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Simulation in Nursing Education: A Family Approach

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Simulation in Nursing Education: A Family Approach

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This is to certify that I have examined this
Doctor of Nursing Practice systems change project
written by

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and have found that it is complete and satisfactory in all respects,
and that any and all revisions required by
the final examining committee has been made.

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Dedications

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To my parents, Duane and Marlene, brother Brian and all of my family members, thank you for understanding when I needed to take time out and not always be there for family functions. Now it's time to have some fun!!

Executive Summary

Purpose Statement: The project's purpose is to determine if the use of low-fidelity simulation (role-play) is an effective teaching-learning strategy to educate sophomore level baccalaureate nursing students on the importance of family assessment and communication. Another purpose for the project was to design and develop a credible and reliable simulation rubric which can be used for faculty to evaluate nursing student abilities to conduct family assessment and communication skills in a simulation setting. Finally, this systems change project (SCP) was designed to help redesign the Minnesota State University, Mankato (MSM) basic undergraduate nursing curriculum by integrating a family as client care emphasis within the curriculum.

Background: There is a gap in the literature as to whether simulation may be used to teach family assessment and communication skills to undergraduate nursing students. Effectiveness of simulation in these two areas requires further research. The new curriculum will focus on a conceptual model of learning rather than content, with the assumption that students will be better prepared to think critically, adjust to quickly changing work environments, and ultimately deepen the learning experience of the students.

Methods: A descriptive study using a pre-survey and 11 week post survey single group design was used to compared pre-intervention data to post-intervention data for sophomore nursing students (N=24) attending a simulation (role-play) teaching-learning experience. Four theories guide this SCP to enhance nursing students' learning about health and families: The Calgary Family Assessment Model (CFAM), Calgary Family Intervention Model (CFIM), Social Learning Theory, and Fink's Creating Significant Learning Experiences.

Research Questions:

1. Will the use of simulation role-play increase the perceived importance of family as client care in sophomore nursing students?

2. Will sophomore nursing students perceive simulation role-play an effective learning tool for family communication and assessment skills?
3. Will the Van Gelderen Simulation Rubric (2010) indicate to be a reliable and valid instrument for measuring nursing student assessment and communication skills?

Hypotheses:

1. Sophomore nursing students will perceive family as client care as more important on post survey versus pre survey results.
2. Sophomore nursing students will perceive simulation role-play an effective learning tool to build family communication and assessment skills.
3. The Van Gelderen Simulation Rubric (2010) will indicate to be a reliable and valid instrument for measuring nursing student assessment and communication skills.

Results: The students' level of perceived importance of family care on post surveys as compared to pre surveys overall showed a trend towards increasing (M=3.79; pre-survey) vs. (M=3.83; post-survey). However, no level of significance was found. The implementation of simulation role-play in undergraduate, sophomore nursing students to build family communication and assessment skills was perceived by the students as a positive learning experience by recommending (3.92/4.0 Likert Scale) that this simulation experience be replicated for future MSM nursing students. All male students endorsed replicating this experience by rating this experience as 4.0/4.0 on a Likert Scale whereas female students endorsed this experience as 3.89/4.0. Using Intra-class Correlation Coefficient, the Van Gelderen Simulation Rubric (2010) was found to have all of its eleven constructs significant at a 5% level (p=.000); indicating agreement among three raters. Cronbach's Alpha indicated that nine of eleven constructs within the rubric were found to have reliability at (.852 or higher).

Two constructs were found to have lower reliability; the construct pertaining to 'Issues & Concerns' was (.599) and the 'Family as Client' construct was (.671).

Implications: Implications for future nursing practice and research are that simulation may be an effective method to transfer family knowledge into clinical practice for nursing students. However, simulation was found to be a better learning experience for male versus female nursing students. With further replication and verification, the Van Gelderen Simulation Rubric (2010) may be used as a tool for nurse educators to measure nursing student ability to conduct family assessment and communication skills.

Further Research: An area requiring further research is to investigate whether simulation may be an effective tool for current practicing nurses and graduate nursing students to learn about family based care.

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Simulation in Nursing Education: A Family Approach

Chapter 1: Background and Significance of Project

Background

Traditionally, nursing education focuses on the practice of nursing with individual patients rather than families (Harmon Hanson, 2005). Maternal health, pediatrics, and community health tend to be focus areas where family content is covered by faculty. Family nursing care has developed over the last 20 years as ways to think about families and work with them (Harmon Hanson, 2005). There is a vast amount of literature available about families; however until recently, there has been very little focus on families in nursing curricula and in health care institutions. Rather, they remain focused on enhancing *patient care.* What about *family care?*

The focus of patient care is evident in the health care environment. However, there are a growing number of leaders in health care institutions which are beginning to believe that family centered care will lead to better health outcomes and reduced costs. They believe this will have more promise over traditional hospital approaches which focus on illness and deficits (Ahmann & Johnson, 2001).

> Recent advances in health care such as changing health care policies and health care economics, ever-changing technology, shorter hospital stays, and health care moving from the hospital to the community/family home, are prompting changes from an individual paradigm to the nursing care of families as a whole (Rowe Kaakinen, Harmon Hanson, & Denham, 2010, p. 4).

The research of Mitchell, Chaboyer, Burmeister, and Foster (2009) indicates that when nursing partners with family members to provide the primary care to the patient; the family's perception of the nurse has significantly improved in the areas of respect, collaboration, and support. They also report that providing adequate support to help family members can reduce their anxiety levels (Mitchell & Courtney, 2004) and improve their coping strategies and may enhance patient recovery (Mitchell et al., 2009). Nurses need to know the patient's family members in order to respect and collaborate with the family unit. The use of simulation may be one way to help nursing students develop skills in order to work with families more effectively.

Significance of the problem

Simpson and Courtney (2002) report nursing students are at risk for inadequate clinical experiences due to diminishing numbers of clinical sites, fewer clinical hours, and shortage of nursing faculty (as cited in Elfrink, Kirkpatrick, Nininger, & Schubert, 2010). Jeffries (2005) found that nursing employers are asking educators to do a better job of preparing nursing students for real world nursing (as cited in Shepherd, McCunnis, Brown, & Hair, 2010). Research has been conducted about using simulation as a teaching strategy in nursing to enhance student performance and cognitive knowledge (Shepherd et al., 2009); student knowledge (Elfrink et al., 2010;); student performance (Gantt & Webb-Corbett, 2010) ; preparation for clinical practice (McCaughey & Traynor, 2010); student self-satisfaction and confidence (Smith & Roehrs, 2009); student self-efficacy (Bambini, Washburn, & Perkins, 2009; Goldenberg, Andrusyszyn, & Iwasiw, 2005); and confidence level (Traynor, Gallagher, Martin, & Smyth, 2010). The use of simulation may provide clinical experiences and enhance nursing students' knowledge before they assess families in clinical practice as a new graduate. The nursing

educational system and instructor's roles are to train nursing students with the knowledge and competence to provide skilled and safe nursing care to our communities, families, and public.

Patient population, intervention, comparison, outcome (PICO) statement.

Does the use of simulation by MSM nursing instructors improve nursing student family communication and assessment skills? The purpose of this systems change project (SCP) is to develop a family focused basic undergraduate nursing curriculum that utilizes family simulation scenarios to enhance student learning. This project will investigate whether the use of simulation through role-play in undergraduate nursing education is an effective teaching strategy to teach undergraduate nursing student's family assessment and communication skills. The PI will also develop a simulation rubric which can be used for faculty to evaluate nursing student abilities to conduct family assessment and communication skills in a simulation setting. This will help the MSM nursing faculty to measure student learning outcomes for their new undergraduate basic nursing program.

Comer (2005) found role-play techniques to serve as an effective substitute or enhancement of simulation technology and provided risk-free opportunities to practice clinical skills and build clinical judgment. The MSM basic nursing curriculum redesign plans to cut their clinical time in half in order to reduce costs and replace it with experiential learning (Fink, 2003) which includes experiences such as clinical time, simulation and laboratory skill time.

Many schools of nursing are using simulation as an educational tool. However, there is a gap in the literature as to whether simulation may be used to teach family assessment and communication skills to undergraduate nursing students. The MSM faculty does not currently teach nursing interventions necessary to provide family as client care. Research has shown that family nursing care is vital in support of the patient and family unit with health care practices

(Kaakinen, Gedaly-Duff, Padgett Coehlo, & Harmon Hanson, 2010; Mitchell, Chaboyer, Burmeister, & Foster, 2009; Mitchell & Courtney, 2004). This SCP also has six distinct project objectives.

Project Objectives

1. To examine nursing student perceptions of the importance of family based nursing care.
2. To enhance nursing student family assessment and communication skills.
3. To enhance nursing student knowledge of ethical and social justice inequities within family units.
4. To help support the MSM nursing faculty in the family simulation lab.
5. To help support the MSM nursing faculty in their work while initiating change within their new curricular design emphasizing family based care.
6. To evaluate the effect of this SCP on the proposed new nursing curriculum at MSM.

Research Questions

1. Will the use of simulation role-play increase the perceived importance of family as client care in sophomore nursing students?
2. Will sophomore nursing students perceive simulation role-play an effective learning tool for family communication and assessment skills?
3. Will the Van Gelderen Simulation Rubric (2010) indicate to be a reliable and valid instrument for measuring nursing student assessment and communication skills?

Hypotheses

1. Sophomore nursing students will perceive family as client care as more important on post survey versus pre survey results.

2. Sophomore nursing students will find simulation role-play an effective learning tool to build family communication and assessment skills.
3. The Van Gelderen Simulation Rubric (2010) indicates to be a reliable and valid instrument for measuring nursing student assessment and communication skills.

Operational Definition of Terms

In this study the operational definition of simulation is defined as: "Activities that mimic the reality of a clinical environment and are designed to demonstrate procedures, decision-making, and critical thinking through techniques such as role playing, and the use of devices such as interactive videos or mannequins" (Jeffries, 2005, p. 97).

The operational definition of family for this systems change project has been adapted from Hanson (2005): Family refers to two or more individuals who depend on one another. The members of the family are self-defined (p. 5). When working with families, nurses should ask patients who they consider to be in their family. The patient should also be asked with their permission, who they want included in their care. The operational definition of family health for this SCP has been adopted from Hanson (2005): "Family health is a dynamic changing state of wellbeing, which includes the biological, psychological, spiritual, sociological, and culture factors of individual members and the whole family system" (p. 5). Family health is one of the many areas nursing can contribute towards to maintain the family and individual family members' health, health routines, support, and resiliency and to build upon the family's strengths.

Comment [a1]: This is not a direct quote. It was a definition that I adapted from their original quote; I am using this version as my operational definition.

Family as client care is defined for the purposes of this study as nursing assessment of all family members. The family is the foreground, whereas the individuals are not mutually exclusive of the whole (Rowe Kaakinen, Harmon Hanson, & Denham, 2010). "The family is

seen as the sum of individual family members and the focus concentrates on each individual" (Rowe Kaakinen et al., 2010, p. 10). For the purposes of this study, the operational definition of Family centered care is defined as "an innovative approach to the planning, delivery, and evaluation of health care that is grounded in mutually beneficial partnerships among health care patients, families, and providers. Patient-and family-centered care applies to patients of all ages, and it may be practiced in any health care setting" (Institute For Family-Centered Care, 2008). Family centered care is based upon the "belief that patients and their families should participate in decisions related to their own health care" (Galvin, Boyer, & Schwartz et al., 2000). The family is part of the overall wellbeing of the patient and essential to their recovery. Family centered care includes planning, delivery, and evaluation of health care by partnering with nurses, patients and families (Mitchell, Chaboyer, Burmeister, & Foster, 2009). Clinical practice is defined as nursing activities which involve and are on behalf of clients and families. Family assessment is defined as the assessment of all family members.

These definitions were discussed with students during the debriefing period of the study. The debriefing period took place with the nursing students as a small informal discussion after viewing two role plays led by the principal investigator (PI).

Educational Inequalities and Promotion of Social Justice

Educational inequalities.

This SCP will be focused on an education equality which is missing from the current basic undergraduate MSM nursing program. A family as client approach to nursing care is an absent thread throughout the curriculum. The only courses which cover this phenomenon are the Maternal, Pediatric, and Community Health courses. Simulation can help bridge this disparity by introducing family based concepts at the very beginning of the curriculum so students have a

foundational understanding that family care is important and the best way to determine family support systems, environment, and life situations.

Social justice.

This SCP will integrate and focus on social justice through opportunities of simulation with multiple families of different ethnic groups and cultures and the students will be able to see the family connectedness through the use of a family tree. Students will learn how to construct a family genogram and ecomap. One role-play scenario will depict an elderly woman who lives alone in her home in a low-socioeconomic setting. The grand-daughter accompanies her to the hospital when they found out she has colon cancer. The elderly woman lacks resources for her health care. The grand-daughter is ignored as part of the care of her grandmother and this hinders the grand-mother's care. Another family scenario portrayed to the students and seen amongst this family genogram and ecomap is a scenario consisting of two women who are sisters. The one sister who is the patient has breast cancer and is practicing her faith as an Orthodox Jew. Her sister who accompanies her practices within the Muslim faith. They bring up many inequalities such as the inability to afford health care costs and basic necessities within the home such as an oral thermometer. These inequalities through the expanded definition of family within this systems change project may help faculty and students enter into a conversation about several key ideas such as: What constitutes family? What are the needs of the family? Who is served? Who is left out? How did the nursing students feel when presented with the particular family-faith dynamics and situation? How has this new knowledge of family influenced your perceptions of family? What role do nurses play in social justice? What role do nurses play in ethical dilemmas? When comparing the two scenarios; what were your initial impressions?

It is important for students to go out of their comfort zones and learn to work with a variety of different family dynamics. The MSM campus is located in a south central Minnesota city and is primarily a rural area consisting of people of a Caucasian European descent. There are minority ethnic groups on campus, but the vast majority of nursing students and campus population are Caucasian.

Many of these students have not had the opportunity to work with people from different ethnicities and cultures. Simulation is one way the students and faculty may engage in conversations during the debriefing period to explore issues of cultural difference, ethnicity, faith, and social justice. This will help nursing students to become more competent, cognizant, and aware. This SCP has the ability to inform the discipline of nursing by deepening the conversation on the importance of family level care and being cognizant of inequities within the health care system. These concepts and conversations between MSM faculty and students may help strengthen the redesign and structure of the basic undergraduate curriculum.

Initiating change

Change is needed in order to optimize health in families and our society as a whole. Change often meets resistance when first introduced into the healthcare and academic environment. As nursing faculty, it is important to stay abreast of the current trends and needs for family and societal health. Hence the need for family based care. Simulation in nursing curricula may be utilized in order to meet those changing needs and advance the field of nursing education (Hober, Manry, & Connelly, 2009).

Current MSM Nursing Curriculum

The MSM nursing department's current curriculum is "designed to provide opportunities for the student to develop a sound theoretical and clinical foundation for the practice of

professional nursing. The graduate is prepared for a variety of roles in the community, including the responsibility for health promotion; prevention of disease; and caring for the sick in the community, the hospital and the home. An understanding of people and how they adapt to the environment is essential to the provision of these health-care services" (MSM, 2010).

MSM's Current Program Goals

- Provide nursing care in a variety of settings.
- Focus on prevention of illness and promotion of health.
- Care for individuals and families with complex problems.
- Provide health teaching and counseling.
- Assume leadership roles.
- Participate in nursing research.
- Demonstrate a caring commitment to people.

MSM's Absent Curricular Thread

MSM and the department of nursing have an admirable mission statement and goals to prepare graduates for nursing practice and to provide an education which will enhance their learning as a person. However, there is an absent thread throughout the nursing curriculum. The absent thread is the importance of family. It is the duty of faculty to teach this important phenomenon to the students. This phenomenon is inherently taught within the Childbearing and Child Health courses during the students' junior year. It is also described in the Mental Health and Community Health courses. However, it is not consistently carried through the rest of the curriculum. Family nursing is foundational to good nursing care and support for families.

Challenges and Problems

The PI of this SCP has noticed students in acute care practice situations where they do not acknowledge family members while providing care towards the patient. They remain focused on the individual and do not consider the vast impact this will have on the family's successfulness and support once they return home. "Nurses have a moral and ethical obligation to involve families in health care…family centered care is only achieved when the family assessment and intervention is based upon responsible and respectful care" (Wright & Leahey, 2005, p.9). This is an important phenomenon which must be acknowledged and role modeled by faculty to help the students understand the positive outcomes which may surface as a result of family focused care. This plan is congruent with the MSM nursing department's strategic plan in helping the students learn how to provide holistic family based care through a framework which helps students learn through theory based concepts and experiential learning.

Summary

In summary, this chapter focused on the MSM School of Nursing's (SON) missing family curricular thread through their undergraduate baccalaureate nursing program. There are many challenges facing nursing practice, in order to promote family health and social justice within the practice environment, this SCP will trial an experiential learning framework of learning through the use of simulation in order to bridge this gap and enhance family nursing practice.

Chapter 2: Theoretical Framework

Theoretical Framework

Four theories guide this systems change project. The four theories selected to enhance nursing students' learning about health and families are: The Calgary Family Assessment Model (CFAM), the Calgary Family Intervention Model (CFIM), the Social Learning Theory (SLT), and Fink's Creating Significant Learning Experiences (CSLE). These theories will be examined through the understanding of their purpose, basic concepts, definitions, relationships and structure, and assumptions (Chinn & Kramer, 2008).

Calgary Family Assessment Model.

The purpose of the Wright and Leahey's (2009) CFAM is to provide an organizing framework for conceptualizing the relationship between families and nurses; which allows for change and healing to begin. Wright and Leahey believe that nurses are ethically and morally obligated to involve families in health care (2009). Their definition of family centered care is when family assessment and intervention and relational practices are achieved responsibly and respectfully. The CFAM blends nursing and family therapy concepts in relationship with the systems theory, cybernetics, communication theory, change theory and biology of recognition. Wright and Leahey's structural framework for their model is as follows:

- A family system is part of a larger suprasystem and is composed of many subsystems.
- The family as a whole is greater than the sum of its parts.
- A change in one family member affects all family members.
- The family is able to create a balance between change and stability.

- Family members' behaviors are best understood from a perspective of circular rather than linear causality (Rowe Kaakinen, 2010, p. 126).

The three major categories of the CFAM model are: structural, developmental, and functional.

Structural components.

In order to understand the family's structural components, common questions asked by a nurse may be: Who is in the family? What is the connection between family members? Ideas such as gender, sexual orientation, rank order, boundaries, subsystems, and family composition are discussed (Rowe Kaakinen, 2010). Tools which help the nurse to understand the family structure include using a family genogram and ecomap. These are instruments which may enhance nursing students' understanding and use of aesthetic knowing.

Developmental components.

The second major concept of assessment in the CFAM is determining the family development in the areas of stage, tasks, and attachments. The stages of family development are:

a) Leaving home: launching single young adults

b) Joining of families through marriage

c) Families with young children

d) Families with adolescents

e) Launching children and moving on

f) Families in later life (Wright & Leahey, 2009)

An example of this area may be asking the family if they have small children. This would be an instance of a family in the 'Families with Young Children' stage. Tasks which may

be occurring would be accepting new family members within their family system and preparing financially for the extra members.

Functional components.

The third stage is assessing family functioning of how one member behaves towards another member in the family. This is regarded as the "here-and-now aspect of family life" (Wright & Leahey, 2009, p. 116). Examples of this stage are assessing activities of daily life, such as, meal preparation, health care, emotional communication, verbal and nonverbal communication, problem solving, roles, beliefs, alliances, and coalitions (Rowe Kaakinen, 2010).

Using the CFAM may help nursing students obtain a clear picture of the family dynamics and issues which may be influencing the health-illness experience of the family.

Calgary Family Intervention Model.

The CFIM is defined as an organizing framework which allows family healing and change to occur by conceptualizing the bond between the family and the nurse (Wright & Leahey, 2009). This model is purposeful in helping emphasize the family-nurse relationship through the correlation between family member functioning and interventions offered by the nurses (Wright & Leahey). "The CFIM is a strength-based, collaborative, nonhierarchical model that recognizes the expertise of family members experiencing illness and the expertise of nurses in managing illness and promoting health" (p. 23).

The CFIM is a strength-based, resiliency-oriented model which assumes that the emphasis is placed upon the families' strengths and resiliency rather than their deficits and dysfunctions. In this fashion, the nurses may select specific types of interventions to the families which will emphasize their strengths and resiliency (Wright & Leahey, 2009). The CFIM

conceptualizes the intersection between family functioning and specific interventions offered by nurses. "The CFIM visually portrays the 'fit' between a domain of family functioning and a nursing intervention; that is, it answers the question, 'Does this particular intervention aim to effect change in a particular domain of family functioning or not?'" (p. 154). There are three domains to the CFIM: cognitive, affective, and behavioral. This model focuses on promoting, improving, and sustaining effective family functioning. Wright and Leahey believe that there is a relationship which shows a change in one family domain, will affect other family domains. They also believe the most profound and sustaining changes occur within the family's own belief system. "In other words, as a family thinketh, so is it" (p. 154).

