

2016

# Development of a Teach-Back Educational Module for Heart Failure Discharge Teaching

Marissa Blair Jamarik  
*Walden University*

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# Walden University

College of Health Sciences

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Marissa Jamarik

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Walden University  
2016

Abstract

Development of a Teach-Back Educational Module for Heart Failure Discharge

Teaching

by

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MSN, George Mason University, 2005

BSN, Shenandoah University, 1997

Proposal Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

May 2016

## Abstract

Heart failure (HF) readmissions create a financial burden for healthcare nationwide and speak to the lack of effective discharge preparation for patients to be successful with self-care at home. The 183-bed hospital where this DNP quality initiative will take place currently reports an observed-over-expected (O/E) readmission rate for HF patients (Centers for Medicare and Medicaid [CMS]). Core measures on HF developed by the Joint Commission and the Centers for Medicare and Medicaid Services do not appear to be enough to ensure successful transitions of care from hospital to home. Guided by the LOGIC model, the purpose of this quality improvement initiative was to develop a HF educational module to improve patients' readiness to learn in order to promote self-care and prevent readmission to the hospital within 30 days. The design of the educational program was supported by the evidence-based literature and incorporated best practices promoted by the Joint Commission, the Institute for Healthcare Improvement, and the Agency for Healthcare Research and Quality. Content evaluation of the newly developed HF educational program was conducted by 10 experts using a quantitative Likert-type scale and qualitative narrative feedback. Descriptive findings from the Likert scale showed a range of 3.9 to 4.0 in the content, process, and design of the program. Recommendations for improvement included more detail around pathophysiology, as well as how to initiate the process in the outpatient setting. Positive social change can result from the program which offers a relevant strategy to reduce readmissions for HF and has wide-application options for many chronic illnesses that can be better managed through effective discharge teaching.

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## Section 1: Development of a Teach-Back Educational Module

### **Introduction**

In 2009, The Centers for Medicare and Medicaid (CMS) began tracking readmission rates for heart failure (HF) within 30 days of discharge from the hospital (Stamp, Machado, & Allen, 2014). The effort was part of the Hospital Readmission Reduction Program of the Affordable Care Act, and began with an initial 30 day readmission rate of 24.5% (Stamp, Machado, & Allen, 2014). The Healthy People 2020 initiative has placed HF as a national priority and aims to reduce readmissions for HF by 10% per 1,000 HF patients (U.S. Department of Health and Human Services, 2010). The CMS uses observed-over-expected (O/E) which is a 30 day risk-standardized readmission rate. The impact of HF hospitalizations and heart disease in general also has huge financial implications for the country. The average cost of treating HF is approximately \$7,000 with a Medicare reimbursement rate of \$5,800, creating a \$1,200 loss per each HF readmission (Huntington, Guzman, Roemen, Fieldsend, & Saloum, 2013).

The facility where this Doctorate of Nursing Process quality initiative (QI) project will take place is a 183 bed acute care hospital that is part of a five hospital regional system which includes outpatient services, assisted living, and long-term care facilities. The hospital currently reports an observed-over-expected (O/E) CMS readmission rate for heart failure (HF) as part of their quality initiatives. The facility is currently striving to achieve the national benchmark for observed-over-expected rates nationally. Literature suggests that a lack of adequate self-care could be a factor in the readmission rate challenge, and leadership wants to look at improving evidence-based HF education using

the teach-back method of patient education (Mahramus, Penoyer, Frewin, Chamberlin, & Sole, 2014). The core measure includes a particular focus on discharge instructions that include the use of medication, dietary restrictions, daily weights, exercising, and how to determine if symptoms are worsening (Ellis, 2005).

### **Background**

Heart failure is the leading contributor to increased healthcare of expenditures within the United States and is estimated to be doubled by 2030 (Gunadi, Upfield, Pham, Yea, Schmeiedeberg, & Stahmer, 2015). The HF core measures set forth by The Joint Commission (The Joint Commission [TJC], 2015) addresses key factors relative to the long-term management of HF. However, the successes of these measures remain contingent on the ability of the patient to perform self-care activities. Self-care has been identified in the literature as central to successful transitions of care (Barnason, Zimmerman, & Young, 2011). Furthermore, studies reveal that the elements impacting a patient's ability to perform self-care activities hinge on literacy, readiness to learn, and the effectiveness of teaching methods to impact retention (Barnason, Zimmerman, & Young, 2011). Through education, organizations are striving to meet core measures, helping patients to achieve an optimal level of health and, ultimately, working to prevent patient readmissions within 30 days (Gunadi et al., 2015). Facilities not meeting the benchmark for heart failure readmission rates set by CMS have a significant need to address the problem of successful transitions of care to ensure patient well-being and the overall financial health of the facility.

### **Problem Statement**

The problem specifically addressed in this quality initiative (QI) project was the readmission rate of HF patients within 30 days which does not consistently meet the benchmark set by CMS. The Joint Commission (TJC), in partnership with the CMS, established a core measure set to ensure consistent care and better outcomes for the HF population (TJC, 2015). The core measure set has a particular focus on discharge instructions that include the use of medication, dietary restrictions, daily weights, exercising, and how to determine if symptoms are worsening (Ellis, 2005). While these measures are widely utilized and accepted as best practices to manage acute exacerbations of HF, facilities achieving the criteria for HF core measure compliance are not necessarily experiencing successful transitions of care for their HF patients as evidenced in readmission data (Fonarow et al., 2007). Contributing factors can include complications due to other disease processes, decreased length of stay admissions, and perhaps the underutilization of HF patient's readiness to learn assessment as demonstrated by patient engagement coupled with ineffective discharge teaching (Fonarow et al, 2007). This is particularly relevant to the bedside clinician and their ability to deploy learning readiness assessment and teaching methodology to improve the patient's retention of education and increase self-care ability. Studies indicate that up 85% of HF patients neither understands how to perform or the importance of adherence to discharge instructions (Wu et al., 2013). It was the overall goal of this program to close this critical gap.

### **Purpose Statement**

The purpose of this DNP QI project was to develop a HF educational initiative to improve HF patients' readiness to learn in order to promote self-care and prevent readmission to the hospital within 30 days. Research findings suggest that self-care empowers patients to take responsibility for their health, supporting the need for more effective interventions related to discharge and transition (Barnason, Zimmerman, & Young, 2011). Interventions promoting self-care that have shown efficacy span multiple care settings and deploy a variety of tools and teaching methods to be successful. Nurse led interventions that include specific strategies for the patient to succeed, such as how to read sodium content on labels, have led to better outcomes (Stamp, 2011). Programs that meld effective teaching methodology and the bedside intervention of discharge instructions offer great promise for improving outcomes and preventing readmissions. For example, in 2008 the Society of Hospital Medicine in conjunction with the John Hartford Foundation compiled evidence-based tools into a single comprehensive program entitled Better Outcomes by Optimizing Safe Transitions (BOOST) to improve transition to discharge. The Joint Commission, the National Quality Forum, and the Agency for Healthcare Research and Quality collectively advocated for the program's development to improve transitions of care. The program provides an accurate road map for facilities to deploy interventions and improve outcomes. The teach-back methodology is central to the BOOST program as not only a mechanism to enhance the retention of critical self-care issues, but to assess readiness to learn (Society of Hospital Medicine, 2008). Teach-back is a method to assess learner's understanding of education after being received by repeating the information back in their own words (Mahramus, Penoyer, Frewin,

Chamberlin & Sole, 2014). Readiness to learn, while not identical to literacy assessment, addresses an essential component of learning that will enhance retention of information over time (Polikandrioti & Babatsikou, 2013). Nurses can be particularly pivotal in this process by utilizing teach-back to reinforce content and the ability to assess the patients understanding of self-care concepts related to HF management (Mahramus et al., 2014).

The most common linkage in hospital readmissions is inadequate information exchange between care providers and patients (Hesselin et al., 2014). A variety of evidence-based practice (EBP) approaches will ultimately improve outcomes that include the ability of the bedside clinician to deploy learning readiness assessment and teach-back methodology to improve the patient's retention of education and increase self-care ability. Currently, patient education in the hospital does not include the teach-back approach to educate heart failure patients. The development of this project was meant to fill the gap between evidence-based practice and current hospital practice.

### **Project Goals and Objectives**

The goal of this DNP project was to prevent readmission of HF patients' within 30 days through the development of a HF QI educational initiative.

At the conclusion of this DNP project:

- An educational program was developed using teach-back methodology as a core principle for nurses to prepare a HF patient for discharge and facilitate patient understanding of key concepts.
- Content evaluation of the newly developed education program using local HF experts was conducted.

- An implementation plan and dissemination/evaluation plan was developed in Section 4 and will be conducted after the DNP student graduates from Walden University.

### **Theory/Models**

The Theory of Self-Care in Chronic Illness served as the foundation in this project because of the focus on self-care in the context of chronic disease management (Jaarsma, Riegel, & Stromberg, 2012). The logic model was as a guide for the development, implementation, and evaluation of the project (Hallinan, 2010). The use of the logic model allowed for application of evidence-based practice in a methodical, practical, and visual method. The theoretical foundations of the HF project address dimensions of care delivery, evidence-based practice implementation and organizational change theory. In addition, the ACE Star Model of Knowledge Transformation provided a platform to guide the heart failure project from discovery to implementation (White & Dudley-Brown, 2012). Finally, organizational change is imperative for the heart failure project due to the need for strong buy-in from the local leadership for success. Senge's Learning Organization Framework served to guide the team focus of the heart failure project (White & Dudley-Brown, 2012).

### **Nature of the Project**

The DNP student analyzed and synthesized the relevant literature for the development of the project. A nursing staff HF educational program was then developed to implement teach-back methodology as a core principle for nurses to prepare a HF patient for discharge and facilitate patient understanding of key concepts. The program



supports best practices promoted by the Joint Commission (TJC), Institute for Healthcare Improvement (IHI), and the Agency for Healthcare Research and Quality (AHRQ) to augment patient understanding and improve patient transitions from the hospital to home setting (Mahramus et al., 2014). The program utilized the logic model as an approach to design the project. The utilization of this model allows for consideration of input from key stakeholders, activity development to include the education module, output through the expert panel review, and outcomes in the measurement of heart failure readmissions which will be conducted after the student graduates from Walden University.

