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Chelsey Lorenz

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EDUCATING STUDENTS TO EDUCATE PATIENTS

By

Chelsey Lorenz

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Title Educating students to Educate Patients

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Abstract

There is significant evidence that indicates patients are readmitted to the hospital due to inadequate education about their disease process, home care and medications. Nurse preparation for best practices in educating nurses beginning in early nursing education has the potential to decrease re-admission rates. Nurse educators are responsible for developing educational experiences that will more effectively prepare nurses to assess and address patient education deficits through individualized client education. The purpose of this project was to identify best practices for undergraduate nursing students to learn how to best educate patients. A comprehensive literature review of CINAHL Complete, PubMed, and Google Scholar was completed. Fifteen articles that met the inclusion criteria were retained for the project. Major findings of the review found the use of teach-back, using peer teaching strategies, using simulated patients, and case studies as the best evidence for preparing nursing students to educate patients.

Keywords: education, nursing education, best practice, hospital discharge, nursing students, patient education

Educating Students to Educate Patients

Patient education is an important factor in nursing care. Patients may have new onset of diseases or chronic conditions that require hospital admissions. Patients are re-admitted to the hospital due to lack of education or inadequate education about their disease process and medications (Peter, et al., 2015). New medications are ordered, and new diagnoses are made for the patient, all of which requires effective education for the patient to effectively engage in self-care.

The discharge process is integral to quality care of patients and education about self-care prior to leaving the hospital to reduce readmission rates and improving outcomes for the patient (Peter, et al., 2015; Sherman, 2016). Nurses are most often responsible for educating patients for self-care. Thus, properly preparing nurses, beginning in early nursing education, on best practices for educating patients, has the potential to decrease re-admissions by promoting patient adherence to prescribed therapy (Peter, et al., 2015). Nurse educators are responsible for developing educational experiences that will more effectively prepare nurses to assess patient education deficits and then educate patients through individualized patient education (Sherman, 2016).

The use of evidence-based academic lessons to prepare future nurses to understand the need to educate patients to care for themselves is essential. This project was important because it collected evidence of the characteristics of effective patient education and created a lesson plan to facilitate undergraduate students' competence of teaching patients in preparation for discharge, because patient knowledge is vital for patients to engage in effective self-care and ultimately to reduce readmission rates (Sherman, 2016).

Purpose

The purpose of this independent project was to create an evidence-based academic lesson plan to prepare future nurses to effectively educate patients. Nurses have the task of educating patients and families to manage chronic and acute illness to prevent readmissions and to promote self-management of disease (Avallone & Cantwell, 2017; Blazeck, Katrancha, Drahnak, Sowko, & Faett, 2016; MacLean, Kelly, Geddes, & Della, 2018; Peter, et al., 2015; Pinchera & Lawless, 2018; Richard, Evans, & Williams, 2018; Sherman, 2016). One study found that nursing students do not possess confidence, knowledge, or skills to promote effective, patient-centered education to patients (Avallone & Cantwell, 2017). Nursing students recognized that educating patients was important but did not know how or what to educate their patients on (Richard, Evans, & Williams, 2018).

This project analyzed evidence for an academic lesson plan to prepare nursing students to implement evidence-based education to future patients for which they care in their practice. The goal of reducing patient hospital readmissions and adverse outcomes is achievable, but it will require nurses to teach patients through effective strategies. This project provides one small step towards this goal.

Significance

Patient teaching is an important nursing responsibility for professional nurses (American Nurses Association, 2015). It is especially important when nurses are preparing patients for effective self-care. Moreover, nurse provision of quality discharge teaching is the first strategy to prevent readmissions (Avallone & Cantwell, 2017; MacLean, Kelly, Geddes, & Della, 2018). Discharge instructions should begin at admission and continue through the entire patient stay for successful patient outcomes (Blazeck et al., 2016; Sherman, 2016). Studies have found that

education should be developed to meet individual patient needs, and the process should fully engage the patients in their own care to better improve self-care outcomes and compliance with medications (Blazeck et al., 2016; Sherman, 2016).

Unfortunately, nurses are not adequately prepared to deliver effective patient education, and this has significant impact on patients' ability to care for self after discharge (Darkwah, Ross, Williams, & Madill, 2011; Richard, Evans, & Williams, 2018). Poor discharge education has led to misunderstandings in medication administration, disease processes, and non-compliance in home care (Blazeck et al., 2016; Peter, et al., 2015). Incomplete or incorrect information and communication has resulted in extra, but avoidable treatments, adverse patient events and almost 20% of all Medicare patients discharged from the hospital are readmitted within 30 days. All these outcomes of inadequate or poor patient education increase healthcare costs to almost two-thirds of all U.S. hospital (Hesselink, et al., 2014; Polster, 2015). The negative impact of ineffective discharge education and practices goes beyond the individual patient and has also led to imposition of penalties on healthcare facilities (MacLean et al., 2018).

The problem of lack of nursing competence to provide effective patient education begins in academic nursing education when patient teaching for discharge is not emphasized and learning activities are not specifically planned to facilitate development of competency to effectively educate patients (Avallone & Cantwell, 2017; Bennett, Grimsley, Grimsley, & Rodd, 2017). Despite the importance of nurses having competence to effectively educate patients, nursing students are generally restricted to theory-based assignments and observing patient education of others who were educating patients. Students are not often afforded the opportunity to develop and deliver patient education (Blazeck et al., 2016; Sherman, 2016). Subsequently, the nursing students become nurses inadequately prepared to successfully educate patients

(Blazeck et al., 2016; Sherman, 2016). Less than one third of nurses have had formal education on how to educate patients (Richard et al., 2018). Even though patient education is dependent on the educational preparation, studies suggested that students did not display self-efficacy in their ability to educate patients (Richard et. al, 2018). Students must learn to effectively educate their patients with different learning needs.

Theoretical framework

The theoretic framework that was used to frame this project was Orem's Self-care Nursing Theory for lesson content and the Cognitive Learning Theory for learning processes. Orem's Theory of Self-care Nursing concentrates on the client's ability to meet self-care requisites (Dorothea Orem's Self-Care Theory, 2012). The Cognitive Learning Theory uses information processing and active learning to promote knowledge understanding and long-term memory (Billings & Halstead, 2016)

Orem's Self-care Theory views people as distinct individuals that should be self-reliant and responsible for their own care or their family member's needs to maintain life, health, and well-being (Dorothea Orem's Self-Care Theory, 2012; Koernig Blais & Hayes, 2016). Nurses are required to educate patients about effective self-care by using five methods of helping: acting for and doing for others, guiding others, supporting another, providing an environment promoting personal development in relation to meet future demands, and teaching another (Dorothea Orem's Self-Care Theory, 2012; Koernig Blais & Hayes, 2016). Orem's theory is applied to the education of patients by assessment of patient needs, perspective of health, health goals, requirements for self-care, education about self-care, and capacity to perform self-care (Dorothea Orem's Self-Care Theory, 2012). The nursing student must be able to educate the patient on

maintenance of health status, management of disease process, adherence to medication regimen, and awareness of potential problems (Dorothea Orem's Self-Care Theory, 2012).

