation activity, highlights the goals and objectives, and identifies the responsibilities of both students and faculty. It allows time for feedback and questions.

The evening prior to the simulation faculty members email the students in their assigned seminar group to provide them with the information about the role they have been assigned to play as well as any supplemental information required for the role. The following day a large classroom in the nursing school is staged to represent a small community. A short briefing session for students and faculty is conducted immediately before the start of the community simulation.

The scenario implementation phase. This phase focuses on the implementation of the scenario role-play and the nature of the interaction between the community members and the community agency workers. During the simulation, each student plays the role of a community member or a community agency representative. Each participant is responsible to complete

various tasks and the student must address these tasks by seeking support from appropriate community agencies. Faculty members will circulate around the "community" and note on an observation form pertinent information about the interactions of their seminar students. As well, faculty members encourage and ask questions of students in order to assist in the progression of the scenario.

The post-implementation phase. This phase is aimed at maximizing the learning available through the simulation experience and begins directly after the role-play has ended. Students are engaged immediately in a debriefing session to explore their experiences of navigating complex systems with inadequate resources. Thoughts, feelings, attitudes and values are identified and analyzed respectfully. Self-reflection is promoted. Following the debriefing session, students and faculty complete an evaluation of the simulation experience. In addition, students will then have one week to complete and submit a self-reflection assignment.

Description of the Income and Social Status Scenario-Based Simulation

The simulation activity has been designed to provide students with any opportunity to role-play different members of the community and employees of community agencies to experience the impact of income and social status on the daily lives of the populations and families represented. The scenario is set in an urban community with a focus on a wide range of health and social services that are commonly available in small cities across Canada. Members of the community will attempt to resolve the challenges they face regarding their health and social needs by making contact with various community agencies to determine the assistance available.

Simulation orientation. Students and faculty will be required to attend a short orientation on the *Impact of Income and Social Status on Population Health* simulation one week prior to the activity. A PowerPoint presentation (see Appendix A) will address: 1) the purpose of simulation in nursing education, 2) a description of scenario-based simulation, 3) the components of the activity, and 4) the role of faculty members and students in the simulation activity.

Environmental setup. Prior to the simulation activity, a large classroom will need to be transformed to function as a small community. The room will need to be divided into eight sections that include: 1) a grocery/ medical supply store, 2) a bank, 3) a dentist office, 4) a nursing clinic, 5) an employment office, 6) a pharmacy, 7) a housing office, and 8) a social work

office. Large signs will identify the different agencies and minimize confusion for students. Agency-appropriate furniture and material help create real-life environments. Appendix B provides a description of the material for the environmental set-up.

Roles and role descriptions. Twenty-five roles are included in the simulation (see Table 1). These roles are created to facilitate the development of simulated situations in which students experience first-hand the realities of living complicated lives with inadequate resources. The role-play involves the student in problem solving, decision making, communication and other skills. Students receive information on their assigned role via an instructor email the evening before the scheduled activity (see Appendix C for standardized email). Additional information required for the role is given to students in the form of role card at the briefing session prior to the start of the role-play. Each role card contains the name, basic background information regarding the individual, the community agencies to be contacted (in bold) and the color assigned to their debriefing group. Appendix D contains the 25 role cards for the simulation.

Table 1

A Description of the Roles Used in the Simulation

Role	Description and Purpose
The Blue Group	
Community Agency Workers	
Bill, the Employment Officer	Bill has a list of job postings. He is a resource for those seeking employment or looking to fill positions
John, the Community Health Nurse	John provides nursing care and follow up for those requiring his services.
Judy, the Social Worker	Judy assists those individuals who require supports and services but are unsure how to access them.
Community Members	
Mary, homeless women suffering from mental illness	Mary is not seeking treatment for her mental illness, which leaves her unable to work. She receives income support and has been evicted from her apartment. She also has a severe tooth care and no dental insurance.
Tom, unemployed trades worker and single father of two children	Tom is unemployed but has the support of his parents. His daughter has diabetes but her supplies are covered by MCP
Ethel, elderly widow recovering from a hip fracture	Ethel does not qualify for home supports. She has to purchase equipment for her home because of her surgery and requires a new apartment with no stairs.
Anne, middle aged women caring for her husband who has suffered a major stroke	Anne's husband has sick leave and health insurance benefits. The couple has savings that will cover the cost of the renovations they require to their home, which they own. The couple does not qualify for home supports.

Role	Description and Purpose
Joe, Homeless man with a chronic illness	Joe is followed by the community health nurse and will be followed by the social worker in the hospital who will arrange placement for him in a long term care facility
Mark, the substitute teacher with high medical expenses	Mark and his wife are employed but their positions are not permanent and have no insurance benefits. His wife has a chronic condition, which limits her ability to work, and her medication costs are significant. The couple has a daughter attending full time daycare, mortgage and student loan payments.
Mandy, grocery store clerk	Mandy must assist individuals to find the groceries and supplies they require. She must also collect payment from individuals for their purchases
The Yellow Group	
Community Agency Workers	
Doug, the local community dentist	Doug must prescribe medications and perform oral procedures. He will have to charge his patients for these services. Some of his patients will not be able to afford his services.
Christy, the local pharmacist	Christy runs a methadone program at the pharmacy, which serves a large number of clients under her care. She must also dispense and collect payment for antibiotics.
Community Members	
Jane, cocaine addict and sex worker	Jane has a high income to pay for the antibiotics she requires due to her position as a sex trade worker. However, she receives no treatment for her mental health and additions issues
Dave, unemployed client of the methadone clinic	Dave is on the methadone program because of his recreational drug use. He has not completed high school and depends on public transit. He is attempting to find a job and must get from the pharmacy to a job interview via the Metrobus.
Elizabeth, employed client of the methadone clinic	Elizabeth is on the methadone program due to a pain medication dependency following a motor vehicle accident. She is a shift worker and owns her own car.
Jody, legally blind and separated from her abusive partner	Jody's partner refuses to pay child support and she in no longer able to breastfeed her child. She lacks support and is living in social housing. She must attempt to purchase formula, diapers and food with a limited amount of money.
Taylor, male sex worker who has been badly beaten and hospitalized	Taylor is admitted to the hospital and receives the treatment he requires for his injury at no cost. He will be referred to a social worker to assist him in obtaining safe housing.
Kirk, income support recipient and dialysis patient	Kirk is an income support recipient, as he must attend dialysis 3 times per week. His medications are covered under the provincial drug plan. His transportation to and from dialysis are also paid for under the plan. He pays $950 per month in rent and must purchase groceries for his renal diet.

Role	Description and Purpose
The Red Group	
Community Agency Workers	
James, loans offer at the local bank	James reviews loan applications and must approve or reject the applications. He also discusses possible financial alternatives to personal loans.
Rob, Social worker	Rob assists those individuals who require supports and services but are unsure how to access them.
Lisa, employment officer	Lisa must advise individuals regarding employment opportunities and assists employers to fill job vacancies.
Community members	
Steve, lawyer and father of a child with autism	Steve has flexible work hours and his wife has decreased her hours to part time. The couple has student loan payments. They have an autistic child and are able to pay an ABA worker $5 more an hour than the funded amount. Steve is also trying to start up his own law firm
Hayley, young single mother with a Grade 10 education	Hayley has no family supports and the father of her child provides no financial support. She has not completed high school. Her lease has not been renewed and she needs to find a new apartment. She is also attempting to seek employment
Madison, young mother attending university	Madison has family support. The father of her child and his parents are involved and provide financial support. She is attempting to seek part time employment and daycare for her child.
Crystal, cashier at the local convenience store and the mother of an autistic child	Crystal's work schedule is not flexible and because of the needs of her autistic child she is missing excessive amounts of work. She can only afford to pay an ABA worker for her child the funded amount. She must also find a job with hours that are conducive to her home life

Briefing guidelines. Students and faculty will attend a short briefing session prior to the start of the activity. The purpose of the briefing session is to review the general guidelines for the simulation and provide opportunity for questions and clarification (see Appendix D). Simulation goals and learning objectives are reviewed. Students will be given the opportunity to briefly explore the eight community service settings prior to the start of the 30-minute scenario. As well, information about the debriefing session following the role-play is highlighted.