Wright and Leahey emphasize that it is the role of the nurse to offer interventions to the family. The nurse should ~~not demand~~not demand changes in the way the family functions (2009). This model is grounded on Maturana and Varela's (1992) research which explains the openness to an intervention is dependent upon the family's history, makeup and interactions amongst their members.

An awareness of ethical, cultural, and social justice implications are needed to most effectively utilize this model for individual families. Intervening with the family based upon those understandings are an important aspect in order to increase the effectiveness of the interventions offered. In summary, the CFIM is a means to provide a fit between the domains of family functioning and nursing interventions.

Social Learning Theory.

Albert Bandura's SLT's purpose is to help people understand that the capacity to learn through observation helps learners to understand patterns of behavior without the need to gradually learn through trial and error (Bandura, 1977). The basic conceptual understanding to

this theory is that observation is important for learners to experience, especially when the outcomes are more costly and hazardous. For example, it would not be proper to have a novice medical student perform a surgery without having seen and been taught the proper procedures prior (Bandura). "People are not equipped with inborn repertoires of behavior. They must learn them. New response patterns can be acquired either by direct experience or by observation" (Bandura, 1977, p. 16). People are able to learn by observing the different outcomes which happen as an effect of their actions. The assumption is that these understandings become guides for future action. Most human behavior is learned through modeling. There is a relationship between learning from example and helping people understand the benefits to performing certain types of behavior. It serves as a guide for future appropriate performances of action (Bandura).

Another concept is modeled conduct which varies in effectiveness as based upon the learner's attention, perception, associational pattern (whom one regularly associates), retention process, and ability to turn representations of modeling into appropriate actions. Within any group, some people are more likely to need additional attention than others (Bandura, 1977). Some types of modeling are so "intrinsically rewarding that they hold the attention of the people of all ages for extended periods" (p. 24). There is a relationship between the rate and level of observational learning which is dependent upon the salience and complexity of the situation. The modeled behavior must be structured in a way which is meaningful so that the learner will retain what is learned. Types of observational learning are mainly categorized as imaginal and verbal (Bandura). According to Bandura (1977), visual imagery plays an important role during early periods of observational learning where verbal skills are lacking. An example would be in situations where nursing students lack the understanding of medical terminology and proper etiquette when working with families in the health care environment. Retention in humans may

be enhanced when they "actually get to perform modeled response patterns and are less likely to forget them than if they neither think about them nor practice what they have seen" (p. 26).

Skills are not perfected through observation and trial-and-error alone, rather they are learned through self-corrected adjustments based upon feedback from others (Bandura, 1977). Learners are also more likely to adopt the modeled behavior if it results in outcomes which are rewarding rather than a punishing effect. Therefore, simulation scenarios in nursing education will be most effective when modeled in ways which show different outcomes when using different behaviors during the same scenario situation.

Fink's Creating Significant Learning Experiences.

The MSM faculty prepared and designed a new curriculum which reflected family as client care within the curriculum, Fink's (2003) model of significant learning was utilized in order to create courses which will enhance student learning. There are three phases to Fink's (2003) successful course design:

Initial Design Phase: Build Strong Primary Component

Step 1. Identify important **situational factors**

Step 2. Identify important **learning goals**

Step 3. Formulate appropriate **feedback and assessment procedures**

Step 4. Select effective **teaching/learning activities**

Step 5. Make sure the primary components are **integrated**

Intermediate Design Phase: Assemble the Components into a Coherent Whole

Step 6. Create a thematic **structure for the course**

Step 7. Select or create an **instructional strategy**

Step 8. Integrate the course structure and the instructional strategy to create an **overall scheme of learning activities**

Final Design Phase: Finish Important Remaining Tasks

Step 9. Develop the **grading system**

Step 10. De-Bug **possible problems**

Step 11. Write the course **syllabus**

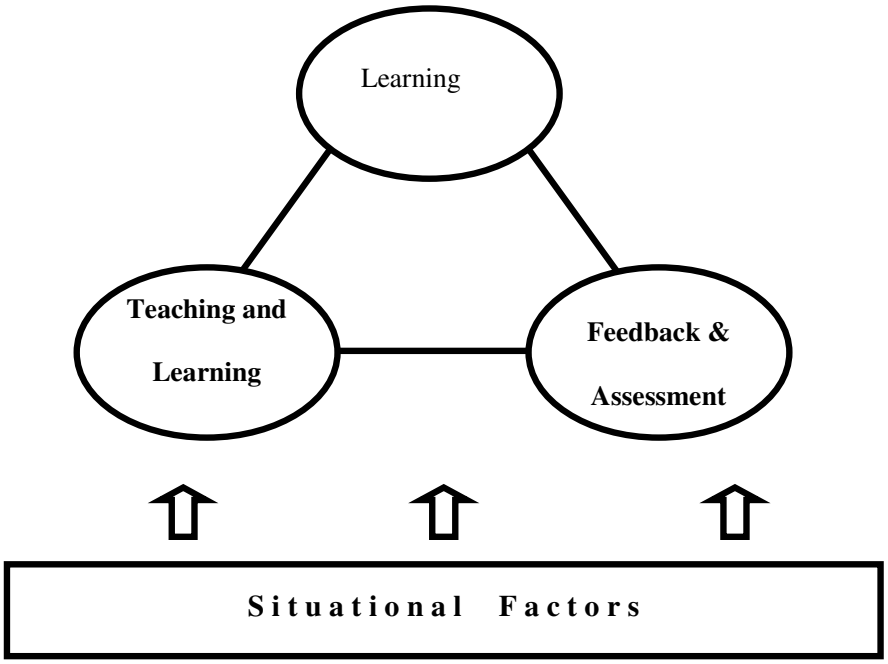
Step 12. Plan an **evaluation** of the course and of your teaching

Benefits of Fink's Model

The benefit of using Fink's (2003) model is that it will allow nursing faculty to see if there is a break down between the learning goals, teaching/learning activities, and feedback and assessment. Table 1 describes how to begin using the model. First the teacher must gather the situational factors such as how many students are in the course and what types of prior knowledge the student has about the course concepts. The next step is to decide what the learning goals are for the course. The newly created course design for this system's change project will be the NURS 335 Family and Societal Nursing Inquiry within the newly proposed MSM's nursing curriculum. Using the principal of "Backward Design" as described in Table C3 shows how decisions around feedback and assessment will be made according to how the students have achieved the learning goals.

Table 1

The Key Components of Integrate Course Design (Fink, 2003)



Critical Analysis of Theories and Models

The CFAM, CFIM, SLT, and Fink complement one another in that the SLT provides an understanding of how to set-up observational/modeling learning for students. The CFAM and CFIM provided a structure for the PI in understanding how nursing students should assess families during the simulated experiences. Whereas, utilization of Fink's (2003) model of significant learning helped the PI and MSM nursing faculty to create courses which will enhance student learning. ~~These four~~These four theories provided an optimal learning environment for novice nursing students.

The SLT provides a framework for educators to use with students who learn best through hands-on-experiences and opportunities which provide role-playing, modeling, and observing (Bandura, 1977). However, the SLT does not provide an ideal learning experience for those who thrive from solitary learning techniques or opportunities for learning through written word.

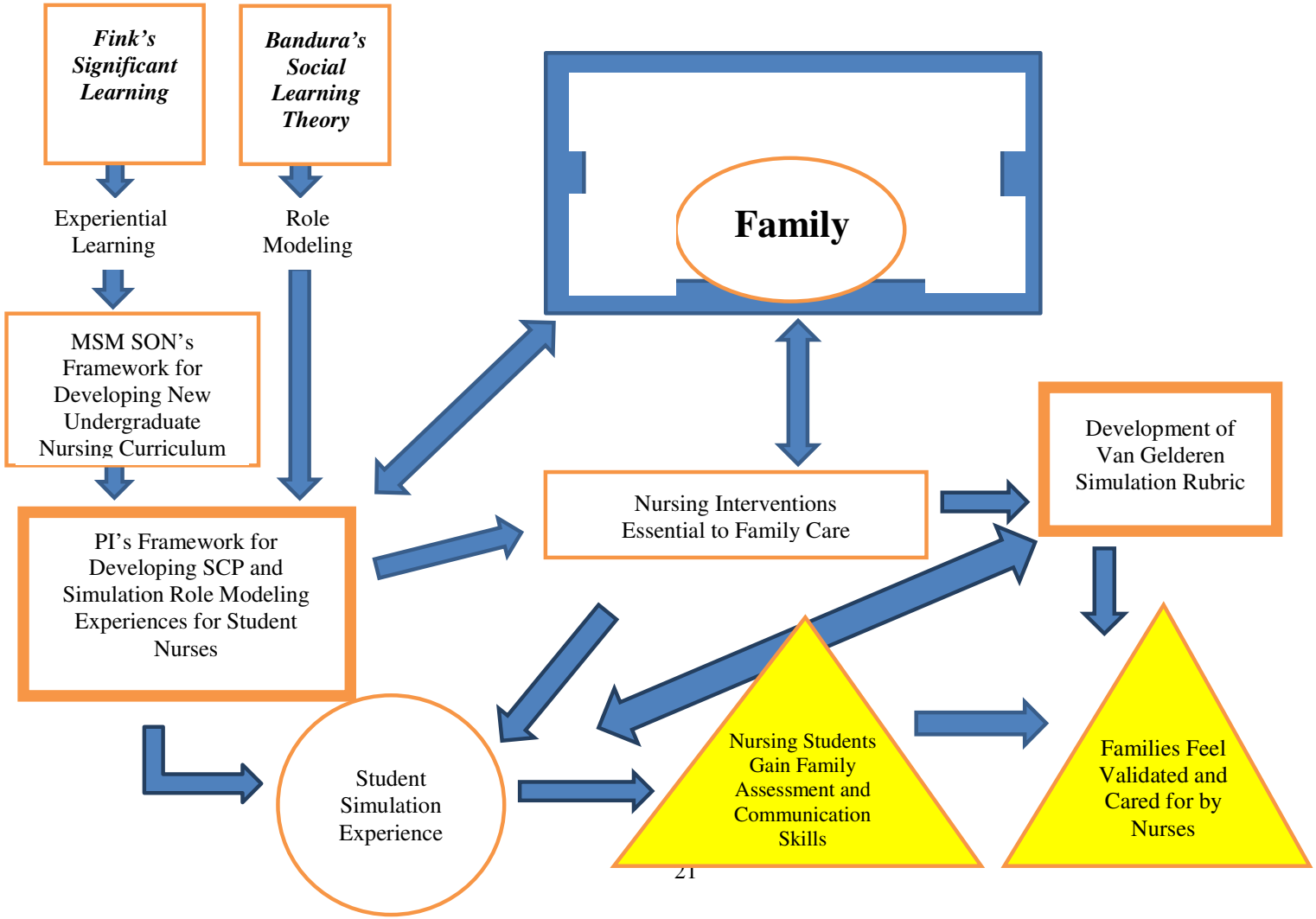
The CFAM and CFIM will be used during the simulation experience to guide nursing students in learning how to assess the family. They will provide a framework of how to conduct interviews and admission processes, and suggestions of interventions which may help the students gain insight in what types of services, teaching, and support this family may need. The CFAM will also support new knowledge of the family's structural components, support systems, and environment through the utilization of family genograms and ecomaps. The CFIM will guide the students in becoming more selective and individual in interventions offered to families. However, neither the CFAM nor CFIM caters towards the individual needs of the learner. They do not provide a framework upon which the student may build upon for his/her learning style preferences. Therefore, the combination of the CFAM, CFIM and SLT will enhance the learning needs of the student learner.

Fink's (2003) model of significant learning helped the PI understand that experiential learning experiences such as simulation will foster student learning by providing hands-on experience sessions to help students develop family communication and assessment skills.

SCP Framework

The framework used by the PI to conduct this SCP encompassing all four models and theories (SLT, CFAM, CFIM, & CSLE) are described in Diagram 1. This graphic representation is meant to describe how the four models and theories served as a guide to develop the simulation experiences for nursing students and development of the Van Gelderen Simulation Rubric (2010) which describes essential nursing interventions for family care (discussed in chapter 3). Where by the overarching goal is to have the nursing students gain family assessment and communication skills as well as future families cared for by these students to feel validated and cared for.

Diagram 1. SCP Framework for Developing Student Nurse Abilities to Provide Family Focused Care



Literature Review and Synthesis

Simulation in nursing education.

Simulation holds great promise in building professional competence, decreasing anxiety, increasing learning potential, and building critical thinking and clinical judgment skills. The complexity of nursing clinical practice and education curricula may be enhanced through the use of simulation. Simulated learning experiences can help students prepare for the rigors of the nursing profession and demands of patients and families in a fast-paced technical patient care environment. Exposure to simulation can help students and new graduates to develop professionally by solving real-world problems (Jeffries, 2007) where they will learn to share the decision-making process with their colleagues, patients and families.

Simulation provides opportunity for professional and personal growth in working with families with diverse backgrounds in which they may not have the opportunity to work with in a rural community or time-constrained clinical environment (Lasater, 2007). The students' clinical judgment (Lasater, 2006) is improved by students being exposed to ethnic and cultural-based care that may otherwise be unobtainable. Providing scenarios which introduce these family based concepts in a non-punitive demeanor will also give the students opportunity to learn from mistakes, allow students the ability to analyze and clarify clinical reasoning, and improve clinical judgment (Lasater, 2006).

Simulation imitates some aspect of reality which helps students who find the hospital units perplexing for learning new skills (Kolb & Shugart, 1984). Within the simulation setting; family scenarios may be developed to help students with specific kinds of learning needs. As students' competence and confidence increase through simulation, their progress will enhance as

they move from simulation learning experiences towards reality in the real world (Kolb & Shugart, 1984).

Gropelli, Billings, and Kowalski (2010) report that simulation may be used to help health care workers through ethical dilemmas in health care. It helps them critically think about the situations through the use of role-play which encouraged the nurses to examine their thoughts and feelings and use ethical decision-making models.

Currently, simulation is a popular method of teaching in nursing curricula (Gropelli, Billings, & Kowalski, 2010). High-fidelity simulation has been successful in clinical judgment in emergency situations, but does show limitations in situations such as therapeutic communication. "Participants sometimes feel awkward talking to a manikin, and communication from the manikin is limited…Teaching participants about the interactions of an ethics committee and effective communication with patients and families regarding ethical issues requires the use of humans instead of manikins" (Gropelli et al., 2010, p. 104). Through role-play, the participants immerse themselves into the case scenario which will help them critically think about the situation so they may form an educated ethical decision based upon those experiences (Gropelli et al., 2010).

Family influence on health.

Friedman, Bowden, and Jones (2003) report that families are the single greatest social institution which influences a person's health. Families support the patient and become the 'voice' of patients in situations when they are unable to communicate or speak for themselves (Granberg, Engberg, & Lundberg, 1999). Families need information, reassurance, and proximity to the patient (Lee & Lau, 2003). Nurses have been underestimating their role in satisfying the needs of family members (Verhaeghe, DeFloor, Van Zuuren, Duijnstee, & Grypdonck, 2005).

Simulation enhancing family nursing skills.

There is a vast amount of literature which pertains to simulation in nursing education as positively enhancing educational outcomes (Grady, Kehrer, Trusty, Entin, & Brunye, 2008); however there are limited research resources which show how simulation may be used to develop family nursing skills. The PI has found no research to-date that specifically measures nursing student family assessment and communication skills through simulation.

Tapp, Moules, Bell, and Wright (1997) conducted family skills labs using role-play to facilitate development of family nursing skills in undergraduate nursing students. Their students were described as enthusiastic about the learning process for family skills. They found the skills labs useful and found that the labs helped to increase their knowledge and confidence. The labs also provided context on which they built a repertoire of how to intervene with families and became more aware of the collaborative nature of nurse and families. However, this study did not compare the students' perception of family as client care by comparing the students' perceptions of family based care prior to their skills labs. Tapp et al. (1997) provided a non-evaluative learning experience for the students and did not report whether they gave students feedback on their development of their family nursing skills. The PI believes evaluation of family assessment and communication skills in nursing students is an area requiring investigation. The PI plans to contribute to the body of nursing literature by developing a rubric which will address critical nursing actions needed to provide family care.

Through a workshop environment, Green (1997) developed a nursing course to teach students to "think family". Green used a combination of teaching modalities such as discussions, role plays, student presentations, case analyses, assigned readings and short lectures. Green reports this workshop environment and deliberate use of classroom teaching strategies and

assignments were designed to promote effective family nursing skills. Students reported that they found the course took them into a family experience that they had never experienced before. The students reported feeling engaged and appreciated the family content. They felt the course changed the way they practice. Again, a weakness to this study is that no formal means of evaluating student abilities to provide competent family assessment and communication skills were investigated. The PI plans to add to the body of nursing literature by developing a credible and reliable rubric which can be used for faculty to evaluate student learning outcomes of family assessment and communication skills.

Although low-high fidelity simulation continues to be validated within the literature as an effective teaching strategy in nursing education; there is no known research which measures student perceptions of importance of family care before and after a role play simulation which shows differences between patient focused and family focused communication and assessment techniques. There is also no known simulation rubric developed to help support and give feedback to nursing students on their family nursing skills within a simulation setting. Rubrics offer student's support by identifying areas which they are excelling in their family nursing actions and areas that could use development.

Another reason to develop a family assessment and communication rubric for simulation is based upon the CCNE acknowledging the importance of using debriefing tools and giving feedback to students after performing in simulated scenarios. The CCNE states simulation is a valuable element of clinical preparation however they believe actual patients form the most important component of clinical education (2008).

Meeting Needs of Learners.

Meeting learning needs of undergraduate nursing students is the goal for implementing the new curriculum at MSM. Simulation as a learning style provides a learning environment for experiential learning and is ideal for critical thinking development (Wu, Tham, Lau, Tan-Toh, & Tan, 2010). In order to prepare nursing students for a challenging work environment, nurse educators need to help nursing students to build thinking skills by exposing them to diverse clinical situations; simulation is one way to bring clinical experiences to an educational setting.

According to Rassool & Rawaf, (2007), educators have known for years that learning styles affect the way students learn. Significant relationships have been identified on preferred learning styles through gender and personality. Students who excel through concrete experiences, active experimentation, and prefer to take a practical or experiential approach may be attracted to new challenges and experiences through active learning such as role-play.

A key understanding when working with male versus female nursing students is the awareness that men and women approach things differently (Brady & Sherrod, 2003). According to Belenky, Clinchy, Goldberger, & Tarule (1986) (as cited in Brady & Sherrod, 2003) women have more difficulty than men in asserting their authority and expressing themselves in public so that others will listen. Men are more likely to rely on a rights morality; whereas women may rely on a morality of responsibility and care. Men are also more likely to reach a decision more quickly than women; whereas women are more likely to collaborate with others (Belenky, Clinchy, Goldberger, & Tarule, 1986). In a clinical situation such as simulation, faculty should help male students avoid making premature judgments or decisions by modeling critical thinking that includes weighing alternatives. Male nursing students benefit from professional role models; ideally a faculty member can fulfill this role (Brady & Sherrod).

Women can also benefit from simulation by having opportunities to take leadership roles, use critical thinking skills, and reach decisions while collaborating with others.

Summary

In summary, this chapter shows how this SCP is grounded on several key models and theories such as the CFAM, CFIM, SLT, and basing the newly proposed curriculum on Fink's CSLE frame work. The literature review shows evidence of how simulation may be used to enhance nursing student learning outcomes and practice standards. The chapter also highlights how there are gaps and limited research resources which show how simulation may be used to develop family nursing skills; which are why this is an important area which requires further investigation and research in nursing education.

Further synthesis of literature review findings suggest that there is also no known simulation rubric developed to help support and give feedback to nursing students on their family nursing skills within a simulation setting. Rubrics offer student's support by identifying areas which they are excelling in their family nursing actions and areas that could use development. The PI plans to contribute to the body of nursing literature by developing a credible and reliable rubric which can be used for faculty to evaluate student learning outcomes of the student's ability to conduct family assessment and communication skills in a simulation setting.

Chapter 3: Project Methodology and Design

Chapter three will describe the methodology used for the SCP, project design and framework, sample, nursing guidelines used within the study, description of why change needed to occur within MSM's curriculum, desired learning outcomes for students, timeline of SCP activities, resources required for the success of the SCP, Return on Investment, budget, site support, ethical consideration for the SCP, and evaluation plan.

Methodology

The start of the new MSM basic undergraduate family focused curricular design will not begin until the spring of 2012. In order to help inform the MSM Undergraduate Curriculum Committee design and structure the new curriculum, a course within the current curriculum called N220 Foundation of Nursing Science incorporated content specific to family nursing, assessment of families, and proper communication techniques with families. During the fall of 2011, a group of 24 sophomore level nursing students took the N220 Foundations of Nursing Science course from the principal investigator as the course instructor. The N220 course was modified to be more family focused and helped nursing students develop family assessment and communication skills through theory based concepts discussed in the course and experiential learning seminars including simulation role-plays to practice their skills hands-on. The pilot helped to inform the MSM faculty through the process of developmental evaluation about the strengths and weaknesses within the curriculum before it was implemented in the spring of 2012 to the first cohort group of students.