The Cognitive Learning theory can be applied to both patient education and student education. The cognitive learning theory emphasizes the role of mental activities in the learning process including thinking, remembering, perceiving, interpreting, reasoning, problem solving, evaluating, and decision making (Clark, 2018; Aliakbari, Parvin Neda, Heidari, & Hahani, 2015; Keating, 2015). Nurses are responsible for the design and implementation of health promotion programs for promoting health training for patient self-care education (Aliakbari et al., 2015). Educators, whether it be the instructor, nursing student, or nurse, must organize the instruction in a logical, organized, and meaningful way to ensure learners are able to connect the new information with their existing knowledge (Clark, 2018; Aliakbari et al., 2015; Bastable, 2014). Education should be compatible with the learners' thinking and developmental level (Aliakbari et al., 2015; Koernig Blais & Hayes, 2016).

Understanding of the educational content is based on the learner's perceptions of the information and can be influenced by personal characteristics and experiences (Koernig Blais & Hayes, 2016). Learners can retain new information when they can associate it with the material they have already learned (Aliakbari et al., 2015). Individuals learn to understand and process information through active participation in education that is presented to them (Clark, 2018; Billings & Halstead, 2016; Keating, 2015). The educator must assess the learner's readiness to learn and adapt teaching strategies to the developmental level of the learner (Koernig Blais & Hayes, 2016). The educator must also provide a social, emotional, and physical environment conducive to learning to encourage positive teacher-learner relationships (Koernig Blais & Hayes, 2016). The educator must select multisensory teaching strategies, recognize personal

characteristics influence how cues are perceived, and develop appropriate teaching strategies, and then select behavior objectives and strategies that encompass all domains of learning (Koernig Blais & Hayes, 2016).

There were nine conditions of learning that help learners to process and understand new content (Bastable, 2014; Clark, 2018). The conditions of learning were (a) gaining attention of the learner, (b)informing the learner of the objectives, (c)stimulating recall of prior learning, (d)presenting the content, (e)providing learning guidance, (f)eliciting performance and practice, (g)providing meaningful feedback, (h)assessing performance, and (i)enhancing retention of new content (Bastable, 2014; Clark, 2018). Factors that can facilitate learning include motivation of the learner, readiness, active involvement, feedback, simple to complex educating, repetition, timing of education, and the environment for learning (Koernig Blais & Hayes, 2016). The need for education must be identified by the learner with the learner being willing and able to learn (Koernig Blais & Hayes, 2016). Education should be performed in an environment free from distraction with no visitors and limited interruptions (Koernig Blais & Hayes, 2016).

Orem's Self-care Nursing Theory was used in this project to provide the basis for the lesson content included in the evidence-based lesson plan to educate patients on self-care requisites. The Cognitive Learning Theory provided the basis for the learning processes used to develop the evidence-based lesson plan. This theory used information processing and active learning to promote knowledge understanding and long-term memory for nursing students and the patients being educated (Billings & Halstead, 2016).

Process

A comprehensive review of the literature was completed to provide evidence for an evidence-based lesson plan. The search for evidence included CINAHL Complete, PubMed and

Google Scholar databases. The keywords for the search included: “education”, “nursing education”, “best practice”, “hospital discharge”, “nursing students” and “patient education”.

Inclusion criteria included articles in the English language from the years 2006-2018, best practices for providing patient education, and student nurse self-efficacy. The search engine CINAHL Complete had 188 articles identified when filtered with the keywords’ “education”

AND “best practice” AND “discharge”. When keywords “nursing education” AND “discharge” were searched 1008 articles were identified and 29 articles were identified with the keywords

“nursing students” AND “patient education” AND “discharge”. The PubMed search identified

71 articles when using the key words “nursing students” AND “patient education” and 646

articles were identified when using the keywords “nursing education” AND “discharge”. The

Google Scholar database identified 3242 articles when using the keywords “nursing student”

AND “patient education”. Articles that were excluded were those that were older than 2006, not in the English language, and did not provide evidence of best practices for educating students on

best practices on educating patients. Melnyk's Levels of Evidence (Table 1) was used to evaluate the strength of the evidence to create an article review matrix that is included with this project

paper to demonstrate the evidence-base of the project.

Table 1

Melnik’s Levels	Types of Evidence	Results
Level I	Systematic Reviews & Meta-analysis	2
Level II	Randomized Control Trials	0
Level III	Controlled Trials without Randomization	2
Level IV	Case or Cohort Studies	1
Level V	Systematic review descriptive & qualitative	2
Level VI	Single descriptive or qualitative study	7
Level VII	Expert Opinion	1

(M Library Research Guides, 2018)

This project was completed to provide an evidence-based lesson plan for educators to utilize to educate nursing students on how to educate patients. The project used the evidence collected from the literature search to create an evidence-based lesson plan for nursing students to actively participate in educating patients. By incorporating this evidence-based lesson plan into nursing education, nursing students will be more prepared to educate patients while in the hospital and at discharge to help reduce readmission rates and increasing positive patient outcomes and compliance.

Review of the Literature

Introduction

Effective patient-centered education is an essential part of an overall strategy to assist patients as they transition from hospital to home or other settings and adequate patient education helps to prepare the patient for this transition (Avallone & Cantwell, 2017). Care transitions that are poorly coordinated cost an estimated \$12 billion to \$44 billion per year and contributed to

poor health outcomes for the patient, noncompliance with medical care and follow-up needs, and led to unnecessary hospital readmissions (Dreyer, 2014; Hesselink, et al., 2014; Peter, et al., 2015). One study found 79% of hospital readmission were preventable and were a direct result of uncoordinated care and poor discharge education (Polster, 2015).

Providing patient education is a critical component and an important part of the nurse's role in providing safe, quality care facilitating the development of self-care behaviors (Pinchera & Lawless, 2018; Richard, et al., 2018; Sherman, 2016). Adequate patient education leads to reduced health risks, reduced costs for the patient, cost for the health care facilities, and a 30% reduction in readmission rates (Darkwah, et al., 2011; Peter, et al., 2015; Polster, 2015). Fox et al. (2013) conducted a systemic review that included nine trials, with a total of 1736 participants, to compare the effectiveness of early discharge planning to usual care in reducing the length of hospital stays, hospital readmissions, and readmission lengths. The review found that early discharge planning with acutely admitted older adults improved patient outcomes after hospital discharge and led to decreased readmissions, mortality, and an increased satisfaction with the discharge planning (Fox, et al., 2013).