Faculty observation form (FOF). This form is used by faculty members to record observation of significance that occur during the role-play (Appendix E). These forms are specific to each debriefing group and provide the role names of group members followed by suggested questions to ask the students in their different roles. These questions serve as prompts to guide students through the simulation and encourage critical thinking. The FOF is used to record specific observations, including: 1) communication among students, 2) challenges

experienced by students, 3) strengths demonstrated by students, and 4) behaviors or decisions made by students that require exploration of their associated reasoning and thought processes. Faculty members use the information from the FOF to guide the debriefing session.

Faculty debriefing guidelines. The debriefing guidelines (see Appendix F) serve as a guide for faculty to facilitate a reflective discussion with students to begin the process of transforming experience into learning (Kolb, 2008). Questions contained in the debriefing guidelines focus on: 1) the emotions experienced by students during the scenario, 2) specific learning points from the simulation for reflection, and 3) the linkage between the simulation experience and its relevance to nursing practice. The manual also contains tips for successful debriefing for faculty facilitating these sessions. The debriefing session requires approximately 60 minutes in order for the activity to be an effective learning experience for participants.

Faculty and student evaluation forms. Students and faculty will be asked to complete the evaluation surveys, found in Appendix H, following the debriefing session. A Likert Scale is utilized to indicate the level of agreement with statements related to aspects of the simulation activity, including: 1) the simulation orientation, 2) the simulation environment, 3) the role assignment process and material provided to assume the roles, and 4) the ability of the simulation activity to meet the objectives indicated. The survey will provide areas for students and faculty to describe their opinions and thoughts regarding the strengths of the simulation, suggestions for improving the activity and any other comments pertinent to the activity. The results and comments from these surveys will be utilized to make future improvements to the activity.

Digital storytelling assignment. The purpose of the digital storytelling assignment is to engage the students in the reflective process using various forms of technology. The process of creating a digital story allows the students to take a concrete experience (the simulation activity) and create a story based on their reflections and observations of the experience. The assignment provides students with a method to share their experiences, thoughts and feelings with a focus on reflection and is not a test of the level of excellence in the use of technology (Schwartz, 2012; Shellenbarger & Robb, 2015). Empathy, compassion, accountability and the desire to help others is promoted through the personal sharing of stories and experiences (Stacey & Hardy, 2011). By viewing the stories of others and engaging in discussions regarding their own personal stories

students gain insight into the experience. These new insights and ideas can then be carried forward and implemented in future practice (Lyons, 2013; Sanders & Murray, 2009).

Summary

Unit II provides a thorough description of the eight main components of the scenario-based simulation from pre-implementation through to the post-implementation phase. The rationale for each component is described. The tools and detailed procedures for all components are included as appendices. These have been developed with clear directions to allow for smooth implementation.

The next unit, Unit III, outlines the implementation process for the simulation. Guidelines for each activity are provided.

UNIT III: IMPLEMENTATION OF THE SCENARIO-BASED SIMULATION

Successful implementation of the income and social status scenario-based simulation requires the support and active participation of both faculty and students. Preparation of the participants is critical, as role-play may initially be perceived as stressful or threatening. Establishment of a safe learning environment is an important factor in the achieving success. Implementation is presented based on the three phases of the teaching-learning strategy and are categorized as:1) preparing for the scenario, 2) conducting the scenario; and 3) optimizing learning.

Preparing for the Scenario

Together, both students and faculty are required to take part in a short simulation orientation session one week prior to the simulation activity. A PowerPoint presentation (Appendix A), given by the faculty course leader, provides an overview of the activity and the role of faculty members and students throughout the activity. The expectations of a safe, caring learning environment are discussed during the orientation session and students are advised to play their assigned role to the degree that is comfortable for them. Students will be encouraged to excuse themselves from the scenario should the role-play trigger personal distress. Students are encouraged to speak to their faculty member prior to the assignment of roles should they feel that certain roles may be difficult or inappropriate for them.

The evening prior to the simulation seminar faculty, using the course D2L shell, email the students in their seminar groups, to assign the roles for the role play as well as any supplemental information needed to support the role. Role information includes the name, basic information about the role and the tasks to be accomplished by the individual playing the role. Students playing the role of community members receive agency-related printed materials such as fee schedules for various services, simulated medications, groceries and medical supplies, grocery lists, monthly financial reports, a list of community resources, resumes, appointment cards for the bank and the methadone clinic, apartment listings, and job postings. All students are assigned to predetermined debriefing groups based on their assigned role.

On the day of the simulation activity, a large classroom is transformed to function as a small community with a range of community services. Eight stations are set up to represent the

eight agencies with furniture, appropriate signage, and the required materials. Community service applications, for example, while not meant to be completed are available to foster realism.

The scenario is reviewed, objectives reiterated, and the information regarding the debriefing session is discussed. All questions are addressed. Expected student behaviors are highlighted including the prohibition on taking photographs and videotaping as well as the need to keep the simulation process confidential. Students receive a colored sash to wear (red, blue or yellow) to indicate the debriefing group they will attend at the end of the role-play. Debriefing groups are predetermined by roles in order to facilitate discussions and provide contrasting views related to income and social status. Students and faculty explore the simulated community prior to its commencement. Faculty members are provided with the Faculty Observation Forms for Use during the role-play.

Conducting the Scenario

The role-play begins with students assuming their roles and starting to complete the various day-to-day activities in their assigned roles. The scenario should play out for about 30-45 minutes to allow adequate time for interaction between the community member and a range of community agencies. Interactions will include activities that involve consultations with social workers, the community health nurse, loans officers, employment officers, dentist, pharmacist and employment officer. Community members will be assigned tasks such as purchasing groceries and home health supplies, seeking employment, housing or bank loans, attending appointments with the pharmacist, nurse or dentist, or seeking supports from the social worker. Applications that would be required to be completed at the community agencies will be present at the station, however, students will not be required to complete them. Students will be required to read these applications in order to determine the information required and the language that is used in the documents. Communication among students during the role-play is essential in order to complete the tasks. Faculty will circulate around the simulated community paying close attention to the individuals in their assigned debriefing groups and recording pertinent observations on the Faculty Observation Form. Faculty members will also ask their assigned students questions that pertain to their assigned roles to initiate the critical thinking process and to assist with the progression of the scenario.

An additional faculty member will be present to act as a resource person for students. This faculty member will answer any questions students may have regarding the progression of the scenario, as well as, any questions they may have regarding the tasks they are required to perform. This faculty resource person may guide students to community areas in the room should there be any confusion and may direct students to seek assistance from peers to complete their assigned activities.