All 24 nursing students were required to take the N220 Foundations course and were required to participate in the simulated family focused scenarios, but were not be required to participate in the SCP study. Institutional Review Board (IRB) was obtained through St.

Catherine University (SCU) and MSM prior to the start of the pilot study. No ramifications were incurred by a student if he/she chose not to participate. Confidentiality was also insured. First the students participated in observing simulated role-plays, participated in small group discussions, and then had the opportunity to practice family assessment and communication skills. The students who volunteered to participate in the study were asked to fill out a pre-survey and post-survey questionnaire about their perceptions of family based care as a way to help inform MSM faculty for future course development and experiential learning experiences. After the simulation experiences and pre-post surveys, the students received instruction about family care in the N220 course in the traditional lecture format and the students had accompanying reading assignments and small group activities. This ensured that the perception of family care, communication and assessments experienced by the students were based from their simulation experiences and not prior knowledge learned in a classroom setting.

Project Design

The intentions of this systems change project were to help develop a curricular thread in MSM's nursing curriculum to emphasize the need for family nursing skills. The proposed project was designed to help inform and support the nursing faculty on the importance of this inclusion into the nursing curriculum and to signify the improvement of family assessment and communication skills of the nursing students. It also intended to enhance the learning experience of the student learner and help develop his/her clinical practice repertoire. The SCP was designed to use simulation role-play and ask student's their perceptions of the effectiveness of simulation in nursing education as an experiential experience to inform critical understandings about family assessment and communication skills. Finally, this systems change project helped shape the care of future families of being 'heard' and validated while being cared for by these

future nurses. The main goal of this SCP is to revolutionize the scope of nursing practice by including the family as part of the assessment to the point that it becomes second nature and the care is...family focused.

Sample

This system's change project used a convenience sample of (n=24) undergraduate nursing students attending MSM who were in their first semester of their baccalaureate nursing program. All students were taking a nursing fundamentals course. A total of 25% of the nursing cohort was male students. According to Male Nursing Scholarships (2011) and Minority Nurse (2010), out of 2,909,357 registered nurses, men occupied only 5.8% of the total nursing population. The male nursing population is expected to increase roughly up to 2 to 3% each year (Male Nursing Scholarships). According to MSM's undergraduate program coordinator, J. H., (personal communication, March 14, 2012), MSM's average percentage of male baccalaureate nursing students from the years 2003-2011 has been 9.8% with a range of 7-11%. This high percentage of male students enabled the PI to conduct a separate analysis to detect difference in outcomes based on gender using an independent t-test.

Data Collection Instruments

Surveys.

A 21- item pre-survey (Appendix F) with demographical data was collected from the (n=24) nursing students followed by a 20-item post-survey (Appendix G). Both surveys were based upon a 4.0 Likert Scale. The pre-survey was distributed during the first week of class for the students by the site mentor. The post-survey was distributed after the students observed the faculty-led role plays of a patient focused assessment versus a family focused assessment and after the students had the opportunity to practice their own family assessments.

Van Gelderen Simulation Rubric.

An 11-item simulation rubric (Van Gelderen, 2010) (Appendix A) was used to measure nursing students' abilities to effectively communicate and assess families. The rubric consisted of 11 different constructs to measure student performance. Each construct was measured based upon a 3-point Likert Scale. For example, the student was given 3 points indicating 'positive characteristics'; 2 points indicating 'characteristics needing improvement' or 1 point for 'undesirable characteristics' for each of the 11 constructs. A perfect score would have been indicated by 33/33 points or 3 points for each construct.

Simulation Learning

The simulation learning is detailed as follows: the students were introduced to the SLT through the use of observing two simulated role-plays. The principal investigator played the role of a nurse while two student volunteers played roles of the patient and a family member. The goal was to engage nursing students in the development of skills which help them recognize how to incorporate family as client care. The sophomore nursing students were asked to critique the role of the nurse (PI) using the Van Gelderen Simulation Rubric (2010) (Appendix A) and offer feedback during the debriefing session based upon the following criteria:

a) Communication style
b) Positioning
c) Eye contact
d) Collection of family history and data
e) Addressing family issues and concerns
f) Use of medical jargon
g) Nursing involvement
h) Use of a family genogram and ecomap

i) Incorporating the family in the care of the hospitalized patient

j) Addressing the needs of the family after hospitalization

k) Offer of support and hope

l) Provided care based on a family as client care approach

m) Addressed family health routines

The first simulated scenario exemplified the nurse's interaction with the family in the hospital environment during an admission process focused on 'patient centered care' (the family was not even acknowledged) and the second scenario focused on using the family as client care approach (the family was invited to contribute) during the admission process. During the debriefing time, the nursing students explained their critique and contrasted the differences seen between the two approaches. Afterwards, they practiced their family assessment skills. They role played and took turns in portraying the role of the nurse, patient, and family. This helped give them a new understanding and perspective by having an opportunity to play all the roles.

It was hypothesized that giving opportunities of simulation through role-play to nursing students and allowing them to practice how to effectively work with families, obtain data through family interviews and debrief about their interventions offered towards families helped nursing students to develop their family assessment and communication skills repertoire.

Components of Project

There were several tasks which needed to be completed by the principal investigator prior to engaging students in learning about family as client care. The PI needed to:

A. Develop an 'Anderson family' genogram and ecomap which was used during simulated experiences of this study to enhance nursing student knowledge of family: ethical dilemmas, social justice inequities, cultural differences, dynamics, health

concerns, health routines, resources, support systems, and interrelationships among members.

B. Develop a simulation rubric focusing on nursing student family communication, family assessment, and integration of family as client care. The simulation rubric was called the Van Gelderen Simulation Rubric: Communication, Assessment, and Integration of Family Based Care (Van Gelderen, 2010).

C. Develop two role play scenarios for students to see a nurse completing an assessment in two ways:

    a. Individually focused (standard admission)

    b. Family focused (exemplar admission)

During the simulation day with the students, the PI provided a safe learning environment which provided an opportunity for the group of students to compare and contrast the two styles of nursing assessments and debrief about which was style was more holistic and helpful for the patient and family situation.

The nursing students were instructed by the PI in how to construct family genograms and ecomaps, assess family health routines, provide effective communication strategies with families, learn how to assess families, learn how to offer hope and support to families, and how to provide care based upon a family as client care approach.

Following the simulation experience, the PI compared the data in order to inform the MSM faculty on the areas in need of improvement and strengths for the proposed curriculum based upon findings of this study. Later, the student's conducted a family health assessment while being videotaped. The videotaped recordings helped MSM nursing faculty to see and evaluate student performances and content knowledge of family based care. This helped MSM

faculty perceive how simulation may be used to influence family content and delivery methods within the new curriculum.

Finally, three nursing faculty viewed the videotapes of the student nurses' (n=21) family assessments and evaluated student performance utilizing the Van Gelderen Simulation Rubric (Van Gelderen, 2010). Only 21 nursing students were evaluated; three student performances were thrown out due to the students conducting their performance on a later date because they were absent on the day the rest of the student cohort was videotaped during the research study. Research reliability and rigor was maintained by having three nurse educators independently evaluate the nursing students' family assessment techniques. The three nurse educators consisted of the PI, and two site mentors who were doctorally prepared nurse educators with current nursing clinical practice backgrounds.

Time was reserved with the students and principal investigator for the students to observe the role play scenarios so they had an opportunity to learn how to conduct a professional admission and gather family assessment data and history using a family genogram and ecomap. Allowing the students to have an opportunity to see the PI role model how to address family strengths, environment, needs, resources, and relationships helped the student nurse to become more adept towards understanding how to individualize care and support for family members' needs.

The PI also reserved time to work with the student volunteers and practiced how to play the part of the family member and patient in the role play scenarios in order for this experience to be more meaningful towards the project and student learning.

An electronic health record was developed by the PI in order to demonstrate to the students how to construct a family genogram and ecomap using a database. The simulated family was given the name the 'Anderson family'.

Pilot Project

Prior to working for MSM, the PI worked as a nursing instructor for a private Catholic college which was also experiencing a gap in their curriculum by not ingraining family assessment and communication skills into their undergraduate nursing curriculum. The principal investigator taught a combined Maternal-Child Health course for this college. Upon the completion of the Maternal-Child Health course in the spring of 2010, the PI invited 14 nursing students to a simulation day depicting the same scenario as described earlier where the first simulated scenario exemplified the nurse being patient focused and the second scenario the nurse was family focused in her cares. These students were asked to use the Van Gelderen Simulation Rubric (2010) to help identify strengths and weaknesses with the two types of approaches to nursing care.

During the debriefing time, the nursing students explained that during the first scenario, they thought the nurse looked abrupt, technical and did not incorporate the family member at all. The students felt the first scenario really didn't seem much different than what they have found in their clinical practice experiences as what nursing care typically looks like. However, they felt during the second scenario the nurse provided better care and was more personally involved, holistic and did not rush to get her assessment done. The nurse involved the family and therefore the assessment information became much more accurate because of this. Other terms used by the students to describe the second scenario were: the nurse was more compassionate, family was involved, the nurse was respected by the patient and family member, the nurse went beyond her

assessment questions and explained what she was doing which made the family feel more comfortable and built a therapeutic relationship. The nursing students used the Van Gelderen Simulation Rubric (2010) to score the differences they had seen with the nurse's ability to interact, assess, and communicate with the patient and family in simulation scenario one and two. For the first scenario, the students scored the nurse ranging from 13-22/33 and the second scenario scores ranged from 31-33/33. This exercise verified that the students understood the difference between appropriate nursing actions and inappropriate nursing assessment and communication with families.

The students overall reported the role-playing practice times were helpful and useful in helping them develop family assessment and communication skills. They cautioned that this content would have been more helpful at the beginning of the semester rather than then end because it was useful information for them when working with families during the Maternal-Child course's clinical practice experiences. Overall, the students' perception scores ranked the importance of nurses working with families as very important or important on both their pre and post surveys during this exercise. This did not surprise the PI since they had already accumulated family content and experience through the Maternal-Child Health nursing course for the majority of the semester. This knowledge was already instilled from their experiences with this course prior to their simulation day. However, this teaching-learning exercise was helpful and affirming that more simulation role-plays should be developed to help nursing students gain the confidence in their skills to appropriately and effectively help families. This new knowledge was brought to the MSM faculty during conversations and design of their new family focused curriculum.

Nursing Guideline: Evidenced-based project

MSM is accredited by the American Association of Colleges of Nursing (AACN). The AACN's credentialing members formed a group called the Commission on Collegiate Nursing Education (CCNE)**.** This agency is responsible for holding schools of nursing accountable for the quality of education nursing students receive and insures that students are receiving information from credible and knowledgeable faculty. The CCNE has made positive statements regarding the use of simulation in nursing education within their AACN Essentials (2008) (Appendix D).

CCNE's (2008) view of family nursing practice and simulation.

The CCNE describes that nursing's role has emphasized partnerships with families and that nurses need to have the leadership and communication skills needed for making decisions to provide high quality nursing care. In order for students to have the necessary skills for high quality nursing care they need to be proficient and competent in technical skills such as computers, data gathering devices, and other technological supports for patient care. Baccalaureate programs need to have patient care technologies and information management systems in order for graduates to communicate effectively to provide safe interdisciplinary care based upon research and clinical evidence to inform practice decisions (AACN, 2008).

Simulation experiences augment clinical learning and compliment direct care opportunities to assist students in learning the role of the professional nurse. "Reality-based simulated patient care experiences increase self-confidence in communication and psychomotor skills, and professional role development (AACN, 2008, p. 34). The CCNE also acknowledges the importance of using debriefing tools and giving feedback to students after performing in simulated scenarios. The CCNE states simulation is a valuable element of clinical preparation however they believe actual patients form the

most important component of clinical education. Although, they acknowledge that over time, the balance of use of simulation and patient care may change (2008).

Why Change is Needed

The MSM School of Nursing academic redesign is necessary to meet current and future goals of delivering a modern nursing curriculum which focuses on family and helps the school of nursing resolve issues of limited access to quality clinical sites and experiences; clinical site and patient burden; impact of financial shortage on faculty and student teaching-learning; inconsistency across clinical groups; time lost to traveling to clinical sites; high expense of clinical education; and low credit hour generation associated with clinical education.

The last redesign by the MSM School of Nursing occurred in 1991. In addition, future goals of incorporating experiential learning through simulation and service-learning will also be enhanced as the School of Nursing strives to reduce nursing clinical time, the most expensive element of nursing education, by 50%. The redesign of the entire basic undergraduate nursing curriculum (Appendices C, E) will strive to have the following qualities for education: evidence based and cost effective; encourage active learning in the larger classroom setting and throughout experiential activities; provide students with learning activities that are designed with an emphasis on improving learning outcomes and help consistency across clinical groups; ensure sufficient time on task and monitor student progress – increased exposure to interactive learning, competency based learning, and meeting student needs and incorporate AACN Baccalaureate Essentials, Minnesota Board of Nursing (MBN) Abilities and practice standards.

Student demands and desired learning outcomes.

The redesign of the new basic undergraduate nursing program will replace up to 50 % of the current clinical time with other experiential learning activities, such as, simulation, service-

learning and technology driven education. The hope is to admit more students into the cohort at one time while maintaining the level of desired learning outcomes the MSM faculty expects the nursing students will obtain. The MSM faculty and administration believe the use of simulation will enhance student learning through using both learning and evaluative experiential learning activities. The ability to reduce the costs associated with 50% of the clinical teaching faculty will be used to hire faculty for simulation and to serve as lead nursing faculty for the 19 proposed nursing courses in the new curriculum.

The vision, mission, value statements, undergraduate nursing program purpose and outcome statements have been redesigned as of April 16, 2010 in anticipation of moving towards a more streamlined and modern nursing curriculum which will focus on:

- Expanding knowledge of experiential teaching-learning strategies
- Develop simulated learning
- Design evaluation rubrics and other measures of assessment and evaluation
- Utilize an electronic medical record

Timeline of Project Activities

The proposed time line of the systems change project activities is outlined in Appendix B Table B1.

Resources needed

In order to make this SCP successful, many resources were needed. Ideally, the principal investigator would have received a grant to fund the hiring of actors to play the role of the patient and family member during the simulated role-play. This would have ensured realistic family portrayal and consistency of delivering the same information and situation to all groups of nursing students. However, a grant was not obtained for the purpose of this study, so the PI asked

for two nursing students to volunteer their time to portray these family members. These student volunteers were not part of the sophomore student cohort. The same two student volunteers remained for all role-play group sessions. This helped to maintain the consistency of the same role plays across all student groups.

Another resource which needed attention was to obtain expert assistance from two statisticians to help the PI analyze the data collected from the pre and post surveys as well as the Van Gelderen Simulation Rubric (Van Gelderen, 2010). These statisticians were utilized as a resource to inform MSM faculty for future needs and changes to the proposed curriculum.

Permission to use the MSM simulation lab was obtained from the MSM Simulation Director and MSM Nursing Department Chair. Supportive nursing faculty colleagues were pivotal in aiding to the successfulness of this study and the students' overall learning outcomes.

Finally, the principal investigator was given adequate time to develop the scenarios, advise and coach the actors, develop the family genogram, ecomap, and biographies and then analyze the data once the study was complete.

Returns on the investment (ROI)

A cost benefit analysis was conducted (Appendices H-L) based upon MSM's simulation coordinator, C. R., (personal communication, October 22, 2011) stated cost basis (Appendix I). Two examples are compared to determine the Return of Investment (ROI) while comparing the current curriculum (example 1) with a ROI ratio of 28% (Appendix J) as compared to the new curriculum with an ROI ratio of 32% (Appendix K). Even though, the new curriculum will have a reduction in the total number of credits earned by each student, the SON's new family based and experiential learning curriculum will be a great investment for the consumer (student). It was determined that the break-even point will be that the University needs to maintain at least 6

students/clinical group (Appendix L) in order to not lose any money. The new curriculum will have a high probability of maintaining fiscal responsibility and sustainability within the Minnesota State Colleges and University System (MNSCU).

The ROI may increase even more if the School of Nursing were to entertain the idea of increasing the enrollment size of each clinical group to 10-12 students through rotations of clinical practice and experiential simulation learning time. This would help keep the clinical practice site sizes to 8 students per clinical day and rotate the rest of the students through an experiential learning experience such as simulation in order to be more cost effective. This system would also still maintain and facilitate essential learning skills and needs of the students for nursing practice.

Through this cost-benefit analysis it has shown that there are many reasons for the students to receive full utility for their investment of time and money into their undergraduate education at MSM. MSM is the cheapest known school within the state of Minnesota (Appendix H) to offer a baccalaureate education using a comprehensive, experiential learning environment focusing on family based care. MSM can confidentially offer an outstanding nursing degree with the promise to the consumer of receiving total utility for their education.

The returns on the investment of time in developing this SCP are endless. There is a future for this family based nursing educational system. This systems change project helped inform MSM faculty and future nurses about the implications for simulations in nursing education and helped nursing students develop competent family assessment and communication skills. The future of family care is of outmost importance and is critical to the survival of the family unit. Nurses need this knowledge in order to help keep the family unit strong, safe, and secure.

Budget

In order for this SCP to be successful, a budget needed to be developed in order to account for expenses. A detailed description of these expenses is described in Appendix M. The PI was held accountable for the expenses incurred and time invested by the stakeholders. The budget of the MSM simulation and laboratory budget (Appendix I) also needed to be considered; there were several hours of in-kind donations invested in this project in order to keep the cost of this SCP to a minimum. Both the PI overseeing the SCP and the stakeholders (faculty) felt this was a wise investment of their time.

Evidence of site support

There was evidence of site support through MSM's nursing faculty colleagues by allowing the study to occur on the campus. It was also marked by approvals from the Department Chair and Undergraduate Nursing Program Director. The system's change project received approval by the MSM IRB and SCU's IRB.

MSM faculty have acknowledged that there is room for growth and improvement within the nursing curriculum, they were open to change, and supported a colleague who wanted to strive for excellence within the institution for the betterment and wellbeing of the students and the nursing profession. This project validates the faculty's concern for the general public's safety and holistic care that the students and faculty strive for. The nursing faculty has supported the valuable use of student time within their lab setting in order to conduct this SCP.

Ethical considerations

After IRB approval, the students were approached by one of the principal investigator's site mentors during the fall of 2011 and given this project description. The site mentors were senior nursing faculty members who did not have any direct teaching responsibility with this

cohort of students. The students were fully informed and understood that their participation was voluntary. All (n=24) nursing students consented to the study voluntarily. The welfare of the students was taken very seriously. Ethical considerations were adhered to, to insure that the learning environment was non-punitive to their grades, and they did not feel harmed physically, emotionally, or spiritually. The SCP was designed to enhance the students' learning potential for the benefit of the future families they will provide care. The students were also informed that they could discontinue the study at any time and receive no repercussions due to wanting to exit the study. The information given to the students about family assessment was done in a respectful manner which added to the role modeling behaviors supported by the SLT (Bandura, 1977).

Ethical principles

The American Nurses Association (ANA) (2001) Code of Ethics for Nurses guided this SCP. Many of the ethical principles served as rudders for the success of this project. The codes of ethics imperative for this system's change project were:

A. ***"The nurse's primary commitment is to the patient, whether an individual, family, group or community"*** (ANA, 2001, p. 9). Teaching nursing students to address the family as the 'client' will help ensure that the plan of care addresses patient and family interests and concerns. This requires recognition of the family's networks and relationships (ANA, 2001). The student nurse learned how to maintain professional boundaries by establishing appropriate limits to their relationship while protecting, promoting, and restoring the health of the family. The student nurse collaborated with the individuals of the family in order to gain their mutual trust, respect and shared decision making about their care (ANA, 2001).

B. ***"The nurse promotes, advocates for, and strives to protect the health, safety, and rights of the patient"*** (ANA, 2001, p. 12). The student nurse learned the importance of discretion, privacy and confidentiality while working with family members. The rights of the nursing students as participants in research were also upheld by the PI by obtaining IRB approval at MSM and SCU. The students had the right to an informed decision, to comprehend the information and to know how to discontinue participation in the research study without penalty (ANA, 2001).

C. ***"The nurse is responsible and accountable for individual nursing practice and determines the appropriate delegation of tasks consistent with the nurse's obligation to provide optimum patient care"*** (ANA, 2001, p. 16). The nursing students learned through their new knowledge of family assessment skills the importance of being accountable and responsible for their nursing judgment and actions. They learned to prioritize and individualize each family's needs. This built upon their future skills for their clinical practice repertoire (ANA, 2001).