It is important for nurses to be able to provide patient education and have the resources available to provide effective education that meets the needs of their patients and families to lessen the risk of complications and readmissions (Lofmark, Smide, & Wikblad, 2006; Richard, et al., 2018; Sherman, 2016). Polster (2015), a critical care clinical nurse specialist and discharge patient facilitator, identified key education tools essential for preparing patients to care for themselves at home, improving patient outcomes and minimizing readmissions to the hospital. Key education tools include a baseline assessment of the patient, assessment of health literacy, determining reading level and readability, understanding how adults learn, cultural competence,

and using the teach-back technique (Polster, 2015). Literacy, cognition, education level, socioeconomic status and the level of social support influenced the patient's adherence to discharge instructions (Polster, 2015).

Engaging the patients and their families in the education being provided has led to the patient being more likely to adhere to the prescribed plan, engage in better management of the disease, and the patient experienced better outcomes following discharge (Blazeck, et al., 2016). Pinchera and Lawless (2018) conducted an integrative review of research, which included 36 research articles, to identify the best practices for self-management programs and interventions across the chronic illnesses of Heart Failure, COPD, and DM2. The study identified that the most common intervention was the teach-learn method that combined individualized plans with contact with health care providers (Pinchera & Lawless, 2018). The adaption of knowledge, skills, and attitude training for those with chronic illnesses were needed to overcome barriers to achieving self-management (Pinchera & Lawless, 2018). The study identified the major barriers to achieving self-management goals including duration of support, psychosocial of psychological and disease-related physical limitations (Pinchera & Lawless, 2018).

A literature review by Sherman (2016) was conducted for a one-group pre-post design, to create a patient education curriculum focusing on providing nurses with key steps to standardize the delivery of patient education and allowed increased, improved patient education delivery (Sherman, 2016). The project concluded that clinical nurses need to be more involved with patient education but require support and resources in their role as patient educators. The project found that including a patient education curriculum will contribute to the provision of effective, efficient education by clinical nurses (Sherman, 2016).

Nurses have been concerned that newly-graduated nurses do not have the necessary skills for informing and educating patients with some new graduate nurses not being adequately prepared to assume the role without more clinical experience (Bennett, et al., 2017; Lofmark, et al., 2006). The transition from nursing student to Registered Nurse was found to be a difficult transition and new graduates faced challenges that affected their performance during the transition from school to employment with most nurses believing they did not have the formal preparation to be successful in their role of educating patients (Bennett, et al.2017; Sherman, 2016). A study conducted by Darkwah et al. (2011) was a comparative, quasi-experimental design that included 22 first-year and 36 third-year nursing students in a concept-based learning program (Darkwah, et al., 2011). The study utilized a modified version of the Health Promotion Disease Prevention Inventory to measure students' self-efficacy in patient education (Darkwah, et al., 2011). The study found that third-year nursing students showed a higher self-efficacy in educating patients than first-year nursing students (Darkwah, et al., 2011).

Several sources in this literature review contended that nursing students may not possess the confidence, knowledge or skills to provide effective, patient-centered education stating that they often knew what education was needed to be provided but not how to provide the education leading to anxiety in providing patient education (Avallone & Cantwell, 2017; Kaylor, Strickland, & Sartain, 2018; Richard, et al., 2018). Two sources found how well patient teaching principles were being taught in nursing programs and how patient teaching principles were being integrated into nursing student clinical practice experiences to be important (Akram, et al., 2018; Richard, et al., 2018).

Loftmark et al. (2006) completed a descriptive design study to compare the self-ratings of final year nursing students of their competence to provide patient care and education with the

ratings experienced nurses placed on the competence of newly-graduated nurses. One Hundred and six students from two universities and 136 experienced nurses from one hospital were randomly selected and completed the survey. The study found that in the final year of nursing school, nursing students estimated their competence higher in all 18 items of the survey than the experienced nurses rated it. The researchers questioned the accuracy of the nursing students' self-assessments (Lofmark, et al., 2006). The study highlighted the importance of assessment of nursing students during clinical education and encouraged an active learning style and lifelong learning to be able to inform and educate patients (Lofmark, et al., 2006).

Richard et al. (2018) conducted a focused ethnographic study that included 28 undergraduate students split into focus groups to determine the extent that students in a concept-based learning and problem-based learning undergraduate nursing programs engage in patient teaching when they are in the clinical area. Content from all interview data was analyzed thematically and inductively by three researchers who found four common themes including: (a) person responsible for patient education, (b) when patient education should occur, (c) consequences if patient education is not performed, and (d) how can the culture of patient education be improved (Richard, et al., 2018). This study found the students in this study recognized their responsibility for patient education but felt that their overall preparation for the role of patient educator was inadequate (Richard, et al., 2018).

Weekes and Wyatt (2013) conducted a study to have students engage in experiential learning as a means of gaining an understanding of inadequate health literacy from the patient's perspective. Students (n=146) in a first-year undergraduate nursing class were given a surprise quiz written using medical terminology at a level more advanced than the students, which was followed by viewing a module of patient interviews. The students were asked at the next class

period to reflect on the purpose of the quiz, their experience of taking a quiz filled with unfamiliar medical jargon, and how the experience might impact their nursing practice. The purpose of the quiz was to allow the students to experience how patients with inadequate and marginal health literacy feels is the situation of patient education (Weekes & Wyatt, 2013). The authors concluded that an introduction to health literacy content was essential to undergraduate nursing students and should include activities that will help students to apply health literacy concepts into their professional practice when educating patients (Weekes & Wyatt, 2013). Providing this education to the students helped to emphasize how patients who struggle with health literacy feel and provided a foundation for excellent communication with patients (Weekes & Wyatt, 2013).

Avallone and Cantwell (2017) conducted a study that used an instructor-designed pretest and posttest instrument to measure the difference in knowledge and confidence from participants in a three-hour educational program that consisted of a Heart Failure didactic session, case study, role-play, and simulation activities relating to patient education given by 18 peer teachers over the course of three semesters to 66 nursing students from Fall 2013 and Spring 2016. The study showed an improvement in identifying essential elements of Heart Failure patient education and the ability to perform the teach-back method increased along with confidence in patient education skills (Avallone & Cantwell, 2017).

The teach-back techniques provided nursing students with skills to facilitate two-way interactions with patients by encouraging the patients to confirm knowledge and clarify any misunderstandings providing evidence-based, patient-centered patient education (Avallone & Cantwell, 2017; MacLean, Kelly, Geddes, & Della, 2018). Studies found that nursing students who received training in the teach-back method had improved patient education delivery skills

and the teach-back method was an easy to use, effective communication method, that improved patient education (MacLean, et al., 2018; Peter, et al., 2015; Polster, 2015).