### **Definition of Terms**

The following terms have been defined for the purpose of this DNP project:

- *Health literacy*: A multifaceted concept that includes the ability to read, understand and make decisions about self-care management of disease (Murray et al., 2009).
- *Observed-over-expected(O/E) readmission rate*: A 30 day risk-standardized readmission rate that is calculated as the number of predicted readmissions over the expected number of readmissions, multiplied by the national readmission rate around selected chronic diseases including HF (Centers for Medicare & Medicaid Services, 2013).
- *Readiness to learn*: The ability of the learner to participate in the learning activity (Polikandrioti & Babatsikou, 2013).
- *Self-care*: a process of maintaining health through health promoting practices and managing illness (Jaarsma, Riegel, & Stromberg, 2012).

- *Teach-back methodology*: a communication method in which the teacher uses simple language and asks the learner to repeat, in their words, how they understood the learned concept or material. The educator repeats the process until they are convinced that comprehension has been reached (Society of Hospital Medicine, 2008).
- *Transitions of care*: The timeframe between the acute care setting and the next care setting; whether home or another care setting (Huntington et al., 2013).

### **Assumptions**

A primary assumption was that nurses want to provide optimal patient education, but lack evidence-based education to care for the HF patient. The lack of adequate education may impact the nurse's ability to understand and effectively teach patients the symptoms of worsening HF to monitor in appropriate discharge teaching. There was also an assumption that nurses have a desire to learn more about HF and how to prevent readmissions. Finally, the DNP student assumed that the organization will support the HF education so that patients receive optimal care and the organization can achieve desirable benchmarks for HF readmission rate on the patients within 30 days.

### **Evidence-Based Significance of the Project**

The Joint Commission is credited with the development of core measures of nationally implemented evidence-based practice quality initiatives in 2001, when guidelines for defined health problems were developed to ensure consistent care (Ellis, 2005). The focus for HF core measures provided that certain diagnostic tests, medication, and discharge instructions were consistently utilized for better outcomes. Special focus

on HF discharge includes five key areas: medication compliance, low sodium diet, daily weights, exercising and recognition of changes in status. This project will contribute to nursing practice as the nurses' gain a greater understanding of these imperative discharge goals in order to prepare them to manage their disease after discharge (Mahramus et al., 2014).

Self-care is essential to chronic disease management. In HF, adherence to a low sodium diet, adherence to a medication regime, the use of daily weights and engagement in an adequate exercise program is complicated by patients with low literacy (Wu et al., 2013). Clearly, HF patient's readiness to learn is an important aspect of transitional care for HF patients and plays an inherent role in HF readmission. Moreover, the ability of the bedside nurse to influence HF patient self-care management by using an evidenced-based intervention such as teach-back is central to this project. Patient education needs to incorporate effective teaching strategies that target literacy barriers and improve the patient's retention of critical factors in self-care management. Teach-back methodology is a technique of education that requires the patient to explain using their words what has been explained to them, thereby ensuring comprehension (Heinrich, 2012). Effective teaching methodology links strongly to theoretical concepts of self-care and offers a deeper exploration by clinicians at the bedside as they move to transition patients from acute care to their baseline.

### **Implications for Social Change in Practice**

The Healthy People 2020 (2011) initiative is a product of a collaborative effort between the U.S. Department of Health and Human Services and other agencies to

prioritize nationwide health improvement initiatives. These initiatives advocate for citizens to understand health promotion, engage in policies, provide measurement criteria, and increase research (U.S. Department of Health and Human Services, 2010). The overarching goals of the program aim to not only improve HF disease prevention but to also improve health equity and promote healthy environments (U.S. Department of Health and Human Services, 2010). While heart disease is the leading cause of death in the United States, HF is the most expensive cardiovascular illness in the country (Grady et al., 2000). High readmission rates contribute significantly to this cost (Grady et al., 2010). Included in this initiative is a critical effort to transition HF patients effectively from inpatient to outpatient status. Holistic and comprehensive management of this issue is needed to manage this chronic disease issue. For this reason, Healthy People 2020 (2011) has identified Heart Disease and Stroke, HDS-24, as an objective to reduce hospitalizations in adults ages 65 and above with HF as a primary diagnosis.

### **Summary**

Core measures of evidence-based work by TJC and the CMS on HF discharge education requirement does not appear to be enough to ensure successful transitions of care from hospital to home (Fonarow et al., 2007). The measure now requires additional evidence on how to more effectively educate HF patients to prevent readmissions (Barnason, Zimmerman, & Young, 2011). The nursing staff HF educational program offers an approach for teaching patients that will ultimately improve outcomes by disseminating strategies for the bedside clinician. A thorough review of the literature to support these concepts was conducted. Literature related to HF patient education

including teach-back methodology, HF readmissions, and concepts that support the DNP project's development and content evaluation are described in Section 2.

## Section 2: Review of Literature and Theoretical and Conceptual Framework

### **Introduction**

The problem specifically addressed in this quality initiative (QI) project was the readmission rate of HF patients within 30 days which does not meet the benchmark set by CMS. The purpose of this DNP project was to develop a HF educational initiative to promote HF patients' readiness to learn in order to promote self-care and prevent readmission within 30 days. The initiative will address the nursing staffs' understanding of basic concepts of HF in the five HF self-care principles (Washburn, Hornberger, Klutman, & Skinner, 2005). A literature review was undertaken to explore published studies, projects and initiatives relative to HF patient education including teach-back methodology, HF readmissions, and concepts that support the DNP project's development.

### **Search Strategy**

The review included a search of all available, full-text, published literature from 2008 to 2015 available from CINAHL and MEDLINE. In addition, theories, models, and frameworks that will guide the project were reviewed. Existing scholarship has focused on the impact of nursing interventions on successful transitions in the context of the outpatient setting. What the literature failed to produce was scholarship that addressed the role of the acute care nurse in this crucial juncture of care from inpatient to home for HF patients.

Collectively, the research behind core measures, health literacy, and teach-back methodology spans about 15 years including the initial development of the practice

guidelines by the Joint Commission. Core measures continue to serve as a national, standardized performance management system related to HF (Masica, Richter, Convery, & Haydar, 2009). Linking the evidence of these measures to outcomes has functioned as an important aspect of core measure implementation by helping the front line providers understand the purpose behind the process. HF management evidence shows that core measure care impacts patients with a systolic dysfunction and ejection fraction of less than 40% (Masica et al., 2009). In addition, pharmaceutical interventions of beta-blockers and ACE inhibitors reduce the risk of death by 15% to 35%. Finally, discharge instructions impact readmissions by up to 25% (Masica et al., 2009). Recent outcomes suggest that additional evidence is needed on how to educate patients more effectively to prevent readmissions. Studies indicate that up 85% of HF patients neither understands how to perform nor the importance of adherence to discharge instructions (Wu et al., 2013). Cumulatively, the literature supports both effective clinical interventions and better discharges to improve transitions from hospital to home.

### **Specific Literature**

Discharge instructions impact readmissions by up to 25% (Masica et al., 2009). There is evidence that core measure interventions related to discharge instructions fail to prevent HF 30 day all-cause readmissions at an estimated rate of nearly 25% (Hwang, Moser, & Dracup, 2014). Discharge requires that the ability of the patient to administer self-care techniques effectively should be addressed and the process should focus on the efficacy of the discharge instructions being delivered prior to discharge. Research findings suggest that self-care empowers patients to take responsibility for their health,

supporting the need for more effective interventions related to discharge and transition (Barnason, Zimmerman, & Young, 2011). Self-care promoting interventions that have shown efficacy span multiple care settings and deploy a variety of tools and teaching methods to be successful (Barnason et al., 2011). Acute care setting instruments demonstrating the best outcomes include a multidisciplinary approach to education that utilizes patient-specific tools to reinforce essential educational components (Barnason et al., 2011). In addition, educational interventions have shown the most impact when applied over time opposed to just during hospitalization, even with well-developed tools (Davis et al., 2012). Nurse led interventions that include specific strategies for the patient to succeed, such as how to read sodium content on labels, have led to better outcomes (Stamp, 2011). Nurses' understanding of HF self-care concepts and teach-back methodology utilization has demonstrated outcomes in reducing HF readmissions (Mahramus et al., 2014). The converging research findings that meld an effective teaching methodology and improve the retention of discharge instructions offers great promise for improving outcomes and preventing readmissions. The application of a specific intervention to increase nursing's utilization of teach-back methodology as the core educational program will address some of the gap that currently exists around failed hospital discharges.

### **General Literature**

Since inadequate self-care management is cited as the most common reason for HF patient readmission, attention to effective teaching during hospitalization is crucial to prepare the patient for discharge (Hwang et al., 2014). Health literacy is a multifaceted



concept that includes the ability to read, understand and make decisions about self-care management of disease (Murray et al., 2009). The literature suggests that adequately gauging the patient's health literacy can allow the bedside nurse to tailor educational needs. Readiness to learn is a component of literacy and speaks to the teacher's utilization of not only basic and easily understood material but the delivery of this information when the patient is most receptive (Polikandrioti & Babatsikou, 2013). Teach-back methodology is a proven communication tool that not only gauges the patient's readiness to learn, but ensure comprehension of the material provided. Moreover, there is also specific literature that speaks to the need to both evaluate and promote the nurses overall knowledge of HF self-management and pathophysiology. In 2002, Albert, Collier, Sumodi, et al., demonstrated the efficacy of a strong nursing knowledge base to promote HF self-care through the development of the tool: The Nurses' Knowledge of Heart Failure Education Principles. This instrument measured, through a 20 item question test, the nurses' knowledge of HF self-care principles (Albert et al., 2002).

The current state of healthcare costs suggests that preventing readmissions should be a high priority for the nation (Joynt & Jha, 2012). Evidence-based practice and policy development will be essential in advancing the utilization of health literacy and adequate teaching methodology during the transition from the acute care setting to home. Nurses are called upon during this time of rapid change to use their knowledge as part of the solution for chronic disease management and prevention (Ridenour & Trautman, 2009). Fortunately, health literacy is front and center in many healthcare organizations and at the federal level. Several federal policy initiatives, including the Affordable Care Act of

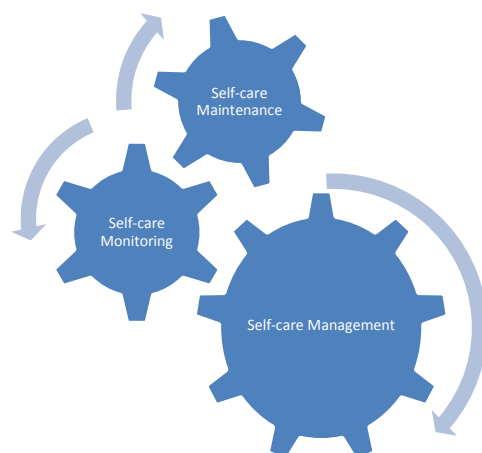
2010, the Department of Health and Human Services' National Action Plan to Improve Health Literacy, and the Plain Writing Act of 2010, have brought health literacy to a national focus (Koh et al., 2012). However, the focus needs to encompass the needs of the patient during crucial transition times such as from time of discharge to home. While there is a plethora of resources and heightened attention to this issue, promoting health literate organizations helps to make transitions of care an organizational responsibility and devotes the resources need to prepare their employees (Koh et al., 2012). Literacy and patient education have a platform across all nursing organizations and the American Medical Association, making the ability to advocate at this level straightforward and timely. The outcomes of this project will allow favorable changes to be elevated to existing policy for reform and modification to address and include the acute care setting. Transitions of care can be advanced if it is a priority for both public and private organizations and will play a significant role in improving health care and health for all Americans (Koh et al., 2012).

