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Nurse Educator Scholarly Project (NESP): Final Manuscript

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Promoting Heart Failure Self Management Using Teach Back Strategies

Heart failure (HF) occurs when the heart muscle is damaged or weakened and its ability to pump blood effectively is impaired. There is no cure for HF, so treatment is focused on medication and lifestyles changes that can help manage symptoms, improve a patient's quality of life and functional status, and prevent complications. Nurses care for HF patients across the care continuum, but they can have the greatest impact on patient outcomes by ensuring patients have the education and tools they need to care for themselves at home. Thus, the focus of this scholarly project was to teach undergraduate nursing students to apply teach back strategies in educating a patient about HF self management.

Background

HF is a leading cause of mortality and morbidity in the United States, with a prevalence of more than five million people and greater than 650,000 new diagnoses annually (Yancy et al., 2013). One in nine deaths in the United States is related to HF, and the risks of morbidity and mortality increase with each hospitalization (Yancy et al., 2013). Health care for HF represents a significant economic burden in the United States with costs surpassing \$40 billion annually, more than half of which is related to hospitalizations (Yancy et al., 2013). HF is the primary admission diagnosis for more than 1 million patients and the 30-day readmission rate for these patients is 25 percent (Yancy et al., 2013). Poor health-related quality of life, particularly functional status, is common among HF patients and lack of improvement following hospitalization is a primary predictor of readmission and death (Yancy et al., 2013).

The care coordination needs of a HF patient are multi-faceted. While pharmacology and medical management play a significant role in the management of HF symptoms, patients' self-management of their illness is key to reducing exacerbations and hospitalizations, maintaining

quality of life and functional status, and reducing mortality. The key components of HF self-management are nutrition, activity, weight monitoring, medication management, and recognition of signs and symptoms indicative of a worsening condition. In order to manage these components effectively, patients must receive targeted education, tailored to their specific needs.

To compound the issue, poor health literacy negatively impacts the care of at least 50% of patients, leading the Joint Commission to qualify it as a ‘silent epidemic’ (Health Leaders Media, 2015). The most vulnerable are chronically ill patients who struggle to understand and recall information related to self-management of their illness, resulting in poor outcomes and hospital readmissions (Health Leaders Media, 2015). Patients are at greatest risk during transitions of care, especially following hospitalizations (Peter et al., 2014). Although patient education is a key strategy to improve care transitions and reduce readmissions, current research has identified that simply imparting knowledge via a didactic format does not sufficiently prepare patients for self-care (Peter et al, 2014).

During an admission, nurses may spend hours talking to a HF patient and their families about the HF disease process and self management, yet despite those efforts, readmission rates remain high (Dickson & Riegel, 2009; Peter et al., 2015). A review of the literature reveals that the use of the teach-back strategies, asking patients to explain key information back in their own words, in patient education can result in improved learning outcomes, enhanced patient engagement, and shared-decision-making (Greer, Fagan, and Coleman, 2014). This, in turn, can positively impact self-care behaviors and health outcomes and reduce hospital readmissions (Peter et al., 2015).

Patient education is an integral component of the nursing role and is one of the earliest interventions that nursing students are permitted to engage in independently (Dickson & Riegel,

2009). Teaching nursing students to employ teach back strategies when educating patients can help ensure patients' understanding of what they need to know and do to care for themselves while also promoting tactical and situational skill development rather than just knowledge acquisition (Dickson & Riegel, 2009).

Literature Review

Learning Theories

Several learning theories were utilized as the framework for this teaching project to engage the learners and address diverse learning needs. Parenti (2007) suggests that applying multiple learning theories can enhance the educational session as different theories may apply to different learning outcomes. Constructivism is a cognitive learning theory that addresses the psychology of learning theory and is derived from the work of Jean Piaget and Lev Vygotsky (Candela, 2012). Constructivist learning theory asserts that “assimilation, accommodation, and construction” are the central processes of learning and that new knowledge is constructed by integrating new information with existing perceptions of one's experiences (Candela, 2012, p. 210; Nyback, 2013).