Blazeck et al. (2016) conducted a qualitative study to improve instruction related to discharge teaching provided by nursing students. Three video modules were developed and presented to 216 sophomore nursing students during clinical post conference along with their instructors (Blazeck, et al., 2016). Twenty students were randomly selected from this group of students along with 10 faculty members to participate in two focus groups, one faculty and one student (Blazeck, et al., 2016). The evaluation method was chosen to elicit rich evaluation data (Blazeck, Katrancha, Drahnak, Sowko, & Faett, 2016). The small study group was intended to provide discussion that could be open-ended to provide extensive information from the students (Blazeck et al., 2016). Responses to discussion questions were recorded, transcribed verbatim, and then analyzed into themes. The study found that uniform instruction utilizing interactive video modules can be used to foster skills for patient teaching early in the nursing curriculum. Students that participated in the study commented positively on the format and illustration of effective teaching. The project supported the benefits of teach-back which has been an ongoing theme in research studies (Blazeck, et al., 2016).

MacLean et al. (2018) conducted a quasi-experimental control group study. The study included 141 second-year or third-year bachelor-degree nursing students who were split into three groups based on their year of study, a control group, information group, and interaction-based intervention groups. Group 1 received didactic review with a PowerPoint presentation focusing on patient discharge practices, group 2 was given a refresher on the patient discharge process and group 3 was given a refresher and the students completed a 45-minute teach-back education module (MacLean, et al., 2018). Eight simulated patients were educated on different

discharge education and then the Quality Discharge Teaching Scale was used to measure the students' ability to deliver the discharge-related information (MacLean, et al., 2018). The study found that combining both information-based or risk factors and the interaction-based or teach-back approaches increased the nursing student's ability to deliver patient education. The authors conducted evaluated the effectiveness of information and interaction-based training interventions to improve nursing students' communication skill during the discharge of a patient.

Peter et al. (2015) focused their study on the association between inadequate care transitions in patients with heart failure and subsequent costly readmissions. The quality improvement initiative evaluated the current state of care transitions in one hospital and an education team was developed to develop a teach-back protocol. Data was collected using a Lean Methods A3 tool to map the current state of patient and family education (Peter, et al., 2015). From January through June 2010, 180 patients with heart failure were provided with core-measure education using teach-back questions (Peter, et al., 2015). Readmission rates for patients who received education utilizing the teach-back method was collected from July through September. Evidence found that teach-back was an essential tool in patient education that was easily incorporated without additional costs to the organization that reduced readmission rates and revealed areas of the teaching plan that key learners may not fully understand (Peter, et al., 2015).

Dreyer (2014) summarized best practices in care transitions and described successful programs that reduced readmissions and overall costs to patients. Best practices included comprehensive discharge planning, complete and timely communication of information, medication reconciliation, patient/caregiver education using the "teach back" method, open communication between providers, and prompt follow-up visit with an outpatient provider after

discharge (Dreyer, 2014). The paper asserted that safe care transitions from the hospital to other settings were essential to providing high-quality patient care and reduced readmissions (Dreyer, 2014). Comprehensive discharge planning and patient/caregiver education using the teach-back method were identified at reducing these readmissions (Dreyer, 2014)

Using a simulated patient or a paper patient was also found to be effective for teaching assessment and communication skills and required nursing students to extract information and perform discharge planning screenings to identify patient information needed for patient education and was used to overcome the limitations of clinical education (Blazek, et al., 2016; Domoto & Saneto, 2015; Kaylor, et al., 2018). Using a standardized patient offers role playing opportunities and provided a realistic, low-cost, low-stakes learning environment that improved patient education skills among students (Kaylor, et al., 2018).

Kaylor et al. (2018) described an innovative approach to patient teaching using utilizing a standardized patient simulation, which was an actor portraying a patient. The researchers reviewed standardized exam scores from previous cohorts of nursing students to identify areas of consistent weaknesses in scores and found those areas to be stress and coping, effective communication, patient education, and advocacy/legal-ethical issues. The authors then created a simulated patient scenario for students to practice therapeutic patient communication, delivering patient education, and modeling professional behaviors (Kaylor, Strickland, & Sartain, 2018). Nursing students (n=112) enrolled in a baccalaureate fundamentals nursing course participated in the simulation with the goal to promote therapeutic communication for patient teaching. The authors concluded that using a standardized patient for nursing students to perform assessments on to identify patient education needs and provide pertinent patient teaching is a low-cost option

that improved soft skills among students to create a safe learning space, reduce anxiety, and promote greater retention of information (Kaylor, et al., 2018).

Domoto and Saneto (2015) conducted a descriptive study with 125 sophomore nursing students at a Japanese nursing college who performed an extraction of information necessary for discharge on a paper patient. The Japanese screening tool designed for discharge planning included information regarding the patient's age, degree of assistance required for movement and toileting activities, cognition, family care, people living together, long-term care insurance, medical treatment and care required following discharge, and the patient's or family's hopes for a discharge plan and a particular discharge destination (Domoto & Saneto, 2015). The students were required to extract information that they found important for the paper patient's discharge. The information that the students extracted was compared to the Japanese screening tool that was designed for discharge planning and the student responses were split into two groups, responses that included information that was found on the discharge planning screening tool and responses that did not include information found on the discharge planning screening tool (Domoto & Saneto, 2015). The researchers found that students needed to connect the different aspects of patient information and needed to be aware of the association between the care required following discharge and care provided in the hospital to provide adequate patient education prior to discharge (Domoto & Saneto, 2015). Students were found to need guidance to connect patient and family information to educate the patient on how to maintain health following discharge (Domoto & Saneto, 2015).

Summary

Themes identified in the literature review included early discharge planning improved patient outcomes, decreased readmissions, and mortality. Graduate nurses were not adequately

prepared to provide patient education and nursing students did not possess the knowledge or skills to provide effective, patient-centered education. Using the teach-learn or teach-back method was an effective education tool for providing patient education along with using a simulated patient or paper patient for educating nursing students on assessment and communication skills to provide patient education.

Gaps in nursing student knowledge was found in the literature, particularly in the student's ability to translate and apply theoretical learning and knowledge from the classroom into the clinical practice and learning environment (Akram, et al., 2018; Bennett, et al., 2017; MacLean, et al., 2018). The application of knowledge gained from theory is important to provide quality patient education. Nursing students and nurses were not asking clarifying questions related to identifying patient self-care deficits (Peter, et al., 2015; Polster, 2015). Studies showed that nursing students are not often afforded the opportunity to develop and deliver patient education and are limited to observation of teaching behaviors and theory-based assignments and more effort should be put into educating nursing students on teaching, planning, and prioritizing patient education (Blazeck, et al., 2016; Lofmark, et al., 2006; Richard, et al., 2018).

Nurses need the resources and skills to provide patient education. Skills for providing patient education start with nursing program educators and how nursing students are prepared to provide patient education. Preparation to provide education included education on the use of teach-back, using peer teaching strategy, using simulated patients and case studies. The next section will synthesize the evidence found in this literature review.