Optimizing Learning

Following the completion of the simulation activity faculty and students will move to the conference room area assigned to their predetermined debriefing group. The Faculty Debriefing Guidelines (Appendix G) provide questions that faculty may pose to students in order to facilitate discussion and reflection. The debriefing session requires approximately 60 minutes in order for the activity to provide an effective learning experience for participants. Students and faculty will be asked to complete the evaluation surveys found in Appendix H prior to the conclusion of the simulation activity. Faculty members conducting the simulation can utilize the results of this survey to determine the effectiveness of the teaching-learning strategy and make the necessary revisions required for improvement. It is recommended that this survey be distributed following each delivery of the simulation activity.

The students will then have one week to complete the Digital Storytelling Assignment outlined in Appendix F and will be required to submit the assignments to seminar faculty members for feedback. This assignment will require the student to reflect on the events of the simulation experience and to indicate how the learning that has occurred as a result of their participation will impact upon their future practice. However, should time permit it would be a valuable learning experience for debriefing groups to view and discuss these assignments together. This will enable the students to view the unique perspectives of their peers and discuss their own personal reflections portrayed in their digital story creations.

Summary. This scenario-based simulation has been designed for groups of 25 nursing students and the involvement of four faculty members. It requires about two hours to complete. It is designed to maximize learning through a structured debriefing session as a follow-up reflective assignment. The digital storytelling assignment is designed to allow the student to piece together their personal reflections and the reflections that have resulted from the debriefing

sessions. Students will then be able to create a personal representation of their learning process in the form of a digital story that will address their experience in the simulation activity and the impact they feel it will have on their future interactions with clients.

UNIT IV: CONCLUSION

The scenario-based simulation activity presented in this manual will provide BN (Collaborative) and PN students with the opportunity to engage in experiential learning through role-play and reflection. The activity gives students the chance to experience the struggles and triumphs of various members of society as they assume an assigned role. This experience will assist the students to develop a deeper understanding of the impact of health and social status on population health and thus develop an increased sense of empathy for individuals facing disparities on their lives. The increased capacity for empathy and understanding gained from this learning experience will assist students in their future interactions with patients.

Student self-reflection is essential and is the most critical element of this teaching-learning activity. The debriefing session and reflective assignment facilitate the students to connect the events of the activity and real life situations present in nursing practice. Throughout the process of providing and receiving feedback, the students will develop confidence, as they are required to be active participants in the learning process and develop insight. This process also enables students to recognize their own strengths, to manage their behaviors and to increase their ability to apply the lessons learned to future situations.

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Appendix A

Simulation Orientation Files

Income and Social Status Simulation

Faculty and Student Orientation

Orientation Objectives

To provide an overview of the scenario-based simulation activity related to income and social status including:

- The purpose of the simulation
- An description of scenario based simulation
- Components of the activity
- Type of simulation
- Role of faculty member
- Role of students

Purpose of the Simulation Activity

- To provide an opportunity for students to experience the impact of income and social status on an individuals' ability to obtain required health care services and to engage in healthy behaviors
- To promote the development of therapeutic communication skills
- To enhance students' critical thinking abilities
- To provide an opportunity for students to engage in the reflective process
- To provide students with an opportunity to develop strategies to implement in their future practice with clients related to income and social status

Scenario-Based Simulation Activity

- An in-depth method of active learning that requires students to apply previously acquired knowledge to make decisions, judgments or educated guesses regarding the events presented in the scenario
- Low -fidelity simulation involving role play or actors
- Requires students to become active participants in the learning process and to collaborate in small groups to manage and address a simulated situation

Components of the Simulation Activity

- Role Assignment
- Pre briefing
- Scenario
- Debriefing
- Evaluation Surveys
- Digital Storytelling Assignment

Role Assignment

Faculty members will email students their assigned role. This email will include:

- The name and role assigned to the student
- The debriefing group to which the student has been assigned
- The behavioral expectations for students during their participation in the simulation activity

The Pre Briefing Session

- Faculty should arrive to the simulation location 15 minutes prior to the start of the activity
- Student should arrive to the simulation location 5 minutes prior to the start of the activity
- Students will be informed of the purpose of the simulation and the learning objectives for the activity
- Students will be reminded of the expected behaviors while participating in the activity
- Students will be provided with an opportunity to explore the environment and ask questions related to assigned roles
- Should take no longer than 10-15 minutes

Simulation Scenario

- The simulation environment will consist of 8 community agencies and will be clearly marked
- It is a typical weekday in the lives of a group of individuals living in St. John's, NL. All participants have various activities and tasks that they need to complete during the day
- All materials required will be present in the environment
- Students are encouraged to improvise as necessary throughout the activity
- All participants are to be respectful to one another and confidentiality must be maintained
- No photographs or videotaping is permitted
- Plays out for approximately 30 minutes

Student Role Pre Simulation Activity

- Roles for the simulation will be emailed to students by seminar faculty the evening prior to the simulation
- Each role will come with the name, circumstances regarding income and social status and tasks to be completed during the scenario
- Students will be reminded that they are not to discuss their roles with their peers but may conduct research in order to participate in the simulation

Debriefing

- Occurs immediately following the simulation activity
- Very similar to post clinical conferences
- Facilitated by faculty
- Reflective process
- Peer and faculty feedback is provided
- Respectful, non threatening and safe environment for discussion
- Student input is important
- The reasoning, thought process and consequences of actions taken are explored
- Discussions are confidential
- Usually 60 minutes in duration

Student and Faculty Evaluation

Students and faculty will be asked to complete an evaluation survey following the debriefing session. Faculty are requested to return the completed surveys to the course leaders.

Feedback provided on these evaluation forms will be used to make necessary changes and improvements to the simulation activity

Digital Storytelling Assignment

- Students will be required to create a 3-5 minute digital story using a technological application of their choice to describe how they will attempt to promote equity in terms of income and social status in their future practice
- The purpose of this assignment is to engage the students in the reflective process through the use of various forms of technology
- Students are encouraged to share their experiences, thoughts and feelings
- This process will allow students to take a concrete experience (the simulation activity) and create a story based on their reflections and observations
- The focus is on reflection and not the level of excellence in the use of technology

Role of Faculty Members

Faculty members are involved in the simulation activity:

- Prior to the simulation activity
- During the simulation activity
- Following the simulation activity

Faculty Role- Pre Simulation Activity

- Participate in the orientation session
- Review the scenario and become familiar with the roles of those assigned to their debriefing groups and the observation checklist
- Email students with their role the evening prior to the simulation activity
- Arrive to the simulation activity 15 minutes prior to the start of the activity to become familiar with the layout of the room
- Facilitate the pre briefing session with students and answer any questions

Observation Form

Purpose of the Form

- To provide faculty with a template to record their observations of student performance to utilize during the debriefing session
- To provide faculty with questions to ask students to assist in the progression of the simulation and to been the reflective process
- Observations include those related to student participation and communication; challenges and strengths demonstrated by students; and an area to document student behaviours and decisions that the faculty member would like to explore during the debriefing process

Faculty Role During the Simulation

- Observe students assigned to their debriefing group and record observations on the faculty observation checklist
- Prompt debriefing group students by asking the questions provided on the faculty observation checklist

Faculty Role Following the Simulation

- Facilitate the debriefing session with predetermined student group
- Distribute and collect the student evaluation survey
- Complete the faculty evaluation survey
- Collect, review and provide students with feedback regarding the digital storytelling assignments

Student Role in Simulation

Students have a role in the following area of simulation;

- Prior to the simulation activity
- During the simulation activity
- Following the simulation activity

Student Role Pre Simulation Activity

- Roles for the simulation will be emailed to students by seminar faculty the evening prior to the simulation
- Each role will come with the name, circumstances regarding income and social status and tasks to be completed during the scenario
- Students will be reminded that they are not to discuss their roles with their peers but may conduct research in order to participate in the simulation