D. ***"The nurse participates in establishing, maintaining, and improving health care environments and conditions of employment conducive to the provision of quality health care and consistent with the values of the profession through individual and collective action"*** (ANA, 2001, p. 20). The nursing students learned how to provide environments for the families which respected their values of human dignity, health, and independence. This will show future families that this nursing student exhibits qualities of a morally good nurse by showing compassion and patience. The nursing student strived to be responsible for contributing towards a moral environment which will encourage respectful interactions with colleagues, support of peers and will identified any

needs which should be addressed for the family (ANA, 2001). Nursing students learned the importance of being responsible and involved in their practice environment and working conditions. These insured appropriate practices were being conducted and taught them to not compromise the standards of practice or personal morality (ANA, 2001).

E. ***"The nurse participates in the advancement of the profession through contributions to practice, education, administration, and knowledge development"*** (ANA, 2001, p. 22)**.** Nursing students were able to apply lessons learned through assessing and interacting with family members towards advancing their clinical practice. They had an opportunity to build leadership and mentorship roles by participating in future professional organizations, committees within their future places of employment and to be active in their civic duties through the local, state, national and international initiatives (ANA, 2001).

F. ***"The nurse collaborates with other health professionals and the public in promoting community, national, and international efforts to meet health needs"*** (ANA, 2001, p. 23). The nursing students learned the importance of remaining committed to their profession in the promotion of health, welfare, and safety of all people (ANA, 2001).

Evaluation Plan

This SCP of incorporating the family as client approach to nursing care marked new territory for the MSM Baccalaureate nursing students and nursing faculty. The evaluation process needed to be in the form of developmental evaluation to help support an organizational change within the Baccalaureate nursing curriculum plan. The developmental evaluation process helped guide the learning environment (Patton, 2011) for the adult learners.

Developmental evaluation centers on situational sensitivity, responsiveness, and adaptation. Developmental evaluation process is used in situations of high uncertainty, unpredictability, and uncontrollability (Patton). This form of evaluation helps make sense of what emerges under conditions of complexity, interpretation of dynamics, documentation, and interdependencies as innovations unfold (Patton).

Developmental evaluation supports development. "Developmental evaluation guides action and adaptation in innovative initiatives facing high uncertainty. Where predictability and control are relatively low, goals, strategies, and what gets done can be emergent and changing rather than predetermined and fixed. Continuous development occurs in response to dynamic conditions and attention to rapid feedback about what's working and what's not working. "Developmental evaluation supports innovation by bringing data to bear to inform and guide ongoing decision making as part of innovative processes" (Patton, 2011, p. 36).

Developmental evaluation supported the change of a new nursing curriculum. A formative or summative evaluation process would not provide the feedback needed during the developmental stage of the MSM curriculum. Conditions when formative evaluation would be used would be when an individual or group is trying to improve something. Summative evaluation is used when a group or individual is trying to test or evaluate something which is pre-existing. Simulation was used as a way to gather data to inform faculty of the students' learning and understanding of family care. A comparison of the current curriculum and proposed curriculum can be referenced in appendices B-F.

Indicators of Project Success

The principal investigator was open and flexible to change through the SCP which helped meet the needs of the student learners and enhanced the development of the new nursing

curricula. Developmental evaluation helped to indicate and inform changes needed during the project. Indications of success came from nursing student learners who understood and demonstrated knowledge which reflected the following:

1) An understanding that families:
    a. As a whole is greater than the sum of its parts
    b. Are affected when there is a change in one family member
    c. Are able to create a balance between change and stability (Rowe Kaakinen, 2010, p. 126).
2) Nurses may offer specific types of interventions which:
    a. Emphasize family strengths and resiliency
    b. Respect family health care routines
    c. Address family concerns and priority needs
    d. Offer genuine support and hope
    e. Address follow-up care needs
    f. Be individualized according to the information gathered in the family's genogram and ecomap
3) Nursing students engrained the importance of families when working with individuals in the clinical practice environment
4) Students perceived nursing family as client care as more important on the post survey versus the pre survey results

Summary

This SCP was designed to enhance and build nursing student knowledge and family communication and assessment skills. Simulation was evaluated for effectiveness in building nursing student knowledge, empathy, and understanding of family needs by being able to

observe the interactions of the nurse and family, critique the actions of the nurse, learn about family assessment strategies and then provide an opportunity for the students to practice and shape their own family assessment skills. The SCP was implemented through site support from MSM nursing faculty and department chair. It was supported by the MSM simulation coordinator through use of equipment and lab space. The observation of role-playing by students was conducted during N220 class hours to respect and honor student learning and value of time.

The role-playing modeled by the PI was reported from students that it contributed in helping them understand the importance of family care and to treat the family as the client rather than remaining focused on the individual alone.

Chapter 4: Data Analysis and Results

The data analysis of this project describes information collected from sophomore nursing students using pre and post-surveys to measure student perceived importance of family care. The analysis also includes an evaluation by three professors on student competence of family assessment and communication skills using the Van Gelderen Simulation Rubric (2010). Topics included within this chapter are the demographic characteristics, survey reliability and validity, data analysis according to each research question, findings, and study limitations.

Demographic characteristics

The participants in the study included mostly female (75%) with ages ranged from 18-26 (83%). Table 3 describes the demographical characteristics of the participants.

Table 3

Demographical Information of Respondents

Category	Frequency	Percent	Cumulative Percent
Has been family member of a patient			
No	2	8.3	8.3
Yes	22	91.7	100.0
Licensed Practical Nurse			
No	24	100.0	100.0
Yes	0		
Holds a Nursing Assistant License			
No	14	58.3	58.3
Yes	10	41.7	100.0
Prior Baccalaureate Degree			
No	23	95.8	95.8
Yes	1	4.2	100.0

Survey Instrument Reliability and Validity

A 21- item pre-survey with demographical data was collected from the (n=24) nursing students followed by a 20-item post-survey. Both surveys were based upon a 4.0 Likert Scale.

Cronbach's Alpha.

Using Cronbach's Alpha, it was determined that Pre-survey questions 5 – 13 were determined to gauge the internal consistency of the survey with a result of (.765). The Cronbach's alpha for the Post-survey questions 1 – 9 were determined to gauge the internal consistency of the survey with a result of (.729). Because these values exceed 0.7, which is an accepted standard for good reliability (UCLA: Academic Technology Services & Statistical Consulting Group, 2007, November 24), the Pre Q5 – 13 and Post Q1-9 appear to be consistent and appropriate to use.

Content Validity.

Content validity was obtained through 4 family research experts: S.V. (PI), site mentors Dr. A.C. and Dr. N.K., as well as family content expert Dr. S.D.

Survey Data Analysis

Pre-survey and post survey results were analyzed using a paired samples t-test with SPSS software (Appendix N). Data was collected from (n=24) sophomore nursing student responses on both the pre and post surveys. Initially, the PI did not intend to investigate the differences seen between male versus female students, but with such a small sample size and large higher male predominance in the class, it was decided to run an independent t-test to check for differences between the male versus female responses. The PI also investigated through the literature that there are no known current studies which investigates student perceptions of importance family care and even more specifically the differences seen between the male and female gender.

Analysis of Pre-post Survey Results.

After running the analysis using the paired samples t-test for the pre-post surveys; there was no significance difference in any of the questions. This may be due to the sample size for the data set was too small. A Type II error may have resulted giving a false negative result. "A Type II error occurs when the null hypothesis is not rejected by the study even though a difference actually exists between two groups" (Burns & Grove, 2005, p. 451). The sample size was determined using G*Power for the paired samples t-test and it was suggested that the sample size should be at least (n=54) versus the current sample size of (n=24).

Research Question 1.

Will the use of simulation increase the perceived importance of family as client care in sophomore nursing students?

According to the statistics shown in (Appendix N) and Table 4 there were no significant differences to show an increase in perception of the importance of family as client care. However, there was a trend showing an increase in perceived importance in the following areas:

a) Including family members as part of the care of the patient
b) Nurses need to understand family beliefs about healthcare
c) Nurses need to interact with families in a healthcare setting
d) Nurses need to address family issues and concerns during a patient admission
e) Nurses need to address ethical and social justice inequities within family units

The reason there may not have been a significant difference in this data collection may be due to the fact that the students already came into this SCP with a belief that family care was important. The range of these beliefs ranked very high by these students with a mean of 3.79/4.0

Likert Scale (Table 5). Other possibilities of why there was no significant difference may be attributed towards a possible Type II error and a small sample size.

However, males were found to have significant differences ($p=\leq.05$) in the descriptive statistics using an independent t-test for the pre-survey question number nine shown in bold font (Appendix P). Appendix O depicts the comparison of male versus female student responses and (Appendix P) depicts an independent t-test analysis for the pre-survey.

Female respondents endorsed the importance of the nurse to address family issues and concerns more than male respondents. A significant difference was found for Post Q5 (shown in bold in Appendix R) between male ($M=3.17$) and female nursing students ($M=3.83$), $t(22)= -2.14$, $p=.001$). The means are different at a 5% significance level. The same item was found to be significantly different for the Pre survey Q9 ($M=3.61$), $t(22)= -2.14$, $p=.044$). These means were also different at a 5% significance level. Table 6 depicts these statistics.

Some of the family constructs slightly decreased, although none of them showed a significant difference of a decrease. These areas were:

a) Nurses need to collect family HX during an admission
b) Nurses need to address follow up care during an admission
c) Nurses need to offer support and hope to family members
d) Nurses need to address family health routines

Again, the reason there may not have been a significant difference in this data collection may be due to the fact that the students already came into this SCP with a belief that family care was important. They showed a mean range in these areas of 3.58- 3.88/4.0 on a 4.0 Likert scale out of this data set (Table 5). A possibility of why there may have been a slight decrease of importance in these areas may be due to the instructor-led role-plays may not have emphasized

the importance of these areas; thereby decreasing the perceived importance by the students. For future role plays, it would be important to emphasize and show how these family constructs are equally important, very useful and needed for family care.

Table 4

Group Means and Standard Deviations of Perceived Importance of Family Care Collected from Pre-surveys and Post-surveys

Student perceived importance in…	Pre Mean	Pre SD	Post Mean	Post SD
Including family[1]	3.79	.415	3.83	.381
Understand family beliefs[2]	3.67	.482	3.88	.338
Interact with family[3]	3.79	.415	3.88	.338
Address family issues[4]	3.42	.830	3.67	.482
Address ethical & social justice inequities[5]	3.25	.794	3.46	.721
Collect family HX[6]	3.88	.338	3.79	.415
Address follow-up Care[7]	3.75	.532	3.75	.442
Offer support and hope[8]	3.88	.338	3.83	.381
Address family health routines[9]	3.67	.565	3.58	.584

Note. pre= pre-survey results; post= post-survey results; SD= Standard Deviation. This table represents data collected from both the pre and post-surveys of all students (male and female). The pre-survey was distributed during the first week of class; the students had not been given any family content or experienced any simulation. Whereas, when the post-survey was distributed, the students had the opportunity to observe faculty-led role plays of patient versus family focused care assessments. The students also had opportunity to practice family focused assessment skills and communication.

[1] Represents student perceived importance of including family members as part of the care of the patient.
[2] Represents student perceived importance of thinking that nurses need to understand family beliefs about healthcare.
[3] Represents student perceived importance of the need for nurses to interact with family members in a health care setting.
[4] Represents student perceived importance that nurses need to address family issues and concerns during a patient admission.
[5] Represents student perceived importance that nurses need to address ethical and social justice inequities within family units.
[6] Represents student perceived importance that nurses need to collect family history during an admission.
[7] Represents student perceived importance that nurses need to address follow-up care during an admission.
[8] Represents student perceived importance that nurses need to offer support and hope to family members.
[9] Represents student perceived importance that nurses need to address family health routines.

Table 5

Male vs. Female Means and Standard Deviations of Perceived Importance of Family Care Collected from Pre-surveys and Post-surveys

Student perceived importance in…	Pre Male Mean	Pre Male SD	Post Male Mean	Post Male SD	Pre Female Mean	Pre Female SD	Post Female Mean	Post Female SD
Including family[10]	3.67	.516	3.83	.408	3.83	.383	3.83	.383
Understand family beliefs[11]	3.67	.516	3.67	.516	3.67	.485	3.94	.236
Interact with family[12]	3.67	.516	3.67	.516	3.83	.383	3.94	.236
Address family issues[13]	2.83	1.169	3.17	.408	3.61	.608	3.83	.383
Address ethical & social justice inequities[14]	2.67	1.033	3.0	1.095	3.44	.616	3.61	.502
Collect family HX[15]	3.83	.408	3.83	.408	3.89	.323	3.78	.428
Address follow-up Care[16]	3.33	.816	3.17	.516	3.89	.323	3.83	.428
Offer support and hope[17]	3.83	.408	3.67	.516	3.89	.323	3.89	.323
Address family health routines[18]	3.67	.516	3.5	.837	3.67	.594	3.61	.502

Note. pre= pre-survey results; post= post-survey results; SD= Standard Deviation. The pre-survey was distributed prior to the student given any family content or experienced any simulation. When the post-survey was distributed, the students had the opportunity to observe faculty-led role plays of patient versus family focused care assessments and practice family focused assessment skills and communication.

[10] Represents student perceived importance of including family members as part of the care of the patient.
[11] Represents student perceived importance of thinking that nurses need to understand family beliefs about healthcare.
[12] Represents student perceived importance of the need for nurses to interact with family members in a health care setting.
[13] Represents student perceived importance that nurses need to address family issues and concerns during a patient admission.
[14] Represents student perceived importance that nurses need to address ethical and social justice inequities within family units.
[15] Represents student perceived importance that nurses need to collect family history during an admission.
[16] Represents student perceived importance that nurses need to address follow-up care during an admission.
[17] Represents student perceived importance that nurses need to offer support and hope to family members.
[18] Represents student perceived importance that nurses need to address family health routines.

Table 6

Male vs. Female Perceived Importance of Family Care; Independent t-test Analysis Comparing Pre-survey and Post-survey Results

Student perceived importance in…	Pre Male Sig. (2-tailed)	Pre Male 95% Confidence Interval Diff.		Post Male Sig. (2-tailed)	Post Male 95% Confidence Interval Diff.		Pre Female Sig. (2-tailed)	Pre Female 95% Confidence Interval Diff.		Post Female Sig. (2-tailed)	Post Female 95% Confidence Interval Diff.	
Including family[19]	.406	-.575	.241	1.000	-.381	.381	.491	-.710	.377	1.000	-.436	.436
Understand family beliefs[20]	1.000	-.481	.481	.081	-.592	.037	1.000	-.551	.551	.252	-.818	.262
Interact with family[21]	.406	-.575	.241	.081	-.592	.037	.491	-.710	.377	.252	-.818	.262
Address family issues[22]	**.044***	-1.532	.023	**.001****	-1.047	-.286	.170	-2.001	.445	.008	-1.102	-.231
Address ethical & social justice inequities[23]	.034	-1.493	.062	.071	-1.279	.057	.130	-1.859	.304	.237	-1.757	.535
Collect family HX[24]	.736	-.392	.281	.783	-.358	.470	.770	-.486	.375	.782	-.385	.496
Address follow-up Care[25]	.023	-1.027	.084	.605	-.551	.328	.160	-1.410	.299	.648	-.657	.435
Offer support and hope[26]	.736	-.392	.281	.223	-.590	.145	.770	-.486	.375	.358	-.763	.319
Address family health routines[27]	1.000	-.564	.564	.696	-.692	.470	1.000	-.565	.565	.769	-.987	.765

Note. pre= pre-survey results; post= post-survey results. . **= 5% Significant difference level (p=.044); **=5% Significant difference level (p=.001).* This table represents data collected from both the pre and

[19] Represents student perceived importance of including family members as part of the care of the patient.
[20] Represents student perceived importance of thinking that nurses need to understand family beliefs about healthcare.
[21] Represents student perceived importance of the need for nurses to interact with family members in a health care setting.
[22] Represents student perceived importance that nurses need to address family issues and concerns during a patient admission.
[23] Represents student perceived importance that nurses need to address ethical and social justice inequities within family units.
[24] Represents student perceived importance that nurses need to collect family history during an admission.
[25] Represents student perceived importance that nurses need to address follow-up care during an admission.
[26] Represents student perceived importance that nurses need to offer support and hope to family members.
[27] Represents student perceived importance that nurses need to address family health routines.

post-surveys using and independent t-test to compare male vs. female responses. The pre-survey was distributed during the first week of class; the students had not been given any family content or experienced any simulation. Whereas, when the post-survey was distributed, the students had the opportunity to observe faculty-led role plays of patient versus family focused care assessments. The students also had opportunity to practice family focused assessment skills and communication.

Based upon these results in the paired sample t-test it is not safe to conclude that the sophomore nursing students perceive family as client care as more important on post survey versus pre survey results. There was a trend suggesting that students may find family as client care more important after experiencing the simulation role-plays and practice time, but due to a small sample size and possible Type II error, this research question found no significant difference in this sample.

Research Question 2.

Will sophomore nursing students perceive simulation role-play an effective learning tool to build family communication and assessment skills?

According to (Appendix Q), post-survey question number 10 (PostQ 10); the female students had a mean of 3.89 and male 3.67 on a 4 point Likert scale that they found the simulation role plays contributed towards their understanding of family as client care. The students also felt (PostQ11) that the simulation debriefing time was beneficial to their learning (female and male average mean- 3.67/4.0). PostQ 12 shows that they also found the opportunity to practice the family focused case assessments to be very important to their learning (female mean 3.78/4.0 and male mean 3.67/4.0) respectively. In PostQ13, the students felt that having the opportunity to play the role of the family member contributed towards their learning about family members' feelings (female mean 3.26/4.0 and male 3.17/4.0). Finally, when asked if they would recommend this simulated family assessment experience for future nursing students (PostQ 20) they replied with an overwhelming approval of (female mean 3.89/4.0 and male mean 4.0/4.0). Another success came from the (Appendix Q) data of PostQ 18; when the students

were asked if they felt it was important to learn more about family as client care they reported a 3.83/4.0 on a Likert scale. This response supports the use of simulation in nursing education to build family skills. Tables 7 & 8 depict these statistics.

Table 7

Means and Standard Deviations of Group, vs. Male and Female Perception of Simulation as an Effective Learning Tool for Family Care- Post-survey Data

Student perceived importance in…	Male Mean	Male SD	Female Mean	Female SD	Group Mean	Group SD
Understanding family care[28]	3.67	.516	3.89	.323	3.83	.381
Debriefing beneficial for learning[29]	3.67	.516	3.67	.594	3.67	.565
Practice time important[30]	3.67	.516	3.78	.428	3.75	.442
Understand family members' feelings[31]	3.17	.753	3.26	.752	3.25	.737
Recommend simulation for future[32]	4.0	.000	3.89	.323	3.92	.282
Important to learn more about family care[33]	3.83	.408	3.83	.383	3.83	.381

Note. SD= Standard Deviation; Group= both male and female students. This table represents data collected from the post-survey where students had the opportunity to observe faculty-led role plays of patient versus family focused care assessments. The students also had opportunity to practice family focused assessment skills and communication.

[28] Represents student perception that simulation role-play contributed towards his/her understanding of family as client care.
[29] Represents student perception that simulation debriefing time was beneficial to his/her learning.
[30] Represents student perception that being given the opportunity to practice family focused assessments was important to him/her
[31] Represents student perception that having the opportunity to play the role of a family member contributed toward his/her learning about family members' feelings
[32] Represents student perception that he/she would recommend this family simulation experience for future nursing students.
[33] Represents student perception that he/she felt it was important to learn more about family as client care.

Table 8

Measuring Male vs. Female Perception of Simulation as an Effective Learning Tool for Family Care Using an Independent t-test- Post-survey Data

Student perceived importance in…	Male Sig. (2-tailed)	Male 95% Confidence Interval Difference		Female Sig.(2-tailed)	Female 95% Confidence Interval Difference	
Understanding family care[34]	.223	-.590	.145	.358	-.763	.319
Debriefing beneficial for learning[35]	1.000	-.564	.564	1.000	-.565	.565
Practice time important[36]	.605	-.551	.328	.648	-.657	.435
Understand family members' feelings[37]	.757	-.846	.624	.762	-.919	.697
Recommend simulation for future[38]	.416	-.167	.389	.163	-.050	.272
Important to learn about family care[39]	1.000	-.381	.381	1.000	-.436	.436

Note. This table represents data collected from both the post-surveys using and independent t-test to compare male vs. female responses. Before the post-survey was administered, the students had the opportunity to observe faculty-led role plays of patient versus family focused care assessments. The students also had opportunity to practice family focused assessment skills and communication.