Discussion

Interpretation

Nursing students and graduate nurses were not adequately prepared to provide patient education (Avallone & Cantwell, 2017; Bennett, et al., 2017; Darkwah, et al., 2011; Kaylor, et al., 2018; Lofmark, et al., 2006; Richard, et al., 2018). Consequently, nurses are not confident that they were providing effective education to their patients (Richard, et al., 2018). Providing quality patient education is important for improving patient outcomes. Early discharge planning improved patient outcomes, decreased readmissions and mortality in 3 studies (Dreyer, 2014; Fox, et al., 2013; Peter, et al., 2015). Patient education should be developed collaboratively, tailored to the individual, and clearly understood by the patient (Blazeck, et al., 2016; MacLean, Kelly, Geddes, & Della, 2018; Sherman, 2016).

Nursing instructors must be able to guide nursing students to doing the right interventions and providing effective patient education. (Akram, Mohamad, & Akram, 2018). Clinical instructors must also be familiar with what is being taught in theory classes to enhance the integration of knowledge into practice (Akram, Mohamad, & Akram, 2018). Clinical instructors should have strongly developed patient teaching skills and abilities themselves to reinforce student knowledge and applying the knowledge related to patient teaching in the clinical area (Richard, Evans, & Williams, 2018). Educators need to be aware of how to prepare nursing students to adapt to various professional environments in order to deliver effective patient teaching and nursing programs should be structured to facilitate the development of the student's self-efficacy and ability to apply knowledge to patient education (Richard, et al., 2018; Darkwah, et al., 2011). Self-efficacy was developed from performing the education, seeing another person

perform patient education, using verbal persuasion, and emotional arousal (Darkwah, et al., 2011).

Teaching methods used by educators in nursing programs have an effect on the nursing student's learning and studies found that best practices for prepare nursing students to educate patients included the teach-back method, using a peer teaching strategy, using simulated patients, case studies, and using a paper patient which led to a stronger foundation for high-quality, cost-saving care transitions from hospital to the home for patients (Avallone & Cantwell, 2017; Blazeck, et al., 2016; Dreyer, 2014; Darkwah, et al., 2011; Domoto & Saneto, 2015; Fox, et al., 2013; Pinchera & Lawless, 2018; Akram, et al., 2018). The teach-back method improves learning outcomes, identifies learning gaps, and provides opportunity for healthcare providers to address misunderstandings when educating patients (Peter, et al., 2015). Providing students with the education on how to use the teach-back method and ensuring that nursing students are comfortable with using this method will prepare nursing students to use this method for patient teaching.

Using simulation, simulated patients, and case studies allows the nursing students to practice using the teach-back method in a safe environment. Training students that involves interactional strategies provided structured discussion that improves communication techniques and patient satisfaction (MacLean, Kelly, Geddes, & Della, 2018). Nursing students that are equipped in the knowledge and interaction strategies to provide patient education is an essential component of nurse-patient education (MacLean, Kelly, Geddes, & Della, 2018).

Case studies and using peer teaching strategies provides a way for nursing students to gain patient education knowledge, skills, and confidence so that they will be better able to provide patient education to patients and their families (Avallone & Cantwell, 2017).

Outcome

An evidence-based lesson plan was created based on the results of the literature review (Appendix B). The lesson plan is a two-hour lesson on the use of the teach-back method. The lesson requires students to complete a pre-lesson quiz and then complete an interactive, online module on the teach-back method and how to apply the teach-back method to patient education. Using an interactive module for student education allows the nursing student to observe patient education and provided nursing students with examples of how to initiate patient education (Blazeck et al., 2016). Interactive video modules allow students to practice critical thinking skills and reasoning and allows for uniform instruction (Blazeck et al., 2016). Providing nursing students with education on how to use the Teach-back method of educating patients provided an evidence-based, patient-centered method for teaching patients (Avallone & Cantwell, 2017).

After the online module, the lesson requires students to practice the teach-back method by using a peer teaching case study. The students are split into groups of two and each educate their partner on a topic picked by the instructor. One student presents the patient education to their partner using the teach-back method, and then their partner repeats back to them what they understood from the teaching. Peer teaching strategies provide a way for nursing students to gain patient education knowledge, skills, and confidence to provide patient education to families and patients (Avallone & Cantwell, 2017). Active learning requires activities from the student and instructor, splitting into groups will help bring the content learned in the didactic lesson into real life situations (Moore-Cox, 2017).

The next activity for this lesson plan was for the instructor to lead a class discussion on using the teach-back method and how the students will incorporate it into their patient education. This time also allows for a debriefing period. Group discussion is a strategy that facilitates the

transfer of knowledge between theory and practice (Culyer, Jatulis, Cannistraci, & Brownell, 2018). A class discussion after a small group discussion also allows main ideas to be shared to the whole class and allows for everyone's ideas to be heard (Faber, 2011). Debriefing helps to engage learners in reflective discussion that lets them receive feedback from peers and the educator (Oermann, Shellenbarger, & Gaberson, 2018).

The lesson ends with a post quiz to assess how comfortable students are with providing patient education and a time for questions. The pre and post quiz provide an assessment of learning for the educator and the nursing student. The conclusion provides closure and has cues that the students have mastered what was to be learned (Moore-Cox, 2017).

Dissemination

Dissemination of the evidence-based lesson plan included a presentation to last semester Associate Degree nursing students in the Dakota Nursing Program at Dakota College at Bottineau (appendix B). The lesson was completed during a post-clinical conference. The independent study project was presented at the University of North Dakota Graduation Research Achievement Day as a live poster presentation to judges, peers, and the public (appendix C).

Implications for Nursing

Education.

Nurses are expected to provide excellent, competent care at all times and it is vital that educational curriculums provide nursing students with the educational experience to enter the nursing field at a competent level (Bennett, Grimsley, Grimsley, & Rodd, 2017). Nursing education must take responsibility for preparing nurses to educate patients. Content and activities should be included in the curriculum for nursing students and experiential learning to teach patients can be included in simulated patient care and clinical skills. The teach-back method is

one strategy to provide patient education and this lesson plan demonstrated it can be easily integrated into a curriculum. Didactic content that emphasizes the importance of patient teaching and the elements that make it successful are essential to effective lesson plans to enhance nursing students' competence to teach patients (cite the sources). Understanding how adults learn can help nursing students and nurses tailor education to each individual patient (Polster, 2015). The Cognitive Learning Theory believes that individuals learn through active participation (Clark, 2018). The educators must make instruction meaningful and help learners to relate new information to existing knowledge (Clark, 2018).

Simulation can be an effective method for students to practice patient teaching in a safe environment. One challenge of simulation was that nonverbal cues were not easily portrayed (Kaylor, Strickland, & Sartain, 2018). Studies showed that nursing students are not often afforded the opportunity to develop and deliver patient education and are limited to observation of teaching behaviors and theory-based assignments and more effort should be put into educating nursing students on teaching, planning, and prioritizing patient education (Blazeck, Katrancha, Drahnak, Sowko, & Faett, 2016; Lofmark, Smide, & Wikblad, 2006; Richard, Evans, & Williams, 2018). Opportunities for nursing students to provide patient education promoted the professional knowledge base for the student (Akram, et al., 2018). Nursing students gained patient education knowledge, skills, and increased confidence when educating patients after completing a peer teaching lesson that included beginning skills in the teach-back technique (Avallone & Cantwell, 2017).