### **Concepts, Models, and Theories**

Exploration and application of a grand theory or middle-range theory was a crucial step in the development of this project to support global application of the intervention as well as demonstrate strong literary support (McCurry, Revel, & Roy, 2009). The grand theory of self-care was developed by Orem (2001) is applicable to heart failure and successful transitions of care by addressing what actions must be taken for an individual to meet self-care requisites (Marcuccilli, Casida, & Peters, 2013). Orem's theory captures the essence of the self-care deficit that occurs with illness and the role of

the nurse to bridge that need (Jaarsma, Riegel, & Stromberg, 2012). The theory also demonstrates applicability across illness that occurs in the acute and chronic phase.

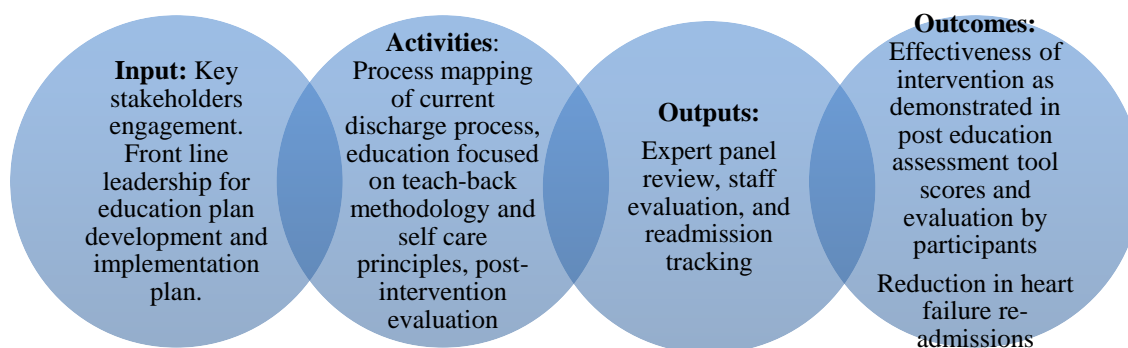
Jaarsma, Riegel, and Stromberg (2012) developed a middle-range theory of self-care in chronic illness that expands Orem's (2001) concepts to relate to chronic disease management as seen in Figure 1. The concepts of self-care apply in both healthy and ill states however the theory promotes the concepts of self-care maintenance, self-care monitoring and self-care management as the core of overall disease management (Jaarsma et al., 2012). This theory was well suited to guide the HF project because of its dynamic applicability to chronic disease management and the ability of teach-back methodology to promote confidence in HF patients to perform self-care. A middle-range theory was selected because of their ability to be open for use in practice as well as their limited concepts which allow them to be operationalized in practice (McEwin & Wills, 2011). In addition, based on the intervention selection related to patient education, a strong conceptual and theoretical framework helped to correlate many aspects of the study including psychological, social, and nursing. Health literacy and patient's readiness to learn have a goal of promoting self-care that is reflected in nursing theorists who anchor the nursing practice in the concepts of person, health, and the environment (Terry, 2012).



*Figure 1. Theory of Self-Care for Chronic Illness*

The latest evidence on the impact of HF management in the acute care setting by utilizing core measures seems to reflect an ongoing need to improve HF readmissions. There is a substantial body of evidence on the ability of the HF patient to administer self-care techniques effectively, suggesting a needed focus on the efficacy of the discharge instructions being delivered. The translation of research into practice is significant in considering the applicability of the data to the clinical setting (Collins et al., 2007). Several models currently exist in the literature and while they maintain the basic tenants of evidence-based practice (EBP) implementation, they also vary slightly in their relevance to specific settings. The utilization of theories in planning programs assists the developer in organizing the needs of the program with the intended outcomes as well as the needed resources to accomplish each step (Hallinan, 2010). The nursing staff HF educational project utilizes the logic model (Hallinan, 2010). This model was selected because of its ability to provide a narrative and visual depiction of the nursing staff HF educational program. The components of input, output, and outcomes will allow the team

to identify gaps, define specific activities to achieve outcomes, and evaluate the program as seen in Figure 2. In this era of evidence-based practice, this model is particularly useful to drive change and implement best practices in a practical and sustainable fashion.



*Figure 2.* Logic Model depiction of nursing staff HF educational program

A model for implementing an evidence-based practice (EBP) project guided the process of identification, evidence identification and appraisal, recommendation for change, implementation, and evaluation in the HF project (White & Dudley-Brown, 2012). The heart failure project will utilize the ACE Star Model of Cycle Knowledge Transformation (White & Dudley-Brown, 2012). This model was selected because of its cyclical representation of evidence-based practice implementation. It takes into account both old and new concepts for improving care that respects current practice and the ability to integrate new findings into care delivery. The model is particularly relevant to the HF project since it is the embodiment of existing evidence-based practice and the introduction of new, complimentary evidence-based practice tools. In addition, the model

offers specific steps from discovery, evidence summary, translation into action, integration into practice, and evaluation (Stevens, 2013).

Organizational change theory, that guided efforts related to the translation of knowledge, requires a framework that is inclusive of the many facets of the organization itself (White & Dudley-Brown, 2012). Senge's Learning Organization Framework encapsulates the ability of an organization to unite for a needed change (White & Dudley-Brown, 2012). Senge describes five disciplines to achieve a learning organization. The first is systems' thinking that is crucial because it forces the focus of the change to be the organizational effect versus a response to a single event (White & Dudley-Brown, 2012). Personal mastery speaks to the people within the organization and in some respect to the organization's commitment to their staff in learning and evolving (White & Dudley-Brown, 2012). The framework strives to get to the roots of an organization's beliefs and visions and subsequently challenges the organization to reflect on change related to their ability to be true to their commitments (White & Dudley-Brown, 2012). Building a shared vision and team learning plan addresses the need for organizations to be united in a team effort to create change are the final stages (White & Dudley-Brown, 2012). This framework endeavors to create a vision across organizational boundaries, and shares both the challenges and successes as a united front. Specifically, it challenges change to be centered on engaging key stakeholders and effective team building. The premise of the HF transitions model that calls for buy-in at every level of the organization fits well into the learning organization framework.

### **Summary**

Heart failure is the focus of a nation-wide effort to improve population health as is evidenced in many common literary themes of the promotion of self-care, transitions of care, health literacy, and teaching methodology. Due to the nature of the disease, HF readmissions occur at a higher than expected level with substantial financial impact on the country (Grady et al., 2010). The ability to improve the transition of care from the acute care setting to home is evidenced by the literature requires interventions and teaching methods that enhance self-care. The nursing staff HF educational program will enlist the bedside clinician in an educational strategy to improve the retention of information and improve successful transitions primarily by utilizing teach- back methodology. There is currently extensive research related to the development of transitions of care for targeted population health issues. In addition, there are already strong evidence-based interventions on how to effectively manage the acute phases of HF. What is less evident, and strongly relevant to the bedside nurse in an acute care setting, is their specific role in preparing the patient for the transition. Acute care facilities, and even the application of evidence-based interventions in this setting, can often fail to capture the individual needs of the patient to successfully engage in self-care (Fonarow et al., 2007). The project facilitated the ability of the bedside nurse as a HF educator to contribute to successful transitions of care from the hospital to home. Section 3 will address the approach and methods used to develop the education module and subsequent content validation.

### Section 3: Approach/Methods

#### **Introduction**

The purpose of this DNP QI project was to develop a HF educational initiative to promote HF patients readiness to learn in order to promote self-care and prevent readmission to the hospital within 30 days. The educational program will assess the nursing staffs' understanding of basic concepts of HF and HF self-care principles (Washburn, Hornberger, Klutman, & Skinner, 2005). The development and evaluation of a curriculum for nurses that focuses on information, comprehension, and retention HF self-care concepts and teach-back methodology offers a practical solution to improving transitions of care and can be achieved organizationally with minimal budgetary impact but significant patient outcomes. This section reviews the specific program development and content evaluation.

#### **Program Development**

The nursing staff HF educational program was developed and is reflective of the five domains of HF self-care principles that demonstrated improved outcomes in a study by Mahramus, Penoyer, Frewin, Chamberlin, and Sole in 2014. Stakeholders included the DNP student as the lead as well as nursing leaders, front-line clinicians, pharmacists, case managers, educators, and hospitalists who contributed to the final product through content evaluation. The curriculum mimics Mahramus et al.'s (2014) study as well as addresses the concepts of self-care assessed through the Nurses' Knowledge of HF Education Principles (NKHFEPE) instrument (see Appendix A). The HF curriculum content was developed to include: (a) the importance of self-care, (b) teach- back



technique, (c) diet, (d) fluids and management, (e) medications, (f) exercise, and (g) signs and symptoms. A skills lab to practice teach-back methodology will follow classroom instruction. Key concepts of the program include the use of a teach-back intervention where the learner explains back in his or her own words the content of the education. These concepts are supplemented by curriculum from the BOOST program on skill demonstration and scenario development (Society of Medicine, 2008). Finally, participants will be asked to reassess their knowledge of the HF self-care principles by repeating the NKHFEP instrument. Permission to use the NKHFEP tool was obtained through the marketplace for the Cleveland Clinic. Authorization is acquired through the purchase of the product (see Appendix B).

### **Content Evaluation**

Multidisciplinary individuals, who possessed expertise in heart failure and inpatient care, include discharge planning, evaluated the program content. Expert membership invitation included the facility's Chief Nurse Executive (CNE), a Clinical Nurse Specialist (CNS), a pharmacist, and the Director of Case Management. The inpatient nursing directors (Patient Care Directors) of the Medical-Surgical Unit and the Progressive Care Unit at the project facility provided additional evaluation. The facility's Internal Review Board (IRB) approved the proposed project and it received exemption. The IRB also requested that each participant receive an Informed Consent information sheet with no signature required as part of the project. The IRB of Walden University also approved the project, the approval number is 12-28-15-0397226 (see Appendix C). Afterward, program content, the informed consent information sheet, teach-back

simulation modules, and the evaluation tool with an invitation letter to participate was sent to each proposed expert (see Appendix D, E, F, & G). The identified HF experts who choose to participate evaluated the educational component and made recommendations for content modification before dissemination to the nursing staff.

