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# Nurses' Response to a Heart Failure Video to Teach Patients Self-Management

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# Walden University

College of Health Sciences

This is to certify that the doctoral study by

Lynn Toth

has been found to be complete and satisfactory in all respects,  
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Walden University

2017

Abstract

Nurses' Response to a Heart Failure Video to Teach Patients Self-Management

by

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Post Graduate, Emory University, 2001

MSN, Emory University, 1985

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

December 2016

## Abstract

Numerous scholars have examined multiprocessors and techniques to decrease the heart failure readmission rate and to improve heart failure patient self-management. This project examined a new teaching method to create the experts' awareness of possible solutions to improve heart failure education in a small community hospital. The purpose of this project was the assessment of a new iPad heart failure patient pre-discharge education program video (HFPDEV). Pender's health care model (PHM) served as a framework for this project. Five local nursing educator experts (master prepared) were asked to view a new iPad HFPDEV. After reviewing the 15-minute iPad HFPDEV, the local experts were asked to evaluate the video by completing a Likert-type survey, which evaluated the content, process, design, time, and functionality of the iPad HFPDEV along with a section for comments and recommendations. Descriptive analysis was used to analyze the survey results. Four of the experts defined the content, process, design, and functionality of the iPad HFPDEV as "excellent." One defined the content, process, design, and functionality of the iPad HFPDEV as "adequate." All experts expressed recommendations to improve the iPad HFPDEV by doubling the iPad size with an enlargement of print for easy reading and erecting all teaching iPads on mobile stands. A future pilot project will evaluate the relationship of HF readmission rate to the iPad HFPDEV. Social change will occur when the organization provides HF patients with iPad HFPDEV that will increase HF self-management skills and decrease HF readmissions.

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## Dedication

To my mom, dad, and mother-in law.

## Acknowledgments

To my family that believed in my final success

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## Section 1: Evidence-Based Practice Overview

### **Doctor of Nursing Project Premise**

To decrease ongoing hospital readmissions, health care systems need to offer proactive preventive care before and after transitions to hospitalization (Lee, Calhoun, Stewart, & Cross, 2014). Before hospital discharge, health care workers should focus on patient education with an emphasis on self-management. Remote monitoring, medication modification (e.g., spironolactone), home health follow-up, post-acute phone calls, and pharmacy management programs offer varying support for a continuum of care after discharge (Black et al. 2013). For example, older patients with chronic renal failure and heart failure do not tolerate spironolactone and often are hospitalized. Although transition programs for the heart failure population demonstrates decreased readmission rates after a 6-month program, no research validation exists for reducing heart failure readmission rates in 30 days (Feltner et al.2014). Heart failure patients represent a population that on discharge quickly return to the hospital with worsening symptoms and poor functional capabilities in less than 30 days. Identification and validation of a single system for decreasing readmission rates remains inconclusive and not statistically proven by research.

### **Background and Context**

In spite of research that promotes evidence based care, heart failure disease foremost represents a key component of disaster for not only hospital systems but patients. Increased financial loss for health care systems exists compounded by increased physical suffering and decreased mortality for heart failure patients. Heart failure, the

primary diagnosis for > than 1 million U.S. hospital admissions annually, is related to a high risk for all-cause readmissions (Yancy et al. 2013). High return rates of 25% cost \$1.8 billion for physician's office visits and culminated in a total cost of heart failure care for over \$30 billion annually (Callender et al.2014). Heart failure decreases the quality of life and functional capacity of the heart failure population. Medication moderately delays progression of decreasing functional capacity. Only cardiac resynchronization therapy, individual disease management, and educational methods improved patient outcomes related to increased mortality and functional capacity (Yancy et al. 2013). Despite efforts with new medications and transitional systems of care, no single system bares significant evidence for decreasing the readmission rate or improving the quality of life for the majority of patients with heart disease (Feltner et al. 2013). Investigators continue to evaluate single systems or interventions that may improve the heart failure readmission rate.

Researchers have verified various heart failure change methods to decrease acute heart failure readmission rates. However, scholars have not confirmed the effectiveness of different transition programs for heart failure patients (Black et al. 2013). Telehealth, telemonitoring, and self-management programs decreased acute heart failure admissions, but not necessarily within a 30-day period (Bowles, Holland,& Horowitz,2009). No program led to a lowered 30-day readmission rate for heart failure patients; rather, there are many transition models for patients discharged from hospitals. Researchers have defined transition systems of care as instruments of change in decreasing hospital readmission (Anker, Fredrich, & Abraham 2011; Avery et al. 2012; Bowles, Holland, &

Horowitz, 2009; Fleming, Gavin, Piatkowski, Chang, & Mukamai, 2014; Yancy et al. 2013). According to telemonitoring, heart failure treatment of elderly patients improves the rate of mortality and of hospitalization with the closer observation of patients (Antonicelli et al. 2008). Out of 47 trials, few reported 30-day readmission rates (Feltner et al. 2014). An active home visiting program can reduce all-cause readmissions at 30-days. Multidisciplinary heart failure clinics and home visiting programs decrease all-cause heart failure readmissions over 30-60 days (Yancy et al. 2013)). Few researchers have examined the approach or mode of delivery to confirm an effective heart failure educational intervention (Fredericks, Beanlands, Spalding, & Da Silva, 2010). Insufficient evidence exists to determine the 30-day effect of increased patient education for heart failure treatment.

### **Problem Statement**

Scholars have not confirmed the advantage of an educational process for decreasing heart failure patient readmission rates or improving patient self-management of heart failure. Excessive readmission penalties for Medicare patients recently increased to 3% by the criteria dictated by the Affordable Care Act (ACA) (Naylor, Aiken, Kurtzman, Olds, & Hirschman, 2011). The AFC federal fine creates a financial burden for hospitals struggling with various interventions to improve care.