Equally important to receiving content in didactic class and practicing it in simulation, the students need the opportunity to apply this learning while caring for clients. Therefore, clinical educators must be familiar with the content nursing students are being taught in

theoretical courses and must provide effective clinical supervision to aid in student learning by creating a positive learning environment (Akram, Mohamad, & Akram, 2018).

Practice.

Nurses provide patient education on self-management of acute and chronic illnesses to patients and their families. Nurses need to learn how to tailor educational methods to each patient or family, develop strategies and interventions to help self-management of illnesses, and identify supportive techniques for the patients and families in order to sustain the lessons learned (Pinchera & Lawless, 2018). The nurses will have to learn how to individualize the teaching time and content for each patient (Pinchera & Lawless, 2018). Coordinating patient education requires clear communication, consistent teaching strategies, and clear documentation (Peter, et al., 2015). Nurses must also dedicate time to perform effective patient education with uninterrupted blocks of time (Polster, 2015). Nurses should prepare themselves for educating patients by completing continuing education to improve or maintain their patient education abilities (Sherman, 2016).

Research.

Further studies should be conducted to evaluate nursing students' roles in patient education and how to bridge the gap in theory-practice for nursing students to provide quality, patient-centered patient education (Bennett et al., 2017; Richard et al., 2018). Further studies are also needed on how nursing students are educated for providing patient education and the quality of that education nursing students are receiving (Akram et al., 2018; Bennett et al., 2017; Richard et al., 2018). Studies should also be conducted on the preparation of clinical nurse educators in guiding nursing students in patient-centered education in the clinical setting (Akram et al., 2018; Bennett et al., 2017). Lastly, research is needed to explore the experience of the

clinical instructors and the perceptions educators have regarding clinical nursing education (Akram et al., 2018).

Summary/Conclusions

Nursing students need to be adequately prepared to provide quality, patient centered education to their patients as an outcome of their education program (Sherman, 2016). Patient education is an important factor for improving patient outcomes and reducing readmission rates. Nurses are often responsible for providing this important education to patients. However, evidence indicates that nurses and nursing students do not possess the knowledge, confidence, or skills to promote effective, patient-centered education (Avallone & Cantwell, 2017). Nursing students' experiences were often found restricted to theory-based assignments and observing patient education being provided by others (Richard et al., 2018).

Preparing nurses to provide patient education should begin early in the nursing education with nurse educators being responsible for developing this educational experience (Bennett et al., 2017). This project collected evidence of the characteristics of effective patient education through a comprehensive review of the literature and supported an evidence-based lesson plan to facilitate undergraduate nursing students' competence of teaching patients in preparation for discharge.

The evidence from this project showed that incorporating how to provide patient education in the nursing curriculum early improved nursing student's self-efficacy in providing patient education as a graduate nurse. This education should be incorporated into nursing curriculums early and continue throughout the program to provide adequate preparation of students to perform patient education throughout their nursing program.

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Appendix A

Authors/ Publication Year	Purpose	Design	Sample	Data Collection and Measurement	Findings	Strengths	Limitations	Level of Evidence
(Avallone & Cantwell, 2017)	Evaluation of a unique education intervention designed to prepare nursing students to be more effective Heart Failure patient educators upon graduation.	A pretest/posttest design and survey were used to evaluate a three-hour educational program	Offered to 3 groups of students between fall 2013 and spring 2016.	Instructor-designed pretest and post-test instruments were used to measure the difference in knowledge and confidence from the participants	Study showed an improvement in identifying essential elements of HF patient education and the ability to perform Teach-back increased along with confidence in patient education skills and teach-back technique.	The program showed effective beginning skills in teach-back technique with an improvement in students' knowledge and confidence in the ability to provide HF education to patients. Students were able to implement this method in discharge teaching for all patients.	Limited in its scope, unclear if change in knowledge and confidence will be sustained and translate to the bedside. Tools were designed by the investigator to meet local curricular improvement needs	Level 4
(Blazeck, Katrancha, Drahnak, Sowko, & Faett, 2016)	The aim of this study was to improve discharge teaching provided by nursing students.	Three video modules were developed to present effective and ineffective education for patients. Students viewed the	Sample included 216 sophomore nursing students during a clinical post conference. 20 students and 10 faculty members were then randomly selected to participate in a discussion group	Responses to discussion questions were recorded, transcribed verbatim, and analyzed into themes	Interactive video modules can be used to foster patient teaching skills early in the nursing curriculum. Students commented positively on the format and illustration of effective teaching. The project supported the benefits of teach-back	Uniform instruction was allowed for. Study was cost effective and reproducible. The modules were well received by faculty and students	Clinical groups were limited, the study was only done on 2 campuses and was not repeated.	Level 6

		module and completed a post-conference discussion						
(Darkwah, Ross, Williams, & Madill, Undergraduate nursing student self-efficacy in patient education in a context-based learning program, 2011)	To examine the influence of Context-Based learning on undergraduate nursing student self-efficacy in patient education	A Comparative, quasi-experimental design was used. A non-probability convenience sample was drawn from first-year and third-year nursing students in a CBL program	22 first year and 36 third year nursing students were eligible to complete the survey	A modified version of the Health Promotion Disease Prevention Inventory was used to measure students' self-efficacy in patient counseling. Survey questions were answered using a 4-point Likert-type scale	Study found that third-year students showed a higher self-efficacy in educating patients than first-year students	The study utilized a Concept-Based learning program and its influence on self-efficacy in relation to risk reduction.	The nonrandom sampling strategy, small sample size, and single point of data collection. Findings could not be generalized	Level 3
(Domoto & Saneto, 2015)	To clarify the relationships between items	A descriptive study	125 sophomore nursing students at a	Students performed an extraction of the information on the paper patient	Results found that students have limited knowledge about details of the patient	Students are required to extract information	Detailed information was provided in a descriptive	Level 6