### **Summary**

The nursing staff HF educational program was developed and evaluated in an effort to address HF readmissions. The program utilizes evidence-based practices that focus on self-care concepts for patients with chronic disease. The program is designed to engage the bedside nurse who will be delivering this education by improving his/her comprehension of self-care concepts. Cumulatively, this will promote greater successes of these transitions of care from inpatient to home and will ultimately provide a platform for improving patient discharges that can be applied universally across settings. Section 4 will address the findings of the expert panel as well as discussion on the relevance of the project, strengths and limitations, and analysis of self.

## Section 4: Findings, Discussion and Implications

### **Introduction**

The purpose of the DNP QI project was to develop a HF educational initiative to improve HF patients' readiness to learn in order to promote self-care and prevent readmission to the hospital within 30 days. The project produced an educational program using teach-back methodology for nurses to prepare the HF patients for discharge and facilitate patient understanding of key disease and self-care concepts. Content evaluation of the newly developed education program using local HF experts was conducted to elicit feedback and modify the program before future potential implementation.

### **Summary of Findings**

A group of content experts was utilized as part of the evaluation process. A group of 12 participants were invited to review the content, process, and design of the program to gauge the usefulness of the program and elicit recommendations. Each of the 12 participants was deemed a heart failure content expert and titles included front line leaders, executive leaders, case managers, clinical nurse specialists, and pharmacists. Ten of the 12 participants responded and participated. The evaluation tool included a total of 12 questions (see Appendix B), with 10 of the questions using a 4-point Likert scale and two questions allowing narrative feedback on the program content. Ten evaluation tools were returned. Eight participants identified as RN and two identified as OTHER. Table 1 provides a summary of all of the expert panel review results.

Table 1

*Results of the Expert Panel Review N=10*

Question/Statement	Domain	1 Poorly /Not at all	2 Slightly /Unlikely	3 Adequately /Most Likely	4 Excellent /Definitely	Mean
1. How well did the module assist you in understanding the 5 HF self-care principles needed to teach patients?	Content				(10)	4.0
2. I understand how to use the Teach Back method to teach and assess the patient's knowledge of the 5 HF principles.	Content				(10)	4.0
3. I am better prepared to teach HF patients self-care principles.	Content				(10)	4.0
4. This module gave me enough information to feel comfortable using teach-back methodology consistently when I educate my patients.	Content				(10)	4.0
5. Teach back will change the way I educate my patients at discharge.	Process			(1)	(9)	3.9
6. Teach back is not practical when educating patients for discharge.	Process	(9)	(1)			1.1
7. The module questionnaire and scenarios were easy to read.	Design				(10)	4.0
8. The practice/skills lab was helpful in understanding teach back.	Process			(1)	(9)	3.9
9. This module was appropriate in length	Design			(1)	(9)	3.9
10. Would you recommend use of this teach-back module for clinicians	Design			(1)	(9)	3.9

## **Evaluation Discussion**

Questions 1-10 were designed to establish how well the module provided content, process, and design value to a nurse learning module related to heart failure and the use of teach back methodology. Questions 11 and 12 were available to give feedback on the weaknesses and strengths of the module. One hundred percent ( $n = 10$ ) of the respondents deemed the module as adequate or excellent. Questions 1, 2, 3, and 4 addressed content. Questions 5, 6, and 8 focused on process design of the module. Finally, Questions 7, 9, and 10 specifically addressed the design content.

### **Content Evaluation**

In order to establish if the educational module offered appropriate content, questions 1, 2, 3, and 4 were designed to elicit feedback specific to this measure. All 10 respondents found that the educational module was Excellent/Definitely able to address heart failure discharge self-care principles and gave the learner a better understanding of these principles. One hundred percent of the respondents found that the module taught them how to use teach-back to reinforce the self-care principles of heart failure with a mean of 4.0 for Question 2. In addition, all 10 respondents felt that the module better prepared them to teach HF patients as reflected in Question 3. Finally, all of the participants rated the educational module as Excellent/Definitely in that it gave them enough information to feel comfortable using teach-back methodology to consistently teach their patients.

### **Process Evaluation**

Process evaluation allowed the student to gain insight on how functional the module felt to the learner. Questions 5, 6, and 8 specifically addressed the program process. In Question 5, nine out of 10 respondents felt that teach-back would change the way they educated their patients for discharge, with one additional respondent responding Adequately/Most Likely. Question 6 offered an opportunity for the respondents to identify practicality of the module with scales that were reversed in expectation by the statement that “Teach-back is not practical when educating patients for discharge.” Nine out of 10 respondents replied Poorly/Not at All and one out of 10 responding Slightly/Unlikely. Question 8 allowed for specific feedback on the usefulness of the practice/skill lab with nine out of 10 participants responding that the lab was Excellent/Definitely. One of the participants replied that the skills lab was Adequately/Most Likely helpful. Overall, the program was evaluated as very functional for the learner. The usability of the program is evaluated in design questions.

### **Design Evaluation**

The design of the education module required specific questions related to program length and ease of use for the student to identify opportunities to modify the program for potential learners. Questions 7, 9, and 10 addressed program design of the HF educational module. One hundred percent of the participants identified the educational module and practice scenarios as easy to read with all of the participants replying Excellent/Definitely. Nine out of 10 participants replied that the module was Excellent/Definitely an appropriate length and one participant replied as that the module was Adequately/Most Likely an appropriate length. Finally, the participants

recommended the module for clinicians Excellent/Definitely with only 1 participant replying Adequately/Most Likely recommendation of the teach-back module for clinicians.

### **Qualitative Questions**

The participants in the Expert Panel evaluation were given opportunities to provide strengths and weaknesses of the program in Questions 11 and 12.

#### **Strengths**

Comments provided by the participants primarily addressed the strength of the module content. Four participants stated that the material was inclusive and covered concisely. Three experts commented that the outline for the content was excellent. Two participants also appreciated the teach-back narrative/examples. Six participants commented on the appropriateness of the length of the module and the ease of understanding the content. One additional comment offered insight into appropriate level wording for teaching patients as well as the ability of providing “just enough” information for patients to remember. Finally, 1 expert panel reviewer commented on the ability of the educational module to engage all clinicians to use the “same format” for teaching heart failure patients.

#### **Weaknesses**

There were few identified weaknesses noted in the comments with 60% commenting none; however, of the 4 responses there was also wide variation. One participant would have liked the pathophysiology of the heart described in greater detail. One expert panel commented on the need for a mnemonic to have patients and clinicians

remember the self-care principles. One additional participant definitely appreciated the educational module but would like to see this type of education started in the community and primary care settings. Finally, 1 participant suggested that the 5 self-care principles be changed to 6 because of the current focus on follow-up appointments with primary physicians once discharged.

## **Implementation Plan**

### **Proposed Committee**

The logic model will guide the development of the heart failure readmission program for full implementation at a later date. Input from key stakeholders will be paramount in the implementation (Hallinan, 2010). A multidisciplinary committee will be selected to lead the implementation whose expertise in heart failure and inpatient care includes discharge planning. Members would include the facility's Chief Nurse Executive (CNE), the Chief Medical Officer (CMO), the Chief Hospitalist, and the Director of Quality. Additional members would be the inpatient nursing directors (Patient Care Directors) of the medical-surgical unit and the progressive care unit at the project facility. Finally, a Clinical Nurse Specialist for these areas will be included in conjunction with the inpatient nursing directors to develop the final educational plan. After presenting the group with the purpose of the program, literature support and best practices evidence will be shared with the group in order to brainstorm the vision, content, validation, implementation, and evaluation of the program.

### **Framework/Model**



The logic model will guide the program developers to identify activities to achieve outcomes; the multidisciplinary committee will be needed to develop and craft the implementation plan (Hallinan, 2010). This model was selected because of its ability to provide a narrative and visual depiction of the nursing staff HF educational program. The components of input, output, and outcomes will allow the team to identify gaps, define specific activities to achieve outcomes, and evaluate the program. In this era of evidence-based practice, this model is particularly useful to drive change and implement best practices in a practical and sustainable fashion.

### **Work of the Team**

An initial step is to create a process map of the current discharge education process for heart failure patients as well as what current activities compose the patients' preparation for discharge. An inventory of current educational tools that staff uses to prepare heart failure patients for discharge will be identified. Staff's familiarity with heart failure self-care concepts before deployment of the educational plan will be an imperative step in the process because this will establish a baseline to compare the effectiveness of the program for use during evaluation. The Nurses' Knowledge of Heart Failure Education Principles (NKHFEP) instrument will be used to measure the nursing staff's knowledge of heart failure self-care principles prior to the educational roll-out and after completion of the program (Washburn, Hornberger, Klutman, & Skinner, 2005). The NKHFEP is a 20-item true-false test and items are categorized in the five domains of heart failure self-care: medications, diet, exercise, fluid, and weight management

(Mahramus et al., 2014). Review and approval of these tools will also be undertaken by the committee.

### **Educational/Evaluation Plan**

The educational content already developed and validated will be proposed to the multidisciplinary committee of nursing leadership and educators listed as key stakeholders. The proposed curriculum is reflective of the five domains of heart failure self-care principles and was demonstrated to improved outcomes in a study by Mahramus et al. (2014). In addition, based on recommendations from the content expert review, a sixth self-care principle was added related to adherence to follow-up appointment. The curriculum mimics this study as well as addresses the concepts of self-care assessed through the Nurses' Knowledge of Heart Failure Education Principles (NKHFEPE) instrument. Curriculum content includes: (a) the importance of self-care, (b) teach-back technique, (c) diet, (d) fluids and management, (e) medications, (f) exercise, and (g) signs and symptoms. A skills lab to practice teach-back methodology will follow classroom content. Key concepts of the program include the use of a teach-back intervention where the learner explains back in his or her own words the content of the education. These concepts were supplemented by curriculum from the BOOST program on skill demonstration and scenario development (Society of Medicine, 2008). Finally, nurse participants will be asked to reassess their knowledge of the heart failure self-care principles by repeating the NKHFEP instrument.