Acute heart failure education did not consistently occur at the study site institution. However, to address both patient readmissions and self-care, the patient must receive education of the disease process as well as its management. If nurses do not support the worthiness or flexibility of a teaching tool, the education of the patient may



be omitted. Heart failure patients must understand disease self-management to prevent readmission. An institutional change in nursing educational practices may increase the number of patients educated about disease management and decrease subsequent readmission rate. In the project for this study, I established an evidence-based practice for teaching patients heart failure self- management. A new tool for patient education may improve the quality of heart failure education prior to discharge, thus reducing the readmission rate. The tool may lead to improvement in nurse efficiency in time management and consistent patient self-management in heart failure.

### **Purpose Statement**

In this project, I evaluated and validated a new, self-paced, online, evidence-based video educational tool (iPad) for heart failure patients' pre-discharge for the institution to improve heart failure education. By improving heart failure (HF) education, I hoped to see an increase in the number of patients receiving HF education, a decrease in nurse teaching time, improvement in HF patient self-care, and a decrease in 30-day readmission rates.

Scholars have not identified an education system for reducing the 30-day HF hospital readmission (Antonicelli et al. 2008; Bertuzzi et al. 2012; Polisena et al. 2010; Yancy et al. 2013). According to randomized trials of modes of information delivery, delivery does not determine the patient's understanding of medical information (Griffey et al. 2015; Penoyer, Ferwin, Chamberlain, Wilson, & Sole, 2014). Therefore, a tool such as an iPad that decreases face-to-face teaching time but presents the information may increase the number of patients educated while improving the evidence-based content of

the education. Educators using iPads can improve their conversations with a patient (“Don't Get Left Behind”, 2011). If the tool improves the capability of the nurse to complete the patient’s education timely and effectively, the majority of patients may receive education in self-care, which may decrease hospital readmission rates.

### **Project Objectives**

The objectives of this project were to

- Initiate a new method for teaching the patient self-management with a self-paced, evidence-based video via an iPad
- Use a questionnaire to evaluate program content and appropriateness for self-management

The objectives following completion of this program were to

- Increase patient education to 100% through effective time management for patient education
- Evaluate 30-day readmission at the initiation of the process and at 6 months after the initiation

### **Guiding Practice and Research Questions**

The Affordable Care Act (AFC) did not define a transitional program. However, the AFC Act encouraged the adoption of an effective intervention that is community-based or a Medicare-shared savings and payment bundling experiment (Naylor et al.2015). As hospitals inspect their environment to determine the efficacy of bundle payments, the present transitional care systems can only reinforce the AFC’s recommendations. To achieve health reform, the importance of transitional care must be

acknowledged as recommended by the AFC Act. However, many organizations do not know which program decreases the time span for a return visit. Therefore, the purpose of this study was to determine if a standard program with a change in its educational process equates to a satisfactory change to help facilitate the nursing staff to provide HF self-management to the patient through a video.

### **Significance of the Project**

Every intervention, whether education, home health, discharge phone calls, or telehealth post discharge, should emphasize the importance of transitional care after a patient's release. In randomized clinical trials and quasi-experiments, scholars have explored and validated the all-cause for improved patient outcomes (Bowles et al. 2009, Piotrowicz et al. 2010; Polisen et al. 2010; White & Hill, 2014; Schemer et al 2009). However, these improvements for HF patients did not extend the date for hospital return. Medicare and Medicaid services mandate, through the AFC Act, decreased readmissions or risk decreased care reimbursements (Centers for Medicare and Medicaid, 2014). With an improved patient educational process, a decrease in the readmission rate may occur. Ultimately, not only could I determine an efficient transition program per readmission rate; but, the nurses could establish a best practice for HF education. The tool could improve nursing time management, thus increasing the number of patients educated before discharge.

### **Reduction of Gaps**

There is substantial research on heart failure transitional interventions. However, no intervention was designated as the best method for decreasing the 30-day hospital

readmission rate (Black et al. 2014). A part of nursing's professional practice is the use of evidence-based practice (EBP) that explains the process of care (Grove, Burns, & Gray, 2013). Through an evaluation of the education process, improvements in the teaching of patient self-management could occur. Using this survey could ignite further evaluation of the EBP at this organization. The measurement of this survey would permit the measurement or impact of EBP. The prevention and lessening of illness forms a lens in which to review a population's health (American Association of Colleges of Nursing, 2006). In this study, improving the health status of the HF population occurred with an effort to improve education, thus improving the safety and efficacy of transition from a hospital to home.

### **Implications for Social Change**

When the quality and safety of the public improves, societal change can occur. Transitional care creates an environment where individuals can redesign self-care to promote and improve health. In this project, I defined a framework in which patient-centered care occurs through teamwork and cooperation with evidence-based care (Institute of Medicine, 2000). The health care team applies these tools for the betterment of a patient's physical well-being. As I navigated the practicum, patient change opportunities small and large occurred. Opportunities to improve someone's life with process changes or policies remain possible. In identifying the change, I acted as an advocate to empower the patient to improve self-care.

Through the project, I initiated a meaningful change in the daily experience of patients with HF. In the case of HF, societal change begins when individuals can embrace

another human being's experience with the symptoms of fatigue and breathlessness.

However, societal change also occurs when a person's human factors are addressed and when a nurse delivers the best practice in the hospital and a transition of care exists at discharge.

Therefore, the provision of a teaching system that assists the nurse with time management but improves patient outcomes would be advantageous. The nurses at this institution requested a teaching process that facilitates education and time management. According to Mallory (2010), advocates for change essentially create system transformations. The patient education system at this hospital could drastically improve with a change in process.

### **Definition of Terms**

The following words and phrases represent the terms used in the DNP project.

*30-day readmission:* Return of the patient to the hospital in 30 days after discharge.