[34] Represents student perception that simulation role-play contributed towards his/her understanding of family as client care.
[35] Represents student perception that simulation debriefing time was beneficial to his/her learning.
[36] Represents student perception that being given the opportunity to practice family focused assessments was important to him/her
[37] Represents student perception that having the opportunity to play the role of a family member contributed toward his/her learning about family members' feelings
[38] Represents student perception that he/she would recommend this family simulation experience for future nursing students.
[39] Represents student perception that he/she felt it was important to learn more about family as client care. Move this right below to Table 8

Based upon these results in the post survey the data suggests that there was no significant difference between male and female students in whether they found simulation role play an effective teaching tool. Both male and female students overall ranked their simulation experience as very high. Male students overwhelmingly supported that they would recommend this family simulation experience for future nursing students, through ranking this experience as very positive by indicating a 4.0/4.0 on a Likert Scale. Female nursing students also recommended having this family simulation learning exercise for future nursing students (3.92/4.0). Overall, the sophomore nursing students found simulation role play an effective teaching tool to build family communication and assessment skills.

Hypotheses

According to this sample (n=24) of nursing students, two hypotheses from this SCP can be supported. This first supported hypothesis is that Sophomore nursing students found simulation role-play an effective learning tool to build family communication and assessment skills. The hypotheses that Sophomore nursing students will perceive family as client care as more important on post-survey versus pre-survey results cannot be supported due to lack of significance found between the pre and post-survey results. There was a trend suggesting that students may find family as client care more important after experiencing the simulation role-plays and practice time, but due to a small sample size and possible Type II error, this hypothesis cannot be supported.

Comment [t2]: Should this be the start of a new paragraph?

Regression Analysis

After the students observed the two instructor-led role plays they debriefed about the differences and similarities they had seen between a patient focused vs. family focused assessment. One week later, they were asked to practice using family assessment and communication skills in a lab setting. During that time they took turns playing three different

roles: nurse, family member and patient. Within the post-survey, one significant correlation was found using a regression analysis (β=.73, $p<.001$) which found when students found it important to be able to play the role of a family member to help understand family members' feelings; they also found it important to have the opportunity to practice family focused care assessments. The significant value is bolded in Appendix S. For future, it would be important to also ask the students on the post-survey if they felt it was important to play the roles of the patient and nurse; this would help investigate whether there was a correlation with their perceived importance of their need to practice family assessments in the lab setting.

Debriefing Sessions

After the sophomore nursing students observed two instructor-led role plays of a nurse providing a patient focused assessment (scenario 1) versus how to provide a family focused assessment (scenario 2) some common themes emerged from nursing students such as: proper etiquette on how nurses introduce themselves to family and patients; proper communication techniques and use of terminology; family history and assessment gathering; how to utilize family ecomaps and genograms as assessment tools; nurse demeanor; and how nurses may address social justice inequities and ethical issues with family members.

Prior to the simulation role-plays, the nursing students were unaware of how to conduct a family assessment in a clinical setting. They were unable to visualize how to include family members within an admission assessment. During one of the debriefing sessions, a nursing student commented that she "reads in her nursing texts that nurses should include family members within the health care setting, but the texts do not provide examples on how to do it". She said by watching the instructor-led role-plays she was able to observe proper ways of how nurses can build relationships with family, how to introduce oneself to family members and build a rapport.

Research Question 3.

Will the Van Gelderen Simulation Rubric (2010) indicate to be a reliable and valid instrument for measuring nursing student assessment and communication skills?

Van Gelderen Simulation Rubric (2010) Reliability and Validity.

An 11- item rubric consisting of 11 constructs was used to measure nursing student family communication and assessment abilities. All 11 constructs were based upon a 3.0 Likert Scale. Three nurse researchers with family clinical practice and education focused expertise independently graded the (n=21) nursing students using the Van Gelderen Simulation Rubric (2010). Using Cronbach's alpha and intraclass correlation coefficient, all eleven constructs were found to have significant reliability at the 5% level (p=.000). Table 9 depicts the statistics of these scores.

Cronbach's Alpha.

Using Cronbach's Alpha, it was determined that nine of the eleven constructs scored (.852) or higher. Because these values exceed 0.7, which is an accepted standard for good reliability (UCLA: Academic Technology Services & Statistical Consulting Group, 2007, November 24), the constructs measuring communication; nurse positioning; eye contact; family history and data collection; addressing nursing involvement; addressing needs for follow-up care; offer of support and hope; and assessing family health routines appear to be consistent and appropriate to use.

For the construct of addressing family issues and concerns; Cronbach's Alpha indicated that there was generally low agreement between the raters. Cronbach's Alpha was used to determine whether there would be an increase even if one rater was taken off. It was found that by removing any of the raters would not increase the Cronbach's Alpha score of (.599). This

further delineates that there was generally low agreement in this category. It was also found that the construct regarding whether the student provided care based upon a 'family as client' approach was found to be inconsistent between the raters. One rater (Rater B) deviated as compared to the other two raters (Raters A & C). This indicates that Rater B needs additional training in order to evaluate that construct.

Intraclass Correlation Coefficient.

Intraclass Correlation Coefficient (ICC) was used to measure whether there was an agreement or consensus, between the three raters using the Van Gelderen Simulation Rubric (2010) to evaluate the same (n=21) nursing students. "ICC has advantages over correlation coefficient, in that it is adjusted for the effects of the scale of measurements, and that it will represent agreements from more than two raters" (StatTools, 2012). According to StatTools (2012), ICC can be interpreted as follows: "0-0.2 indicates poor agreement: 0.3-0.4 indicates fair agreement; 0.5-0.6 indicates moderate agreement; 0.7-0.8 indicates strong agreement; and >0.8 indicates almost perfect agreement". All eleven constructs of the Van Gelderen Simulation Rubric (2010) were found to be reliable using the average measures of ICC which were found to be (.852) or higher.

Reliability using ICC for the construct pertaining to the appropriate use of terminology when working with families found that all raters scored all students a 3/3 (positive characteristics) and hence, there was perfect agreement among all three raters.

Content Validity.

Content validity for this rubric was obtained through 3 family research experts: Site mentors Dr. A.C. and Dr. N.K., as well as family content expert Dr. S.D.

Table 9

Measuring Reliability of the Van Gelderen Simulation Rubric (2010)

Constructs of the Van Gelderen Simulation Rubric (2010)	Cronbach's Alpha	ICC: Single Measures	ICC: Average Measures	F Test with True Value 0 Single Measures Significance	F Test with True Value 0 Average Measures Significance
Communication Style[40]	1.000	1.000	1.000	.000**	.000**
Use of Terminology[41]	XX	XX	XX	XX	XX
Position[42]	1.000	1.000	1.000	.000**	.000**
Eye Contact[43]	1.000	1.000	1.000	.000**	.000**
History & Data Collect[44]	.854	.657	.852	.000**	.000**
Family Issues[45]	.599	.342	.609	.007**	.007**
Nurse Involvement[46]	.853	.659	.853	.000**	.000**
Follow-up Care[47]	.953	.877	.955	.000**	.000**
Offer Support & Hope[48]	.943	.846	.943	.000**	.000**
Family Client Care[49]	.671	.398	.665	.001**	.001**
Family Routines[50]	.939	.839	.940	.000**	.000**

*Note. **=5% Significant difference level (p=.000).* XX= indicates perfect agreement among all raters. This table represents data collected from student performances on ability to provide family focused care assessments and communication. The data collected is measured at a 95% confidence interval.

[40] Student use of therapeutic communication skills and attentive listening
[41] Student use of appropriate terminology for family members
[42] Student use of appropriate positioning during conversation with family such as eye level
[43] Student use of appropriate eye contact such as: respectfulness, attentive, non-invasive
[44] Student use of family genogram and ecomap to identify family support and resources
[45] Student addressing any family issues and concerns such as: stressors, needs, resources, support
[46] Student addresses with family their perceived needs of nursing involvement in care and decision making
[47] Student addresses family needs for follow-up care and gave possible resources for discharge
[48] Student offered family support and hope
[49] Student provided care based upon a 'family as client' care approach
[50] Student addressed family's health routines such as: routines, behaviors, values, relationships, celebrations, traditions and spirituality

Rubric Data Analysis.

Based upon these results in the ICC (Table 9) all eleven constructs were significant at the 5% level (p=.000) which indicated agreement between the three raters using the Van Gelderen Simulation Rubric. Cronbach's Alpha indicated nine of the eleven constructs of the Van Gelderen Simulation Rubric (2010) provided reliable and consistent results for assessing family assessment and communication in (n=21) nursing students. Two of the constructs (family care, family issues) need further refinement and modification in order for this simulation tool to be used consistently amongst raters. One construct measuring terminology was scored the same by all three raters, giving each student a perfect score of 3/3; according to MSM's statistical consultant, H. N., (personal communication, March 21, 2012); "there is perfect agreement among all three raters". The PI will continue to conduct this simulation experience with future student groups at MSM and continue to gather data on the effectiveness of this teaching-learning strategy for family care.

If the raters continued to have no reliability with the same two constructs (family issues, family as client care) after replicating this same simulation experience with another cohort of students; then the PI will need to modify the Van Gelderen Simulation Rubric (2010). It would be important to modify and refine this tool based upon the three nurse raters' field notes and verbal suggestions elicited during the utilization of the rubric.

Hypothesis

The hypothesis that the Van Gelderen Simulation Rubric (2010) will indicate to be a reliable and valid instrument for measuring nursing student assessment and communication skills can be supported. The rubric indicated that 9 of its 11 constructs were found to be valid and reliable in evaluating student family assessment and communication skills. However, it is

possible that two of the constructs (family care, family issues) need further refinement and modification in order for this simulation tool to be used consistently amongst raters.

Study Limitations

It is apparent that this study needs future replication in order to build a larger sample size of at least (n=54) according to G* Power. Having a larger data set will help reduce the risk of Type II Error. The sample of respondents was a convenience sample of students taking an introductory baccalaureate nursing course. However, despite the small sample size, this SCP gave the PI and the MSM SON a preliminary understanding of student perceptions of family care and student ability to perform family communication and assessment skills. This SCP was the first step in many more student learning exercises to be conducted over the next several years of beginning this new undergraduate nursing curriculum.

Summary

In conclusion, it was found through Cronbach's alpha that the pre-post surveys (.765 & .729 respectively) held internal consistency and reliability. This finding is helpful for future family as client care investigations of simulation in nursing education; where the pre-post survey may be used as reliable tool to measure future MSM nursing students' family simulation experiences. It is apparent that the MSM students found this simulation experience a beneficial and needed part of their undergraduate education. They endorsed that they would recommend this simulated family assessment experience for future nursing students and they felt it was important to learn more about family as client care. However, future replication of this study needs to be conducted in order to support these findings.

Based upon this sample it is not safe to conclude that the sophomore nursing students perceive family as client care as more important on post survey versus pre survey results. There was a trend suggesting that students may find family as client care more important after

experiencing the simulation role-plays and practice time, but due to a small sample size and possible Type II error, this research question found no significant difference in this sample.

Through this project, it was also found that simulation may be an effective method to transfer family knowledge into clinical practice for students. The students endorsed that the simulation experience was positive through a score of (female mean 3.89/4.0 and male mean 4.0/4.0) on a Likert Scale and that they would encourage faculty to replicate this experience for future MSM nursing students.

Based upon ICC results (Table 9), all eleven constructs were significant at the 5% level (p = .000) which indicated agreement between the three raters using the Van Gelderen Simulation Rubric. Cronbach's Alpha indicated nine of the eleven constructs of the Van Gelderen Simulation Rubric (2010) provided reliable and consistent results for assessing family assessment and communication in (n=21) nursing students. Two of the constructs (family care, family issues) need further refinement and modification in order for this simulation tool to be used consistently amongst raters. One construct measuring terminology was scored the same by all three raters, giving each student a perfect score of 3/3; according to MSM's statistical consultant, H. N., (personal communication, March 21, 2012); "there is perfect agreement among all three raters".

The PI will continue to conduct this simulation experience with future student groups at MSM and continue to gather data on the effectiveness of this teaching-learning strategy for family care. It would be important to replicate this study and possibly modify this tool if inconsistencies persist on two of the constructs (family issues, family as client care). If modifications were needed, the modifications should be based upon the three nurse raters' field notes and verbal suggestions taken during the utilization of the tool for future replication. Future

studies need to occur in order to verify the reliability of this tool and further build upon the sample size.

The SCP positively influenced the MSM undergraduate nursing curriculum redesign by showing the nursing faculty that teaching family as client care needs to be a consistent curricular thread in order to enhance the family assessment and communication skills of nursing students. The findings, outcomes, and insight from this SCP will be discussed in Chapter five.

Chapter 5: Discussion of Findings, Outcomes and learning

This chapter will discuss the findings and outcomes of implementing this SCP. It will also provide future recommendations for doctorally-prepared nurses engaged in nursing practice and education; potential transferability of project findings; current state of the literature and dissemination plan. This chapter will also provide information for future scholarship as a DNP-prepared leader in education.

Project Findings and Outcomes

Completing this SCP has led to several important findings for nurse educators. It is apparent that students believed this simulation experience was beneficial and an important and necessary part of their undergraduate education. They also recommend an experience like this for future nursing students. They also felt it was important to learn more about family as client care. This response supports the use of simulation in nursing education to build family assessment and communication skills. The conclusion of this project also helped to support the anticipated project outcomes set forth at the beginning of the study which was:

a) To examine nursing student perceptions of the importance of family based nursing care.
b) To enhance nursing student family assessment and communication skills.
c) To enhance nursing student knowledge of ethical and social justice inequities within family units.
d) To help support the MSM nursing faculty in the family simulation lab.
e) To help support the MSM nursing faculty in their work while initiating change within their new curricular design emphasizing family based care.
f) To evaluate the effect of this SCP on the proposed new nursing curriculum at MSM.

The first three outcomes were supported through the pre-post surveys indicated by the nursing students as discussed in chapter four within the data analysis section. Objective four was accomplished by supporting MSM nursing faculty and simulation coordinator in the simulation lab through the validation of the need for more simulation faculty time and Information Technology (IT) help as indicated by the Return on Investment (ROI). These extra people are needed in order to help the simulation lab run smoother and be more successful without tiring the simulation lab coordinator. This SCP supported objectives five and six by validating that the newly proposed curricular design changes towards a significant experiential learning experiences such as simulation are successful ways of teaching undergraduate nursing students family as client care skills. This SCP also supported the mission and vision of MSM School of Nursing by assisting them with their proposed vision of:

a) Expanding knowledge of experiential teaching-learning strategies
b) Develop simulated learning
c) Design evaluation rubrics and other measures of assessment and evaluation
d) Utilize an electronic medical record

This SCP supported MSM by developing experiential teaching-learning strategies through simulated family assessment role plays. This project developed simulated family assessment and communication scenarios through student observation and practice sessions. This project developed the Van Gelderen Simulation Rubric (2010) as a way to evaluate family assessments and communication skills conducted by nursing students. This project also provided a reliable pre-post survey for measuring student perceptions of family simulation experiences. This project also developed a usable electronic medical record through the program Microsoft OneNote to demonstrate to nursing students how to conduct family assessments and utilize

family ecomaps and genograms within clinical practice as effective means of collecting family history and resources needs. Finally, this project supported the MSM School of Nursing through the ROI by showing how this experiential learning framework can be used in an economical way for the department of nursing while giving nursing students full utility for their education dollar.

Several of the Baccalaureate Program Outcomes for MSM were also supported through this project such as:

a) Synthesize knowledge to provide competent evidenced based care and facilitate the health of individuals, families, and society.
b) Demonstrate skills in using health care technologies, information systems, and communication strategies that result in safe quality care outcomes.
c) Demonstrate knowledge of health care, political awareness, fiscal responsibility, professional regulations, and advocacy for social justice.
d) Display effective intra and interprofessional communication and collaboration techniques to produce positive professional working relationships.
e) Validate the nurse's responsibility in population health and community oriented nursing.
f) Exemplify personal and professional accountability by modeling nursing values and standards.
g) Engage in baccalaureate-generalist nursing practice while respecting the uniqueness and complexity of care.
h) Promote, maintain, sustain, and regain the health of individuals, families and society.

Future Practice and Education Implications with Potential Transferability of Project Implications.

This SCP demonstrates how using experiential teaching-learning techniques such as simulation role-play may enhance student learners on providing family as client care. It supports the quest to continue to use simulation as a potential learning tool for learning family nursing skills. Through this project, it was also found that simulation may be an effective method to transfer family knowledge into clinical practice for students. It was also found that simulation may be a more powerful tool for learning in male versus female students as indicated by their endorsement that the simulation experience was positive and that they would encourage faculty to replicate this experience for future nursing students.

Transferability.

These findings of using simulation may potentially transfer into the clinical practice settings through this new understanding of family based care by the (n=24) nursing students. This experiential learning may carry through these students as the standard for care within their future roles as nurses.

It is clear that simulation is becoming a necessity in nursing education in order to keep up with the demands of health care, families, and technology. However, more research replication and expansion is needed to support these findings.

Further Research Needs to be Conducted

Within this study, male students were found to have significant differences versus female students in that the female students found it more important for nurses to address family issues and concerns during a patient admission versus male students. This raises a question of does gender affect a nurse's perception of family care? Should nurse educators use different teaching-learning techniques to facilitate learning of male nursing students? It is evident that this SCP

yielded a small sample size. So it is imperative that further replication of this study is needed in order to gain a larger power and sample to support or reject these findings.

It would be helpful to contribute toward nursing science by replicating this study at a nursing graduate student level and with current practicing nurses to see if simulation is an effective education tool with these populations as well.

Another area needing further research is to add to the post-survey whether nursing students found it helpful to have the opportunity to play the role of the patient and nurse. This further data collection would help to understand whether these role-plays affected their perception of importance of family based care and the need for practice time in assessing families within the laboratory setting.

Other future needs of nursing research may be to track these (n=24) sophomore nursing students into the practice setting as new graduates to see if their assessment and nursing skills are more family focused versus other practicing professionals whom have not received these experiential learning simulation experiences. It would also be beneficial to track these students as they progress through the nursing program to their senior year to see if they continue to exhibit family nursing actions and use it within their practice repertoire or if the students are being influenced within the practice setting by nurses who do not provide family care. Are current practicing nurses either enhancing or hindering their view of family care needs?

Comparison of Results to Current Literature

After completing the results of this study, the PI investigated what the current state of the literature is reporting on role play use for developing family assessment and communication skills and to investigate if researchers are exploring student perception of family care and nurse family actions. The PI also wanted to see if there were any current rubrics published for use of

evaluating student family nursing skills within a simulation setting. The state of the literature is as follows:

Cant and Cooper (2009) conducted a systematic review of the quantitative evidence for medium to high fidelity simulation to see how this form of education compares to other education strategies. Twelve studies were included in the review from the years of 1999-2009. All 12 of the studies reported simulation to be a valid teaching/learning strategy. Six of the studies exhibited increases in student knowledge, critical thinking, satisfaction and confidence.

Simulation has also been endorsed by various nursing professional bodies (Murray, Grant, Howarth, & Leigh, 2008; National Council of State Boards of Nursing, 2005), educators (McLaughlin et al., 2008; Haluck et al., 2007; Hammond, 2004) and students (Gardner, Walzer, Simon, & Raemer, 2008; Lasater, 2007).

As discussed in the literature review, Tapp, Moules, Bell, and Wright (1997) conducted family skills labs using role-play to facilitate development of family nursing skills in undergraduate nursing students. Another study by Green (1997) developed a nursing course to teach students to "think family". Both studies contributed towards family nursing simulation science; however neither of the studies compared the students' perception of family as client care by comparing the students' perceptions of family based care prior to their skills labs. Overall, the students were engaged in learning about family content and family nursing practices; however the researchers did not report that they used an evaluative method to measure nursing student learning outcomes of family assessment and communication skills.

The PI of this SCP has contributed to nursing science through the development of the Van Gelderen Simulation Rubric (2010). This simulation rubric was developed to help support and give feedback to nursing students on their family nursing skills within a simulation setting

by identifying areas which they are excelling in their family nursing actions and areas that could use development for their family assessment and communication skills.

Dissemination Plan

As a future Doctor of Nursing Practice (DNP) nurse educator, it is imperative to publish and disseminate these project findings to other practicing nurses and nurse education professionals. The PI of this project and her site mentors have been accepted for a poster presentation on the Van Gelderen Simulation Rubric (2010) for family based care at the National League for Nursing Education Summit in September of 2012. The PI will also submit an abstract to a regional MuLambda Chapter of Sigma Theta Tau International to disseminate her findings through a verbal presentation. The PI has also discussed the findings within the MSM undergraduate curriculum committee as a pilot project on which to base future experiential learning activities within the School of Nursing. The future aspirations of the PI will be to publish these findings within a scholarly nursing education or simulation journal by 2013.

Future Scholarship as a DNP-prepared Leader in Education

As a future DNP-prepared leader in education, the PI's future goals include replicating this study to gain more insight of student learning and add to the study results for a larger sample size. The PI would like to refine and further validate the use of the Van Gelderen Simulation Rubric (2010) as a future evaluative tool to guide nurse educators in nursing student skill acquisition of communication, assessment and integration of family based care. The PI would like to continue to conduct nursing research within the educational setting of student learning and further investigate the use of simulation and an educational tool for nursing students at all educational levels. The PI would also like to trial simulation use with current practicing nurse professionals as well.