### **Proposed Implementation Plan**

The proposed implementation plan for the teach-back module for learning will be presented to PCU nursing staff in a series of four 1 hour sessions. The sessions will be conducted in the skills lab in order to allow for scenario review and practice of teach-back skills. The course will begin with the administration of the Nurses' Knowledge of Heart Failure Education Principles (NKHFEPE) instrument (Mahramus et al., 2014). Review of the results will aid the instruction of the course content that will focus on heart failure self-care principles and teach back technique. The content will be followed by role-play using 3 patient scenarios presented to the nursing teams to demonstrate teach back skills. Instructors will assess the participants on the use of the teach-back method and offer immediate remediation of skills.

### **Implications**

The development of the HF educational module for heart failure discharge teaching has the potential for many implications related to clinical practice and transitions of care. Following future implementation of this project, implications will impact clinical practice, policy development, research, and social change.

#### **Clinical Practice**

The key impact of the HF project links the social implications of chronic disease management to the potential effect of the education provided by the bedside nurse during key transitions of care such as discharge (Mahramus et al., 2014). Healthcare has historically described itself as on a continuum of care; however, there has always been a distinct disconnect between care delivered to an inpatient and the patient at home (Dewalt et al., 2009). Acute care setting nurses are willing and ready to play a key role in assisting

patients in developing their ability to perform self-care and be successful in their transitions of care. While nurses have traditionally filled the role of educators, providing the educators with the most useful techniques is imperative to improve patient outcomes. Offering an evidenced-based practice application to this essential nursing role will influence direct care delivery and address population health needs. The Teach-Back Educational Module for Heart Failure Discharge provides evidence-based tools designed to prepare bedside nurses to prepare HF patients effectively for discharge and prevent readmissions due to deficits of self-care knowledge.

### **Policy Impact**

Forecasting changes based on evolving issues such as hospital readmissions is a key component of leveraging sustainable change in healthcare today. Pronovost, Marsteller, and Goeschel (2011) suggested that these issues could in fact be external levers for change to occur related to the heart failure program by impacting organizations to respond to these social and economic pressures. Successful transitions of care beyond the heart failure population holds great promise in reducing readmissions and overall better success for patients once they are discharged to the next level of care. Patient experience, an important dimension of patient care, has a great deal of weight in healthcare today and if teach-back is applied as the standard way that nurses teach patients, an overall increase in patient satisfaction should be easily realized. The creation of standard work plans and guidelines to utilize teach-back could influence healthcare in general and create a more satisfying care experience for both patients and nurses

(Gifford, Davies, Tourangeau, & LeFebre, 2011). Therefore, consistently applied teach-back as the standard of care for discharge education could provide a two-prong approach to increase hospital revenue by decreasing readmissions and increasing patient satisfaction scores.

Effective HF management also has significant financial implications. Due to the nature of the disease, readmissions have a substantial financial impact on the hospitals. The ability to improve the transition of care from the acute care setting to the next setting of care as evidenced by the literature requires interventions and teaching methods that enhance self-care. The HF transition program strives to meet this by enlisting the bedside clinician in an educational strategy to improve the retention of information and improve successful transitions.

## **Research**

There is currently extensive research related to the development of transitions of care for targeted population health issues (Stamp, Machado, & Allen, 2014). In addition, there are already strong evidence-based interventions on how to effectively manage the acute phases of heart failure (TJC, 2015). What is less evident, and strongly relevant to the bedside nurse in an acute care setting, is their specific role in preparing the patient for the transition. Acute care facilities and even the application of evidence-based interventions in this setting can often fail to capture adequately the individual needs of the patients to successfully engage in their self-care. Support for the bedside nurse as an educator during the acute hospitalization in contributing to successful transitions of care is highly relevant in health care today. Patient education needs to incorporate effective

teaching strategies that target literacy barriers and improve the patients' retention of critical factors in self-care management. Teach-back methodology is an educational technique that requires the patients to explain using their words what has been explained to them, thereby increasing comprehension (Heinrich, 2012). Effective teaching methodology links strongly to theoretical concepts of self-care and demands a deeper exploration by clinicians at the bedside as they transition patients from the acute care setting.

### **Social Change**

The DNP project to improve HF discharge addressed a very relevant social problem: chronic disease management in the United States. The Healthy People 2020 initiative is a product of a collaborative effort between the U.S. Department of Health and Human Services and other agencies to prioritize nationwide health improvement initiatives. The overarching goals of the program are to not only improve disease prevention but to also improve health equity and promote healthy environments (U.S. Department of Health and Human Services, 2010). Heart failure is the most expensive cardiovascular illness in the country, with high readmission rates contributing significantly to this cost (Grady et al., 2014). For this reason, Healthy People 2020 has identified in Heart Disease and Stroke, HDS-24 an objective to reduce hospitalizations in adults aged 65 and above with heart failure as a primary diagnosis.

### **Project Strengths, Limitations, and Recommendations**

The heart failure DNP project involved the development of an educational module for nurses to better understand self-care principles related to HF as well as how to use teach-back methodology effectively to ensure comprehension. The overall developmental goal of the program was to reduce heart failure 30day readmissions by providing better transitions of care from hospital to home.

### **Project Strengths**

The strengths of the HF educational module for discharge teaching included the engagement of the bedside nurses to use the teach-back strategy. Patients must understand their disease and treatment to participate in self-care; knowledge is truly essential for adequate self-care. Nurses are responsible for preparing patients for discharge and must be content experts. Teach-back offers a technique that ensures patient understanding and identifies gaps in understanding before discharge. The program is designed to involve the bedside nurse and the patient in an effective process of discharge teaching that will ultimately improve outcomes for this population of patients as well as for any patient being discharged from the acute care setting.

An additional strength of the program is the use of the teach-back strategy itself. The interventions are simple to understand, offer no additional cost to the organization, and yield a potentially higher patient comprehension. Moreover, teach-back strategy is not limited to HF; but can be applied across all patient care settings and diagnoses. The program utilizes skills labs to confirm comprehension and competency of the bedside nurse in utilizing teach back.

### **Project Limitations**

The most significant limitation of the project is the lack of outcome data related to the teach-back program not being implemented as a part of the project. While the project aims to produce a packaged product for implementation and evaluation, the project thus far can only yield content evaluation. In addition, while the expert panel consisted of professionals with an extensive background in HF management on the acute care side, the number of participants was relatively small. Finally, a limitation of this project is the scope, which includes only HF patients. However, anticipated positive outcomes related to reduced readmissions makes the potential for this project impressive.

### **Limitation Recommendations**

Limitation recommendations will focus on effective development, implementation, and evaluation of the project to mitigate potential issues following actual implementation in the future. The evaluation of the project involves an ongoing process that encompasses the entire project from development to implementation. Miake-Lye et al. (2011) described this process as a formative evaluation that covers each step of the project including implementation and sustainability, barriers, and quality outcomes. Similarly, the HF DNP project addressed these issues specifically through the use of the logic model to direct the formative evaluation process. The strength of using the logic model to guide evaluation is that the model provides a narrative and visual depiction of a program that assists the developer in defining the program's intention with input and output, as well as short-term, medium-term, and long-term outcomes (Hallinan, 2010). The visual depiction produced in this effort allows the team to identify gaps and influences that may positively or negatively impact a program and provide continuous



formative evaluation of the program. Development of a program such as this one to reduce HF readmissions clearly provides an opportunity for facilities to map current processes and propose changes to affect outcomes. Again, the model allows for ongoing evaluation and proposed changes based on this evaluation as the program is developed and deployed.

### **Analysis of Self**

#### **Scholar**

As a DNP-prepared nurse in scholarship, defined by the American Association of Colleges of Nursing (2006), I have a better understanding that knowledge discovery is only a portion of the role. Along with discovery are the integration, application, and dissemination of knowledge that are truly at the core of the role. The development of this project has helped me to explore the importance of selecting the appropriate population, routes and methods of dissemination. Clearly, the work of a DNP does not stop with the implementation and evaluation of a project, but that the obligation to scholarship is to share innovation. In addition, the development of the project has reinforced another important aspect of nursing scholarship which is collaboration. The project promotes the collaboration between disciplines, among nursing peers, and incorporates the patient as the central point of communication. Promoting self-care ability among patients needs the input from more than a single discipline such as nursing. Teaching methodology, dietary knowledge and pharmaceutical expertise are necessary in the multifaceted and complex team approach to caring for patients with chronic illnesses. Most importantly, I have gained insight into the value of engaging the acute care bedside clinicians in transitions of

care. Teach-back offers an intentional intervention that allows the bedside clinician to gain insight regarding the ongoing needs of the patients and become a more effective partner in chronic care management.

### **Practitioner**

Based on my clinical expertise in acute and critical care settings, the HF readmission project is an evidence-based project that will add value to the nursing care delivery in these settings and addresses a specific need for a targeted population of HF patients. The project specifically involved the use of teach-back methodology to deliver patient education and measure the impact of the program on re-hospitalization to a targeted sector of the HF population at this facility. I have learned to focus current and future projects on the appropriate audience, which is a central role of the DNP as a scholar-practitioner and leader.

### **Project Developer**

As a leader, the development of this project has helped me to have a deeper understanding of how forecasting necessary changes based on evolving issues is a key role of the DNP-prepared nurse. The project development gave me insight into community based needs of patients as well as up and coming issues in healthcare. I am able to understand that my project's goal of successful transitions of care has relevance beyond the HF population and holds great promise in promoting not only reduced readmissions but overall better success for patients once they are discharged to the next level of care. The project promotes teach-back as the standard teaching style that nurses

use for patients. The creation of standard work plans and guidelines to utilize teach-back could influence healthcare in general and create a more satisfying care experience for both patients and nurses (Gifford, Davies, Tourangeau, & LeFebre, 2011). This insight allowed me to refine my project to be applicable across many populations, encourage active feedback on the tools used, and aim for the development and implementation of standard practice guidelines.

### **Project Contribution for Future Professional Development**

Directing the future of nursing practice is central to the role of the DNP (Oermann & Hays, 2011). Dissemination, however, requires thoughtful assessment by the DNP that includes being cognizant of their information type (research versus quality improvement), their target audience, and what larger public forum is appropriate to share findings. My exposure to a variety of initiatives within the organization and completion of this project increased my desire to grow professionally through dissemination of my work.

Dissemination includes not only presentations within the organization but at larger venues to share the project outcomes. Additional work on a manuscript for a Quality Improvement Report will follow project implementation.

### **Summary and Conclusions**

The major reason for this project was to promote and refine the contribution of the bedside nurse in transitions of care. In today's healthcare, when acute care stays are limited, the ability of the bedside nurse to influence a better discharge is not the focus of an organization. As a bedside nurse, the emphasis is on efficiently moving the patient

through the system without a focus on how the patient will succeed at home. A teaching methodology that supports patient comprehension is the ideal intervention for the bedside nurse to contribute to improved transitions of care.