*Heart failure (HF):* Describes either systolic or diastolic failure in which the heart fails to pump adequately to meet the needs of the body (Nicholson, 2014).

*Heart failure (HF) education:* Information transferred to patients before discharge that increases their ability to provide safe quality care to themselves on discharge from the hospital.

*Self-management:* A decision-making process that reflects patients' choice of behaviors to sustain bodily strength and response to unfavorable symptoms (Moser, 2008)

*Transition of care:* A range of time-limited services that provide continuity of care, improve outcomes, and promote safe transfer of patients from one type of setting to another.

*Teach-back:* An evidence-based method used to ask patients to repeat in their own words what they need to know or do (Lis-Tamara, 2013).

### **Theoretical Foundations**

Pender's health promotion model, combined with an evidence-based model by Stevens, were used to establish my research framework. HF, chronic and debilitating, fits the criteria stated in Pender's health promotion model.

### **Nature of the Project**

In the project, I used an inquiry to determine the validation of the content and process of a self-paced, evidence-based video for acute HF patients. Use of the tool depended upon the stakeholders' and experts' evaluation of the tool. If a nurse does not initiate teaching, the patient misses the opportunity to learn. Use of the tool may contribute to decreasing the HF readmission rate, increasing the number of patients educated, and improving nursing time management.

### **Assumptions**

I accepted the following:

- The educational experts were limited to five in this organization
- Patients can refuse teaching by the video
- The experts may not consider the video valuable for improving the transition of care, and the video will not be used

### **Scope and Delimitations**

The parameters of the project hinged on the expert's inclusion of the video into the routine education of the patient. The availability of the video depended upon the experts' approval. The video reinforces the information included in the HF pamphlet. The video, 15 minutes in length, would rest in a bin in the medication room located on the nursing units. The video activates by inserting the code listed on the back of the iPad.

### **Limitations**

The potential constraints for this study, according to Grove et al. (2013), may include the following:

- Limited control over use of the intervention
- Technology causes possible intimidation of the nurse
- Patient refusal of the video could taint nurse's perception of the tool

### **Summary**

According to the literature, there is a basis for examining methods to decrease the HF readmission rate, but with no definitive evidence-based process. In this project, I attempted to gather the expert nurse's perception of the efficacy of an educational process in nursing practice. The rationale for a video implementation was related to the decreased patient education by the nurses at this institution. This video, a new patient teaching process, matched the written evidence-based formation in the HF pamphlet given to the patient. The self-paced nature of the video permits the patient to view the video while the nurse continues his or her work with other patients. On return to the patient, the nurse can use a laminated card in the patient's education packet for teach-back to assess the

assimilation of the information. Without direct teaching of self-management and assessment of the knowledge by the nurse, the patient has no basis to improve self-care.

When the nurse fails to teach the patient disease self-management due to accessible time, the patient is discharged, unaware of the necessity for self-management. Therefore, the provision of a teaching system that assists the nurse's time management but improves patient outcomes would be advantageous. The nurses at this institution requested a teaching process that facilitates education and time management.



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

### **Introduction**

The purpose of this project was to evaluate and validate a new, self-paced, online, evidence-based video educational tool (iPad) for HF patients pre-discharge for the institution to improve HF education. By improving HF education, I hoped to see an increase in the number of patients receiving HF education, a decrease in nursing teaching time, improvement in HF patient self-care, and a decrease in 30-day readmission rates.

The best transition method to decrease readmissions for HF patients and improve the transition of care has evaded health care despite research (Naylor et al. 2011) documented that the nature and practice of transitional care remains in the stage of evolution. Interventions with limited success have used processes such as case management, telehealth, and phone calls. Most strategies classified as successful in improving quality and cost do not change 30-day readmission rates. Three proven interventions reduced all-cause readmissions through 6 or 12 months, but not for 30 days (Naylor et al. 2011). A care transition with educational coaching supplemented with home care follow-up reduced 30-day return rates for fee-for-service Medicare beneficiaries (Jeencks, Williams, & Coleman, 2009). Coaching remains effective for those individuals committed to the program. According to Yancy et al. (2013), discharge education may lower days of hospitalization, costs, and mortality rates in a 6-month follow-up. Four years later after the passing of the ACA, transition of care has remained a complex process (Warden, Freels, Furuno, & Mackay, 2014). No system validates decreasing readmission.

## Literature Review

In an assessment of literature, a review of resources within the past 10 years highlights new and past research on interventions to decrease heart failure readmissions. Common source of preventable readmissions of HF was associated with insufficient knowledge at discharge (Mahramus et al. 2014). For patients to participate in self-management, they must understand their disease process and treatment plan (Abed, Himmel, Vormfelde, & Koschack, 2014). Important components of patient teaching include adhering to a treatment plan, monitoring and recognizing symptoms, taking appropriate actions to monitor symptoms, and evaluating their status (Abed, Himmel, Vormfelde, & Koschack, 2014). Albert et al. (2015) documented that “efficiency and effectiveness” of interventions remain unproven as the best practice (p. 5). I used the project as an opportunity to explore a transition intervention for HF care at this practicum site. In a health care setting, the transfer of clear information benefits everyone. Successful education can impact quality care and patient safety, which leads to patient satisfaction (Lis-Tamara, 2013). Patient satisfaction affects how patients and significant others accept or reject the plan of care offered by an organization.