Student Role-Pre Simulation Activity (continued)

- Students are expected to arrive to their assigned simulation room at least 5 minutes prior to the start of the scenario to ensure that scenario begins at the scheduled time
- Students are expected to be prepared to perform the role they have been assigned
- Students are to explore the simulation environment and ask any questions pertaining to their role during the time provided

Student Role During Simulation

- Students are to be respectful of one another
- Students are to perform their role based on the information they have been provided
- Students may have to improvise as necessary throughout the scenario when information has not been provided

Student Role Following Simulation

- Students are to actively engage in the discussions held during the debriefing session
- Students must continue to remain respectful of one another
- Students are to provide constructive feedback to their peers
- Students are asked to complete the student evaluation survey following the debriefing session and return it to the faculty member facilitating their debriefing session
- Student are to complete and submit their digital storytelling assignment to faculty one week following the completion of the activity

Questions

Appendix B

Table B

Environmental Setup

Community Area	Supplies
Housing Office	➢ Rental listings board ➢ Chair ➢ Table
Grocery Store / Medical Supply Store	➢ Money ➢ Walker ➢ Wheelchair ➢ Tub chair ➢ Hospital bed and mattress ➢ Grab bar and grabber ➢ Raised Toilet Seat ➢ Cane ➢ Baby Formula ➢ Diapers
Dentist Office	➢ Chairs ➢ Gloves ➢ Prescription pad ➢ Cost of various procedures sign
Bank	➢ Table and chairs ➢ Mortgage applications ➢ Loan applications
Employment Office	➢ Table and chairs ➢ Job Posting Board
Pharmacy	➢ Table and chairs ➢ Medicine Cups ➢ Practi –Methadone ➢ Practi –Antibiotic ➢ Money ➢ List of prices for antibiotics ➢ Urine bottles ➢ Chemistry Strips ➢ Simulated urine ➢ Money
Nursing Clinic	➢ Exam Table ➢ Dressing kits ➢ Saline and bandages ➢ Community Health Referral Forms

Community Area	Supplies
Social Worker Office	➢ Income Support Application ➢ List of Community Resources ➢ Daycare Subsidy Application Forms ➢ Long Term Care Applications ➢ Table and chairs

Appendix C

Standard Email

Dear (Student Name),

For tomorrow's simulation activity you have been assigned the role of ___ (Name) __and you have been assigned to the (indicate color) debriefing group. I have attached the appropriate role cards and description of the props that you will need in order to participate in the activity.

Please take the time to review your role. There will be an opportunity for you to ask any questions you may have regarding this role during the pre-briefing session prior to the start of the simulation activity. Ensure that you arrive to the assigned simulation area no later than 5 minutes prior to the schedule start time of the activity. As well, you need to research your role to be prepared to participate in the activities assigned to your role. As a participant in this simulation activity, you are to maintain a professional manner and demonstrate respect for your peers. All events and discussions conducted during the simulation activity are confidential and you are not free to discuss them outside of the simulation environment. You are also expected to be active participants during the debriefing session following the scenario.

Appendix D

Briefing Session

Briefing Guidelines	
Simulation Purpose	➢ To enhance student understanding of the impact of income and social status on population health and access to health care services ➢ To introduce students to issues related to income and social status that affect population health
Simulation Scenario	➢ The scenario is set in a small urban community comprised of a range of health and social services that are commonly available in small cities across Canada. Members of society will attempt to resolve the financial and other challenges they face regarding their health and social needs by making contact with various community agencies to determine the assistance available.
Simulation Group	➢ 2nd year Bachelor of Nursing Students in the N2514 Community Health Nursing Course ➢ 3rd semester Practical Nursing Students in the N301 Community Health Nursing Concepts Course
Simulation Timing	➢ Briefing: 10 minutes ➢ Simulation: 30 minutes ➢ Debriefing: 60 minutes
Orientation to the Simulation Environment	➢ Students will be encouraged to actively participate in the role-play and maintain a respectful learning environment. ➢ Students will be advised that the circumstances and events presented during the simulation activity represent situations that they may encounter with clients in the clinical setting ➢ Students will be provided with a colored sash that will determine their debriefing group following the scenario. ➢ Faculty members will be circulating about the room observing the students assigned to their debriefing group and recording pertinent observations. ➢ Faculty will prompt and ask questions of the students during the simulation to assist with the progression of the activity. ➢ Agency applications for various services will be provided at the appropriate 'centers'. Student will review the forms but are not expected to complete them. ➢ Any information not provided to the students but required during the role-play is to be improvised by the student whenever necessary. ➢ Students are encouraged to communicate and work with one another throughout the activity to complete their assigned tasks.

Appendix E

Role Cards and Supplemental Materials

Social Worker- Judy

Judy works as a social worker in an office with her college Rob. She assists individuals to access various community resources based on their needs. Judy also assists those who seek or are referred to her services to complete required forms and applications.
Judy is seated in the Social Work Office

BLUE GROUP

Clinic Nurse- John

John works in the local community health clinic. The provides counselling, health screening and nursing care to the clients in his area. John also conducts home visits and patient follow up post discharge from the acute care setting. John will be in the Nursing Clinic

Props Provided:

- Community Health Referral Forms
- Dressing kits
- Saline
- Bandages

BLUE GROUP

Homeless Women-Mary

Mary suffers from severe depression and anxiety which does not allow her to gain employment so she receives income support payments. She is also not seeking any treatment for these illnesses. Her children are in foster care and she has been evicted from her apartment due to smell of marijuana and loud fighting with her boyfriend. She must find new apartment (**Housing Offic**e) and must see the dentist for a severe toothache (**Dentist Office**).

Props Provided:

- Mary's Finances

BLUE GROUP

Unemployed Trades Worker- Tom

Tom's wife died 2 years ago and he has just been laid off from his current job. He is currently living in parents' basement apartment rent free. His has two children (6-year-old girl, 7-year-old boy) and his daughter has just been diagnosed with diabetes and receives insulin injections 4 times per day. Tom currently has no health or dental insurance; however, the needles, syringes and insulin his daughter requires are covered by MCP. He has received no teaching regarding diabetes and must purchase groceries after speaking with the nurse. Tom is also seeking employment (**Employment Office**) and must but groceries at the **Grocery Store/ Medical Supply Store.**

Props:

- Tom's Grocery List
- Tom's Finances

BLUE GROUP

Employment Officer- Bill

Bill has the listing of available houses, apartments, etc. in the local area. He reviews the listings with individuals seeking housing taking into consideration their budgets and other housing requirements. Bill will be in the Employment Office

Props:

- Rental Ads

BLUE GROUP

Elderly Widow-Ethel

Ethel receives pension payments. She has recently undergone hip surgery and does not qualify for subsided home supports. She needs to purchase a walker, raised toilet seat, cane and tub chair/rail (**Grocery/Home Health Store**). Ethel's rent has increased and the stairs entering the house are difficult for her to climb, therefore, she needs look for another apartment more suitable to physical limitations (**Housing Office**). She relies on public transportation

Props Provided:

- Ethel's Finances
- GoBus and Metrobus Fares

BLUE GROUP

Wife of a Stroke Patient- Anne

Anne's husband suffered a stroke at 57 years of age but has sick leave benefits that will cover him until retirement. He also has family drug and dental coverage and does not qualify for subsided home supports. The couple owns their own home, which requires renovations costing $10,000 prior to her husband's discharge from rehab and incontinent supplies, wheelchair, tub chair and hospital bed (**Grocery/Home Health Store**). They have 2 2 RRSPS of $5,000 each (**Bank**). Anne's husband requires Go Bus transportation to multiple appointments throughout the week and home visits from the nurse for follow up.