Adult learning theory originates from the work of Malcolm Knowles who stated adult learning is best achieved when the learners are able to capitalize on the richness of their past experiences and assimilate those experiences with new knowledge (Candela, 2012; TEAL Center, 2011). Knowles asserts that adult learners are self-directed, both intrinsically and extrinsically motivated by the relevance and applicability of the material, and assume responsibility for their learning by determining needs, establishing goals, and evaluating outcomes (Ard, 2009; TEAL Center, 2011; Candela, 2012). Transformational learning theory involves a shift in the learner's perspectives and schemes through reflection about content or

processes that results in a new scheme (TEAL Center, 2011). Reflective discourse is at the core of transformational learning theory as learners challenge their assumptions about the world and often experience a shift in perspective (TEAL Center, 2011).

Teaching Strategies and Learning Activities

Multiple teaching strategies and learning activities were implemented in the teaching session to foster engagement, accommodate different learning styles, encourage collaborative construction of new knowledge, and support the adaptation of new perspectives (Rowles, 2012). Lecture is an efficient method of covering complex content and can promote a spirit of inquiry among the students (Rowles, 2012). The use of video clips generally appeals to younger learners and is also a good way to present clinical issues before students have encountered them in the clinical setting (Rowles, 2012). The use of role-play can promote active learning and allow the students to practice unfamiliar communication in a nonthreatening environment (TEAL Center 2011; Rowles, 2012). Debriefing as a larger group can encourage cooperative learning and allow the entire group to benefit from the experiences of other students (Rowles, 2012).

Learner Assessment Methods

Several learner assessment methods were employed to address both the cognitive and affective learning domains. The use of a pre-session evaluation allows the teacher to adapt lecture content according to the current knowledge level of the learners (Mager, 2014). A post-session evaluation measures whether or not the learning outcomes have been met (McDonald, 2014). It also. A one-minute paper can provide rapid feedback as to the relevance and utility of the educational content for the students (Center for the Enhancement of Learning & Teaching, n.d.). It can also help determine congruence between the teacher's intended main idea of the teaching session and the learners' perceived main idea (Tufts University Center for Enhancement

of Learning & Teaching, n.d.). Additionally, reflection promotes the integration of new content and past experiences that is consistent with constructivism while also encouraging the transference of knowledge and skills across contexts (Rowles, 2012).

Educational Resources

Implementation of the teaching session required both internal and external resources. Internal resources included the expertise, guidance, and time of the faculty preceptor and course faculty; University of Portland classroom space for the learning activities; and audio/video and computer equipment for viewing the PowerPoint presentation and video clip. Additional internal resources included printing costs for pre-and post-session evaluations, development of scripted role plays, a one-minute writing prompt, and evaluation of teaching effectiveness forms; access to the learning management system, Moodle, for posting of pre-class content; and library resources for the development of curriculum and outcomes. External resources include the course textbook, video access to YouTube, and the Essentials of Baccalaureate Education (American Association of Colleges of Nursing, 2008) that guided the curriculum to ensure educational content was in line with curriculum standards.

Methods

Learning Outcomes

Six learning outcomes were selected for the academic teaching session to address the cognitive, affective, and psychomotor knowledge domains (see Appendix A). Within the cognitive domain, following the teaching session, the students would be able to (1) identify the four main concepts of heart failure self management, (2) define health literacy, and (3) identify three (out of ten) key principles of teach back technique. Within the affective domain, following the teaching session, the students would demonstrate (4) conviction of the importance of using

teach back strategies in patient education and (5) confidence in their ability to utilize teach back strategies. Finally, to address psychomotor knowledge, the students would demonstrate (6) their ability to use teach back strategies in educating a patient about HF self-management following the teaching session.

