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# THE CONSTRUCT OF LIFELONG LEARNING IMBEDDED IN A NURSING CLINICAL COURSE

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## Abstract

This article lays out the design for incorporating a clinical project for students to research a clinical issue and evidence-based practice, along with one-on-one student simulation learning experiences in a final semester nursing clinical course. The project intended to introduce students to the concept of lifelong learning. The final semester course in the nursing program provided students the opportunity to synthesize knowledge and skills gained throughout the nursing program and demonstrate their learning through a self-directed research project and their individual performance in individual simulation learning experiences.

## Introduction

Lifelong learning is an important component of nursing education because student nurses need to understand it is necessary to pursue learning throughout their professional career to keep up with the complexities of patient care and the complex and ever-changing healthcare system. An emphasis on lifelong learning in nursing education dates back to the early 1800s, when the American Nurses Association (ANA) wrote *The Code of Ethics for Nurses with Interpretive Statements* as a guide for nurses to use “in ethical analysis and decision making” (American Nurses Association, 2015, p. vii). Interestingly, the early document, known in nursing as ‘The Code,’ included an emphasis on lifelong learning and noted, it is the “duty of the nurse to maintain competence and continue personal and professional growth” (American Nurses Association, 2015, p. v). The ANA recognized lifelong learning as an instrumental component in nursing professional development as a means of strengthening nursing practice to improve the quality of healthcare (Brunt, 2001).

Further evidence of the importance of lifelong learning in nursing noted in the report from the Josiah Macy Foundation, *Lifelong Learning in Medicine and Nursing; Final Conference Report* listed preparing graduates of schools of health professions with

skills to support lifelong learning as a highest priority (AAMC-AACN Report, 2010). The Institute of Medicine (IOM) (2010) reported nurses should be educated in lifelong learning at the student level and throughout their professional careers. The IOM (2010) report *The Future of Nursing*, recommended a collaboration between nursing education and health care delivery to include representatives in leadership from both sectors to identify gaps in nursing education and to include “consideration of how simulation learning environments may augment current clinical experiences” (p. 397) to better align nursing education to practice settings.

## A Need for Life Long Learning in Nursing Education

The literature provided numerous articles on professional development for nurses in clinical practice through earning continuing education units and specialty certifications but very few studies specific to lifelong learning for nursing students. A systematic review of over 42000 studies from 2000 to 2014 undertaken by Qalehsari, Khaghanizadeh and Ebadi (2017) focused on lifelong learning strategies of nursing students and found they have not been clearly stated and “no study has systematically clarified the elements and strategies of lifelong learning in nursing [education]” (p. 5542). The systematic review provided interesting findings, but relevant here is the report that the “use of lifelong strategies in nursing students will lead to improved quality of education, professional competency of nurses and nursing care outcomes” (p. 5548), however the study also indicated nursing professors are in need of training, support, and resources to create learning environments that foster lifelong learning (Qalehsari, et al., 2017). So there is a need in nursing to educate not only the students but also the professors on the concept of lifelong learning.

Manjeet and Narinder (2014) discussed a priority need for schools of nursing to introduce lifelong learning concepts and aim students towards self-directed learning by intentionally steering away from using memorization and examinations in nursing education. Shiraz, Sharif, Molazem and Alborzi (2017) agreed the traditional didactic methods used in nursing education need to change in a move toward self-directed learning. Manjeet & Narinder (2014) related a study of 169 final year nursing students that revealed about 40 percent of students showed self-directedness in some categories but as low as four percent of self-directedness in other areas. In the study the students completed a Self-Rating Scale of Self-Directed Learning tool (SRSSDL) that showed a need for more support of self-directed learning as noted in the outcomes:

The responses of “always come forth in 44% cases for interpersonal skills” followed by evaluation 40.7%, learning strategies 39.7%, awareness 39.2% and learning activities 37.9%. Learning strategies were seldom or never made use of in 7.4% of the cases followed by 5.6 in respect of learning activities and awareness. This percentage was 5.04 interpersonal skills, 4.0 for evaluation. (Manjeet & Narnder, 2014, p. 53)

Shiraz, et al. (2017) pointed out when educators plan methods of teaching and learning that help students become self-directed learners, students move from more superficial learning to a deeper understanding and increased responsibility of learning.

# Barriers to Life Long Learning in Nursing Education

The IOM (2010) reported a “practice-education gap” in nursing education leaving new graduates unprepared for working in a rapidly changing system using new technologies (p. 395). Nursing education regulatory bodies and representatives from health systems, including directors of medicine and directors of nursing, should collaborate to identify gaps in education and skills training to better prepare students for practice that requires lifelong learning (IOM, 2010). Fights (2012) and Shirazi et al. (2017) agreed on a need to introduce the concept of lifelong learning into nursing education and training to prepare students to work in a complex healthcare system and care for patients with complex healthcare needs.