Props:

- Anne's Finances
- GoBus Prices

BLUE GROUP

Substitute Teacher-Mark

Mark has been obtaining almost full time hours but has to commute over an hour to get to and from work. His wife is a nurse working on a casual basis; she has just been diagnosed with arthritis. Her medications cost $1500/month. They couple does not have health insurance. Their daughter is 2.5 years old and is in daycare on a fulltime basis. They couple has a vehicle, student loan and mortgage payments $190 biweekly. The couple has applied consolidate their debt and seek assistance to find services or resources they can access for assistance (**Bank**). Mark may consider look for an additional job (**Employment Office**).

Props Provided:

- Mark's Finances
- Bank Appointment Card

BLUE GROUP

Homeless Man-Joe

Joe is currently living on the streets of the city and has a chronic foot ulcer that requires daily dressing changes. He suffers a stroke in the clinic following dressing change. He will now require long-term care placement or subsidized home supports based on his limitations. He will need to go to the **Nursing Clinic** and **Social Work Office**.

BLUE GROUP

Grocery Store Clerk- Mandy

Mandy works at the local grocery/home health store and assists customers with their purchases. She presents customers with their bill and takes their payments. She will be found at the local Grocery/ Medical Supply Store.

YELLOW GROUP

Dentist- Doug

Doug is the local dentist. He performs oral exams and writes prescriptions for antibiotics. Provides counselling regarding oral health. He must bill his clients for his services and can be found in the Dentist Office.

YELLOW GROUP

Female Sex Worker- Jane

Jane is a sex worker with a regular client base who has a $400 per day cocaine addiction. She has no contact with mental health and addictions services. She requires daily dressings (**Nursing Clinic**) and requires 14 days of antibiotics. Her doctor has referred her to the **Social Worker** to discuss services available for her in the area.

YELLOW GROUP

Pharmacist- Christy

Christy is the local pharmacist and is in charge of the methadone for which she has a large number of clients. She also distributes and bills for medications. She can be found at the Pharmacy.

YELLOW GROUP

Male Methadone Patient-Dave

Dave is on methadone program due to recreational drug use and is required to provide urine sample prior to methadone administration. His appointment is 1:45pm at the **Pharmacy**. He has not completed high school and has a job interview for the Orange Store at 3pm. He relies on Metrobus for transportation- bus comes to methadone clinic at 2pm and stops in front of the **Employment Office** at 255pm. He has $25 left until he receives his income support payment

Props:

- Metrobus Fares
- Methadone Appointment Card
- $25

YELLOW GROUP

Female Methadone Patient- Elizabeth

Elizabeth is on the methadone program due to withdrawal from pain medications following a motor vehicle injury. She is a **s**hift work and schedules her appointments at the clinic around her work hours. She has an appointment at the **Pharmacy** for the methadone clinic and an appointment at the **Bank** to review her mortgage application.

Props:

- Methadone Clinic Appointment Card
- Bank Appointment Card

YELLOW GROUP

Domestic Abuse Victim-Jody

Jody is legally blind and living in housing. Her abusive partner has moved out of the home and refuses to pay child support. Jody has no family support as she was raised in foster care. She had to stop breastfeeding her 2-month old baby due to issues with latching and weight gain Has only $125 and needs to buy diapers and formula for the baby and food for herself for the next 2 weeks (**Grocery/Medical Supply Store**). Jody also needs to see a **Social Worker** to find supports and resources in the area.

Props:

- $125 dollars

YELLOW GROUP

Male Sex Worker- Taylor

Taylor lives on the streets of the city and is employed in the sex trade. He was badly beaten and suffered injuries to his mouth, several teeth are missing and cracked, and he was taken to hospital by ambulance. Taylor will need to be seen by the **Dentist** in his office while in hospital and he has been referred to the social worker to obtain assistance with finances and obtaining safe housing (**Social Work Office**).

YELLOW GROUP

Dialysis Patient –Kirk

Kirk is a dialysis patient who receives income support. His cab rides to and from dialysis three times a week are funded and his medications are covered under the provincial drug plan. He has$200 to purchase groceries for the next 2 weeks for his renal diet (**Grocery Store/Medical Supply Store**). He needs to follow up with a **Social Worker** for assistance with finances.

Props:
Kirk's Grocery List

YELLOW GROUP

Loans Officer at the Bank-James

James works at the local bank. He reviews mortgage applications and makes the decision to approve or reject the loans. He also discusses possible alternatives to loans with clients. He can be found working at the Bank.

RED GROUP

Young Mother-Hayley

Hayley has a grade 10 education and has a 6-month old son. The father of the child is not involved and provides no financial support. Her mother is deceased and her father is remarried and living in Alberta. She has no extended family. Hayley is currently on income support and is seeking employment (**Employment Office**). She is also looking for an apartment as her lease is up at the end of the month and has not been renewed (**Housing Office**).

Props:

- Hayley Y's Resume
- Hayley's Finances

RED GROUP

Young Mother-Madison

Madison is a young mother attending her first year of university. The father of the baby is involved and provides financial support; both sets of baby's grandparents are supportive. Madison is seeking part time employment (**Employment Office**) and daycare for her 8-month old daughter for increased social interaction through a social worker (**Social Work Office**).

Props:

- Madison X's Resume

RED GROUP

Cashier at Convenience Store- Crystal

Crystal has 3-year-old son has just been diagnosed with autism. Her husband works during the day and is in denial of child's diagnosis. Crystal has been missing excessive amounts of work due to child's behavioral issues at daycare and is looking for evening work (**Employme**nt **Office**). The daycare will not allow child to attend without an ABA worker and she needs to speak with a Social Worker regarding supports, as she cannot afford to pay the ABA any more than the funded amount (**Social Work Office**).

RED GROUP

Lawyer- Steve

Steve and his wife have a 3-year-old son has been recently diagnosed with autism. His wife has decreased her work hours to part time and he can work at home as needed. In order to secure an ABA worker, the couple will pay an individual $5 hour more than the funded rate of pay. He will need to speak with the employment officer to see if the job can be filled (**Employment Office**). Steve and his wife's student loan payments total $1500/month and the couple are seeking a loan for Steve to start his own law firm (**Bank**)

Props:

- Bank appointment card

RED GROUP

Social Worker-Rob

Rob works as a social worker in an office with his college Judy. She assists individuals to access various community resources based on their needs. Judy also assists those who seek or are referred to her services to complete required forms and applications. Rob works at the Social Work Office.

RED GROUP

Employment Officer - _Lisa

Lisa works in the local employment office. She has a list of available job postings that she reviews with potential employees. Lisa also discusses job postings with employers as well. She conducts interviews with potential employees as needed. She works at the Employment Office.