Teaching Strategies and Learning Activities

Prior to class, the students were asked to complete assigned text and online reading about health literacy and teach back strategies, as well as a 10-minute video review of the basic concepts of HF. In-class learning activities included introduction of health literacy, teach back strategies, and HF self management via lecture, PowerPoint presentation, and a two-minute video clip demonstrating the appropriate use of teach back strategies in a simulated patient education scenario. Following instruction, the students were divided in pairs and provided with two scripted role play activities (see Appendix B) where each had the opportunity to play the nurse and the patient with HF. After the students completed the role-playing exercise, they would have been prompted to share their experiences during a group debriefing session, however, time limitations resulted in the omission of this activity.

Learner Evaluation Methods

The knowledge of the learners was measured using a pre-evaluation prior to the teaching session and an identical post-evaluation following the teaching session (see Appendix C). The post-test allowed the teacher to determine if the students met the intended learning outcomes. A one-minute reflection paper was utilized to assess how the teaching session would impact the students' future nursing practice. This evaluation method was not linked to a specific learning outcome but did provide valuable feedback as to how relevant the teaching session was to the

academic preparation of nursing students. To assess learning in this psychomotor domain, the teacher observed the students engaged in the role-play activity.

Evaluation of Teaching Effectiveness

To evaluate the effectiveness of the academic teaching session, the learners were asked to complete a Likert-type scale evaluation form at the end of the class period. The Evaluation of Teaching Effectiveness tool (see Appendix D) was adapted from the undergraduate course evaluation tool utilized by the University of Portland School of Nursing. The purpose of the tool was to garner formative feedback about teaching methods that are highly correlated with instructor and course excellence (Individual Development & Education Assessment [IDEA], 2015).

Results

Students (n = 22) participated in all evaluation activities. Overall, the results demonstrated enhanced student knowledge and application of concepts related to HF self management, health literacy, and teach back strategies. The results also reflected an increase in students' conviction of the importance of using teach back strategies in patient education as well their confidence in their ability to use teach back. Students reported how their increased knowledge and skill of teach back strategies would help ensure patient understanding of education and help promote positive patient outcomes. Students indicated the instructor provided a valuable learning experience using teaching strategies that encouraged learning.

Learner Evaluation Methods

Pre- and post-session evaluation. The evaluation of the first learning outcome measured student pre- and post-understanding of the main concepts of HF self management. A short answer question asking students to list four main concepts of HF self management was used to

assess student learning in the cognitive domain (see Appendix C). The results indicated a 94.5 percentage point increase or 18 percent improvement between pre-session evaluation and post-session evaluation results (see Appendix E).

Evaluation of a second learning outcome measured students' understanding of health literacy. A single short answer question asking students to define health literacy was used to assess student learning in the cognitive domain (see Appendix C). The results indicated a 45.45 percentage point increase or 143 percent improvement between pre-session evaluation and post-session evaluation results (see Appendix E).

Evaluation of a third learning outcome measured students' understanding of the principles of teach back. A single question asking students to list three (out of ten) key principles of teach back assessed learning in the cognitive domain (see Appendix C). The results indicated a 94.5 percentage point increase or 18 percent improvement between pre-session evaluation and post-session evaluation results (see Appendix E).

Evaluation of a fourth learning outcome measured students' conviction of the importance of using teach back in patient education. A Likert-type scale question was used to assess affective learning by asking students to rank their responses between one and ten, with one indicating "not at all important" and ten indicating "very important" (see Appendix C). Pre-session evaluation results revealed a mean score of 8.73 out of ten and post-session evaluation scores revealed a mean score of 9.36 out of ten (see Appendix E). A t-test was performed which revealed these results were statistically significant at $p < .007$ (see Appendix E).

The students were also asked to provide one reason for their answer as to how convinced they were of the importance of using teach back. Content analysis revealed the most common responses from both the pre- and post-session evaluations were related to ensuring patient

understanding, informing/educating the patient, promoting self care, and improving outcomes (see Appendix F).