Finally, as a future DNP-leader in education, the importance of applying these findings and conducting further nursing research to nursing practice will be a career goal. This career goal will help enhance family care within the health care setting while providing tools for nurses to learn and draw knowledge from in order to build a healthier community, family, and societal focused health care system

Summary

In summary, this SCP has contributed to the body of knowledge of nursing science. It has provided useful information to engage and help guide MSM nursing faculty on their new curricular revisions for an undergraduate family focused curriculum. The SCP served as a pilot for using simulation as an experiential teaching-learning method within MSM's undergraduate nursing program. The study provided a medium of which to engage nursing students in development of their family nursing skills while measuring their perception of importance for family nursing care. The SCP also confirmed that students felt the faculty-led role plays were a positive learning experience. Students stated the role plays exemplified nursing action differences between providing a patient focused assessment versus a family focused assessment. The SCP also provided students the opportunity to practice family focused care and develop assessment and communication strategies. The SCP provided a valid pre and post survey which measures student perceptions of family care and measured their learning and whether they would recommend this project for future students. The SCP provided the Van Gelderen Simulation Rubric (2010) indicating reliability and validity. Two of the constructs (family care, family issues) need further refinement and modification in order for this simulation tool to be used consistently amongst raters. One construct measuring terminology was scored the same by all

three raters, giving each student a perfect score of 3/3. This indicates perfect agreement among all three raters.

The PI will continue to conduct this simulation experience with future student groups at MSM and continue to gather data on the effectiveness of this teaching-learning strategy for family care. This SCP was the first step in many more evaluations to come over the next several years of launching this new undergraduate nursing curriculum. The MSM SON will continue to develop student learning experiences and evaluations in order to measure whether the students are meeting the MSM SON program outcomes and individual course outcomes which are based on the standards of CCNE and Quality and Safety Education for Nurses (QSEN).

Ultimately, it is imperative that nurse researchers continue to conduct family nursing research in order to build upon family nursing knowledge so that families will become stronger, have more support systems and resources readily available to them. These future research findings will help build a healthier, global public and society.

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Appendix A

Van Gelderen Simulation Rubric: Communication, Assessment and Integration of Family Based Care

	Positive Characteristics 3 points	Characteristics Needing Improvement 2 points	Undesirable Characteristics 1 point	Evaluator Notes
Nurse Communication Style (Rosenzweig et al., 2008)	Communication was therapeutic and open ended; attentive listening skills were used	Communication was open ended; distracted in listening skills; communication perceived as rushed	Communication was directive (one-way); advice giving type of communication; listening was not used	
Use of Terminology	Discussion and terminology was appropriate for client/family	Communication occasionally used medical jargon or the use of inappropriate terminology	Communication used medical jargon and inappropriate terminology	
Nurse Positioning	Nurse position was appropriate; positioned at eye level during interviews/conversations; felt respectful towards client/family	Nurse position was appropriate at times; sometimes perceived as un-engaged	Position was domineering and perceived as over-powering towards client/family	
Nurse Eye Contact	Appropriate eye contact • Equal eye level • Respectful • Non-invasive • Attentive	Did not maintain appropriate eye contact; was distracted with technical tasks	Poor eye contact; directed away from family members	
Family History and Data Collection Method (Wright & Leahey, 2005)	Nurse used a family genogram and ecomap to help identify family support and resources	Nurse initiated a family genogram and ecomap, but left if unfinished or the family felt rushed	Nurse did not initiate a family genogram or ecomap to identify family support and resources	
Addressing Family Issues and Concerns	Clarified understanding of client/family issues and concerns • Stressors • Needs • Resources • Support	Inconsistent with clarification or did not address all client/family issues and concerns • Stressors • Needs • Resources • Support	Did not clarify or inquire about client/family issues and concerns	
Addressing Nursing Involvement	Clarified understanding from client/family of their perceived needs/desires of nursing involvement in decision making processes	Identified options of nursing involvement, but did not clarify client/family needs/desires of involvement	Did not clarify client/family perceived needs/desires for nursing involvement with decision making processes	

Addressing Needs for Follow-up Care	Discussed needs for follow-up care; informed and gave possible resources	Discussed follow-up care, but was ambiguous about information and did not tailor it to the family's needs	Did not discuss needs for follow-up care	
Offer of Support and Hope (Herth, 1991)	Made a positive impression on family with offering of support and hope	Made an indifferent/ambiguous impression towards the family. Family unsure of nurse's intent. Family may have mixed emotions of perceived support and hope	Made a negative impression on family; did not offer support or hope	
Provided care Based Upon 'Family as Client' Approach (Hansen, 2005)	Nursing care focuses on assessment of all family members; family is in the foreground, client is considered in the back ground; family is seen as the sum of individual family members and the focus concentrates on each individual; family members are validated.	Nursing care focuses on the assessment of the client. Family members are asked questions, but not assessed or included as part of care and assessment.	Nursing care focuses on individual client. Family is not included as part of the assessment. The individual is in the foreground and the family is in the background or not acknowledged at all. The focus of care is on the client alone. The family members are not validated.	
Family Health Routines are Assessed (Denham, 2003)	Nurse investigates the family's: • Routines • Behaviors • Values • Relationships • How crises and information affects the family • Celebrations • Traditions • Spirituality Then, bases nursing care on the family's routines and strengths	Nurse inquires about family health routines, but does nothing to embrace their individuality as part of their nursing care	Nurse does not inquire about family health routines and does not base nursing care on individual needs of the family	
Total Points Possible: 33	**Column Total:**	**Column Total:**	**Column Total:**	**Total Score: /33**

Other General Comments:

Appendix B

Table 1

SCP Timeline

Ideal Component	Objectives	Activities	Timeline and Coursework	Persons Responsible
Identify SCP interest	✦ Identify potential system and site mentor for project ✦ Meet potential faculty advisor during interview and discuss proposed project • Dr. C.C.	✦ Seek out potential site mentors who are knowledgeable in nursing education and simulation and are willing to undertake the responsibility of being a site mentor	**November 2010**	S.V.
Clarify problem to be addressed in project	✦ Include relationship to social justice and addressing inequalities ✦ Synthesize course-related knowledge in project ✦ Develop project proposal	✦ Write project proposal o Have peer review work ✦ Build upon ideas from theoretical, evaluation, and SCP draft paper feedback from Dr. M.P. ✦ Develop simulation rubric	*NURS 8500: Underpinnings of the Discipline of Nursing* **December 2010**	S.V.
Develop Informatic Health Record System	✦ Synthesize course-related knowledge in project ✦ Investigate availability of evaluative data in the information system related to project ✦ Learn how to utilize Microsoft Access Software program	✦ Build family genogram ✦ Build family ecomap ✦ Build family biographies	*NURS 8510: Information Systems and Technologies* **January 2011**	S.V. and course group members
Present preliminary project presentation Family scenario	✦ Synthesize course-related knowledge in project ✦ Conduct review of evidence related to project ✦ Submit application for Institutional Review Board (IRB) ✦ Initiate project upon IRB approval	✦ Develop pre & post survey to be given to nursing students for SCP proposal; designed to measures student perceived importance of family based care ✦ Develop *family as client* simulated scenarios	*NURS 8520: Advanced Evidence-Based Practice* **May 2011**	S.V. S.V. after Dr. C.C.'s

building	✦ Gain Approval from PC Vice President of Academics, President, Nursing Department Chair and PC IRB	✦ Continue to build upon SCP draft in order to finalize it and submit it to IRB for approval ✦ Fill out IRB approval form for St. Kate's ✦ Fill out IRB approval form for MSM ✦ Present topic to MSM nursing department and nursing department chair		approval
Continue family scenario building	✦ Train student volunteers/actors to play roles in family scenarios	✦ Continue to develop pre & post survey to be given to nursing students for SCP proposal; designed to measure student perceived importance of family based care ✦ Continue to develop *family as client* simulated scenarios	**Summer 2011**	S.V.
Evaluate cost effectiveness and efficacy of project	✦ Synthesize course-related knowledge in project ✦ Formalize evaluation plan for project ✦ Continue implementation of project	✦ Continue writing on SCP ✦ Evaluate SCP methods ✦ Conduct simulation sessions ✦ Administer pre-post surveys to students ✦ Analyze data ✦ Synthesize results	*NURS 8530: Organizations and Systems: Implications for Practice* **December 2011**	S.V. Site Mentors: Dr. A.C. & Dr. N.K.
Evaluate actual and potential impact of project	✦ Synthesize course-related knowledge in project ✦ Articulate plan for dissemination of project	✦ Continue analyzing and writing of SCP	*NURS 8540: Health Care: Power, Policy, and Politics* **May 2012**	S.V.
Complete project	✦ Write final project manuscript ✦ Complete disquisition of project ✦ Present final project presentation ✦ Disseminate findings electronically	✦ Write final project manuscript ✦ Complete disquisition of project ✦ Present final project presentation ✦ Disseminate findings electronically	*NURS 8600: Systems Change Project* **May 2012**	S.V.

Appendix C

Table 1

Current Curriculum

MINNESOTA STATE UNIVERSITY MANKATO

Freshman Year

Fall
ENG 101 English Composition (4)
PSYC 101 Introduction to Psychology (4)
CHEM 111 Chemistry of Life Processes (5)
(or Biochemistry from another institution)
BIOL 220 Human Anatomy (4)

Spring
ANTH 230 People: An Anthropological Perspective (4) or
GEOG 103 Intro to Cultural Geography (3)
BIOL 230 Human Physiology (4)
~ KSP 235 Human Development (3)
~ MATH 112 College Algebra (4) or
STAT 154 Elementary Statistics (3)
(Recommended to fulfill Gen. Ed. Category 4)

Sophomore Year

Fall
- Apply for admission Spring Semester
~ BIOL 270 Microbiology (4)
~ FCS 240 Nutrition I (3)
>*~ NURS 110 Nursing Perspectives (1)
+ Computer Science Competency
General Education

Spring
* N220 Foundations in Nursing Science (4)
* N252 Altered Human Functioning (3)
* N253 Psychomotor Strategies in Nursing I (4)
* N260 Pharmacology for Nursing Practice (2)
General Education

Junior Year

Fall
* N340 Gerontological Nursing (2)
* N341 Gerontological Clinical (3)
* N350 Altered Physiologic Mode Nursing I (3)
* N351 Altered Physiologic Mode Clinical I (3)
* N353 Psychomotor

Spring
* N360 Childbearing Family Nursing (2)
* N361 Childbearing Family Clinical (3)
* N380 Child Health Nursing (2)
* N381 Child Health Clinical (3)
++ Abnormal Psychology 455 (4)
General Education

Senior Year

Fall
* N430 Nursing Research (2)
* N440 Mental Health Nursing (2)
* N441 Mental Health Clinical (3)
* N460 Community Health Nursing (2)
* N461 Community Health Clinical (4)
General Education

Spring
* N410 Nursing Perspectives of Leadership and Management (2)
* N450 Altered Physiological Mode Nursing II (3)
* N451 Altered Physiological Mode Clinical II (4)
* N470 Nursing Synthesis Seminar (1)
* N471 Nursing Synthesis Clinical (4)
General Education or Elective

Keys:
Prerequisites to be completed prior to applying to the SON.
~ Must be successfully completed prior to enrolling in nursing courses.
* Nursing courses
> Exceptions may be granted by Undergraduate Program Coordinator.
+ Can be obtained by successful completion of N110.
++ Must be successfully completed prior to N 440

Appendix C

Table 2
Proposed New Curricular Plan

MINNESOTA STATE UNIVERSITY MANKATO

2012 PROPOSED FOUR YEAR CURRICULAR PLAN

[Shaded areas = prerequisite to entering the major – Bold core prerequisite course]

Freshman Year Fall Bio 220 Human Anatomy (4)* Eng 101 Composition (4)* Geog 103 Intro to Cultural Geography (3)* Gen Ed – 1b (3) Total Credits – 14	Freshman Year Spring Chem 111 Chemistry of Life Processes (5)* Gen Ed –10 (3) Nurs 101W Courage, Caring, and Team Building (3)* Psyc 101 Psychology (4)* Total Credits – 15
Sophomore Year Fall BIOL 230 Human Physiology (4)* FCS 242 Nutrition for Healthcare Professionals (3)~ Stat 154 Elementary Statistics (3)* KSP 235 Human Development (3)* Gen Ed - 1c, 6 and 9 (3) Total Credits – 16	Sophomore Year Spring Bio 270 Microbiology (4)~ N282 Pathophysiology for Healthcare Professionals (3) ~ N284 Pharmacology for Healthcare Professionals (3) ~ N286 Relationship-based Care in Nursing Practice (3) ~ Gen Ed – 6 & 7 (3) Total Credits – 16
Junior Year Fall N333 Professional Nursing (3) N334 Physiologic Integrity I (4) N335 Family & Societal Nursing Inquiry (3) N336 Assessment and Nursing Procedures (5) Total Credits – 15	Junior Year Spring N363 Critical Inquiry in Nursing (2) N364 Physiologic Integrity II (4) N365 Nursing Care of Families in Transition I (7) N366 Quality, Safety & Informatics in Nursing Practice(3) Total Credits – 16
Senior Year Fall N433 Community Oriented Nursing Inquiry (4) N434 Physiologic Integrity III (4) N435 Nursing Care of Families in Transition II (3) N436 Psychosocial Integrity (5) Total Credits – 16	Senior Year Spring N463 Nursing Leadership and Management (3) N464 Physiologic Integrity IV (3) N465 Nursing Care of Families in Crisis (2) N466 Professional Role Integration (4) Total Credits – 12

*Core Pre-requisites – must complete prior to application

~Support Pre-requisites – must be completed prior to beginning Junior Year Fall nursing courses

Appendix C

Table 3

Backwards design template for the NURS 335 Family and Societal Nursing Inquiry

<table>
<tr><td colspan="2">NURS 335 Family & Societal Nursing Inquiry (3)</td></tr>
<tr><td>Theory Credits: 2 (30 hours)</td><td>Experiential Credits: 1 (30 hours)</td></tr>
<tr><td>Course Description</td><td>Course Outcomes</td></tr>
<tr><td>Critical inquiry into the nursing care of family and society in the context of diverse cultures. Explores concepts related to family and society as clients, the family and societal health experience, and nursing strategies to foster family and societal care.</td><td>1. Explore concepts related to family and society as clients and the family and societal health experience.
2. Apply nursing strategies to foster family and societal care.
3. Demonstrate effective family communication skills.
4. Develop a connecting relationship with family members.
5. Complete a comprehensive family assessment.</td></tr>
<tr><td colspan="2">Course competencies
1. Recognize the relationship of genetics and genomics to health, prevention, screening, diagnostics, prognostics, selection of treatment, and monitoring of treatment effectiveness, using a constructed pedigree from collected family history information as well as standardized symbols of terminology. (E9.2)
2. Explore family & societal health concepts. (FS1)
3. Explore the family functioning relationship to internal, social, physical, & global environments of care. (FS2)
4. Review current literature related to the family health experience. (FS3)
5. Integrate the belief that nurses have a commitment and moral obligation to support family & societal health.
6. Recognize reciprocal nature of the human health experience within the family unit. (FS5)
7. Conduct a health history, including environmental exposure and a family history that recognizes genetic risks, to identify current and future health problems. (E7.2)
8. Analyze the delivery of compassionate, patient-family-centered, evidence-based care that respects patient and family preferences. (E9.5)</td></tr>
</table>

Appendix D

AACN Essential Principles	MSM Baccalaureate Program Outcomes
Essential I: Liberal Education for Baccalaureate Generalist Nursing Practice	**Synthesize knowledge to provide competent evidenced based care and facilitate the health of individuals, families, and society.**
1 Integrate theories and concepts from liberal education into nursing practice	
2 Synthesize theories and concepts from liberal education to build an understanding of the human experience.	
3 Use skills of inquiry, analysis, and information literacy to address practice issues.	
4 Use written, verbal, non-verbal, and emerging technology methods to communicate effectively.	
5 Apply knowledge of social and cultural factors to the care of diverse populations	
6 Engage in ethical reasoning and actions to provide leadership in promoting advocacy, collaboration, and social justice as a socially responsible citizen.	
7. Integrate the knowledge and methods of a variety of disciplines to inform decision making.	
8. Demonstrate tolerance for the ambiguity and unpredictability of the world and its effect on the healthcare system.	
9. Value the ideal of lifelong learning to support excellence in nursing practice.	
Essential II: Basic Organizational and Systems Leadership for Quality Care and Patient Safety	**Utilize knowledge of complex systems as the basis for leadership that creates a culture of safety and promotes quality initiatives within the context of interprofessional care.**
1. Apply leadership concepts, skills, and decision making in the provision of high quality nursing care, healthcare team coordination, and the oversight and accountability for care delivery.	
2 .Demonstrate leadership and communication skills to effectively implement patient safety and quality improvement initiatives within the context of the interprofessional team.	
3. Demonstrate an awareness of complex organizational systems.	
4. Demonstrate a basic understanding of organizational structure, mission, vision, philosophy, and values.	
5. Demonstrate appropriate teambuilding and collaborative strategies when working with interprofessional teams.	
6. Recognize quality and patient safety as complex system issues which involve individuals, families, and other members of the healthcare team.	
7. Identify factors that create a culture of safety.	
8. Participate in national patient safety and quality improvement initiatives in their healthcare setting.	
9. Apply quality improvement processes to effectively implement patient safety initiatives and monitor performance measures, including nurse sensitive indicators, in the microsystem of care.	
10. Demonstrate safety assessment, prevention, and surveillance principles and quality improvement approaches to meet individual, family, and population needs.	
11 .Employ principles of quality improvement, healthcare policy, and cost-effectiveness to assist in the development and initiation of effective plans for the microsystem and/or system-wide practice improvements that will improve the quality of healthcare delivery.	
12. Implement imaginative and creative solutions to systems change.	
Essential III: Scholarship for Evidence-Based Practice	**Integrate evidence, clinical reasoning, interprofessional perspectives, and health care preferences in planning, implementing, and evaluating outcomes.**
1. Explain the interrelationships among theory, practice, and	

research.	
2. Demonstrate an understanding of the basic elements of the research process and models for applying evidence to one's practice.	
3. Advocate for the protection of human subjects in the conduct of research.	
4. Evaluate the credibility of sources of information, including but not limited to databases and Internet resources.	
5. Participate in the process of retrieval, appraisal, and synthesis of evidence in collaboration with other members of the healthcare team to improve patient outcomes.	
6. Integrate evidence, clinical judgment, interprofessional perspectives, and patient preferences in planning, implementing, and evaluating outcomes of care.	
7. Collaborate in the collection, documentation, and dissemination of evidence.	
8. Acquire an understanding of the process for how nursing and related healthcare quality and safety measures are developed, validated, and endorsed.	
9. Describe mechanisms to resolve identified practice discrepancies between identified standards and practice that may adversely impact patient outcomes.	
Essential IV: Information Management and Application of Patient Care Technology	**Demonstrate skills in using health care technologies, information systems, and communication strategies that result in safe quality care outcomes.**
1. Demonstrate skills in using patient care technologies, information systems, and communication devices that support safe nursing practice.	
2. Use telecommunication technologies to assist in effective communication in a variety of healthcare settings.	
3. Apply safeguards and decision making support tools embedded in patient care technologies and information systems to support a safe practice environment for both patients and healthcare workers.	
4. Understand the use of clinical information systems to document interventions related to achieving nurse sensitive outcomes.	
5. Use standardized terminology in a care environment that reflects nursing's unique contribution to patient outcomes.	
6. Evaluate data from all relevant sources, including technology, to inform the delivery of care.	
7. Recognize the role of information technology in improving patient care outcomes and creating a safe care environment.	
8. Uphold ethical standards related to data security, regulatory requirements, confidentiality, and clients' right to privacy.	
9. Apply patient-care technologies as appropriate to address the needs of a diverse patient population.	
10. Advocate for the use of new patient care technologies for safe, quality care.	