For a clinician, communication is one of the most powerful accessories to create system change. Timely, accurate, and complete communication understood by the recipient can reduce error and result in improved patient safety and decreased readmission (Darcy, Murphy, & Desanto-Madeya 2014; Green, Dearmon, & Taggart, 2015; Kornger, Gibson, Sadowski, Maletta, & Klingbell, 2013; The Joint Commission, 2008). Patient involvement in their care occurs when the nurse asks questions and the

patient responds. This interaction leads to safe quality care. Teach-back should be used by health care professionals because asking patients to recall and restate what they have been told is one of 11 top safety practices (Agency for Healthcare Research and Quality [AHRQ], 2007). When teaching a patient, a nurse can use visual or practical aids to teach. Many patients learn better by watching a video, seeing a demonstration, or by listening to and repeating what they think they heard (Weiss, 2007). Many health care organizations endorse teach-back to assess and ensure understanding of discharge instructions with patients and families (Kornger et al. 2013; National Quality Forum (NQF) , 2009; The Joint Commission [TJC], 2007). In a randomized study, Peter et al. (2015) patients who received education with teach back-instructions for HF demonstrated a positive understanding of the education provided with a 50% decrease in readmissions postintervention when compared to preintervention. Teach back clarifies for the teacher, if teaching of the information to the patient occurred appropriately. Concurrence of the right process happens if the patient can explain his discharge process of care to his teachers, the nurses. The teach- back education completes the first step to decrease HF readmission. Patients that receive teach back intervention show a decrease in readmission to the hospital (Peter et al. 2015). For the patient teach-back permits the patient to own their health care plan.

Thirty billion dollars annually was spent on HF readmissions (Agency for Healthcare Research and Quality, 2014). From 2008 to the present, research on a superior method for decreasing HF readmissions continues. Research indicates that information technologies (IT) have a substantial part in supporting a patients' self- management

skills. Bashi (2012) tested an iPad application for teaching self-management to HF patients. The design for the development and evaluation contained two research cycles each containing 3 phases of testing and feedback from three groups of experts. This project utilized an iPad as a tool to standardize heart failure education. Currently ongoing study is evaluating the effectiveness of the tool for improving patient outcomes. Arena, Ashmann, Dixon, & Mansfield (2012) evaluated the effect of implementing a standardized heart failure education plan. A post survey study will reinforce the anticipated effects of better patient compliance and lower readmission rates. Researchers cite anticipated results of future post studies. Statistical significant data does not exist for the iPad or prevailing heart failure education plan. Feltner et al. (2013) applauded the work on discovering the best practice for medical practice, but highlighted the inconsistencies in research for preventing hospital readmissions. No significant data supports a single system for decreasing readmission.

### **Library Database Search**

A critical analysis of the literature for the past 7 years followed with the search engines: Cochrane Database of Systematic Reviews (CINHAL), ProQuest Nursing & Allied Health Source, Johanna Briggs, and Medline with full text. Also, the search included Ovid Nursing Journals full text and Database of Abstracts of Reviews of Effects (DARE). The engine search occurred with the following key words: *HF, congestive HF, systolic HF, diastolic HF, telemonitoring transitional care, patient education, telehealth, EBP, knowledge transformation, HF education, nursing practice, Pender HPM, health promotion model, ACE model, self-efficacy, and self-management.*

### **Scope of Literature**

In the literature, I discovered an absence of proof of an EBP for 30-day prevention of readmission. This literature deficit supported the pursuit of my project. Researchers have substantiated Pender's HPM on the importance of self-efficacy in creating the empowerment of individuals with chronic disease for self-management of their disease (Yancy et al. 2013). Scholars accentuated the role that the nurses play in discharge teaching and decreasing readmission. A tool for accomplishing patient education on disease management was not discerned in the literature. Nurse-led education relates to the ACE model for supporting an EBP for nursing. The ACE model provides a solution for using new data from the DNP project to stabilize a patient education process that accentuates a future nursing EBP. According to Warden et al. (2014), the clinician-guided information module is a method for resident experts to evaluate the video. The literature does support a single educational module, which supports the necessity for further research.

### **Concepts, Models, and Theories for Patient Disease Self-Management**

The nature of the study dealt with using a tool with open-ended questions for the evaluation and validation of the content and process of a self-paced, evidence-based video for acute HF patients. The experts, after watching the video, used the Likert scale for evaluation and validation of the content and process of a self-paced, evidence-based video for HF patients. The collection and evaluation of the data established a method to not only improve and change the delivery of patient care but nursing practice as well. Pender's PHM permitted the nursing experts to consider changes to patient care based on

the PHM (Pender et al. 2011). Simultaneously, the ACE model was used to demonstrate how the experts could use project data to translate the patient's knowledge into EBP (White & Dudley-Brown, 2012). The evidence-based concept of teach-back enables nurses to verify what the patient learns from an episode of teaching. The video provided an efficient time saving device to educate the patient on HF basics but allow the nurse to return to the patient and family in 15 minutes to use the process of teach back.

### **Health Promotion Model**

With the updated version of Pender's HPM, I explored the individual characteristics and personal experiences that affect behaviors and influence an individual's behavior. Within the HPM, the key to well-being is focused on cultivating activities that improve health. The model was used in many health promoting areas because of the multiple propositions contained within the model. Several HPM propositions related to the quandary of chronic disease such as "people commit to engaging in behavior from which they anticipate deriving valued benefits" and "perceived competence or self-efficacy relating to a given behavior increases the likelihood of commitment to action and actual performance of the behavior" (Pender et al. 2011, p. 250). Using the Pender's HPM, an effective empowerment strategy for diabetes self-management occurred (Ho, Berggren, & Dahlborg, 2010; Kwan, Berggren, & Dahlborg-Lyckhage, 2010). In chronic disease, understanding the barriers to self-management improves compliance by patient empowerment.

The theory of self-efficacy (self-management) within the PHM reflects an ongoing concept for the management of a patient's healthy lifestyle. Mohamadian et al.