RED GROUP

Scenario Props for all Roles

Dental Service Fees

Oral Exam	$42.00
Emergency Oral Exam	$50.00
Tooth repairs	$87.00 per tooth
Root canal	$500.00
Fillings	
1 tooth	$83.00
2 teeth	$115.00
3 teeth	$155.00
4 teeth	$180.00
5 teeth	$215.00
Extractions	
First tooth	$88.00
Each additional tooth	$45.00

FOR USE BY DENTIST

Antibiotic Costs

Antibiotic	Cost per pill
Cipro 500mg	$0.15
Keflex 500mg	$0.10
Ceftin 500mg	$0.70
Amoxil 500mg	$0.10
Zithromax 250mg	$ 1.00
Flagyl 500mg	$0.45

- **Note a $8.00 dispensing fee applies to all prescriptions**

FOR USE BY PHARMACIST

Tom's Grocery List

Skim Milk	Canned Fruit
Eggs	Meat
Chicken	Fish
Popcorn	Apples
Strawberries	Sun Chips
No Sugar Added Fudgsicles	Whole Wheat Pancakes
Instant Oatmeal	Brown Rice
Whole Wheat Pasta	Whole Wheat Bread
Spaghetti Sauce	Grapes
Potatoes	Salas
Plain Greek Yogurt	Mozzarella Cheese Strings

Kirk's Grocery List

Chicken	Turkey
Eggs	Apple Juice
Fish	Apples
Pork	Onions
Butter	Ginger Snaps
Grapes	Peaches
Strawberries	Lettuce
Mixed veggies	Mushroom
Mushrooms	Turnip
Miracle Whip	Bagels
Whole Grain Bread	Popcorn
Pretzels	Rice
Spaghetti	Spaghetti Sauce

Place in the Grocery Store/Home Health Store

Home Health Supplies List

To be displayed in the Grocery Home/Home Health Store for use by Cashier

Item	Cost
Hospital Bed	$510 for temp use/ $800 for semi electric
Mattress	Overlay $95 Foam $180 Innerspring $290
Walker	$45
Raised Toilet Seat	$40 $55.00
Cane	$40.00 $25.00 (soft grip) $58.00 (iron)
Attends	$10.00 (14 count) $38.00 (18 count x 4 packages)
Wheelchair	$420.00 $320.00 $689.00
Tub Chair	Transfer Bench $120 Shower chair $80 Adjustable shower chair $114.00 Shower Seat $85.00
Wipes	$25 for pack of 60

Metrobus Fares

	Adult	Senior	Child
Cash Fare	**$2.25**	**$2.25**	**$2.25**
10 Ride Pass	**$20.00**	**$15.00**	**$15.00**
30 Day Pass	**$70.00**	**$45**	**$45**

Provided for those requiring transportation

GoBus Accessible Transit

Type of Fare	Cost
Cash Fare/Tickets	**$2.25**
10-Ride Pass	**$15**
30 Day Pass	**$45**

Provided for those requiring transportation

These appointment cards are provided to those playing the roles of individuals who will need appointments in the Pharmacy area.

Methadone Appointment

For:
Location:
Date:
Time:

Urine prior to Administration: YES ○ NO ○

City Bank Appointment

For:

Representative: James

Date:

Time:

These appointment cards are provided to those playing the roles of individuals who will need appointments in the Bank areas.

Display in the Social Work Office

Income Support Payments

Monthly Benefits- Living with Relatives

	Payment
Single Adult	$323
Couple with no dependants	$642
Single parent with dependants	$570
Couple with Dependants	$742

Monthly Benefits for Maintaining a Household

	Payment
Single Adult	$534
Couple with no dependants	$756
Single parent with dependants	$694
Couple with Dependants	$742

Maintaining a House

	Payment
Rent/Mortgage	Up to $372
Fuel Supplement	$50

Community Resources

Displayed in the Social Work Office Area

Autism Society	➢ Parent Support Groups ➢ Connections Workshop ➢ Therapeutic Recreation ➢ Social Thinking ➢ Social Club & Playgroup
Red Cross	➢ Health Equipment Loan Programs and Services (3 month loan)
Street Reach	➢ Food / Personal Care Items ➢ Outdoor Clothing ➢ Telephone Access ➢ Supportive and Caring Interactions ➢ Assistance with Emergency Housing ➢ Referrals to External Service ➢ Condoms ➢ Safe Drug Use Equipment
Arthritis Society	➢ Chronic Pain Management Workshop ➢ Arthritis Self-Management Program
Mental Health and Addictions	➢ Addictions Library ➢ Case Management ➢ Early Psychosis Program ➢ Forensics ➢ Gambling Helpline ➢ Humberwood Treatment Centre ➢ Recovery Centre
Single Parents Association	➢ Back to School and Christmas Support ➢ Food and Clothing Distribution ➢ Information and Referrals ➢ Crisis Intervention ➢ Peer Support Group ➢ Employment support Group
Domestic Abuse Services	➢ Iris Kirby House ➢ Marguerites Place

Ethel's Finances

Pension Benefits $1000/month

Old Age Pension $500/month

Purchases to be made include walker, raised toilet seat, tub chair/rail, cane

Transportation: GoBus

Heat/Light: ~ 200/month

Groceries: $500/month

Anne's Finances

Sick Leave Benefits: $5000/month

Purchases: incontinent supplies, wheelchair, tub chair, hospital bed and mattress

Renovations: $10, 000

Appointments: 3 times per week

Savings: $10,000

Heat/Light: ~ $200

Dispensing fees for meds: $100

Mark's Finances

Mark's income $4500/month

Wife's income $5000/month when working full time

Daycare: $840/month

Medications: $1500/month

Mortgage: $1200/month

Car payment: $380/month

Combined student loan payments: $1500/month (Owe 50,000)