	necessary for screening, nursing students extracted information from a description of a paper patient to consider means to develop assessment ability		Japanese nursing college	necessary for the discharge. The student’s responses were divided into two groups and then were analyzed. The Japanese screening tool designed for discharge planning was used. Statistical Package for the Social Sciences was used to perform data analysis.	that are important to know for discharge information including patient’s status, family care situation, support systems for the patients, and use of social resources.	details on a simulated patient	method rather than the students being able to ask questions of a “live” patient.	
(Dreyer, 2014)	To summarize best practices in care transitions and describe successful programs that reduced readmissions and overall costs	A summarization paper		An annotated bibliography detailing research on care transitions and a summary of care transition program developed through interviews with key informants in each program	Found that safe care transitions from the hospital to other settings are essential to providing high-quality patient care and reducing avoidable readmissions; comprehensive discharge planning and patient/caregiver education using the teach-back method were identified	Identified multiple best practices for program elements in the academic literature and suggest that these practices create a strong foundation for high-quality, cost-saving care transitions from the hospital to home	More research is needed as there is little high-quality research on care transitions that were not from the hospital to home	Level 5
(Fox, et al., 2013)	To compare the effectiveness of early discharge planning to usual care in reducing the length of hospital stay,	A systematic review was conducted.	9 trials with 1736 participants were included	A comparison was made of the effectiveness of early discharge planning to usual care reducing the index length of hospital stays, hospital readmissions, mortality, and	Results found that early discharge planning with acutely admitted older adults improved system level outcomes after hospital discharge	The review provided synthesized evidence to support initiation of discharge planning early, implications of reductions in readmissions may	Limitations were in the ability of the researchers to draw conclusions regarding the level of bias, the number of studies	Level 1

	hospital readmissions, and readmission lengths			increased satisfaction with discharge planning.		have significant resource implications		
(Kaylor, Strickland, & Sartain, 2018)	to find an innovative and humorous way for students to practice through role-playing with a standardized patient	A Simulation scenario utilizing a standardized patient	112 students enrolled in a baccalaureate fundamentals course	The researchers reviewed standardized exam scores from previous cohorts to identify a consistent weakness in scores related to stress and coping, effective communication, patient education, and advocacy/legal-ethical issues	Found that the use of an SP is a low-cost option that can improve “soft” skills among students, humor helps create a safe learning space, reduce anxiety, and promote greater retention of information	The students learn and respond to a “real” patient, they can utilize different methods for conducting patient education in a controlled setting	Time constraints, individualized one-on-one time with the SP is limited, classroom audience cues and participation help feed interactions in the simulation with group dynamics influencing the simulation	Level 6
(Lofmark, Smide, & Wikblad, 2006)	To compare the opinions of final year nursing students, rating their own competence, with the opinions of experienced nurses on the competence of newly-graduated nurses	A descriptive design using a questionnaire survey collected in 2002	106 students from two universities and 136 experienced nurses that were randomly selected and included in the study	A questionnaire comprising 18 items was sent out with one version for students and one version for experienced nurses with the questions being the same. A factor analysis with varimax rotation was performed to determine the construct validity of the assessment form and the items were summed into four factors and divided by the number of items included in each.	Final year nursing students estimated their competence higher in all 18 items then compared to what the experienced nurses rated it at.	Study highlights the importance of assessment of students during clinical education and encouraging an active learning style and lifelong learning	Respondents were final year students and experienced nurses with experienced nurses responding to issues that were not limited to the present relying on memory instead	Level 6

<p>(MacLean, Kelly, Geddes, & Della, 2018)</p>	<p>Evaluate the effectiveness of information and interaction-based training interventions to improve nursing students communication skills during the discharge of a patient</p>	<p>A quasi-experimental control group design</p>	<p>141 2nd or 3rd year bachelor-degree nursing students were recruited through one university with them being split into three groups; 8 simulated patients were recruited with volunteers having no experience being an SP</p>	<p>Two subscales of the Quality Discharge Teaching Scale were used to measure the students' ability to deliver discharge-related information to the SPs. Data was collected over a 12-month period and consisted of three 1-week blocks of simulations. The data was then analyzed by a SPSS database</p>	<p>Study found that combining both information-based or risk factors and the interaction-based or teach-back approaches increased the nursing student's ability to deliver patient education</p>	<p>Application of two theoretical frameworks to guide the study design and inform simulation development, it is one of the few nursing studies that evaluates the effectiveness of a teach-back intervention by examining data on communication during patient discharge</p>	<p>Utilized one university so generalizability of results may be limited, time required may be excessive for some nursing programs</p>	<p>Level 3</p>
<p>(Peter, et al., 2015)</p>	<p>Focused on the association between inadequate care transitions in patients with heart failure and subsequent costly readmissions</p>	<p>A quality improvement initiative that evaluate the current state of care transitions in one hospital. An education team was developed</p>	<p>The education team comprised 12 healthcare professionals that adopted a lean methodology that was the basis of a network-wide initiative</p>	<p>Data was collected from January to June 2010 on more than 200 patients, readmission rates were then assessed in the following 3 months from July to September, data was then analyzed for a 1-year period beginning in July 2010 on readmission rates for patients who received teach-back</p>	<p>Evidence supports teach-back as an essential tool in patient education that is easily incorporated without additional costs to the organization. Teach-back revealed areas of the teaching plan that key learners may not fully comprehend</p>	<p>Study identified key components of teach-back and how it was implemented, was used for implementation of a teach-back protocol to reduce readmissions in patients</p>	<p>This study was performed in one hospital. It was focused at Heart Failure patients</p>	<p>Level 6</p>

		ed and then developed a teach-back protocol						
(Pinchera & Lawless, 2018)	To identify the best practices for self-management programs and interventions across the chronic illnesses of Heart Failure, COPD, and DM2, and to identify the major barriers to achieving self-management goals	An integrative review of research	36 research articles that included 786 individual studies	The Donabedian quality framework of structure, process, and outcome was used.	Finding revealed program processes and teaching-learning methods that have implications of best practices for nurse educators, patient educators, and program developers to consider; future research is needed on how to balance education materials	Used multiple articles with multiple individual studies	Researchers had difficulty extracting demographic information; information on the specifics of interventions were not fully detailed when synthesized for the articles included in this integrative review of research	Level 1
(Polster, 2015)	To present key educational tools essential for preparing patients to care for themselves at home, improving patient	Staff development paper/educational paper	Not applicable for this article	Not applicable for this article	Literacy, cognition, education level, socioeconomic status, and level of social support all contribute to a patient's adherence to discharge instructions	Author is a critical care clinical nurse specialist and discharge patient facilitator	This was an expert opinion paper and did not include any studies or research in the base of the paper	Level 7

	outcomes, and minimizing readmissions							
(Richard, Evans, & Williams, 2018)	To determine if students in a CBL/PBL based learning undergraduate nursing program engage in patient teaching when they are in the clinical area	Focused ethnographic study	28 undergraduate students split into focus groups	Content from all interview data was analyzed thematically and inductively by three researchers	Found that patient teaching is a collaborative effort, students felt prepared to teach, and were engaged in patient teaching. Patient teaching in acute care was considered more challenging	A literature review was conducted along with student questionnaires, focus groups were utilized	Sample size was small, there could have been self-selection bias, the researchers teach in the programs that the students were in, the study was conducted in an urban and smaller rural city in one province in Canada, so generalizability of findings is limited	Level 6
(Sherman, 2016)	To provide nurses with a structured approach to effective, efficient patient education	a literature search was done along with an interprofessional search, a one-group pre-post test design was utilized with a	Clinical nurses from two inpatient medical-surgical units	Researchers collected 66 pretests and posttests from participants and compared knowledge	Clinical nurses need to be involved increasingly with patient education but require support and resources in their role as patient educators	Patient education curriculum will contribute to provision of effective, efficient education by clinical nurses within the organization	Small sample size and unifocal project setting, reliability of the tools was not determined statistically, completion of the pretest-posttest by one group of nurses who were unable to complete the simulations	Level 5