It is important to recognize the impact of core measures used across the country to promote consistent care for patients with heart failure and pneumonia, and post-operative patients. The Joint Commission is credited with the development of the core measure quality initiatives in 2001, when guidelines for defined health problems were developed to ensure consistent care (Ellis, 2005). The focus for HF core measures was that certain diagnostic tests, medications, and discharge instructions would be provided consistently utilized for better outcomes. Many organizations have succeeded in implementing these practices for diagnostic testing and medications in the heart failure population but still struggle with successful transitions of care. The provision of standard care is important, but the ability of the patients to understand how to care for them after discharge is imperative for preventing readmissions and successful long-term management of the disease. Section 5 will discuss the project's scholarly dissemination plan.

## Section 5: Scholarly Product

### **Manuscript/Quality Improvement Report**

The dissemination plan of an evidence-based project such as the “Teach-Back Educational Module for Heart Failure Discharge” was designed to improve transitions of care by delivering a product that is expert-panel reviewed and serves as an exemplar for implementation in the project hospital and elsewhere. With this in mind, the project needs to be disseminated within the organization for future implementation and to reach a broader audience through a relevant external venue. Ousley, Swarz, Milliken, and Ellis (2010) have researched and reported the efficacy of dissemination types for practitioners, factoring in barriers to success and practitioner preference. Education resounds as the most preferred type of dissemination of findings into practice, with a strong preference for in-person lectures (Ousley et al., 2010). However, peer-reviewed articles also remain a strong resource for practitioners as well. I have selected the format of Quality Improvement Report for a journal as my scholarly product (Oermann & Hays, 2011). This format allows for the dissemination of the education module and will allow me to share findings and challenges related to the project, allowing others with similar challenges in their clinical settings to find relevance and support. The targeted journal would be slightly broader than cardiac units and instead include more acute care nurses such as Nursing2016 or the Journal of Medical-Surgical Nursing. The readers of these peer-reviewed journals will capture the usefulness of teach-back to a variety of nursing units and patient populations beyond heart failure. The strengths of the approach that I have selected will overcome many of the challenges in disseminating evidence-based

projects through in person; local venues for dissemination directly to the target audience (see Appendix H).

### **Summary**

The Development of a Teach-Back Educational Module for Heart Failure Discharge Teaching deploys an essential tool for effective transitions of care: the bedside nurse. The project validates the need for bedside nurses to not only become content experts but also to use methodology that promotes retention such as teach-back. Effective translation of bodies of work associated with HF and successful transitions of care are significant to organizations across the country that is striving to prevent 30day readmissions as part of value-based purchasing. This project offers insight to the effectiveness of teaching self-care principles in a format that is easy to comprehend, concise, and offers reinforcement through teach-back methodology. Ideally, this format will catapult organizations to research the use of this format across many chronic disease spectrums and positively impact the health of the nation.

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## Appendix A: The Nurses' Knowledge of Heart Failure Education Principles (NKHFEF)

## Instrument.

## Survey Questions

1. Patients with heart failure (HF) should drink plenty of fluids each day. (False)
2. As long as no salt is added to foods, there are no dietary restriction for patients with HF. (False)
3. Coughing and nausea/poor appetite are common symptoms of advanced HF. (True)
4. Patients with HF should decrease activity and most form of active exercise should be avoided. (False)
5. If the patient gains more than three pounds in 48 hours without other HF symptoms, they should not be concerned. (False)
6. Swelling of the abdomen may indicate retention of excess fluid due to worsening symptoms. (True)
7. If patients take their medications as directed and follow the suggested lifestyle modifications, their HF condition will not return. (False)
8. When patients have aches and pains, aspirin and nonsteroidal anti-inflammatory drugs should be recommended. (False)
9. It is ok to use potassium-based salt substitutes (like "no-Salt" or "Salt Sense") to season food. (False)
10. If the patient feels thirsty, it is ok to remove fluid limits and allow them to drink. (False)
11. If a patient adds extra pillows at night to relieve shortness of breath, this does not mean the HF condition has worsened. (False)
12. If a patient wakes up at night with difficulty breathing, and the breathing difficulty is relieved by getting out of bed and moving around, this does not mean that the HF condition has worsened. (False)
13. Lean deli meats are an acceptable food choice as part of the patient's diet. (False)
14. Once the patient's HF symptoms are gone, there is no need for obtaining daily weights. (False)
15. When assessing weight results, today's weight should be compared with the patient's weight from yesterday, not the patient's ideal or "dry" weight. (False)

The following 5 statements reflect signs or symptoms that patients may have.  
Mark “yes” (T) or “no” (F) to signify that a patient should notify their HF physician of these signs and symptom

1. Blood Pressure recordings of 80/56 without any HF symptoms. (No/F)
2. Weight gain of 3 pounds in 5 days without symptoms. (Yes/T)
3. Dizziness or lightheadedness with arising that disappears within 10 to 15 minutes. (No/F)
4. New onset or worsening of fatigue. (Yes/T)
5. New onset or worsening of leg weakness or decrease ability to exercise. (Yes/T).



## Appendix B: The Nurses' Knowledge of Heart Failure Education Principles (NKHFEPE) Instrument-Authorization for Use.

**Jamarik, Marissa**

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**From:** Albert, Nancy <ALBERTN@ccf.org>  
**Sent:** Wednesday, July 29, 2015 12:31 AM  
**To:** Jamarik, Marissa  
**Subject:** RE: DNP Project

Hi Marissa.

Thanks for your request. The HF knowledge tool had 1 update in 2012, as an FYI. It is now available through our marketplace (there is a fee to use, it is very nominal). You will see a drop down bar to select your situation (there is a student rate, a regular hospital rate and a system rate).

So, to receive permission, you must go to our website and click the link for the "Nurses Knowledge of Heart failure Self Care Questionnaire".

- The tool has the cost, an agreement form, etc.
- Again, the tool had a slight revision from the original form (in 2012).

Once purchased, you will receive the revised tool and "correct answer" sheet.

Let me know if you have any questions, I am happy to respond. I you need anything else, just let me know.

The website is: <https://onADEO.com>

Best regards.

Nancy



Nancy Albert PhD, CCNS, CHFN, CCRN, NE-BC, FAHA, FCCM | Associate  
 Chief Nursing Officer - Research and Innovation, Cleveland Clinic Health System &  
 CNS - Kaufman Center for Heart Failure, Heart and Vascular Institute |  
 Cleveland Clinic | 9500 Euclid Ave. / J3-4 | Cleveland, OH 44195 | (216) 444-7028  
 | Fax: (216) 445-1776 | [albertn@ccf.org](mailto:albertn@ccf.org)

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**From:** Jamarik, Marissa [mailto:Marissa.Jamarik@nova.edu]  
**Sent:** Tuesday, July 28, 2015 9:33 AM  
**To:** Albert, Nancy  
**Subject:** DNP Project

Good morning Dr. Albert,

I am a DNP student at Walden University and am putting a proposal together for a heart failure nursing education program. I am interested in including your Nurse's knowledge of Heart Failure self-care survey as a potential tool to gauge nurses understanding of the core heart failure principles before the education module and post education module. The paper is a proposal for implementation at the organization and will serve as my DNP project for graduation. Thank you for your consideration in this matter. Sincerely, Marissa Jamarik

Marissa B. Jamarik  
 [Redacted]  
 [Redacted]  
 [Redacted]

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53	Tue, 09/22/2015 - 15:49	Mon, 10/12/2015 - 12:51	\$199.00	Completed

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## Files

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HI - Student researcher

Files	Size	Downloads
Heart Failure Education Principles Answer Key	53 KB	2 / 100
Heart Failure Education Principles	52.6 KB	0 / 100

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10000 Cedar Avenue Cleveland, Ohio 44106

## Appendix C:IRBApprovalWaldenUniversity

Walden University Mail - IRB Materials Approved - Marissa Jamarik

Page 1 of 2



Marissa Jamarik &lt;marissa.jamarik@waldenu.edu&gt;

**IRB Materials Approved - Marissa Jamarik**

2 messages

IRB &lt;irb@waldenu.edu&gt;

Mon, Dec 28, 2015 at 5:01 PM

To: "marissa.jamarik@waldenu.edu" <marissa.jamarik@waldenu.edu>  
 Cc: Dana Leach <dana.leach@waldenu.edu>, Dnp <dnp@waldenu.edu>

Dear Ms. Jamarik,

This email is to notify you that the Institutional Review Board (IRB) confirms that your study entitled, "Development and Validation of a Teach-Back Educational Module for Heart Failure Discharge Teaching," meets Walden University's ethical standards. Our records indicate that the site's IRB agreed to serve as the IRB of record for this data collection. Since this study will serve as a Walden doctoral capstone, the Walden IRB will oversee your capstone data analysis and results reporting. The IRB approval number for this study is 12-28-15-0397226.

This confirmation is contingent upon your adherence to the exact procedures described in the final version of the documents that have been submitted to IRB@waldenu.edu as of this date. This includes maintaining your current status with the university and the oversight relationship is only valid while you are an actively enrolled student at Walden University. If you need to take a leave of absence or are otherwise unable to remain actively enrolled, this is suspended.

If you need to make any changes to your research staff or procedures, you must obtain IRB approval by submitting the IRB Request for Change in Procedures Form. You will receive confirmation with a status update of the request within 1 week of submitting the change request form and are not permitted to implement changes prior to receiving approval. Please note that Walden University does not accept responsibility or liability for research activities conducted without the IRB's approval, and the University will not accept or grant credit for student work that fails to comply with the policies and procedures related to ethical standards in research.

When you submitted your IRB materials, you made a commitment to communicate both discrete adverse events and general problems to the IRB within 1 week of their occurrence/realization. Failure to do so may result in invalidation of data, loss of academic credit, and/or loss of legal protections otherwise available to the researcher.

Both the Adverse Event Reporting form and Request for Change in Procedures form can be obtained at the IRB section of the Walden website: <http://academicguides.waldenu.edu/researchcenter/orec>

Researchers are expected to keep detailed records of their research activities (i.e., participant log sheets, completed consent forms, etc.) for the same period of time they retain the original data. If, in the future,

<https://mail.google.com/mail/u/0/?ui=2&ik=60343f106d&view=pt&search=inbox&th=151...> 3/17/2016

Walden University Mail - IRB Materials Approved - Marissa Jamarik

Page 2 of 2

you require copies of the originally submitted IRB materials, you may request them from Institutional Review Board.

Please note that this letter indicates that the IRB has confirmed your study meets Walden University's ethical standards. You may not begin the doctoral study analysis phase of your doctoral study, however, until you have received the **Notification of Approval to Conduct Research** e-mail. Once you have received this notification by email, you may begin your study's data analysis.