Evaluation of a fifth learning outcome measured students' confidence in their ability to use teach back in patient education. A Likert-type scale question was used to assess affective learning by asking students to rank their responses between one and ten, with one indicating "not at all confident" and ten indicating "very confident" (see Appendix C). Pre-session evaluation results revealed a mean score of 5.73 out of ten and post-session evaluation scores revealed a mean score of 8.64 out of ten. A t-test was performed which revealed these results were statistically significant at $p < .001$ (see Appendix E).

The students were also asked what could help them develop even more confidence in their ability to use teach back. Content analysis revealed the most common responses were related to having more practice, acquiring more knowledge, strategies, or skills, and receiving feedback about performance (see Appendix F).

Scripted low fidelity role-play activity. The evaluation of the sixth learning outcome measured students' demonstration of their ability to use teach back strategies in educating a patient about HF self management. Observation revealed that all students participated in the activity and demonstrated the use of teach back strategies appropriately.

One-minute paper. A one-minute paper was used to evaluate student perception as to how the teaching session would impact their future nursing practice. Although this was not a specified learning outcome, it does enhance student learning in the affective domain. Student responses indicated that the teaching session provided increased knowledge and skill in patient education, could help to enhance patient understanding of patient education, could promote patient self care ability and positive patient outcomes.

Evaluation of Teaching Effectiveness

Students (n = 22) completed the evaluation of teaching effectiveness questionnaire (see Appendix G). Students were asked to rate their responses using a Likert-type scale (1 = strongly disagree and 5 = strongly agree) to four statements regarding the learning experience, instructor, teaching strategies, and overall learning experience. Overall results indicated that all students either agreed or strongly agreed that the instructor provided a valuable learning experience; the instructor was an effective communicator; the teaching strategies encouraged learning; and the instructor maintained an environment that helped them learn (see Appendix G).

Discussion

Several key insights were gleaned from observation, data analysis of the pre- and post session evaluation, one-minute paper, and evaluation of teaching effectiveness. Overall, observation of the scripted role-play activity and pre- and post-session evaluation findings suggest that nearly all of the students were able to meet the learning outcomes in the cognitive, affective, and psychomotor learning domains. Several students reported an increase in their conviction that the use of teach back is important while a majority of students reported an increase in their confidence in their ability to use teach back in patient education. The lack of significant improvement in conviction scores is likely related to the high scores (7-10) provided during the pre-session evaluation. Conversely, students reported a lower dispersion of initial scores in confidence on the pre-session evaluation (1-10) and thus demonstrated greater confidence after the teaching session.

Evaluation of teaching effectiveness data suggest all students either agreed or strongly agreed that the instructor provided a valuable learning experience, was an effective communicator, used teaching strategies that encouraged learning, and maintained an

environment that helped students learn. These results suggest the students responded favorably to the use of diverse learning strategies including lecture, video, and role-play to deliver the educational content. Speaking to the relevance of the teaching session to future nursing practice, each of the students was able to provide at least one response on the one-minute paper with exemplar statements including, “using the strategies taught today will give me a great toolbox of knowledge” and “learning how to use teach back strategies will make me a better nurse because the patients I help will have better outcomes.”

Other key insights were gained from the qualitative responses related to the confidence scale. Pre-session evaluation results revealed that a majority of students felt more strategies or tools could help them develop more confidence in their ability to use teach back strategies, yet post-session evaluation results revealed no students provided this response. This indicates that the teaching session provided the necessary strategies and tools to bolster student confidence in their ability to use teach back strategies. Conversely, pre- and post session evaluation results reflected an increase in students reporting that additional practice could help increase their confidence in using teach back strategies. However, the majority of post-session evaluation responses clarified students felt their confidence would increase with more practice in a realistic clinical setting.

Limitations

Time constraints were the greatest limitation of this project. The instructor had initially expected 60 minutes to implement the teaching session, but the session ended up being about 35 minutes. This limited the ability to spend additional time on content, specifically allowing for questions or comments. It also resulted in the omission of the debriefing section of the scripted low fidelity role-play activity. The debriefing would have allowed the instructor and students to

glean insights from their experience in using teach back strategies and offered an opportunity for the students to receive feedback from the instructor on their performance.