(2011) noted that for acceptance of health improving activities, the removal of barriers must occur. Self-management, with the expansion in self-care skills, improves care transition and increases the time interval between hospital readmissions (Bodenheimer, 2008; Yancy et al. 2013). HF patients lack understanding and adherence to daily weights, fluid restriction, and medication, which can affect patient outcomes. In the project, I used a self-paced video that includes information on daily weights, fluid restriction, and medication has the potential to improve patient self-management.

Adjusting the basic HPM to promote behavior changes, a Heart Failure Empowerment diagram follows (Ho et al.2010).The diagram suggests how the HPM forms a framework for the study. If nurses use the video for education with the teach-back model, the establishment of a framework for teaching occurs with the propensity to decrease hospital readmissions.

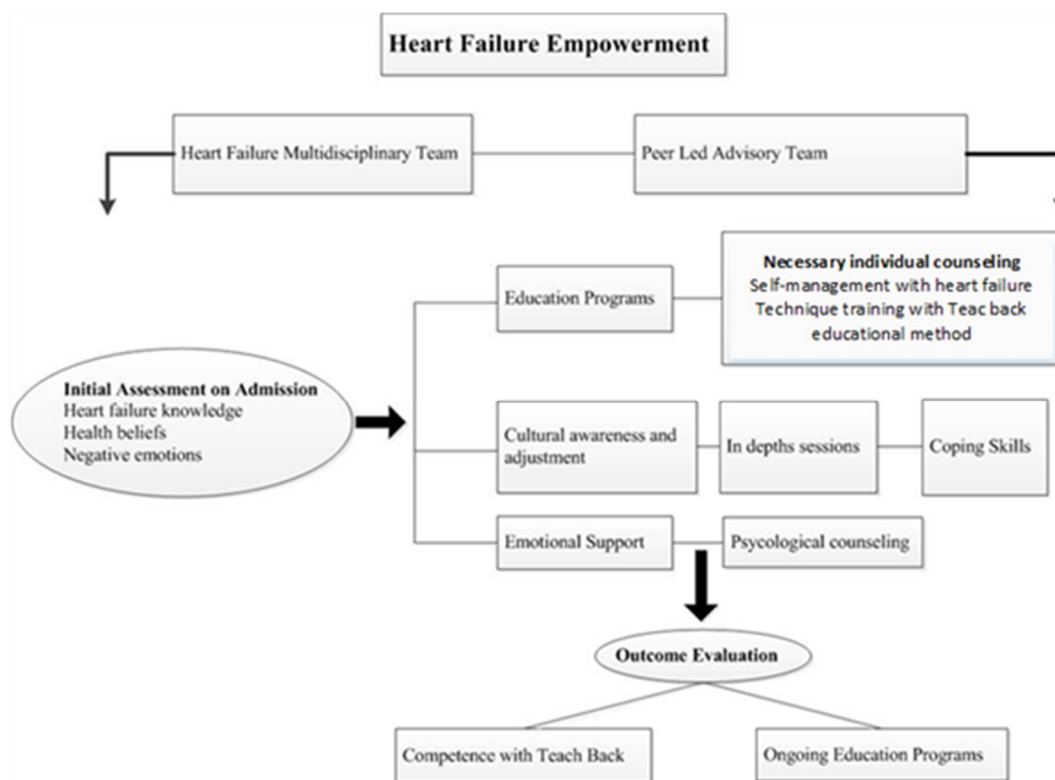


Figure 1. Collaborative process for future HF empowerment.

Empowering health education for self-care, according to Pender et al. (2011), involves multiple facets. The self-management education as a process is a collaboration between the nurse and the patient. A joint assessment of strengths and patients' needs will help the nurse and client prioritize learning activities and learning pace. The nurse can evaluate the effectiveness of teaching by having the patient teach-back what they have learned (Kornger et al. 2013). This model establishes a process and a method for validating learning before discharge.

### The Ace Star Model of Knowledge Transformation

The ACE Star model (ACE) depicted the five stages of knowledge transformation represented by the five points of a star. Healthcare organizations continue the challenge



to convert research findings into routine practice (White & Dudley-Brown, 2012). According to Stevens (2002), the evidence-based movement did not exclude other sources of knowledge but only includes randomized control studies (RCTs). She cautioned leaders to synthesize knowledge not only concerning RCTs but to utilize the “current best evidence in making decisions about the care of individualized patients” (Stevens, 2002, p.233). The ACE model laid the groundwork for translation of research into practice with the five stages of knowledge transformation. The model permitted easy understanding of the change process by which verified proof translates into daily processes that improve care. The points display on the golden star (Ace Star model of EBP: Knowledge Transformation, 2015).

- Point 1: “Knowledge discovery.”
- Point 2: “Summary of evidence”
- Point 3: “Translation into practice”
- Point 4: “Integration into practice.”
- Point 5: “Evaluation”

The conversion of research information into practice permitted the nursing profession to utilize trustworthy evidence. This model sanctioned a basis for care as well as the capability to pursue an evidence-based practice (Polit & Beck, 2014). In the utilization of the ACE model, a single primary study can initiate the process of change in knowledge discovery. The source of knowledge varies, and other sources of knowledge qualify besides RCTs (Academic Center for Evidence-Based Practice (ACE), 2015). In the summary of evidence, the body of information synthesized appears as a statement of the

discovered science. Translation to guidelines required two steps with integration as such into guidelines or protocols and then the actual assimilation into practice. The integration occurred both formally and informally. Through assessment, the evaluation of EBP happened with data collected through patient health outcomes, provider and patient satisfaction, and efficacy.

Understanding the model's process as described supports the benefit of using this model for future utilization of data from a future project. Also, ACE describes the benefit for advancing the practice to evidence-based. Since the 1980's the recognition and development of evidence-based guidelines occurred through the AHRQ (Grove et al. 2013). The American College of Cardiology (ACC) and the American Heart Association (AHA) collaborated for heart failure EBP (American Heart Association, 2013). The transition of care remained barely satisfied for a qualification of any best practice to prevent readmission (Yancy et al. 2013). With the American Heart Association at the helm with heart failure certification and evidence-based care, many hospitals addressed their gaps in heart failure care.