In order to work in a complex system and care for high-acuity patients, nurses are expected to practice based on evidence from nursing research, however, [undergraduate] “nursing programs provided little or no education on a professional approach to lifelong learning through self-directed research” (Health Information and Libraries Journal Health Libraries Group, 2012, p. 252). Many studies showed increased quality of care and improved patient outcomes when using best practice in patient care delivery... however, according to Makic, Martin, Burns, Philbrick, and Rauhen (2013) evidence-based practice is still not used consistently in clinical practice. One barrier interfering with using evidence-based practice in nursing is a need for nursing education to increase critical thinking skills when learning and implementing evidence-based practice (Makic et al., 2013).

An area in nursing education where there is a potential to infuse lifelong learning skills and evidenced-based practice research is the senior semester final clinical when students are preparing for transition from nursing school to nursing practice. Traditionally nursing students complete the senior semester clinical paired with a nurse in the role of a preceptor in a healthcare setting through an apprenticeship-type experience (Madhavanpraphakaran, Shukri, & Balachandran, 2014). Nursing schools and healthcare organizations valued the preceptor clinical model as it provides nursing students clinical time with patients in real life situations in a one on one mentorship experience with a professional nurse.

Although the traditional preceptored clinical experience is valued as an important and critical part of nursing education, there are some flaws in the model. Cant, McKenna and Cooper (2013) stated the ability of the preceptors to objectively assess the student’s “skills, knowledge, attitudes, values and abilities” (p. 163) to perform safe, quality and competent patient care is often questioned, due to the variety of ways in which this is done, often without use of valid or reliable instruments. A study by Wu, Enskar, Heng, Pua and Wang (2016) revealed preceptors felt highly capable as clinicians, but some felt discomfort with the responsibility of passing or failing students in a nursing clinical. While it is widely agreed that clinical experience is crucial for nursing education, very little is actually known about how the traditional nursing clinical contributes to encouraging students to be self-directed learners with a desire to be lifelong learners (Ard & Valiga, 2006).

Other barriers to the traditional clinical model, reported by Earle-Foley, Myrick, Luhanga and Yonge (2012) included added stress on the preceptor of mentoring a new nurse while already working in a complex environment. A further barrier with the traditional clinical is hospital policy prohibits student nurses from performing certain skills on their own, whereas simulation allows students to do things not allowed in the preceptor model which might help the student to develop skills to think independently under pressure. One last important barrier to note related to the traditional clinical is lack of clinical site availability due to competition for clinical sites among healthcare professions, and a shortage of nurse preceptors (AACN, 2017). For many of these reasons, nursing faculty at one Midwest community college decided to provide an alternative clinical experience replacing the one on one preceptored clinical experience with one on one simulation experiences.

From the perspective of nursing faculty at the community college nursing program, in the traditional preceptored clinical experience, students engaged in nursing activities focused mainly on patient care and hospital protocols, patient assessments, medication administration, documentation of nursing interventions, and learning to report on patients. Students gained knowledge of patient care and developed nursing skills during the clinical experience and students experienced working several twelve hour shifts in preparation for professional practice. The faculty expressed the benefits of the preceptored clinical experience, but faculty also noted the student learning often occurred through observation or passive learning.

The nursing faculty reported, the preceptors often collaborated with students to make decisions about patient care, however the preceptor is ultimately responsible for the nursing care and safety of the patients. According to the faculty, the traditional preceptored clinical model can sometimes stifle student inquiry as some students commented they felt uncomfortable making decisions or asking questions due to their inexperience, and some reported feeling intimidated by seasoned nurses. Faculty also reported nurses with only one to two years of nursing experience served as a preceptor for student nurses and students felt the preceptor lacked experience in some areas. In the final clinical experience, the faculty at the community college desired for the students to demonstrate use of critical thinking skills to make clinical judgments and desired for students to have the sole responsibility of making decisions about patient care and the outcomes of their decisions.

The faculty also discussed concerns about the methods used to evaluate student learning in the preceptored clinical experience. The faculty provided a checklist to the preceptor to use as an assessment tool to rate student clinical performance. The faculty reported the checklist assessment is not a valuable and reliable instrument, however still used to provide feedback to the student and faculty. The preceptors provided the students with verbal feedback throughout the clinical experience when time allowed, but preceptors reported the pace of clinical and the high acuity of patient needs, sometimes limited time for sharing insights or reflecting on patient outcomes.