11. Recognize that redesign of workflow and care processes should precede implementation of care technology to facilitate nursing practice.	
12. Participate in evaluation of information system in practice settings through policy and procedure development.	
Essential V: Health Care Policy, Finance, and Regulatory Environments	**Demonstrate knowledge of health care, political awareness, fiscal responsibility, professional regulations, and advocacy for social justice.**
1. Demonstrate basic knowledge of healthcare policy, finance, and regulatory environments, including local, national, and global trends.	
2. Describe how health care is organized and financed, including the implication of business principles, such as patient and system cost factors.	
3. Compare the benefits and limitations of the major forms of reimbursement on the delivery of healthcare services.	
4. Examine legislative and regulatory processes relevant to the provision of health care.	
5. Describe state and national statutes, rules, regulations that authorize and define professional nursing practice..	
6. Explore the impact of socio-cultural, economic, legal, and political factors influencing healthcare delivery and practice.	
7. Examine the roles and responsibilities of the major regulatory agencies and their effect on patient care quality, workplace safety, and the scope of nursing practice.	
8. Discuss the implications of healthcare policy on issues of access, equity, affordability, and social justice in healthcare delivery.	
9. Use an ethical framework to evaluate the impact of social policies on health care, especially for vulnerable populations.	
10. Articulate from a nursing perspective, issues concerning healthcare delivery to decision makers within healthcare organizations and other policy arenas.	
11. Participate as a nursing professional in political processes and grassroots legislative efforts to influence healthcare policy.	
12. Advocate for consumers and the nursing profession	
Essential VI: Interprofessional Communication and Collaboration for Improving Patient Health Outcomes	**Display effective intra and interprofessional communication and collaboration techniques to produce positive professional working relationships.**
1. Compare/contrast the roles and perspectives of the nursing profession with other care professionals on the healthcare team (i.e., scope of discipline, education and licensure requirements).	
2. Use inter- and intra-professional communication and collaborative skills to deliver evidence-based, patient-centered care.	
3. Incorporate effective communication techniques, including negotiation and conflict resolution to produce positive professional working relationships.	
4. Contribute the unique nursing perspective to interprofessional	

teams to optimize patient outcomes.	
5. Demonstrate appropriate teambuilding and collaborative strategies when working with interprofessional teams.	
6. Advocate for high quality and safe patient care as a member of the interprofessional team.	
Essential VII: Clinical Prevention and Population Health	**Validate the nurse's responsibility in population health and community oriented nursing.**
1. Assess protective and predictive factors that influence the health of individuals, families, groups, communities, and populations.	
2. Conduct a health history, including environmental exposure and a family history that recognizes genetic risks, to identify current and future health problems.	
3. Access health/illness beliefs, values, attitudes, and practices of individuals, families, groups, communities, and populations.	
4. Use behavioral change techniques to promote health and manage illness.	
5. Use evidence-based practices to guide health teaching, health counseling, screening, outreach, disease and outbreak investigation, referral, and follow-up throughout the lifespan.	
6. Use information and communication technologies in preventive care.	
7. Collaborate with other healthcare professionals and patients to provide spiritually and culturally appropriate health promotion and disease and injury prevention interventions	
8. Assess the health, health care, and emergency preparedness needs of a defined population.	
9. Use clinical judgment and decision-making skills in appropriate, timely nursing care during disaster, mass casualty, and other emergency situations.	
10. Collaborate with others to develop an intervention plan that takes into account determinants of health, available resources, and the range of activities that contribute to health and the prevention of illness, injury, disability, and premature death.	
11. Participate in clinical prevention and population-focused interventions with attention to effectiveness, efficiency, cost-effectiveness, and equity.	
12. Advocate for social justice, including a commitment to the health of vulnerable populations and the elimination of health disparities.	
13. Use evaluation results to influence the delivery of care, deployment of resources, and to provide input into the development of policies to promote health and prevent disease.	
Essential VIII: Professionalism and Professional Values	**Exemplify personal and professional accountability by modeling nursing values and standards.**
1. Demonstrate the professional standards of moral, ethical, and legal conduct.	
2. Assume accountability for personal and professional behaviors.	

3. Promote the image of nursing by modeling the values and articulating the knowledge, skills, and attitudes of the nursing profession.	
4. Demonstrate professionalism, including attention to appearance, demeanor, respect for self and others, and attention to professional boundaries with patients and families as well as among caregivers.	
5. Demonstrate an appreciation of the history of and contemporary issues in nursing and their impact on current nursing practice.	
6. Reflect on one's own beliefs and values related to professional practice.	
7. Identify personal, professional, and environmental risks that impact personal and professional choices and behaviors.	
8. Communicate to the healthcare team one's personal bias on difficult healthcare decisions that impact one's ability to provide care.	
9. Recognize the impact of attitudes, values, and expectations on the care of the very young, frail older adults, and other vulnerable populations.	
10. Protect patient privacy and confidentiality of patient records and other privileged communications.	
11. Access interprofessional and intraprofessional resources to resolve ethical and other practice dilemmas.	
12. Act to prevent unsafe, illegal, or unethical care practices.	
13. Articulate the value of pursuing practice excellence, lifelong learning, and professional engagement to foster professional growth and development	
14. Recognize the relationship between personal health, self-renewal, and the ability to deliver sustained quality care.	
Essential IX: Baccalaureate Generalist Nursing Practice	**Engage in baccalaureate-generalist nursing practice while respecting the uniqueness and complexity of care.**
1. Conduct comprehensive and focused physical, behavioral, psychological, spiritual, socioeconomic, and environmental assessments of health and illness parameters in patients, using developmentally and culturally appropriate approaches.	
2. Recognize the relationship of genetics and genomics to health, prevention, screening, diagnostics, prognostics, selection of treatment, and monitoring of treatment effectiveness, using a constructed pedigree from collected family history information as well as standardized symbols and terminology.	
3. Implement holistic, patient-centered care that reflects an understanding of human growth and development, pathophysiology, pharmacology, medical management, and nursing management across the health-illness continuum, across the lifespan, and in all healthcare settings.	
4. Communicate effectively with all members of the healthcare team, including the patient and the patient's support network.	

5. Deliver compassionate, patient-centered, evidence-based care that respects patient and family preferences.	
6. Implement patient and family care around resolution of end-of-life and palliative care issues, such as symptom management, support of rituals, and respect for patient and family preferences.	
7. Provide appropriate patient teaching that reflects developmental stage, age, culture, spirituality, patient preferences, and health literacy considerations to foster patient engagement in their care.	
8. Implement evidence-based nursing interventions as appropriate for managing the acute and chronic care of patients and promoting health across the lifespan.	
9. Monitor client outcomes to evaluate the effectiveness of psychobiological interventions.	
10. Facilitate patient-centered transitions of care, including discharge planning and ensuring the caregiver's knowledge of care requirements to promote safe care.	
11. Provide nursing care based on evidence that contributes to safe and high quality patient outcomes within healthcare Microsystems.	
12. Create a safe care environment that results in high quality patient outcomes.	
13. Revise the plan of care based on an ongoing evaluation of patient outcomes;.	
14. Demonstrate clinical judgment and accountability for patient outcomes when delegating to and supervising other members of the healthcare team.	
15. Manage care to maximize health, independence, and quality of life for a group of individuals that approximates a beginning practitioner's workload	
16. Demonstrate the application of psychomotor skills for the efficient, safe, and compassionate delivery of patient care.	
17. Develop a beginning understanding of complementary and alternative modalities and their role in health care.	
18. Develop an awareness of patients as well as healthcare professionals' spiritual beliefs and values and how those beliefs and values impact health care.	
19. Manage the interaction of multiple functional problems affecting patients across the lifespan, including common geriatric syndromes	
20. Understand one's role and participation in emergency preparedness and disaster response with an awareness of environmental factors and the risks they pose to self and patients.	
21. Engage in caring and healing techniques that promote a therapeutic nurse-patient relationship.	
22. Demonstrate tolerance for the ambiguity and unpredictability of the world and its effect on the healthcare system as related to nursing practice.	

Family Nursing Concepts	**Promote, maintain, sustain, and regain the health of individuals, families and society.**

Appendix E

Curricular Redesign.

Old practices are not working; seeing gaps in student performance; needing to make change to reflect current trends and needs in society.

Current (2010-2011) **Program Goals**

- Provide nursing care in a variety of settings.
- Focus on prevention of illness and promotion of health.
- Care for individuals and families with complex problems.
- Provide health teaching and counseling.
- Assume leadership roles.
- Participate in nursing research.
- Demonstrate a caring commitment to people.

Proposed MSM Curriculum Vision and Mission for the School of Nursing.

Vision and Mission for the School of Nursing

Vision

The School of Nursing is an intellectual community that strives for innovation and excellence within education, scholarship, and practice in family and societal nursing.

Mission

The mission of the School of Nursing is to influence health care for family and society through the advancement of nursing science, promotion of clinical scholarship, and innovative education of practitioners and clinical leaders.

Statements of Values Rather than a Nursing Philosophy

As a School of Nursing we value family and society, innovation and excellence, empowerment and social justice, and the discipline of nursing.

Family and Society

- Facilitate health and healing of families and society by integrating evidence, clinical reasoning, interprofessional perspectives and client value preferences in providing nursing care.
- Provide quality and compassionate health care to families and society within a dynamic environment.

- Focus on development, validation and dissemination of nursing practice models that attend to the unique nature of families and society.
- Support the scholarship of nursing practice with emphasis on advancing family and societal health and healing.
- Provide leadership in the development of educational models and policies to improve family and societal nursing within a global health context.
- Support individual, family and societal health as the central purpose for the nursing discipline.

Innovation and Excellence

- Recognize and embrace the importance of change, creativity, collaboration, courage, flexibility, inquisitiveness and perseverance in our journey toward excellence.
- Support the work of the Glen Taylor Nursing Institute for Family and Society and the International Family Nursing Association (IFNA).
- Value the use of simulation, technologies, information, and communication systems in supporting safe quality nursing practice.
- Create a culture of safety and promote quality initiatives by anticipating and responding to changing issues and trends influencing policies and practices in health care.
- Promote experiential learning through a variety of pedagogical approaches.

Empowerment and Social Justice

- Demonstrate tolerance for uncertainty within the world and its effect on health care.
- Integrate knowledge of health care, policy, finance, and regulatory environments to enhance political awareness, fiscal responsibility and advocacy for social justice.
- Exemplify personal and professional accountability by modeling nursing values and standards.
- Respect variations and complexity of care across the continuum of health care environments and allocation of resources in caring for all.
- Strive for ethical decision-making in the application of social justice.
- Enhance the quality of health for all people.

The Discipline of Nursing

- Provide a scientific basis for nursing actions that guides practice to support family and societal health.
- Advance the discipline by developing and disseminating knowledge that enhances nursing scholarship and the quality of health for all people.
- Use philosophical foundations to reflect values and beliefs that support family and societal health.
- Incorporate patterns of knowing to promote individual, family, and societal health.
- Utilize evidence based practice to promote individual, family and societal health.
- Disseminate paradigms and products of inquiry that promote family and societal health.

Proposed MSM Undergraduate Curriculum Purpose and Outcomes.

Purpose

The purpose of baccalaureate education in nursing is to prepare professional nurses for generalist practice. The curriculum includes theoretical and clinical experiences that assist students to develop knowledge, skills, attitudes, personal qualities, professional behaviors and values necessary to facilitate the health of all people.

Baccalaureate Program Outcomes

Graduates of the baccalaureate programs will deliver professional nursing care respectful of individual, family, and societal preferences in the pursuit of health. Nursing students will:

i) Synthesize knowledge to provide competent evidenced based care and facilitate the health of individuals, families, and society.
j) Utilize knowledge of complex systems as the basis for leadership that creates a culture of safety and promotes quality initiatives within the context of interprofessional care.
k) Integrate evidence, clinical reasoning, interprofessional perspectives, and health care preferences in planning, implementing, and evaluating outcomes.
l) Demonstrate skills in using health care technologies, information systems, and communication strategies that result in safe quality care outcomes.
m) Demonstrate knowledge of health care, political awareness, fiscal responsibility, professional regulations, and advocacy for social justice.
n) Display effective intra and interprofessional communication and collaboration techniques to produce positive professional working relationships.
o) Validate the nurse's responsibility in population health and community oriented nursing.
p) Exemplify personal and professional accountability by modeling nursing values and standards.
q) Engage in baccalaureate-generalist nursing practice while respecting the uniqueness and complexity of care.
r) Promote, maintain, sustain, and regain the health of individuals, families and society.

Appendix F

Nursing Student Perceptions of Importance of Family as client care

Pre-Survey

Student Study ID Number: _____

Stacey Van Gelderen is collecting data as a Doctorate of Nursing Practice student at St. Catherine's University. Her project 's purpose is to help redesign the Minnesota State University, Mankato (MSM) undergraduate nursing curriculum by integrating family focused care. She would like to understand whether the use of simulation (role play) in undergraduate nursing education is an effective teaching strategy to teach undergraduate nursing students family assessment and communication skills. This will help inform MSM nursing faculty about curricular redesign needs.

All data collected will be anonymous and your answers will not be traced individually back to you. May I have your permission to present these data results at nursing research conferences and/or published in a nursing education journal?

☐ **I give my permission for my responses to be used for research purposes.**

☐ **I Do Not give my permission for my responses to be used for research purposes.**

Survey Questions

1. I have been a patient in a healthcare setting:
    1. Yes
    2. No (Skip question 2)

2. If yes, I felt my family members were respected and included in my care.
    1. Strongly Agree
    2. Agree
    3. Disagree
    4. Strongly Disagree

3. I have been a family member of a patient within a healthcare setting.
    1. Yes
    2. No (Skip question 4)

4. How comfortable are you in working with families in a health care setting?
    1. Very comfortable
    2. Comfortable
    3. Uncomfortable
    4. Very uncomfortable

Please rate questions 5-13 using the scale of 1-4:

1) Not Important 2) Less Important 3) Important 4) Very Important

5. How important is it to include family members as part of the care of the patient?

   1 2 3 4

6. How important is it to understand the family's beliefs about health care?

   1 2 3 4

7. How important is it for the nurse to interact with families in a healthcare setting?

   1 2 3 4

8. How important is it for the nurse to collect family history during a patient admission?

   1 2 3 4

9. How important is it for the nurse to address family issues and concerns during a patient admission?

   1 2 3 4

10. How important is it for the nurse to address needs for follow-up care during an admission assessment?

    1 2 3 4

11. How important is it to offer support and hope to the family?

    1 2 3 4

12. How important is it for the nurse to address family health routines?

    1 2 3 4

13. How important is it for the nurse to address ethical and social justice inequities within family units?

    1 2 3 4

Personal Demographics

14. I am between the ages of:
    a. 18-26
    b. 27-35
    c. 36 and over

15. My gender is:
    1. Male
    2. Female

16. I have a prior Baccalaureate degree:
    a) Yes
    b) No (Skip question 17)

17. I have a degree in another healthcare related field:
    a) Yes

    b) No

18. I currently hold a Nursing Assistant License:
    a) Yes
    b) No (Skip question 19)

19. I currently work as a Nursing Assistant:
    a) Yes
    b) No

20. I currently hold an LPN License:
    a) Yes
    b) No (Skip question 21)

21. I currently work as a LPN:
    a) Yes
    b) No

Appendix G

Nursing Student Perceptions of Importance of Family as Client Care

Post-Survey

Student Study ID Number: _____

Stacey Van Gelderen is collecting data as a Doctorate of Nursing Practice student at St. Catherine's University. Her project 's purpose is to help redesign the Minnesota State University, Mankato (MSM) undergraduate nursing curriculum by integrating family focused care. She would like to understand whether the use of simulation (role play) in undergraduate nursing education is an effective teaching strategy to teach undergraduate nursing students family assessment and communication skills. This will help inform MSM nursing faculty about curricular redesign needs.

All data collected will be anonymous and your answers will not be traced individually back to you. May I have your permission to present these data results at nursing research conferences and/or published in a nursing education journal?

☐ **I give my permission for my responses to be used for research purposes.**

☐ **I Do Not give my permission for my responses to be used for research purposes.**

Survey Questions

Please rate questions 1-9 using the scale of 1-4:

1) Not Important 2) Less Important 3) Important 4) Very Important

1. How important is it to include family members as part of the care of the patient?

1 2 3 4

2. How important is it to understand the family's beliefs about health care?

1 2 3 4

3. How important is it for the nurse to interact with families in a healthcare setting?

1 2 3 4

4. How important is it for the nurse to collect family history during a patient admission?

1 2 3 4

5. How important is it for the nurse to address family issues and concerns during a patient admission?

1 2 3 4

6. How important is it for the nurse to address needs for follow-up care during an admission assessment?

1 2 3 4

7. How important is it to offer support and hope to the family?

1 2 3 4

8. How important is it for the nurse to address family health routines?

1 2 3 4

9. How important is it for the nurse to address ethical and social justice inequities within family units?

1 2 3 4

One week ago, you observed two simulated role plays of a nurse conducting an admission on a patient with a family member present. The following questions will refer to that simulated learning experience:

Please rate questions 10-20 using the scale of 1-4:
1) Strongly Disagree 2) Disagree 3) Agree 4) Strongly Agree

10. I felt the two nurse-family simulation role plays contributed towards my understanding of family as client care:
    1 2 3 4

11. The simulation debriefing time (time spent talking about the scenarios) was beneficial to my learning.
    1 2 3 4

12. Having the opportunity to practice family focused care assessments in the nursing lab was important to me.
    1 2 3 4

13. Having the opportunity to play the role of a family member during the practice time was an important piece of my learning about family members' feelings.
    1 2 3 4

14. I understand the use of family genograms in the clinical practice environment.
    1 2 3 4

15. I feel the use of family genograms in the clinical practice environment is important.
    1 2 3 4

16. I understand the use of family ecomaps in the clinical practice environment.
    1 2 3 4

17. I feel the use of family ecomaps in the clinical practice environment is important.
    1 2 3 4

18. Learning more about family as client care is important to me.
    1 2 3 4

19. The role plays enhanced my knowledge of ethical and social justice inequities within family units.
    1 2 3 4

20. I would recommend this simulated family assessment experience for future nursing students.
    1 2 3 4

Appendix H

Market Analysis

Minnesota Traditional Bachelor Degrees in nursing (4 year programs)

(Get Ready For College, 2011)

School of Nursing	Degree	Tuition & fees/Year	Tuition & Fees/Credit	Total Tuition & Fees for Degree
Minnesota State University, Mankato (Current curriculum)	Bachelor of Science (BS)	$7,148.00 (Banded tuition 12-18 credits)	$320.00/credit (above 18 credits); $249.85 per credit (1-11 credits).	128 credits $32,166.00 (9 semesters)
Minnesota State University, Mankato (New curriculum)	Bachelor of Science (BS)	$7,148.00 (Banded tuition/fees 12-18 credits)	$320.43/credit (above 18 credits); $282.99 per credit (1-11 credits).	120 credits $28,592.00 (8 semesters)
Bemidji State University	Bachelor of Science (BS)	$7,857.00		$31,428
Bethel University	Bachelor of Science (BS)	$29,460		$117,840
College of St. Benedict	Bachelor of Science (BS)	$34,308		$137,232
College of St. Scholastica	Bachelor of Science (BS)	$25,810		$103,240
Gustavus Adolphus College	Bachelor of Arts (BA)	$35,477		$141,908
Presentation College	Bachelor of Science in Nursing (BSN)	$15,260		$61,040
St. Catherine University	Bachelor of Arts (BA) & Bachelor of Science (BS)	$29,680		$118,720
St. Olaf College	Bachelor of Arts (BA)	$38,150		$152,600
University of Minnesota-Twin Cities	Bachelor of Science in Nursing (BSN)	$13,062		$52,248

Appendix I

MSM Simulation and Laboratory Budget

Annual Budget Item	**Budget Allotted or Expenditure/year**	**Description**
Lab Supplies (not related to simulation)	$20,000.00 Budget Allotted	Variable Cost
Simulation & Simulation Maintenance	$0.00 Budget Allotted	Variable Cost Dependent on Summer Profit Revenue
Lab & Simulation Coordinator Faculty Position Annual Salary	$50,000.00 Expenditure	Fixed Cost
Graduate Assistant Annual Salary (Helper in Simulation lab)	$9,000.00 Expenditure	Fixed Cost
Nursing Faculty (Clinical Instructor) Full-time Staff	$50,000.00 Expenditure ($2,083.33/credit) For a 24 credit load/academic year	Fixed Cost
Adjunct Salary Per credit	$1,200.00 Expenditure	Fixed Cost
Faculty Mileage Reimbursement	$0.485/mile (MSM to clinical site) Expenditure	Variable Cost

Appendix J

Cost Analysis Example 1

Old Curriculum Example 1:

Maternal and Child Nursing Course Clinical Hours for Clinical Groups of 8 Students

- 90 hours- Maternal Health Clinical Hours
- 90 hours- Child Health Clinical Hours
- Faculty A (Fixed-term)- Maternal Health: 3 credit hours of clinical time
    - Salary: $50,000.00 ($2,083.33/credit) X 4 workload credits= $8,333.32
    - Mileage for 13 clinical days: $1,046.63 (166 miles/round trip/day@ $0.485/mile)
- Faculty B (Adjunct)- Child Health: 3 credit hours of clinical time
    - Salary: $1,200/credit X 3 credits= $3,600
    - No Mileage pay for adjunct faculty: $0.00
- Simulation Coordinator & Graduate Assistant Combined salary for simulation: $59,000.00 for full-time (2,000 hours)
    - Maternal Simulation Day Salary: $236.00 (8 hours of pay)
    - Child Simulation Day Salary: $236.00 (8 hours of pay)
- **Total Expenditure for MSM: $13,452.55/8 students**