In consideration of the undetermined best practice for readmission, this study provided an opportunity for change. Differentiation of transition rates based on procedures and long-term evaluation of the processes provided an ultimate goal to improve outcomes and care. Many EBP designs prevailed for changing practice, but the ACE model portrayed an easy opportunity built on knowledge generation from many sources. Information gained from the nursing experts provided an opportunity to enhance further the patient educational tool. If the nursing experts condone or suggest processes

changes, this may solidify increased utilization of the tool. This opportunity to utilize knowledge sources close to home provided an opportunity for even the smallest hospital to initiate practices that will improve outcomes and change people's lives.

### **Literature Review Related to Methods**

#### **Existing Rationale and Scholarship**

Scholarship in nursing for examining a specific approach or mode for heart failure patient education received minimal support from the literature. Systematic review and systematic randomized trials since 1989 to the present revealed scant studies focused on particular modes for heart failure teaching interventions (Fredricks, et al. 2011; Boyde, Turner, Thompson, & Stewart 2011 ; Casimir, Williams, Lieng, Pitakmongkolkul, & Syler 2013 ; Tomkins & Orwat ,2010 ; American Heart Association.,2013). Heart failure led as the major Medicare diagnosis as well as the most frequent readmission to the nurse utilized a video per iPad for initial education and post video a laminated card to reinforce information by permitting the patient to teach-back what they think they heard in the video. Kornger et al. listed nurse barriers to teach back: lack of hospital. Tentatively heart failure presented a major educational challenge to a small independent community hospital. Preventable readmissions link to inadequate knowledge at discharge (Mahramus et.al 2013; Annema, Luttkik, Jaarsma, 2009; White, Garbez, Carroll, Brinker, Howie-Esquivel, 2013). A deficiency in a standardized method for nurse discharge teaching concurred with inconsistencies in teaching patients and families home health skills and instructions (Weiss et. al 2008; Kornger et.al 2013). In this DNP project time, high patient to nurse ratio, and patient/family limitations.

A future project would utilize heart failure patients with a nurse 1:4 patient ratio and discharge education would begin on admission as directed per process. On admission the patient would receive a packet with booklet and laminated card. The nurse will document teaching on electronic health record utilizing statements such as teach-back, further reinforcement or patient unable to teach at this time. In this project the video consumes 15 minutes while teach-back is not a major time barrier. The nurse can initiate the video, leave the room to continue other duties. Therefore, the educational process can begin days before discharge preventing lengthy discharge times for nurses and patients.

## **Background and Context**

### **Institutional Context**

The five nursing institutional experts utilized the evaluation form to assess the content and process of the self-paced evidence based video. This hospital, well-respected for its heart failure program, received the distinguished gold and gold plus awards for heart failure from the American Heart Association for three consecutive years. The hospital's strategic plan included applying for advanced heart failure certification. Presently, several required heart failure measures serve as barriers to this advancement. The team applied process improvement angles to improve care and statistics.

Two transition programs existed in this facility. Clients in each program received the standard education and seven-day follow-up by a provider. Those patients with a return to the hospital two times in less than 30-day are candidates for the specialized transition program. Within the hospital, a multidisciplinary team collaborated with a heart failure specialist to improve the standard of care while decreasing heart failure

readmissions. Team members included a Pharm D, a dietician, and nurses from quality, home health, step-down unit and the observation unit. A cardiologist supported the team and reported to the chief executive officer. The heart specialist served as the cardiologist's dyad. The strategic plan for the hospital included several new services such as a heart failure clinic. The hospital desired to make its county the healthiest in the nation.

### **Student Context**

As a student, the association with the participating hospital began in September 2014. This site represents the student's work site as well as the location for the project. The author's involvement with heart failure patients included over 30 years of experience. Significant lapses existed in this institution with early discharge, inadequate follow-up, inappropriate discharge prescriptions, and deficient patient and family education. The student researched other hospital systems with limited funds for patient education. Also, the literature review supported a new educational process. Project implementation may improve patient education as well as establish efficacy in nursing time management in addition to decreasing heart failure readmission.

### **Conclusions**

#### **Major Literary Themes**

**Evidence-based guidelines.** Extensive research existed for best practice with the American College of Cardiology and the American Heart Association taking the lead for best practice (Yancy et al. 2013). Also, many articles cited best practice and tips on improving medical care. However, many articles still did not address best practice for

transitional interventions (Shah & Mann, 2011; Lieshout, Wensing, & Grol, 2010; Singh, McGregor, Nitro, Higginson, & Larsen, 2014; Yang et al. 2013; McCoy & Smith, 2014; Spall & Harriette, 2014; Callender et al. 2014; Dunlay et al. 2011). Patients, with ejection fractions < than 35% prescribed spironolactone, according to best practice, showed a higher readmission rate for Medicare patients maintained on this drug (Chakradhari et al. 2014). However, whether the patient received education about the increased risk and side effects of the drug seems unclear. The transition of care may be the real culprit rather than the drug, with a high propensity to decrease renal function. Another study utilized a diuretic protocol that helps the patient to understand the importance of the fluid loss. The utilization of the protocol prevented the provider from discharging the patient before the completion of diuresis. Involvement of the patient in his care may have contributed to the decrease in readmission rate, but findings were inconclusive for decreasing 30-day readmission rate (Barsuk et al. 2013). According to the evidence based guidelines for advanced heart failure, factors such as medication, transition of care and sufficient diuresis played an active role in the efficient management of the heart failure patient to reduce readmission.