Recommendations

The use of teach back strategies in patient education can be invaluable to ensure that patients understand what they need to know or do to care for themselves and achieve more positive outcomes. Although it was applied to the education of a HF patient, it is applicable to all patient education scenarios. Additionally, patient education is an integral part of care coordination and utilizing teach back strategies can help ensure a safe transition home. It is recommended that teach back strategies be threaded throughout the curriculum to allow students more opportunities to practice their skills. Additionally, it is recommended that future educator utilize a variety of teaching strategies and learning activities to better meet the needs and achieve greater engagement of diverse learners. Faculty should plan teaching sessions accordingly to allot enough class time for debriefing and discussion, or provide the opportunity for discussion via the online learning environment.

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Appendix A Teaching Plan

Title: Promoting Heart Failure Self-Management Using Teach-Back

Purpose: To identify the need for teach back technique, introduce the key strategies, and demonstrate the implementation in a patient education session.

Goal: Students will be able to apply the principles of teach back in a patient education session to promote HF self-management.

Learning Context/Environment: In person, classroom setting, NRS 312: Introduction to Professional Practice, 25 junior-level students

Project Outcomes (knowledge domain level)	Learning Theories to support project focus	Content Outline with key concepts	Method of Instruction (teaching strategies & activities for key concepts)	*Simulation & Debriefing Plans (NESP only)	Session Resources for anticipated class enrollment	Method of Learner Evaluation
<p>Cognitive:</p> <ol style="list-style-type: none"> 1. Students will identify the 4 main concepts of HF self-management (daily weights, sodium/fluid restriction, medication adherence, symptom recognition). 2. Students will define health literacy 3. Students will identify 3 (out of 10) key principles of teach back technique <p>Affective:</p> <ol style="list-style-type: none"> 1. Students report conviction as to the importance of using teach back techniques. 2. Students will report confidence in their ability to use teach 	<p>Constructivist Learning Theory: supports self-directed learning by which students construct the meaning of new information using previous knowledge and experience (Nyback, 2013). The students will draw from their own experiences in receiving confusing or unclear information as they apply teach back principles to patient education.</p> <p>Adult Learning Theory: involves the process of self-directed learning in</p>	<ul style="list-style-type: none"> • Review of the basic pathophysiology of heart failure • Introduction of heart failure self management • Introduction of health literacy • Introduction of teach back technique • Practice using teach back principles during a role-play simulation • Debrief and reflection of role-play experience with minute reflection paper • Pre- and post-survey 	<p>Pre-class: 45 minutes In class: 45 minutes</p> <p>Pre-class content:</p> <ul style="list-style-type: none"> • Students will read brief excerpts in assigned text regarding health literacy and teach back • Students will view a 10-minute video reviewing the concepts of HF • Read Health Literacy Quick Guide (15 minutes) (U.S. Department of Health & Human Services, 2015). <p>In-class content</p> <ul style="list-style-type: none"> • Introduction of HF 	<p>Low-fidelity simulation will consist of a role-playing activity in which students will implement teach back strategies in educating a patient about HF self-management.</p> <p>Debriefing and reflection will follow the role-play activity.</p>	<p>Physical space: classroom, tables, chairs</p> <p>Equipment: computer, overhead projector, audio/visual equipment, Internet connection</p> <p>Video clips: HF, teach back</p> <p>Online academic platform for pre-class content</p>	<p>Pre- and post-session evaluation administered prior to lecture and following role-play activity.</p> <p>Minute reflection paper on role-playing experience with one example of how teaching session will impact future nursing practice.</p> <p>A pre-test will assist the teacher in determining the learners current understanding of concepts and identifying areas of focus (McDonald,</p>