Both students and faculty are invited to provide feedback on this IRB experience at the link below:

[http://www.surveymonkey.com/s.aspx?sm=qHBJzkJMUx43pZegKlmdiQ\\_3d\\_3d](http://www.surveymonkey.com/s.aspx?sm=qHBJzkJMUx43pZegKlmdiQ_3d_3d)

Sincerely,

Libby Munson

Research Ethics Support Specialist

Office of Research Ethics and Compliance

Email: [irb@waldenu.edu](mailto:irb@waldenu.edu)

Fax: 626-605-0472

Phone: 612-312-1283

Office address for Walden University:

100 Washington Avenue South, Suite 900

Minneapolis, MN 55401

Information about the Walden University Institutional Review Board, including instructions for application, may be found at this link: <http://academicguides.waldenu.edu/researchcenter/orec>

---

**Marissa Jamarik** <[marissa.jamarik@waldenu.edu](mailto:marissa.jamarik@waldenu.edu)>  
To: "marissa.jamarik" <[marissa.jamarik@inova.org](mailto:marissa.jamarik@inova.org)>

Tue, Dec 29, 2015 at 9:27 AM

[Quoted text hidden]

<https://mail.google.com/mail/u/0/?ui=2&ik=60343f106d&view=pt&search=inbox&th=151...> 3/17/2016

## Appendix D: Nursing Staff Heart Failure Education Program Evaluation for Expert Panel

**Nursing Staff Heart Failure Education Module Evaluation**

Person completing the questionnaire (circle one): MD/DO RN OTHER\_\_\_\_\_

<b>Please rate your experience with the Teach-back module by putting a number in each box. See Scoring Scale below.</b>	
<b>Scoring</b> 1=Poorly/not at all      3=Adequately/Most Likely 2=Slightly/Unlikely      4=Excellent/Definitely	
1. How well did this module assist you in understanding the 5 HF self-care principles that I need to teach patients?	
2. I understand how to use the Teach Back method to teach and assess the patient's knowledge of the 5 HF principles.	
3. I am better prepared to teach HF patients self-care principles.	
4. This module gave me enough information to feel comfortable using teach-back methodology consistently when I educate my patients.	
5. Teach back will change the way I educate my patients on discharge.	
6. Teach back is not practical when educating patients for discharge.	
7. The module questionnaire and scenarios were easy to read.	
8. The practice/skills lab was helpful in understanding teach back.	
9. This module was the appropriate length.	
10. Would you recommend use of this teach-back module for all clinicians?	
11. Please list the weakness (es) of this module. Please list suggestions for improvement.	
12. Please list the strengths of this module.	

## Appendix E: Participant Letter

Dear Potential Participant,

I am pleased to invite you to participate as an expert in the evaluation of this evidenced-based teach-back educational module for heart failure discharge teaching. The purpose is to assess the validity of the program and to provide feedback regarding the content of the educational program. This information gathering will provide feedback to enhance the content of the program for potential implementation for the future.

Enclosed you will find:

- The Heart Failure Educational Module
- The Nurses Knowledge of Heart Failure Education Principles Survey
- A sample simulation lab scenario to practice teach-back

The survey will be used to measure the nurses' knowledge of heart failure self-care principles both pre and post education. Please review the survey against the program content to ensure that the program will adequately address nursing's knowledge of heart failure self-care principles. In addition, any content suggestions would be appreciated.

If you have any questions regarding this study, please contact Marissa Jamarik at [REDACTED]. If you would like more information about your rights as a participant in a research study, contact [REDACTED]. Place the completed survey in the return envelope and return to Marissa Jamarik.

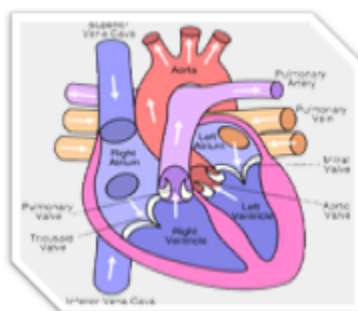
Thank you in advance for your participation.

Marissa Jamarik, MSN, RN, NEA-BC  
Walden University, DNP Student

## Heart Failure Self-care Principles: What Nurses Need to Know

### Blood Circulation

The right side of the heart receives blood low in oxygen. The blood is pumped through the lungs and oxygenated blood returns to the left side of the heart. The left side of the heart then pumps blood to vital organs in the body.





## Right Heart Failure

- Right heart failure occurs when blood is not being pumped well to the lungs.
- Common reasons include lung disease or right heart enlargement.
- Right heart failure causes swelling in the abdomen, legs and ankles.

## Left Heart Failure

- There are two types of left sided heart failure and both cause fluid to back up into the lungs.
- Systolic heart failure occurs when blood is not pumped well to the vital organs.
- Common reasons include myocardial infarction, infection and even pregnancy.
- Diastolic heart failure occurs when the heart does not adequately rest between beats and the amount of blood to the body is diminished.

## Signs and Symptoms of Heart Failure: Know them, Teach them

- Sleepiness
- Dizziness
- Weakness
- Activity Intolerance (new)
- Shortness of Breath
- Cough
- Unable to lie flat
- Weight gain
- Abdominal swelling
- Ankle swelling
- Cool hands and feet

## Six Self-Care Principles for Heart Failure Patients

- Diet
- Weight management
- Activity Level/Lifestyle
- Medications
- Managing symptom changes
- Follow up appointment

## Diet

- HF patients need to limit sodium intake to less than 2000 mg daily.
- Food choices need to include avoiding processed foods and using natural flavorings such as garlic or herbs.
- Salt substitutes can contain potassium and should be avoided
- Limit fluid intake to 1.5 liters or 48 oz. per day. Journal intake.
- Learn how to read labels!

## How to Read Nutritional Labels Using Teach Back

**Nutrition Facts**  
Serving Size 1 cup (220g)  
Servings Per Container 2

Amount Per Serving  
Calories 100    Calories from Fat 40

	% Daily Value*	Quick Guide
		% DV
Total Fat 10g	20%	
Saturated Fat 5g	10%	
Trans Fat 0g	0%	
Cholesterol 20mg	40%	
Sodium 100mg	20%	
Total Carbohydrate 15g	30%	
Dietary Fiber 3g	6%	• 5% or less is Low
Potassium 10	20%	• 20% or more is High
Vitamin D	2%	
Calcium	20%	
Iron	2%	

\*Percent Daily Values are based on a diet of other people's secrets.

**Footnote**

	% Daily Value	Amount Per Serving
Total Fat	20%	10g
Saturated Fat	10%	5g
Trans Fat	0%	0g
Cholesterol	40%	20mg
Sodium	20%	100mg
Total Carbohydrate	30%	15g
Dietary Fiber	6%	3g
Potassium	20%	10g

Source: U.S. Food and Drug Administration

## How to Read Nutritional Labels Using Teach Back

- If you ate this entire box, how many calories would you have eaten? (500 calories)
- If you ate one serving, can you tell me how much sodium you would have eaten? (470 mg)
- Can you tell me about good food choices for low sodium? Would you include this item? (fresh fruits and vegetables, natural flavorings, non-processed foods. No, it is  $\frac{1}{4}$  of daily allowed sodium intake).

## Weight Monitoring

- Provide patient with discharge “dry” weight.
- Weigh self each day: first thing in morning, after urinating but before eating.
- Scale should be on hard, flat surface not be placed on carpet.
- Record weight daily (calendars are a good option).
- Report a weight gain of more than 2 lbs. in one day or 5 lbs. in one week to your physician.

## Activity Level/Lifestyle

- Activity as tolerated is not enough information.
- Encourage activity but remind them of symptoms that should make them stop such as chest pain.
- Patients should plan their activity during the day to preserve energy and attempt to space out chores.
- RN can utilize case management referral if concerns about home environment and patient needs.
- Smoking Cessation is critical.
- Avoid/limit alcohol.
- Keep doctor appointments.

## Common Discharge Medications and their Side Effects

- *Diuretics (Furosemide, Bumetanide, Hydrochlorothiazide, Torsemide):* dizziness, electrolytes depletion, dehydration and leg cramps.
- *ACE Inhibitors (Captopril, Lisinopril, Ramipril, Enalapril):* low blood pressure, dizziness, dry cough
- *ARBs (Losartan, Olmesartan, Valsartan):* hypotension, hyperkalemia
- *Beta Blockers (Atenolol, Metoprolol, Propranolol):* low heart rate, fatigue and low blood pressure.
- *Digitalis (Digoxin):* dizziness, headache and n/v

## Tips for Better Medication Management at Home

- Encourage patient to keep a list of all medications and take this to the physician.
- Use a pill organizer.
- Do not skip doses.
- Try to use the same pharmacy for all prescriptions.
- Call physician for side effects.
- If patient has trouble paying for medication, notify physician for assistance in addressing
- Be aware of the number of refills available

## What if My Symptoms Get Worse? Using the Zones

Green Zone-Clear	Action
<ul style="list-style-type: none"> <li>• No new or worsening symptoms of breath</li> <li>• No new or worsening swelling of your hands, abdomen, legs or ankles</li> <li>• No Weight gain</li> <li>• No chest pain or tightness</li> <li>• No decrease in your ability to maintain your activity level</li> </ul>	<ul style="list-style-type: none"> <li>• Continue taking your medications as ordered</li> <li>• Continue your daily weights</li> <li>• Follow a low salt diet</li> <li>• Keep all physician appointments and follow-ups</li> </ul>
Yellow Zone-Cautious	Action
<ul style="list-style-type: none"> <li>• Weight gain of 2 pounds in a day</li> <li>• Increased swelling of your hands, abdomen, legs, or ankles</li> <li>• Increased in symptoms of breath with activity</li> <li>• Increase in the number of pillows needed to sleep at night</li> <li>• New or more frequent chest pain or tightness</li> <li>• New onset of dizziness or lightheadedness after standing up</li> </ul>	<ul style="list-style-type: none"> <li>• Call your physician's office</li> </ul> <p><b>DO NOT WAIT UNTIL YOU ARE RED TO CALL. CALL FOR EVEN ONE SYMPTOM!</b></p>
Red Zone-Emergency	Action
<ul style="list-style-type: none"> <li>• Unrelieved symptoms of breath or symptoms of breath at rest</li> <li>• Unrelieved chest pain</li> <li>• Wheezing or chest tightness at rest</li> <li>• Need to sit a chair or sleep</li> <li>• Weight gain of more than 2 pounds in a day</li> </ul>	<ul style="list-style-type: none"> <li>• <b>CALL YOUR PHYSICIAN'S OFFICE RIGHT AWAY!</b></li> </ul> <p>CALL 911 IF YOU:</p> <ul style="list-style-type: none"> <li>• Faint or Pass out</li> <li>• Become extremely short of breath or are unable to talk due to breathlessness</li> </ul>

Source: Inova Health System

## Follow-Up Appointment

- HF patients need to follow up with primary physician within 3-5 days of discharge.
- Assist patients in making appointment if necessary.
- Encourage patients to keep all physician appointments.
- Get flu and pneumonia vaccines as recommended by physician.