**The transition of care.** The literature searches for best practice in transitional care to prevent 30-day readmissions raised many unanswered questions. Many transitional interventions reduced readmissions, but few trials reduced the return to hospitals in < than 30days. Reduction for heart failure claims by certain southern hospitals appeared in the news; but the study results did not (O'Reilly, 2011). In a systematic review of transitional care interventions through the Agency for Healthcare

Research and Quality (AHRQ), a broad range of programs were utilized (Feltner et al., 2014 ; Joint Commission Agency for Healthcare Research and Quality,2007). Home visiting programs, clinic interventions, telemonitoring, primarily educational programs and self-care management comprised the processes utilized. Home visiting programs and heart failure clinics decreased readmissions and mortality up to six months after a hospitalization (Feltner et al. 2014; Blecker et al. 2014). However, little evidence existed on whether interventions decreased a 30-day return to the hospital. A recent pilot with a multidisciplinary team utilized evidence-based practice from the American College of Cardiology (White & Hill, 2014). The actual goal to decrease 30-day readmission was not stated, but the yearly heart failure rate decreased from 25% to 12.5%. Significant results per these meta-analysis of telemedicine for positively decreasing heart failure readmissions disagree with some present studies (Clark, McAllister, Cleland, & Stewart, 2007; Clarke, Shah, & Sharma, 2011). Contrasting negative results occurred with no concurrence that telehealth reduces heart failure readmission (Veldhuisen et al. 2011). Patient education by video according to Abed, Himmel, Vormfelde & Koschack (2014) provided effective video-assisted education depending on the format of the presentation. Videos that showed real people discussing and explaining the problem proved more effective. The utilized video used heart failure patients discussing how they self-manage their care and remain out of the hospital.

Inside the transition of care, patient education by the nurse occurred as a recurrent theme but no single tool held the title as the best. Pamphlets, work books, videos, group education, and one to one education proved no definite statistical significance.

Nevertheless, a randomized controlled trial using wireless pulmonary artery hemodynamic monitoring showed a decrease in heart failure readmissions after six months (Abraham et al. 2011). Additional conflicting and weak evidence appeared in the support of telemedicine from a randomized controlled trial investigating the value of telemedicine in the management of chronic disease such as heart failure (Wooton, 2012). This study only suggests that telemedicine diminished readmissions. In a randomized trial of telemonitoring heart failure patients, a reduction in overall readmissions to the hospital happened without considering the 30-day readmission rule. This study showed more primary care visits with fewer emergency room visits (Tomkins & Orwat, 2010). Within transitional care interventions, a systematic review considered home visiting programs, multidisciplinary heart failure clinics, and telephone support (Feltner et al. 2014). Inside a 13-year span, few studies reported the status of patients at 30-days. The literature review from 2007 thru 2015 showed a difference in outcomes without showing significant data to support a decrease in heart failure readmission at any rate.

In a synopsis of the literature, prolific studies existed for transitional care with no definitive intervention established presently for minimizing the readmission of heart failure patients. The similar message sent that interventions improve outcomes, although informative, this does not support > time for the patient's return to the hospital. The systematic studies utilized multiple interventions affecting the studies' significance (Anker, Fredrich, & Abraham, 2011; Yang et al. 2013; White & Hill, 2014; Clark, McAllister, Cleland, & Stewart, 2007; Clarke, Shah, & Sharma, 2011). Many studies contradicted the efficacy of interventions from year to year (Veldhuisen et al. 2011;



Abraham et al. 2011). The literature showed no ongoing support of any particular intervention for improving the desired decrease in heart failure readmission. Conversely, the systematic randomized research efforts of the American Heart Association and American College of Cardiology provided updates on the best medical practice for heart failure (Yancy et al. 2013). Verification of evidence based medical practices but no substantiation of interventions that decrease heart failure patients' readmission.

Surprisingly, the literature posted showed no research from the heart failure certified hospitals in the eastern part of the country. Engagement in process improvement for heart failure patients remained enormous. Research to determine the best practice for transitional care would be particularly significant from those hospitals with best practice optimized.

### **Advancing Nursing Practice**

In the study, the underlying project gave the nurses an opportunity at my practicum site to engage in an evidence-based practice (EBP). This practice recognized the ability to improve clinical care while improving cost effectiveness. Nurses establish not only “who they are, what they do but what effect they have on patient outcome” (Richardson, Hons, and Miller, and Potter, 2002, p.415). The impetus towards an evidence-based system accepted that the foundation for a nursing practice rests on the best evidence available. The nurses worked with the nurse practitioner to change teaching methods and care plans to reflect best evidence. A nurse practitioner served as the dyad of the heart failure team with input from the medical director of heart failure. The theoretical framework that could possibly promote EBP here was the ACE Star model of

knowledge transformation. The nurse practitioner, served as the mentor, guiding the team. The data from the survey provided information from nursing experts for evaluating the educational tool to increase the nurse's propensity to utilize the tool.

With this model of EBP, translation of practice would affect not only the practice of advanced practice nurses but also the physicians (White & Dudley-Brown, 2012). Considering these opportunities, the DNP student presented a project that initiated an educational process to accelerate examining transitional care processes and eventually will establish a pilot project post-graduation for the promotion of EBP. Following this, chapter three discusses the methodology for developing a project for hopefully improving the transition of care.

## Section 3: Methodology

### **Introduction**

The purpose of this project was to obtain an analysis of a self-paced, online, evidence-based video educational tool (iPad) for HF patients pre-discharge for the institution to improve HF education. Collection of data from this project led to the improvement of care through improvements in patient transition as well as establishing an EBP for nursing. In this study, I helped to identify possible weaknesses that could negatively affect research in the future (Melon, White, & Rankin, 2013). The five nursing educational experts from a community hospital in Southern Delaware were sent an invitation by e-mail to request their participation in the study. The evaluation occurred within the education classroom at the hospital. Support of the study concurred with a letter from the manager of the education department. Use of the parameters established by Walden University's Institutional Review Board (IRB) provided ethical protection of research participants.