Health and Light: ~ 250/month

Mary's Finances

Monthly income support: $834

Cigarettes: $200/month

Heat and Light: ` $150/month

Transportation: $100/month

Hayley's Finances

Income Support: $1050

Heat and Light: `125/month

Costs: Formula, diapers

Transportation: Cab/Bus

Tom's Finances

Unemployment benefits: $1400/month

Mortgage: $1100/month

Heat/Light: `200/month

Supplies: Insulin syringes, alcohol swabs, insulin

RESUME: Hayley Y

1234 Community Street St. John's, NL A1G 1H6 *(709) 555-5558* hayleyy@ccn.net

Education

City High School, St. John's NL

Grade 10

Skills

Completed Level 1 Computer Course

Work Experience

Babysitter for children in my neighbourhood

Activities

School Yearbook Committee for 6 months in Grade 9

References

Available upon request

RESUME: Madison X

1234 Country Way St. John's, NL A1X 1H9 *(709) 555-5598* madisonx@ccn.net

Education

Present: Provincial University

General Studies

2011-2013: Jolly High School, St. John's NL

Grade 12 Diploma

Skills

Completed Level 3 Computer Course

CPR

Basic First Aid

Bronze Medallion Swimming

Youth Leadership Course

Work Experience

2012- 2015 Lifeguard at the Works

2011-2014 Camp Counsellor City of St. John's

Activities

2010-2013 School Yearbook Committees

2010-2013 Volunteer at Easter Seals Summer Camp

References

Available upon request

Apartments for Rent

Displayed in the Housing Office

Description	Cost
Available immediately on bus route two-bedroom basement apartment. Fridge/stove. No washer/dryer hook up. Heat and light not included. Close to mall and schools	$850/month POU
Available immediately above ground 3-bedroom apartment. Fridge/stove. Washer and drier hookup. Heat and light not included. On bus route, close to hospital. Non-smokers only	$1350/month POU
Lovely, Large 2 Bedroom Home for Rent Downtown. Washer and Dryer in Unit.	$1150/month POU
Located in a quiet west end neighborhood this 3 bedrooms this spacious bungalow includes a fenced backyard, parking for two cars, deck off the dining room, sunken living room and a large rec room in the basement. Also included, washer, dryer, fridge, stove, dish washer and central vac. Electric heat. Access to walking trails is only a short stroll away. No smokers.	$1300 per month POU
1 bedroom for rent in quiet household across from Convenience Store and on direct bus route to Mall (10 min ride). House is shared with 2 working individuals, one male one female. Internet &cable, W&D included. You are responsible for your own food and toiletries/towels, detergent etc. and to clean up your own dishes and mess. The bedroom is furnished with a single bed, TV, dresser and nightstand. This can be removed if you prefer to have the room unfurnished. A dog and cat are in the house as well but prefer no other animals. Smoking on back deck only. No parties, quiet after 11 pm	$500/month $200 damage deposit.
2 Bedrooms and one Bathroom on Top Level Main Level Consists of Laundry Room, Kitchen and TV Room. No Smokers; Parking On Street	$1000 / month + utilities
Beautiful three bedrooms, 2.5-bathroom house with attached garage. This home has large rooms with the living room having a beautiful vaulted ceiling and there's a beautiful yard out back. On a bus route but also within walking distance to schools, shopping, gyms, stores, parks, walking trails and more.	$1250/month
One room available immediately. The room is furnished (bed, desk) There is also washer, dryer, stove, microwave wifi, fridge. All utilities are included in the rent.	$400/month
Looking for a roommate to rent 1 room in a 2-bedroom basement apartment. The apartment is furnished, except for the bedroom. Washer and dryer included. 5-minute drive to university, and really close to a bus route. Heat, TV & internet included.	$475/month + electricity at $50/month.

Job Postings

Displayed in the Employment Office

Job Description	Salary
ABA worker required for 3-year old boy with autism. Must be available Monday-Friday from 9-12. Must have valid driver license and own car to drive child to daycare. Training provided. Criminal record and vulnerable record check required. CPR and First Aid a must.	As per funding $12.50/hour
ABA worker required for 3-year-old boy with autism. Monday-Friday, 25 hours per week. Work hours flexible. Criminal record and vulnerable record check required. CPR and First Aid a must. Training provided.	$17.50/hour
Store clerk required for a busy convenience store for 40 hrs per week. Overnights and weekends required. CPR and First Aid required.	$10.25/hour
Cleaning staff wanted from 6-12 week nights for office building. Must work well independently. Heavy lifting required. Criminal record and vulnerable record check required.	$10.25/hour
Looking for someone to come in and clean my home once every 2 weeks, in area not on a bus route. Car is needed; no children/pets. Not a huge house. If this is something you may be interested, please let me know the cost of your service.	$80
Day porter position available at Fitness Centre. Duties include cleaning exercise equipment and spot cleaning glass and floors. Experience an asset. Training provided. Shifts are Mon to Fri 10:30am to 4:00pm.	$12.50 /hour
Flag person wanted Education: Other trades certificate or diploma. Credentials (certificates, licenses, memberships, courses, etc.) Traffic Control Person (TCP) Certification. Experience an asset. Specific Skills: Direct traffic at or near construction sites. Own Tools/Equipment: Steel-toed safety boots; hardhat and safety vest. Work Site Environment Outdoors Repetitive tasks. Various locations. Individuals must be flexible; team player and reliable.	$13 / hour - Full-time, Temporary
Wanted an experienced carpenter or skilled repairperson. Opened to male or female. Must have own tools and transportation. Work includes bathroom and kitchen renovations, ceramic tile and flooring instillation, dry wall, plastering and trim work. Must be comfortable and able to complete this work. Work hours dependent on number of jobs to be completed and deadlines.	$25/hour

GROCERY PRICE LIST

Place in Grocery/Home Health Store

Eggs 3.39/ dozen	Meat $4.75/lb	Turkey 10lb= $20	Apple Juice 2L $3.79	Hot Dog Wieners $5.49	Rice $4.70	Pepsi Product 2L $1.25	Steak $7.99/ lb
Mac& Cheese $1.29	Pork $3.99/lb	Onions $4.79	Powerade $0.99	Rice Krispies Large Box $4.79	Sun Chips $3.79	Strawberry $5.99/ quart	Butter 3lb $4.99
Ginger Snaps $2.99	Infamil Powder 730g-$29.99	Chips $1.88	No Sugar Added Fudgsicles $8.99 for 12	Whole Wheat Pancake $2.79 for 4	Grapes $8.99 for 909g	Peaches $2.49/lb	PC Green Diapers 66 $12.99
Vachon Cakes $2.50	Instant Oatmeal- $3.49 for 6 servings	Brown Rice $2.88	Mr. Noodles $0.99	Lettuce $3.99 for 3 hearts	Huggies Pampers $30.99	Whole Grain Bread $3.99	Corn Flakes $3.99
Whole Wheat Pasta $2.79	Plain Greek Yogurt $2.99 /4	Chicken Strips $6.99	Mixed veggies Frozen $4.49	Orange Juice 1.75 L $2.99	Mozzarella Cheese Strings $7.99	Mushroom $3.00	Turnip $2.49
Skim Milk 2L $4.19	Canned Fruit $2.79	Beef Pies $3.77/lb	Chef Boyardee $1.79 per large can	Spaghetti Sauce 640 ml $1.29	Can Corned $0.99	Toothpaste $0.99	Miracle Whip $4.79
Eggs $ 3.39 /dozen	Meat $.475 per lb	Turkey 10lb\ $20	Apple Juice 2L $3.79	Hot Dog Wieners $5.49	Mixed Veggies $0.99/tin	Toothbrush $2.79	Potato $5.79

Appendix F

Faculty Observation Forms

Red Group

Employment Officer Bill: What does he view to be the biggest challenges in her job?

Loans Officer James: How does he feel when he is unable to grant loans that people desperately need? Is there anything he can do to help these people?

Lawyer Steve: Does he feel that his financial and educational status are making it easier for him and his wife to obtain the appropriate resources for his child?

Cashier Crystal: Does she have any family supports? Will getting a job in the evenings be beneficial to her and her family?

Young Mother Madison: With all of her family support why is she looking for a part time job? Does she receive daycare funding? Does she bring her child to playgroups?

Young Mother Hayley: What type of job she is hoping to find? Who will care for her child while she is at work? Does she have friends or other social support networks?

Social Worker- Rob: What are his/her advocacy roles for families of children with autism? Young

OBSERVATIONS

Did students attempt to participate and attempted the tasks of their assigned roles?

Did students communicate with each other during the simulation?

What challenges did you notice that students experienced during the simulation?

What were areas that students demonstrated strengths?

What behaviors or choices did students make that you wish to explore the reasoning and thought processes behind?

Faculty Observation Form

Yellow Group

Dialysis Patient Kirk: Has he thought about finding a place to live with lower rent? Is buying groceries for his diet difficult?

Male Sex Worker Taylor: Does he disclose his Hepatitis C status to his clients? Has he sought counseling regarding his past history of abuse?

Domestic Abuse Victim Jody: Has she spoken to a lawyer regarding child support payments? Does she have any friends or other support networks?

Female Methadone Patient Elizabeth: Does she support network and her use of resources? Does she feel that she is stigmatized due to her involvement in the program?

Male Methadone Patient Dave: If the pharmacist runs behind how he is going to make it to his job interview on time? Ask him how he plans to work and attend the program at the same time?

Female Sex Worker Jane: What are her reasons for not seeking mental health services? Does she implement safe sex practices with her clients?

Grocery Store Clerk Mandy: How does she feel when individuals come to buy groceries or home health items and do not have enough money? Is there anything she can do to help these individuals?

Pharmacist Christy: How does she feel when she gets behind with methadone clients and she is aware they have other appointments? How does she feel when people require prescriptions and they are unable to afford them?