<p>back techniques. Psychomotor: 1. Students will demonstrate the use of teach back strategies in educating a patient about HF self management</p> <p style="text-align: center;">Related Course/Program Outcomes or competencies</p> <ul style="list-style-type: none"> • Integrate foundational nursing knowledge, skills, and professional attitudes within nursing practice. • Competently perform select basic foundational nursing skills. • Demonstrate values and standards of the nursing profession. 	<p>which students assume responsibility for their learning by determining needs, establishing goals, and evaluating outcomes (TEAL Center, 2011). The students will engage in some learning activities outside of the classroom, promoting self-directed learning.</p> <p>Transformational Learning Theory: involves a shift in the learner’s perspectives and schemes through reflection about content or processes that results in a new scheme or perspective (TEAL Center, 2011). The students will examine their previous assumptions about patient education and health literacy while considering the importance of using teach back strategies.</p>		<p>self management, health literacy & teach back strategies via lecture, PowerPoint, and a short video clips (20 minutes)</p> <ul style="list-style-type: none"> • Practice utilizing teach back principles during a role-play simulation in pairs. (20 minutes) • Debrief and reflection during group discussion (10 minutes) • Minute reflection papers on role-playing experience with one example of how teaching session will impact future nursing practice. (5 minutes) • Pre- and post-session evaluations 5 questions r/t HF self management, health literacy & teach back strategies (10 minutes) 		<p>Printing costs: for handouts</p> <p>Anticipated class enrollment: 25 students enrolled in one section of NRS 312, Spring Semester 2016</p> <p>Ability to move desks to accommodate role play exercise in pairs</p>	<p>2014).</p> <p>The use of reflection can assist students in transferring knowledge among contexts and encourage them to consider clinical experiences to the classroom activity (Billings & Halstead, 2012).</p>
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Appendix B
Scripted Role Play Scenarios

Scenario 1

Nurse: We are going to talk about the things that you need to do every day at home to control your heart failure. I am going to explain and then ask you to repeat back to be sure I am explaining it well.

- You will weigh yourself in the morning before breakfast and write it down.
- You will take your medication every morning
- You should check for swelling in your feet, ankles, legs, and stomach every day

I teach people about heart failure every day, and sometimes I go over it quickly or may not make myself clear. I want to make sure you know what you need to do when you get home. Can you explain back to me what we just talked about?

Patient: Um, let's see. Well, I am going to weigh myself every morning and write it down. I am going to take my medications and check my legs and stuff for swelling.

Nurse: You might also notice swelling or tightness in your stomach. Can you show me the areas where you might find swelling?

Patient: In my belly (gestures towards abdomen), legs, and feet (gestures from thighs to feet).

Nurse: Great. So there are a couple more things you will do everyday that will help control your heart failure. We talked about weighing yourself daily and writing it down, taking your medications, and checking for swelling. It is also important to follow a low salt diet as you discussed with the nutritionist and to balance your activity with rest. After talking today, what will your daily routine look like?

Patient: Well, I am going to wake up and weigh myself every day and write it down. I will take my pills and check for swelling in my belly and legs. I also need to watch my salt and rest after activity.

Nurse: That's right. And just in case, this sheet has all of the information we have talked about so you can refer to it later if you need to.

Scenario 2

Nurse: Let's talk a bit about the signs of heart failure you need to watch out for. I want to be sure I am explaining them well so I ask you to explain back to me what we have talked about. Some of the most common signs of heart failure are:

- Shortness of breath
- Dry, hacking cough
- Feeling more tired or having no energy
- Having a hard time breathing while lying down

Let's make sure I did a good job of going over this information. Can you explain it back to me in your own words?

Client: Okay. This feels like a test. So, I might feel short of breath or tired. I might get a dry cough. And something else I can't remember.

Nurse: Thank you. This is a test, but just to be sure I am explaining things clearly. You may also notice you are having a hard time breathing while lying down. Many people notice this when they start to use more pillows than usual or prefer to sleep in their recliner instead of their bed.