# Incorporating Life Long Learning and Self-Directed Learning in Clinical Practice

The Association of American Medical Colleges (AAMC) and the American Association of Colleges of Nursing (AACN) created the *Lifelong Learning in Medicine and Nursing; Final Conference Report* as a guide for nursing education and practice (AAMC-AACN, 2010). The report provided accreditation guidelines for the Commission on Collegiate Nursing Education (CCNE) to evaluate nursing programs for quality, integrity and effective educational practices (“AAMC-AACN”, 2010). The report encouraged faculty to “redesign” (p. 7) curricula and to develop “relevant resources” (p. 7) to promote the development of lifelong learning skills in students (AAMC-AACN, 2010). A concluding statement from the AAMC-AACN (2010) report suggested:

despite the promulgation of these [recommendations] and other report recommendations identifying the importance of lifelong learning, sizable work remains to be done by the health professions regarding the methods and formats of continuing education, inter-professional education, and preparing future practitioners for meaningful lifelong learning. (p. 9)

The faculty teaching in the final semester at the Midwest junior college nursing school reported increased difficulty finding a preceptor for each senior nursing student due to the shortage of preceptors and competition for clinical sites among schools of nursing in the area. The faculty decided to develop an alternative clinical learning experience that incorporated lifelong skills as suggested by the AAMC-AACN conference report. The faculty designated the new clinical model, the Lifelong Learning Clinical Experience to bring student and faculty awareness to including the concept of lifelong learning in the curriculum. The faculty designed the new clinical model to place the demands of decision making when caring for a team of patients on the student and to provide students the opportunity to research a clinical issue and report on the use of evidence based practice related to the clinical issue.

The faculty developed the Lifelong Learning Clinical Experience course using principles of the Adult Learning Theory - Andragogy and using clinical practice guidelines from INACSL to develop Simulation learning experiences. Knowles (1975) defined andragogy as “the art and science of helping adults (or even better, maturing human beings) learn” (p. 19). The principles of self-directed learning for teachers and learners described by Knowles (1975) as setting a warm, caring, climate of mutual respect, trust and honesty, with active participation in open dialogue, inviting open-mindedness and inquiry, with resources for learning and by helping learners become more self-directed in diagnosing, designing, evaluating and re-diagnosing their learning needs (pp. 9-13). Tennant (2006) supported andragogy stating “research indicates that adults generally do better with self-directed learning (emphasizing learner control, autonomy, and initiative), an explicit rationale for learning, a problem-oriented rather than subject-oriented approach, and the opportunity to use their experiences and skills to help

others” (p. 65). The principles of andragogy and self-directed learning aligned well with the principles of simulation learning environments.

The INASCL Standards of best practice provided faculty with the guidelines to design and develop simulation experiences. There are currently eleven INASCL standards available to faculty, designed to meet the objectives of a simulation and to optimize student achievement of expected outcomes (INASCL Standards Committee, 2016). Simulation learning experiences provided benefits of a safe, stimulating, environment where students are motivated to develop their knowledge and skills based on their own needs leading to development self-confidence in their abilities (Larue, Pepin, & Allard, 2015). The simulation environment blends well with the principles of andragogy and self-directed learning.

## The Clinical Pilot

The faculty at one community college decided to incorporate a more student-centered approach to skills development and decision making into the final semester clinical coursework. As noted by Murdoch-Eaton and Whittle (2012) a course with flexibility, allowing the learner to generate and develop lifelong learning skills, means bringing students to the point where they can be curious, self-motivated and internally driven. The faculty designed the new clinical learning experience to allow flexibility and student self-motivation using two methods in the design, first a research project and second simulation learning experiences. The new design for the clinical learning experience provided a way for faculty to assess student’s ability to synthesize nursing theory using critical thinking skills to make clinical decisions. The faculty intended the student research project to stress the significance of evidence-based practice and intended the simulation learning experiences to promote self-directed learning and to provide a means for summative assessment.

First, for the research project, faculty provided materials to students for developing a PICOT (Problem, Intervention, Comparison, Outcome and Time) question to guide research of a healthcare clinical practice topic of interest to the student. Students carried out their research using information technologies and faculty support. The student-centered research project used the PICOT question as a formula for developing answerable, researchable questions related to clinical practice, a key step in evidence-based practice. The research project provided an opportunity for students to get hands-on experience in writing their own research question based on a clinical experience of their individual interest, a skill the students can carry into professional practice. The primary attribute categories included, focused research as an active investigator, information literacy, effective communication including presenting a lucid argument, organizing a speech, using a broad range of knowledge and language to convince and evoke, creative thinking, self-management including time management and technological literacy. Students presented their research and their recommendations for practice to faculty and peers at the end of the clinical course to demonstrate achievement and for faculty evaluation of student learning.