Dentist Doug: How does it feel when individuals require intervention but they are unable to afford them? Is there any way he can intervene to these populations to prevent the issues he is seeing in his practice?

OBSERVATIONS

Did students attempt to participate and attempted the tasks of their assigned roles?

Did students communicate with each other during the simulation?

What challenges did you notice that students experienced during the simulation?

What were areas that students demonstrated strengths?

What behaviors or choices did students make that you wish to explore the reasoning and thought processes behind?

Faculty Observation Form

Blue Group

Homeless Man Joe: Does this man have any family or an advanced health care directive?

Homeless Women Mary: Has attempted to have her children returned to her care? Has she sought assistance to leave her partner?

Substitute Teacher Mark: Does he have any family support? Have he or his wife explored different job options?

Elderly Widow: Does she have any family supports? What does she require in a new apartment? Does she have any limitations that will make it difficult for her to live alone? Has she accessed any resources?

Unemployed Trades Worker Tom: Has he received any education from a nurse regarding management of his daughter's diabetes? Is the family participating in grief counseling?

Wife of a Stroke Patient: Does she have any family support? Will obtaining supplies and renovating her home place financial stress on the couple?

Housing Officer Bill: Does he have any information the conditions of the homes? What affects the cost of rent?

Social Worker Judy: What are his/her advocacy roles for the homeless and the elderly**?**

Clinic Nurse John: Is there any additional funding for clinic? Are the resources his patients require readily available?

OBSERVATIONS

Did students attempt to participate and attempted the tasks of their assigned roles?

Did students communicate with each other during the simulation?

What challenges did you notice that students experienced during the simulation?

What were areas that students demonstrated strengths?

What behaviors or choices did students make that you wish to explore the reasoning and thought processes behind?

Appendix G

Faculty Debriefing Guidelines	
Debriefing Focus	**Questions to Facilitate Discussion**
Emotions	• How did you feel during the simulation? • How did you feel about your assigned role? • What challenges did you encounter during the simulation? • Do you feel the simulation required you to use the knowledge you have acquired thus far in the program? • What would you change about your performance during the simulation? • Do you feel the objectives of the simulation were met? • What was your favorite aspect of the simulation? Least favorite?
Specific Learning for Reflection	Utilize the notes on the observation checklist to address the following questions: • I noticed during the simulation you did…..?Could you explain your reasoning/thought process for these actions • I am curious as to why you…?
Linking the Simulation to Practice	• Have you encountered any of the events that were presented during the simulation during your clinical experiences? • If you were to encounter any of these events in your future practice what would you do differently? • Have the events presented during the simulation activity changed your view on the impact of income and social status on population health? • What did you learn from the events of the simulation? • What polices or resources do nurses need to be aware of in order to create supportive environments for the populations presented in this simulation?
Summary	• What new knowledge did you gain? • How will this simulation help you in your future practice? • What do you feel that you can do in your future practice to create supportive environments in order to enhance population health?

Tips for Successful Debriefing

- Remain non-threatening
- Establish a rapport with students
- Refrain from being too critical
- Use open ended questions to encourage discussion
- Reword questions that are not answered by students
- Explore the students' perspectives of the simulation events
- Acknowledge and explore students' feelings
- Encourage the students to find their own answers
- Use silence to encourage reflective responses
- Highlight student strengths

Appendix H

Student Evaluation of Income and Social Status Simulation

Please circle the response that most appropriately reflects your opinion regarding the statements below: Strongly Disagree (1); Disagree (2); Neutral (3); Agree (4) and, Strongly Agree (5).

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. The orientation prior to the simulation activity prepared me for the experience	1	2	3	4	5
2. Having my role assigned to me the evening prior to the simulation activity help me prepare to participate in the experience	1	2	3	4	5
3. Expectations for my role in the simulation experienced were clearly defined	1	2	3	4	5
4. The objectives of the simulation experience were clearly defined prior to the start of the simulation	1	2	3	4	5
5. The briefing session provided me with an opportunity to become familiar with the simulation environment	1	2	3	4	5
6. The simulation environment contained all the props that I required to assume my role in the simulation	1	2	3	4	5
7. The simulation activity enhanced my understanding of the impact of income and social status on population health	1	2	3	4	5
8. The events that occurred during the simulation activity were realistic	1	2	3	4	5
9. The environment created during the debriefing session was safe and non-threatening	1	2	3	4	5
10. The debriefing session was the aspect of the simulation experience which facilitated the most learning	1	2	3	4	5
11. Participating in the simulation experience positively impacted upon my beliefs regarding the influence of income and social status on population health	1	2	3	4	5
12. I will utilize the knowledge and understanding I have gained regarding the effects of income and social status on population health in my future nursing practice	1	2	3	4	5

Please provide additional feedback on the following page

What part of the simulation experience did you enjoy the most?

What suggestions do you have to improve the simulation activity?

Please provide any additional comments regarding the simulation activity below.

Faculty Evaluation of Income and Social Status Simulation

Please circle the response that most appropriately reflects your opinion regarding the statement below. Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4) and Strongly Agree (5)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The orientation prior to the simulation activity prepared me for my role in the experience	1	2	3	4	5
The debriefing component of the faculty orientation session assisted me to effectively debrief the students following the activity	1	2	3	4	5
Expectations for the role of the student in the simulation experienced were clearly defined	1	2	3	4	5
The objectives of the simulation experience were clearly defined prior to the start of the simulation	1	2	3	4	5
The briefing session provided students with an opportunity to become familiar with the simulation environment	1	2	3	4	5
The simulation environment contained all the props that students required to participate in the simulation	1	2	3	4	5
The simulation activity enhanced the students' understanding of the impact of income and social status on population health	1	2	3	4	5
The events that occurred during the simulation activity were realistic	1	2	3	4	5
The environment created for students during the debriefing session was safe and non-threatening	1	2	3	4	5
Students demonstrated learning during the debriefing session	1	2	3	4	5
Participating in the simulation experience positively impacted upon the students beliefs regarding the influence of income and social status on population health	1	2	3	4	5
Students' demonstrated increased knowledge and understanding regarding the effects of income and social status on population health that they can use in their future nursing practice	1	2	3	4	5

What part of the simulation experience did you enjoy the most?

What suggestions do you have to improve the simulation activity?

Please provide any additional comments regarding the simulation activity below.

Appendix I

DIGITAL STORYTELLING ASSIGNEMENT

Following participation in the Income and Social Status Simulation Activity students are required to complete a 3-5 digital story using a technological application of their choice. This digital story should indicate how the simulation experience will assist the student in his/her future practice to promote equity among populations in terms of income and social status. The purpose of this assignment of this assignment is to engage students in the reflective process by having the student take a concrete experience of the simulation activity and create a story based on their personal reflections and observation of the experience. The focus of the assignment is the student's reflection and not the level of excellence in the use of technology.

Deadline: One week following participation in simulation activity

Tips for Completing a Digital Story

Decide on a topic

- Story must have a focus
- The topic should be important to the story teller

Write the Story

- The story should have structure
- Ensure the story is appropriate for the intended audience
- The beginning should describe the situation and the context in which it occurred
- The middle should describe the emotions the situation evoked
- The end should indicate how the storyteller made sense of the experience

Select Multimedia to Tell the Story

- Choose a form that best represents your experience
- You may use a variety of forms of multimedia or may utilize only one
- Remember the importance of privacy and confidentiality
- Do not provide a large amount of text
- Keep it simple and use technology with which you are both familiar and comfortable