Client: Oh yeah, I was sleeping in Lazy Boy before I ended up in the hospital. I sure was able to breathe a lot better after they gave me that water pill!

Nurse: Yes. Sometimes heart failure can cause fluid to build up in your lungs which makes it harder to breathe or causes a dry hacking cough. Fluid can build up in other areas well. You may gain weight or notice swelling in your legs, feet or belly from fluid buildup. Sometimes your belly will just feel bloated or tight from the swelling.

Client: Oh I had that too. My feet were so swollen I could only wear my slippers! And I have lost 15lbs since I've been in the hospital. I think I peed it all out!

Nurse: I hear that quite often. It sounds like you have already experienced some common signs of heart failure so you will recognize them if they happen again. Just to make sure I have covered everything, can you explain back to me the things you will watch out for?

Client: Feeling short of breath, tired, sleeping in Lazy Boy again. Gaining weight or getting puffy in my feet and ankles. Did I miss anything?

Nurse: That's just about everything. You might also develop a dry hacking cough. But don't worry, everything we talked about is right here on this sheet that you can take home and put on your refrigerator.

Appendix D
Evaluation of Teaching Effectiveness Tool

For each of the following questions, circle the response that best characterizes how you feel about the statement, where:

1 = Strongly Disagree and 5 = Strongly Agree

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
The instructor provided a valuable learning experience.	1	2	3	4	5
Instructor was an effective communicator	1	2	3	4	5
Teaching strategies encouraged learning	1	2	3	4	5
Instructor maintained an environment that helped me learn	1	2	3	4	5

Pre- and Post-Session Evaluation Findings

Table 1		
<i>Quantitative Data: Pre- and Post-Session Evaluation</i>		
Learning Outcome 1: Understanding of Concepts of Heart Failure Self Management		
n = 22	Pre-session	Post-session
Correct responses	0.05%	95%
Mean (SD)	1.59 (1.05)	3.95 (0.21)
t = -10.31; df = 21; p < .001		
Learning Outcome 2: Understanding of Health Literacy		
n = 22	Pre-session	Post-session
Correct responses	31.82%	77.27%
Learning Outcome 3: Understanding of Principles of Teach Back		
n = 22	Pre-session	Post-session
Correct responses	0.05%	95%
Mean (SD)	0.55 (0.74)	2.91 (0.43)
t = -13; df = 21; p < .001		
Learning Outcome 4: Conviction in Using Teach Back*		
n = 21	Pre-session	Post-session
Mean (SD)	8.73 (1.11)	9.36 (0.40)
t = -2.59; df = 20; p < .007		
Learning Outcome 5: Confidence Using Teach Back**		
n = 21	Pre-session	Post-session
Mean (SD)	5.73 (2.55)	8.64 (1.26)
t = -5.11; df = 20; p < .001		
*Likert-type scale		
**Likert-type scale		

Qualitative Responses to Conviction/Confidence Scale

Table 2		
<i>Qualitative Responses to Conviction/Confidence Scale</i>		
Conviction		
<i>Share one reason for your answer:</i>		
n = 21	Pre-session	Post-session
Ensure patient understanding	50%	59%
Inform/educate patient	18%	0%
Promote self care	14%	32%
Improved outcomes	9%	27%
Confidence		
<i>What could help you develop even more confidence?</i>		
n = 21	Pre-session	Post-session
Practice	36%	68%
Strategies/tools	55%	0%
Additional content knowledge	14%	5%
Performance feedback	5%	5%

2

Evaluation of Teaching Effectiveness

Table 3			
<i>Evaluation of Teaching Effectiveness</i>			
n = 22	Mean (SD)	Strongly Agree	Agree
Instructor provided a valuable learning experience	4.82 (0.39)	82%	18%
Instructor was an effective communicator	4.77 (0.43)	77%	23%
Teaching strategies encouraged learning	4.91 (0.29)	91%	9%
Instructor maintained an environment that helped me learn.	4.95 (0.21)	95%	5%

2