Second, for the simulation learning experiences, faculty developed three one-on-one simulations with human patient simulators in the simulation lab. Student nurses participated in group simulations with other students in prior semesters but the senior semester clinical provided the first one-on-one student simulation learning experience. The faculty observed student performance in the one-on-one simulations and critiqued students using a grading rubric. Faculty assessed students through observation during the simulations and through debriefing sessions post-simulation where students reflected on their actions and learning. During the debriefing session both student and mentor completed the rubric separately then compared rubrics and discussed learning outcomes. Debriefing is an important part of simulation, and debriefing after simulation is more than discussing what students did right or wrong, it offers a time for structured reflective conversations between faculty and students (Fey, Scrandis, Daniels, & Haut, 2014).

The simulation learning experiences covered medication administration and patient education, cardiovascular emergent events and multiple patient scenarios. The three simulations structured simulated patient scenarios intended to emphasize the complexity of caring for a team of patients, requiring students to prioritize needs and make decisions. Simulation provided a means for students to use their critical thinking skills to make clinical judgments and to reflect on learning during post simulation debriefing sessions (Fey et al., 2014).

Students in the Midwest community college nursing program reported to faculty, the series of simulation learning experiences enhanced their ability to critically think and direct their own actions. One student stated “In the simulation I was the nurse and I had to make decisions based on diagnostic reports and patient reported facts, whereas in clinical I checked with the nurse before I did anything with a patient.” Another student shared “I never felt as proud of myself as I did in the simulations when everything was coming together and I was confident in my abilities to provide nursing care.” A nurse faculty noted “Students tell me simulation is stressful but overall they really like me to observe them and give feedback about their clinical decisions from my perspective.” Another faculty reported “I have had students tell me simulation gives them an opportunity to make decisions knowing the patient will not die, and it really helps to build their self-confidence to make those decisions and get good outcomes.”

## Simulation versus Clinical

In contrast to preceptored clinical experiences, structured in a variety of ways, simulation learning experiences can be constructed using best practice guidelines, developed by INACSL and using valid and reliable instruments for assessment of learning (Laerdal, 2017). The National League of Nursing Simulation Innovation Resource Center (NLN-SIRC) (n.d.) stated simulation learning experiences provided a way to:

mimic essential aspects of a clinical situation with the goal of understanding and managing the situation better when it occurs in actual clinical practice....a technique



that uses a situation or environment created to allow persons to experience a representation of a real event for the purpose of practice, learning, evaluation, testing, or to gain understanding of systems or human actions. (para. 1)

Both the National League of Nursing (NLN) and the National Council of the State Board of Nursing (NCSBN) supported simulation as a valid teaching methodology to prepare nursing students for the complexity of the healthcare environment, thereby allowing schools of nursing to replace some clinical hours with simulation experiences in the nursing curriculum (NLN, 2015). One way to understanding and implementing best practice in patient care is to provide nursing students with skills they can carry over into professional practice.

The lifelong learning clinical accounted for the maturity level of the senior student population. The goal of the research project intended for students to gain an understanding of how evidence guides nursing practice, to gain experience in finding the evidence, and to carry lifelong learning skills into professional practice. The research project incorporated a focus on self-directed learning with the notion that students will increase their own self-directedness by choosing a clinical issue of interest, researching evidence-based practice and sharing their findings with peers in a class presentation. During the lifelong learning clinical, students used a clinical log for reflection of the research experience and their research discoveries, then submitted the log to a faculty mentor bi-weekly. Faculty related students frequently shared their surprise over the amount of insight and knowledge gained from self-reflection and faculty mentor meetings. The faculty commented on their own learning acquired through interaction with the students.

Nursing education in the junior college nursing program traditionally focused primarily on specific skills to use in nursing practice. To move toward developing a curriculum inclusive of lifelong learning skills, nursing faculty must view the student as a self-directed whole person capable of including all aspects of their feeling, thinking and acting during a nursing course, whether it is theory or clinical. Nursing school curriculum contains an overwhelming amount of content and the possession of knowledge and skills is necessary but insufficient. Nurses need to be dynamic and flexible lifelong learners if they are to be successful in the constantly changing world of healthcare. Nursing education is responsible for introducing students to the meaning of lifelong learning and providing a curriculum that allows students to grow into lifelong learners ready for transition from nursing school to nursing practice.

The pilot lifelong learning clinical course focused on knowledge management, self-directed learning needs, locating and understanding useful resources, accessing and critically appraising information and applying it to solve clinical problems. In addition, the faculty guided students to learn about assessing their own learning needs, the outcomes of their actions and enhancing learning through reflection. Looking toward the future, faculty would like to collaborate with leadership in education and leadership in healthcare organizations to incorporate changes throughout the nursing curriculum at the community college to prepare students to enter practice with confidence in their

ability to practice as a professional nurse and competent in their ability to provide safe, high-quality patient care.

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