- **Total Revenue for MSM for 8 students of tuition: $9,600.00**
    - 1 credit=$400.00
    - Maternal & Child Clinical credits (3): 3 X $400= $1,200.00/student
    - 8 Students X $2,400.00= **$9,600.00**

- **Return on Investment (ROI)**
- **ROI=(total benefits-total costs)/total costs X 100**
- **ROI= ($9,600.00-13,452.55)/13,452.55 X 100 = -28%**

Appendix K

Cost Analysis Example 2

New Curriculum Example 2:

New Maternal-Child Health Nursing Course Clinical Hours for Clinical Groups of 8 Students

- 90 hours- Maternal & Child Health 3 credits of Experiential Learning Hours
- Faculty A (Fixed-term)- Maternal & Child Health: 1.5 credit hours of clinical time
    - Salary: $50,000.00 ($2,083.33/credit) X 1.5 credits= $3,124.99
    - Mileage for 7 clinical days: $563.57 (166 miles/round trip/day@ $0.485/mile)
- Faculty B (Adjunct)- Maternal & Child Health: 1.5 credit hours of clinical time
    - Salary: $1,200/credit X 1.5 credits= $1,800
    - No Mileage pay for adjunct faculty: $0.00
- Simulation Coordinator & Graduate Assistant Combined salary for simulation: $59,000.00 for full-time (2,000 hours)
    - Maternal Simulation Day Salary: $472.00 (16 hours of pay)
    - Child Simulation Day Salary: $472.00 (16 hours of pay)
- Component Coordinator: Salary: $50,000.00 ($2,083.33/credit) X 2 credits= $4,166.66
    - This salary is split amongst 5 student clinical groups, so 20% would be allotted as a cost for each clinical group = $833.33
- **Total Expenditure/monetary cost for MSM: $7,265.89/8 students**

- **Total Revenue/monetary benefit for MSM for 8 students of tuition: $9,600.00**
    - 1 credit=$400.00
    - Maternal-Child Clinical credits (3): 3 X $400= $1,200.00/student
    - 8 Students X $1,200.00= **$9,600.00**

- **Return on Investment (ROI)**
- **ROI=(total benefits-total costs)/total costs X 100**
    - **ROI= ($9,600-7,265.89)/7,265.89 X 100 = 32%**

- **With the Current Curriculum there is a need for 5 clinical groups. With the new curriculum we plan to raise our admitting class to 60 students. We would need 8 clinical groups to accommodate 60 students.**
- **Total amount of profit made per clinical group ($2,334.11) X 8 clinical groups= $18,672.88 of profit per semester for the Maternal-Child Nursing Clinical/Simulation Course**

Appendix L

Break-Even Point Analysis for New Curriculum

- **Break-Even Point**
  - Total revenue= total costs
- Total fixed cost/ (Average per unit price-average per unit variable cost)

- Total cost for running one clinical group/(Average tuition per student- Average amount of students per clinical group)= Break Even Point
- **$7,265.89/($1,200-6 students)= $0.00**
- **So, when there are at least 6 students enrolled into each clinical group, this will result in a profit for the School of Nursing**

Appendix M

Systems Change Project-Budget

Phase of Systems Change	Activity	Cost of Supply	Amount of Time	Hourly Rate[51]	Estimated Value	Expenditure
Preparation 9/2011-8/2011	Literature Review		90 hours	$25.00	$2,250.00	In-kind Donation
	SCP Theoretical Framework		40 hours	$25.00	$1,000.00	In-kind Donation
	SCP Proposal		55 hours	$25.00	$1,375.00	In-kind Donation
	IRB Approval Process-St. Kates		30 hours	$25.00	$750.00	In-kind Donation
	IRB Approval [52]Process- MSM		30 hours	$25.00	$750.00	In-kind Donation
	Undergraduate Curriculum Committee Meetings		20 hours	$25.00	$500.00	In-kind Donation
	Undergraduate Simulation Committee Meetings		10 hours	$25.00	$250.00	In-kind Donation
	Conferences Attended Regarding Content Areas[53]		15 hours	$25.00	$375.00	In-kind Donation
	Advisor Meetings[54]		10 hours		$250.00	In-kind Donation
	Laptop[55]	$600.00				In-kind Donation
	EHR Development[56]		50 hours	$25.00	$1,250.00	In-kind Donation
	One Note[57] Software Program	$80.00				In-kind Donation

[51] Average MNSCU faculty salary/year is $50,000 or $25/hour

[52] IRB approval for both St. Catherine University and Minnesota State University, Mankato (MSM) was necessary for my permission to conduct research within my student role (St. Kate IRB) and conduction of my SCP project with MSM nursing students (MSM IRB)

[53] Family scientists gathered for several research conferences sponsored by the Glen Taylor Institute for Family and Society

[54] Meetings were held between principle investigator and St. Kates nursing advisor for SCP continuity and direction

[55] MSM nursing faculty members are given a laptop to use as part of employment package

[56] An electronic health record for simulation was developed by principle investigator using the Microsoft program One Note

Phase of Systems Change	Activity	Cost of Supply	Amount of Time	Hourly Rate[58]	Estimated Value	Expenditure
	Office Supplies: paper	Paper-$25.00				$25.00
	External 500GB[59] Hard Drive	$95.00				$95.00
Data Collection 8/2011-12/2011	Data Collection		40 hours	$25.00	$1,000.00	In-kind Donation
Data Analysis 12/2011-04/2012	Data Analysis		20 hours[60]	$25.00	$500.00	In-kind Donation
	SPSS Statistical Software[61]	$95.00/12 mos.				$95.00
Dissemination of SCP 5/2012-5/2013	Dissemination-NLN Proposal[62]				$1,500.00	$200.00
	NLN Abstract Development		10 hours	$25.00	$250.00	
	Poster[63]				$200	$200
Personnel Support	IT Personnel Expert[64]			$25.00		Unable to access for project
	Simulation[65] Coordinator Time		32 hours	$25.00	$800.00	In-kind
	Simulation[66] Facilitator		32 hours	$25.00	$800.00	In-kind
	Benefits Package[67]				$3,870.00	In-kind
	Actor-Patient[68]		16 hours	$25.00	$400.00	In-kind

[57] MSM nursing faculty members are given Microsoft Office One Note computer software as part of their employment package
[58] Average MNSCU faculty salary/year is $50,000 or $25/hour
[59] An external hard drive was purchased for storage of video-audio student learning experiences and role-play. This data was utilized for data analysis purposes.
[60] Data analysis hours completed as of 11-17-11
[61] SPSS software purchased through Minnesota State University, Mankato for data analysis purposes
[62] Two abstracts were submitted to disseminate the findings of this systems change project; if accepted by NLN, the principle investigator will attend the NLN Nursing Education Summit in September of 2012. MSM Professional Development Funds will pay $1,300.00 of total expenses
[63] Projected cost for the development and production of a professional poster display upon acceptation of NLN Education Summit conference abstracts
[64] An Information Technology person was not consulted for this project; however there is a need for this expert to join our group for future simulation projects
[65] The Simulation coordinator is the person who is currently running the audio-visual equipment and is needed to set-up scenario equipment and supplies
[66] This person was used to guide student learning and facilitate the simulation day as well as act as the 'nurse' in the low-fidelity role-play
[67] Average MNSCU faculty benefits worth 30% of wage (Total for all MSCU systems change members)
[68] This was the actor which played the role of patient during the low-fidelity simulation role-play

	Actor-Family[69] Member		16 hours	$25.00	$400.00	In-kind
	Estimated Total Value[70]:					$18,470.00
	Total Out of Pocket Expense[71]:					$615.00

[69] This was the actor which played the role of family member during the low-fidelity simulation role-play
[70] This is the estimated total value of project expenses incurred and personnel time and preparation for this systems change project to be conducted
[71] This is the estimated total out-of-pocket expenses incurred by principle investigator not including time Which could have been invested towards family and work responsibilities for the principle investigator and stakeholders.

Appendix N
Paired Samples T-Tests

Pre & Post Surveys

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	How important is it to include family members as part of the care of the patient?	3.79	24	.415	.085
	How important is it to include family members as part of the care of the patient?	3.83	24	.381	.078
Pair 2	How important is it to understand the family's beliefs about health care?	3.67	24	.482	.098
	How important is it to understand the family's beliefs about health care?	3.88	24	.338	.069
Pair 3	How important is it for the nurse to interact with families in a healthcare setting?	3.79	24	.415	.085
	How important is it for the nurse to interact with families in a healthcare setting?	3.88	24	.338	.069
Pair 4	How important is it for the nurse to collect family history during a patient admission?	3.88	24	.338	.069
	How important is it for the nurse to collect family history during a patient admission?	3.79	24	.415	.085
Pair 5	How important is it for the nurse to address family issues and concerns during a patient admission?	3.42	24	.830	.169
	How important is it for the nurse to address family issues and concerns during a patient admission?	3.67	24	.482	.098
Pair 6	How important is it for the nurse to address needs for follow-up care during an admission assessment?	3.75	24	.532	.109

	How important is it for the nurse to address needs for follow-up care during an admission assessment?	3.75	24	.442	.090
Pair 7	How important is it to offer support and hope to the family?	3.88	24	.338	.069
	How important is it to offer support and hope to the family?	3.83	24	.381	.078
Pair 8	How important is it for the nurse to address family health routines?	3.67	24	.565	.115
	How important is it for the nurse to address family health routines?	3.58	24	.584	.119
Pair 9	How important is it for the nurse to address ethical and social justice inequities within family units?	3.25	24	.794	.162
	How important is it for the nurse to address ethical and social justice inequities within family units?	3.46	24	.721	.147

Appendix O

Pre-survey

Female vs. Male Respondents

	My gender is:	N	Mean	Std. Deviation	Std. Error Mean
How important is it to include family members as part of the care of the patient?	Male	6	3.67	.516	.211
	Female	18	3.83	.383	.090
How important is it to understand the family's beliefs about health care?	Male	6	3.67	.516	.211
	Female	18	3.67	.485	.114
How important is it for the nurse to interact with families in a healthcare setting?	Male	6	3.67	.516	.211
	Female	18	3.83	.383	.090
How important is it for the nurse to collect family history during a patient admission?	Male	6	3.83	.408	.167
	Female	18	3.89	.323	.076
How important is it for the nurse to address family issues and concerns during a patient admission?	Male	6	2.83	1.169	.477
	Female	18	3.61	.608	.143
How important is it for the nurse to address needs for follow-up care during an admission assessment?	Male	6	3.33	.816	.333
	Female	18	3.89	.323	.076
How important is it to offer support and hope to the family?	Male	6	3.83	.408	.167
	Female	18	3.89	.323	.076
How important is it for the nurse to address family health routines?	Male	6	3.67	.516	.211
	Female	18	3.67	.594	.140
How important is it for the nurse to address ethical and social justice inequities within family units?	Male	6	2.67	1.033	.422
	Female	18	3.44	.616	.145

Appendix P
Pre-survey Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
How important is it to include family members as part of the care of the patient?	Equal variances assumed	2.184	.154	-.847	22	.406	-.167	.197	-.575	.241
	Equal variances not assumed			-.727	6.938	.491	-.167	.229	-.710	.377
How important is it to understand the family's beliefs about health care?	Equal variances assumed	.000	1.000	.000	22	1.000	.000	.232	-.481	.481
	Equal variances not assumed			.000	8.166	1.000	.000	.240	-.551	.551
How important is it for the nurse to interact with families in a healthcare setting?	Equal variances assumed	2.184	.154	-.847	22	.406	-.167	.197	-.575	.241
	Equal variances not assumed			-.727	6.938	.491	-.167	.229	-.710	.377
How important is it for the nurse to collect family history during a patient admission?	Equal variances assumed	.441	.514	-.342	22	.736	-.056	.162	-.392	.281
	Equal variances not assumed			-.303	7.217	.770	-.056	.183	-.486	.375
How important is it for the nurse to address family issues and concerns during a patient admission?	Equal variances assumed	3.846	.063	-2.137	22	**.044**	-.778	.364	-1.532	-.023
	Equal variances not assumed			-1.561	5.927	.170	-.778	.498	-2.001	.445
How important is it for the nurse to address needs for	Equal variances assumed	12.507	.002	-2.445	22	.023	-.556	.227	-1.027	-.084

follow-up care during an admission assessment?										
	Equal variances not assumed			-1.625	5.532	.160	-.556	.342	-1.410	.299
How important is it to offer support and hope to the family?	Equal variances assumed	.441	.514	-.342	22	.736	-.056	.162	-.392	.281
	Equal variances not assumed			-.303	7.217	.770	-.056	.183	-.486	.375
How important is it for the nurse to address family health routines?	Equal variances assumed	.069	.796	.000	22	1.000	.000	.272	-.564	.564
	Equal variances not assumed			.000	9.823	1.000	.000	.253	-.565	.565
How important is it for the nurse to address ethical and social justice inequities within family units?	Equal variances assumed	1.886	.184	-2.255	22	.034	-.778	.345	-1.493	-.062
	Equal variances not assumed			-1.744	6.229	.130	-.778	.446	-1.859	.304

Appendix Q
Post-survey Group Statistics

	My gender is:	N	Mean	Std. Deviation	Std. Error Mean
How important is it to include family members as part of the care of the patient?	Male	6	3.83	.408	.167
	Female	18	3.83	.383	.090
How important is it to understand the family's beliefs about health care?	Male	6	3.67	.516	.211
	Female	18	3.94	.236	.056
How important is it for the nurse to interact with families in a healthcare setting?	Male	6	3.67	.516	.211
	Female	18	3.94	.236	.056
How important is it for the nurse to collect family history during a patient admission?	Male	6	3.83	.408	.167
	Female	18	3.78	.428	.101
How important is it for the nurse to address family issues and concerns during a patient admission?	Male	6	3.17	.408	.167
	Female	18	3.83	.383	.090
How important is it for the nurse to address needs for follow-up care during an admission assessment?	Male	6	3.67	.516	.211
	Female	18	3.78	.428	.101
How important is it to offer support and hope to the family?	Male	6	3.67	.516	.211
	Female	18	3.89	.323	.076
How important is it for the nurse to address family health routines?	Male	6	3.50	.837	.342
	Female	18	3.61	.502	.118
How important is it for the nurse to address ethical and social justice inequities within family units?	Male	6	3.00	1.095	.447
	Female	18	3.61	.502	.118
I felt the two nurse-family simulation role plays contributed towards my understanding of family as client care	Male	6	3.67	.516	.211
	Female	18	3.89	.323	.076
The simulation debriefing	Male	6	3.67	.516	.211

time (time spent talking about the scenarios) was beneficial to my learning					
	Female	18	3.67	.594	.140
Having the opportunity to practice family focused care assessments in the nursing lab was important to me	Male	6	3.67	.516	.211
	Female	18	3.78	.428	.101
Having the opportunity to play the role of a family member during the practice time was an important piece of my learning about family members' feelings	Male	6	3.17	.753	.307
	Female	18	3.28	.752	.177
I understand the use of family genograms in the clinical practice environment	Male	6	3.00	.632	.258
	Female	18	3.39	.608	.143
I feel the use of family genograms in the clinical practice environment is important	Male	6	3.00	.632	.258
	Female	18	3.56	.616	.145
I understand the use of family ecomaps in the clinical practice environment	Male	6	3.17	.408	.167
	Female	18	3.33	.594	.140
I feel the use of family ecomaps in the clinical practice environment is important	Male	6	3.00	.000	.000
	Female	18	3.17	.707	.167
Learning more about family as client care is important to me	Male	6	3.83	.408	.167
	Female	18	3.83	.383	.090
The role plays enhanced my knowledge of ethical and social justice inequities within family units	Male	6	3.17	.983	.401
	Female	18	3.67	.485	.114
I would recommend this simulated family assessment experience for future nursing students	Male	6	4.00	.000	.000
	Female	18	3.89	.323	.076

Appendix R

Post-survey Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
How important is it to include family members as part of the care of the patient?	Equal variances assumed	.000	1.000	.000	22	1.000	.000	.183	-.381	.381
	Equal variances not assumed			.000	8.166	1.000	.000	.190	-.436	.436
How important is it to understand the family's beliefs about health care?	Equal variances assumed	12.759	.002	-1.831	22	.081	-.278	.152	-.592	.037
	Equal variances not assumed			-1.274	5.710	.252	-.278	.218	-.818	.262
How important is it for the nurse to interact with families in a healthcare setting?	Equal variances assumed	12.759	.002	-1.831	22	.081	-.278	.152	-.592	.037
	Equal variances not assumed			-1.274	5.710	.252	-.278	.218	-.818	.262
How important is it for the nurse to collect family history during a patient admission?	Equal variances assumed	.343	.564	.278	22	.783	.056	.200	-.358	.470
	Equal variances not assumed			.285	8.976	.782	.056	.195	-.385	.496
How important is it for the nurse to address family issues and concerns during a patient admission?	Equal variances assumed	.000	1.000	-3.633	22	**.001**	-.667	.183	-1.047	-.286
	Equal variances not			-3.516	8.166	.008	-.667	.190	-1.102	-.231

	assumed									
How important is it for the nurse to address needs for follow-up care during an admission assessment?	Equal variances assumed	.871	.361	-.524	22	.605	-.111	.212	-.551	.328
	Equal variances not assumed			-.475	7.435	.648	-.111	.234	-.657	.435
How important is it to offer support and hope to the family?	Equal variances assumed	4.933	.037	-1.254	22	.223	-.222	.177	-.590	.145
	Equal variances not assumed			-.991	6.361	.358	-.222	.224	-.763	.319
How important is it for the nurse to address family health routines?	Equal variances assumed	3.470	.076	-.396	22	.696	-.111	.280	-.692	.470
	Equal variances not assumed			-.307	6.244	.769	-.111	.361	-.987	.765
How important is it for the nurse to address ethical and social justice inequities within family units?	Equal variances assumed	1.023	.323	-1.897	22	.071	-.611	.322	-1.279	.057
	Equal variances not assumed			-1.321	5.715	.237	-.611	.463	-1.757	.535
I felt the two nurse-family simulation role plays contributed towards my understanding of family as client care	Equal variances assumed	4.933	.037	-1.254	22	.223	-.222	.177	-.590	.145
	Equal variances not assumed			-.991	6.361	.358	-.222	.224	-.763	.319
The simulation debriefing time (time spent talking about the scenarios) was beneficial to my learning	Equal variances assumed	.069	.796	.000	22	1.000	.000	.272	-.564	.564
	Equal variances not assumed			.000	9.823	1.000	.000	.253	-.565	.565

Having the opportunity to practice family focused care assessments in the nursing lab was important to me	Equal variances assumed	.871	.361	-.524	22	.605	-.111	.212	-.551	.328
	Equal variances not assumed			-.475	7.435	.648	-.111	.234	-.657	.435
Having the opportunity to play the role of a family member during the practice time was an important piece of my learning about family members' feelings	Equal variances assumed	.233	.634	-.313	22	.757	-.111	.355	-.846	.624
	Equal variances not assumed			-.313	8.599	.762	-.111	.355	-.919	.697
I understand the use of family genograms in the clinical practice environment	Equal variances assumed	1.896	.182	-1.345	22	.192	-.389	.289	-.989	.211
	Equal variances not assumed			-1.317	8.319	.223	-.389	.295	-1.065	.287
I feel the use of gamily genograms in the clinical practice environment is important	Equal variances assumed	1.768	.197	-1.902	22	.070	-.556	.292	-1.161	.050
	Equal variances not assumed			-1.876	8.411	.096	-.556	.296	-1.233	.122
I understand the use of family ecomaps in the clinical practice environment	Equal variances assumed	3.748	.066	-.634	22	.532	-.167	.263	-.712	.378
	Equal variances not assumed			-.766	12.690	.458	-.167	.218	-.638	.305
I feel the use of family encompass in the clinical practice environment is important	Equal variances assumed	10.377	.004	-.569	22	.575	-.167	.293	-.774	.441

	Equal variances not assumed			-1.000	17.000	.331	-.167	.167	-.518	.185
Learning more about family as client care is important to me	Equal variances assumed	.000	1.000	.000	22	1.000	.000	.183	-.381	.381
	Equal variances not assumed			.000	8.166	1.000	.000	.190	-.436	.436
The role plays enhanced my knowledge of ethical and social justice inequities within family units	Equal variances assumed	13.475	.001	-1.674	22	.108	-.500	.299	-1.119	.119
	Equal variances not assumed			-1.198	5.833	.277	-.500	.417	-1.528	.528
I would recommend this simulated family assessment experience for future nursing students	Equal variances assumed	3.592	.071	.829	22	.416	.111	.134	-.167	.389
	Equal variances not assumed			1.458	17.000	.163	.111	.076	-.050	.272

Appendix S

PostQ13 & PostQ12

Model	t	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound	Degree of Freedom
(Constant)	8.013	.000	1.720	2.920	22
Having the opportunity to play the role of a family member during the practice time was an important piece of my learning about family members' feelings	5.059	**.000**	.260	.620	

Dependent Variable: having the opportunity to practice family focused care assessments in the nursing lab was important to me.