## Teach Back

- Teach back is a teaching methodology that has the patient explain back in their own words what they have been taught.
- Avoid using yes/no questions and instead use open-ended questions.
- Avoid technical terms and medical jargon

## Sample teach back questions for HF

- Medications: I want to make sure you understand your medication. Can you tell me how you should take this medication?
- Activity: I want to make sure I explained your activity level. Can you tell me when you should call your physician?
- Diet. I want to make sure I did a good job explaining your diet. Can you tell me how much sodium per day you are allowed?
- Signs and Symptoms: I want to make sure you understand your disease. Can you tell me some of the symptoms of heart failure?

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## Appendix G: Sample Teach-Back Scenarios for Simulation

### **Sample Simulation Lab Scenario for Teach-Back**

#### **Patient A**

You are going home from the hospital today after being in the hospital for four days. You were being treated for pneumonia and also have a history of heart failure because you had a heart attack three years ago that did not require surgery or treatment. You have had high blood pressure since your fifties. You are doing better but still not at your normal level for energy and you still have a cough. Your physician has told you that you will continue to need antibiotics following discharge.

Your daughter is picking you up in half an hour.

#### **Clinician A**

Patient A is leaving the hospital today following a four-day hospitalization for pneumonia and exacerbation of her heart failure. The patient is a 72-year old female with a history of heart failure secondary to a myocardial infarction three years ago. The patient also has a history of hypertension. The patient transitioned off of IV antibiotics yesterday and is off of oxygen. The patient was evaluated by PT and did not require home physical therapy or meet requirements for a skilled nursing referral. Patient lives alone but has support of her daughter nearby. The patient is compliant with her medication. Her last admission was six months ago for exacerbation of her heart failure.

Discharge Medications:

1. cefpodoxime 200 mg PO BID X 3 more days
2. carvedilol 12.5 mg po daily
3. lisinopril 10 mg po daily
4. furosemide 40 mg po daily
5. amlodipine 5 mg daily
6. simvastatin 20 mg po daily
7. aspirin 81 mg daily
8. flu vaccine administered this visit

Diet: Low Sodium with fluid restriction recommended

Discharge Weight: 132 lbs. (60 kg)

Follow up:

1. Dr. Cook (Primary) in three days at 2:00 pm

2. Dr. Smith (Cardiology) in one week-appointment not yet made

#### Summary Questions

1. What went well? (patient and clinician)
2. What didn't go well? (patient and clinician)
3. What would you change if you did this again? (clinician)
4. How well did the patient understand the information being taught to you?

Source: Society of Hospital Medicine (2013)

Appendix H: A Clinical Practice Manuscript

Development of a Nursing Staff Education Program: The Use of Teach-Back  
Methodology on Heart Failure Patients in Successful Transitions of Care.

**Manuscript**

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### **Abstract**

Core measures evidence-based work by the Joint Commission and the Centers for Medicare and Medicaid Services (CMS) on heart failure (HF) discharge education requirements does not appear to be enough to ensure successful transitions of care from hospital to home. The measure now requires additional evidence on how to more effectively educate HF patients to prevent HF readmissions. This article presents a quality improvement initiative that involves the development of a nursing staff HF educational program as an intersection of a variety of evidence-based practice (EBP) approaches that will ultimately improve outcomes. A nursing staff HF educational program was developed to implement teach-back methodology as a core principle for nurses to prepare a HF patient for discharge and ensure patient understanding of key concepts of self-care. The program supports best practice promoted by the Joint Commission, Institute for Healthcare Improvement, and the Agency for Healthcare Research and Quality to augment patient understanding and improve patient transitions from the hospital to home setting. The outcomes include more effective transitions of care as evidenced in an improvement of nurses' understanding of heart failure self-care components, and a reduction in HF readmissions.

## **Introduction**

Heart failure (HF) is the leading cause of death in the United States, and has received nation-wide focus on disease management and evidence-based care coordination. The HF core measures set forth by the Joint Commission (2015) addresses key factors relative to the long-term management of HF. However, the successes of these measures remain contingent on the ability of the patient to perform self-care activities. Self-care has been identified in the literature as central to successful transitions of care (Dewalt et al., 2009). Furthermore, studies reveal that the elements impacting a patient's ability to perform self-care activities hinge on literacy, readiness to learn, and the effectiveness of teaching methods to impact retention. Through education, organizations are striving to meet core measures, helping patients to achieve an optimal level of health and, ultimately, working to prevent patient readmissions within 30 days. The role of the bedside nurse is pivotal to their success.

The problem specifically addressed in the Quality Improvement (QI) project is the readmission rate of HF patients within 30 days. Improvement was through development of an education plan for engagement of nurses in teaching HF patients evidence-based self-care measures to improve optimal wellbeing post discharge in the home. This QI project is particularly relevant to not only nursing but healthcare today as the United States struggles to manage chronic disease. The nursing staff HF educational program serves to meet the intent of the Healthy People 2020 initiative to reduce readmissions for HF by 10% per 1,000 by the year 2020 at an imperative juncture of care: discharge (U.S. Department of Health and Human Services, 2010). The goal was for staff to increase

utilization of teach-back methodology thereby improving HF patient information retention, increase self-care ability, and reducing HF readmissions. Ultimately, the QI project addressed the role of the acute care nurse in this crucial juncture of care: from inpatient to home. This specific QI project aims to present the model for the development of the nursing staff HF educational program for implementation at other facilities, however there has been no specific data collection to date other than content validation by local experts which is currently under way.

### **Methods**

The theoretical foundations of the project address dimensions of care delivery, and evidence-based practice implementation models. The Theory of Self-Care in Chronic Illness served as the foundation for the health promotion theory in this project due to the focus on self-care in the context of chronic disease management (Jaarsma, Riegel, and Stromberg, 2012). The Self-care Theory was developed by Orem(2001) and captures the essence of the self-care deficit that occurs with illness and the role of the nurse to bridge that need. Jaarsma, Riegel, and Stromberg (2012) developed a middle-range theory of Self-care in Chronic Illness that expands Orem's concepts to relate to chronic disease management. The concepts of self-care apply in both healthy and ill states however the theory promotes the concepts of self-care maintenance, self-care monitoring and self-care management as the core of overall disease management (Jaarsma et al., 2012). This theory is well suited to guide the HF project because of its dynamic applicability to chronic disease management and the ability of teach-back methodology to promote confidence in HF patients to perform self-care.

The logic model served as the guide for the development, implementation and evaluation of the project (Hallinan, 2010). The use of the logic model allows for application of evidence-based practice in a methodical, practical, and visual method. This model provided a narrative and visual depiction of the nursing staff HF educational program. The components of input, output and outcomes will allow the team to identify gaps, define specific activities to achieve outcomes, and evaluate the program. In this era of evidence-based practice, this model is particularly useful to drive change and implement best practices in a practical and sustainable fashion.

The QI project was conducted in a 183 bed acute care hospital that is part of a five-hospital regional system which includes outpatient services, assisted living, and long-term care facilities. Hospitals in this system provide much of the healthcare needs for citizens in its community. The QI project was focused on the Progressive Care Unit nursing staff since they receive the majority of heart failure patients.

## **Results**

The nursing staff HF educational program was developed to be reflective of the five domains of HF self-care principles that demonstrated improved outcomes in a study by Mahramus, Penoyer, Frewin, Chamberlin, and Sole in 2014. The curriculum mimics this study as well as addresses the concepts of self-care assessed through the Nurses' Knowledge of HF Education Principles (NKHFEPP) instrument. HF curriculum content includes: the importance of self-care, teach back technique, diet, fluids and management, medications, exercise and signs and symptoms. Classroom content is followed by a skills lab to practice teach back methodology. Key concepts of the program include the use of a

teach-back intervention where the learner explains back in his or her own words the content of the education. These concepts will be supplemented by curriculum from the Better Outcomes by Optimizing Safe Transitions (BOOST) program on skill demonstration and scenario development (Society of Medicine, 2008). Finally, participants will be asked to reassess their knowledge of the HF self-care principles by repeating the NKHFEP instrument.

The content validation evaluation plan is being conducted by a multidisciplinary committee team selected for their expertise in heart failure, expertise in education, and inpatient care delivery. Membership includes the facility's Chief Nurse Executive (CNE), a Clinical Nurse Specialist (CNS), Chief Hospitalist and the Director of Case Management. Additional evaluation was provided by the inpatient nursing directors (Patient Care Directors) of the Medical-Surgical Unit and the Progressive Care Unit at the project facility. This panel of identified HF experts is currently evaluating the proposed educational model and making recommendations for dissemination to the larger group of participants as an Expert Panel. Each identified expert is reviewing the survey content and program using a 12 question tool that includes a 4-point Likert scale as well as some open-ended questions for suggestions. A descriptive analysis of the results will be conducted after completion of the evaluation.

## **Discussion**

Core measures are an excellent example of nationally implemented evidence-based practice. The Joint Commission is credited with the development of these quality initiatives in 2001, when guidelines for defined health problems were developed to



ensure consistent care (Ellis, 2005). The focus for HF core measures provided that certain diagnostic tests, medication and discharge instructions were consistently utilized for better outcomes. Special focus on HF discharge includes 5 key areas: medication compliance, low sodium diet, daily weights, exercising and recognition of changes in status. Nursing has the responsibility of preparing patients with an understanding of these imperative discharge goals in order to prepare them to manage their disease after discharge (Mahramus et al., 2014). However, in to prepare nursing staff, a specific education module must be provided to the nurse as well. The nursing staff HF educational module was established to meet this goal.

The nursing staff HF educational program was developed and is being evaluated in an effort to address HF readmissions. The program will utilize evidence-based practices that focus on self-care concepts for patients with chronic disease. Moreover, the program is designed to engage the bedside nurse that will be delivering this education by improving their comprehension of self-care concepts as well as the deployment of teach-back methodology as an evidence-based tool to engage patients and improve retention of vital discharge information. Cumulatively, these tools will promote greater successes of these transitions of care from inpatient to home and will ultimately provide a platform for improving patient discharges that can be applied universally across settings.

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