		patient education curriculum as the intervention						
(Weekes & Wyatt, 2013)	To have students engage in experiential learning as a means of gaining an understanding of inadequate health literacy from the patient's perspective	Students were given a surprise quiz and then an assignment with it	146 students in 1 st year undergraduate nursing class	Content analysis of the reflections of students were performed	Found that an introduction to health literacy content is essential and should include activities that will help students to apply health literacy concepts into their professional practice.	Focused on a new approach	Small sample size, has not been previously used	Level 6

		students with an introduction to the teach-back method. The students will be able to identify and practice key aspects of the teach-back method.	(link included below)			(Blazeck, Katrancha, Drahnak, Sowko, & Faett, 2016). Providing nursing students with education on how to use the Teach-back method of educating patients provided an evidence-based, patient-centered method for teaching patients (Avallone & Cantwell, 2017).
Case study	45 minutes	Interactive case study where the student will provide education to a partner.	Instructor provided case study on Heart failure and COPD, handouts on information for Heart Failure and COPD that the student can use for this education	The students will work in groups of 2 to perform patient education on heart failure and COPD. Each student will utilize the teach-back method to educate their partner on one of the diseases. They will then switch roles and the other student will educate their partner on the other disease. The students will be able to practice using the teach-back method with a live person.		Active learning requires activities from the student and instructor, splitting into groups will help bring the content learned in the didactic lesson into real life situations (Moore-Cox, 2017). Group discussion is a strategy that facilitates the transfer of knowledge between theory and practice (Culyer, Jatulis, Cannistraci, & Brownell, 2018) Peer teaching strategies provide a way for nursing students to gain patient education knowledge, skills, and confidence to provide patient education to families and patients (Avallone & Cantwell, 2017).
Class discussion	15 minutes	Class Discussion on the teach-back method and debriefing on how the students felt using this.	Class discussion, Instructor led questions to whole class	The students will actively participate in a discussion about how performing patient education using the teach-back method with a peer went. How the students plan to incorporate this into practice.		Having a class discussion after a small group discussion allows main ideas to be shared to the whole class and allows for everyone's ideas to be heard (Faber, 2011). Debriefing helps to engage learners in reflective discussion that lets them receive feedback from peers and the educator (Oermann, Shellenbarger, & Gaberson, 2018)

Conclusion	10 minutes	quick overview of what was covered, any questions, repeat assessment of the quiz that was taken at the beginning of class	Instructor led overview, Conviction and Confidence quiz	The instructor will lead a discussion on any questions the students still have and distribute the Conviction and confidence quiz.		The conclusion provides closure and has cues that the students have mastered what was to be learned (Moore-Cox, 2017)
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Table adapted from Dix & Hughes (2005)

Please note: More than one objective may be addressed through the same strategy, so feel free to adapt this table to fit your lesson, as long as all elements are addressed.

Link for Interactive Module

<http://www.teachbacktraining.org/interactive-teach-back-learning-module>

Teach-back handout

<file:///C:/Users/Chelsey/OneDrive/Documents/N%20997%20Independent%20Study/Teach%20Back%20-%2010%20Elements%20of%20Competence.pdf>

Teach-back quiz

<http://www.teachbacktraining.org/assets/files/PDFS/Teach%20Back%20-%20Conviction%20and%20Confidence%20Scale.pdf>

Appendix C

Educating Students to Educate Patients: A Literature review

Chelsey Lorenz, BSN, RN, Master's Candidate



Problem/Significance

- First strategy in reducing readmission rates is patient education.
- Improves patient outcomes
- Nurses are inadequately prepared
- Problem begins in academic nursing education
- Nursing students restricted to theory-based assignments and observing patient education
- Inadequately prepared to educate patients
- Use of evidence-based academic lessons is essential

(Avallone & Cantwell, 2017; Bennett, Grimsley, Grimsley, & Rodd, 2017; Blazeck et al., 2016; Darkwah, Ross, Williams, & Madill, 2011; MacLean, Kelly, Geddes, & Della, 2018; Peter, et al., 2015; Richard, Evans, & Williams, 2018; Sherman, 2016)

Purpose

To identify evidence for academic preparation of nursing students to become competent in educating patients

Methodology

- Searched CINAHL Complete, PubMed, and Google Scholar databases
- Keywords searched: *education, nursing education, best practices, hospital discharge, nursing students, patient education*
- Inclusion criteria: English language from the years 2006-2018, best practices for providing patient education, and student nurse self-efficacy
- Fifteen articles were retained

Findings

- Early discharge planning- improved patient outcomes, decreased readmissions and mortality in 3 studies (Dreyer, 2014; Fox, et al., 2013; Peter, et al., 2015)
- Teach-learn or Teach-back was found to be an effective education tool in 7 studies (Avallone & Cantwell, 2017; Blazeck, et al., 2016; Dreyer, 2014; Hesselink, et al., 2014; MacLean, et al., 2018; Peter, et al., 2015; Pinchera & Lawless, 2018, Polster, 2015)
- Graduate nurses were not adequately prepared to provide patient education according to 1 study (Bennett, et al., 2017)
- Nursing students did not possess the knowledge or skills to provide effective, patient-centered education as found in 5 studies (Avallone & Cantwell, 2017; Darkwah, et al., 2011; Kaylor, et al., 2018; Lofmark, et al., 2006; Richard, et al., 2018)
- Using a simulated patient or paper patient was found to be effective for teaching assessment and communication skills in 4 studies (Blazeck, et al., 2016; Domoto & Saneto, 2015; Kaylor, et al., 2018; MacLean, et al., 2018)

Recommendations

- Preparing nurses to educate patients should be included in the curriculum for nursing students and can be included in simulated patient care and clinical skills
- Nursing students should be educated in the use of teach-back to provide patient education (Avallone & Cantwell, 2017; Blazeck, et al., 2016; Domoto & Saneto, 2015; Kaylor, et al., 2018; MacLean, et al., 2018; Dreyer, 2014; Hesselink, et al., 2014; Peter, et al., 2015; Pinchera & Lawless, 2018, Polster, 2015)

Melnik's Levels	Types of Evidence	Results
Level I	Systematic Reviews & Meta analysis	2
Level II	Randomized Control Trials	0
Level III	Controlled Trials without Randomization	2
Level IV	Case or Cohort Studies	1
Level V	Systematic review descriptive & qualitative	2
Level VI	Single descriptive or qualitative study	7
Level VII	Expert Opinion	1

Advisor: Linda Shanta, PhD, RN, ANEF



References available upon request
Chelsey.Lorenz@ndus.edu