In this section, I address the following: study design, population and sampling, and methodology. Also included are data collection tools, health insurance portability accountability act measures, and potential data analysis techniques.

### **Approach and Rationale**

#### **Project Design and Methods**

Because the literature contained inconclusive documentation on HF best practice for transitional care, a proposal was submitted to determine the nursing experts' validation of content and process of a self-paced online evidence-based video per iPad for

acute heart failure patient education. Future use of the video tool depended upon the stakeholders, the experts, and evaluation. The evaluation, a paper questionnaire, consisted of open-ended questions with declarative items that expressed a viewpoint on the video. The paper questionnaire received validation by the consensus of the five experts' response. In data gathered within the Patient Management Tool for HF, I found a decrease in the number of patients receiving the required hour of education before discharge. Time management and acuity supported the innovation of patient education by portable iPads. Nurses acknowledged at the staff meetings that increased census and patient acuity decreased their ability to spend additional time with patients to provide 1 hour of education.

### **Project Designs and/or Methods**

Within the hospital, five nurses worked in the education department with postgraduate degrees and certification in nursing education. These nurses constituted the institution's experts. With only five participants, the sample population was small, which presented a threat to the validity of the study (Polit & Beck, 2014).

Criteria for inclusion in the study as an education expert included the following:

- The nurse participant watched the 15-minute video before providing evaluation.
- The survey was completed immediately after the video.
- The survey was completed independently without questioning the other experts.

### **Relationship Development with Institutional Stakeholders**

The project occurred at the student's institution. An early positive relationship with stakeholders at the site promoted the support of this project. My preceptor supported this project. Because of my practicum, my relationship with the educators remained well established. The educators individually offered support to participate in the analysis.

### **Ethical Protection of Participants**

Concealment of the identities of the study participants occurred. The surveys were blinded. According to the Health Insurance Portability Act and Accountability Act (HIPAA), study participants' privacy must be maintained. Use of data sets for research relied on professional ethics and best judgment (States Department of Health and Human Services, 2003). Furthermore, the IRB at Walden University and a local IRB evaluated the foundation of the project. Before the study's initiation, the IRB approved the project. As the single researcher, only I had access to the data.

### **Description of Data Collection Procedures, and Instruments**

#### **Project Variables and Outcomes**

For project evaluation a Likert scale persisted as the likely measurement tool for the study's concerns. According to Grove et al. (2013), nurses develop different tools to measure pertinent nursing interests. The Likert scale used in this project permitted the determination of the opinion or attitude of the experts concerning the content and process of the self-paced, online, evidence-based video. The Likert scale allowed the evaluation of each statement with a scale. The video as a tool for HF patient education had not been evaluated previously. According to Fredricks et al. (2009), few researchers have

examined an approach or mode of delivery for HF education. This evaluation acted as a catalyst for a pilot study to further evaluate educational HF modes in the future. The paper questionnaire was given to the five hospital education experts. The data from the questionnaire defined appraisal of the video mode and content.

### **Data Collection and Instruments**

Data collection from the five experts included descriptive statistics to evaluate the data. Descriptive statistics were used to establish a description of the sample and to describe study variables. The paper questionnaire consisted of 10 questions on the mode and content of the video. A consensus-based assessment from the experts was used to evaluate the questionnaire used in the study. I support the importance of using a panel of experts. According to Howell et al. (2012), a panel of experts helps to determine the needs assessments and education requirements for patients while improving the validity of a study's instruments.

The Likert scale is a precise way of measuring phenomena (Grove et al. 2013). The instrument in this study was new; but, an internal consistency from the consensus of responses can be determined. This initial evaluation lent to further discussion among the experts to provide the best patient education interventions. The nursing experts can use the study results to further confirm the instrument's validity (Polity & Beck, 2012). A pre pilot study would establish instrument validity.

**Strategies to limit threats to the project.** I minimized threats to the validity and trustworthiness according to the design chosen (Bannigan & Watson, 2009; Polit & Beck, 2014). Only I worked with the data; therefore, a solitary researcher improves the control

of the environment. To encourage the return of the surveyor, I waited outside of the room for retrieval of the envelopes with the questionnaires.

**Detailed data collection process.** To elicit the experts' participation in the approved study, an individual e-mail (Appendix C) was sent to each possible participant requesting participation. Each participant individually received a consent approved by the Walden IRB. Because only five experts existed, convenience sampling was used to select participants. For those signing a consent, a time was designated for all participants to meet in the education classroom. The following process occurred:

1. A greeting at the doorway to the classroom included confirming voluntary participation with no consequences for not participating
2. The purpose of the study was discussed and questions were answered
3. Video was initiated
4. A questionnaire (Appendix A) was handed to the participant after completion of the video. Questions 1-10 reflect a Likert-like scale with quantitative closed-ended questions
5. The participants were instructed to place his or her questionnaire in an unmarked envelope and seal it after completion of the questionnaire.

### **Long-Term Project Goals**

The DNP project creates awareness for a future pilot on educational interventions used at the hospital. Education modes and technology will continue to change. However, education managers who use the latest technology for delivering patient education must

consider the audience and use the best method to reach them (Arena, et.al 2012). When establishing the educational process, I considered the audience

### **Plan Evaluation**

The evaluation plan included asking five educational experts within the hospital to evaluate the HF video post viewing. I validated and collected data on the HF video by using a 10-point Likert scale questionnaire. Because of the decreased number of patients receiving education for quality care and improved outcomes, a consistent mode of education is necessary for HF education. Fredericks et al. (2009) claimed that knowledge will help develop effective and necessary HF educational interventions. As the number of individuals affected with HF continue to spiral along with health care costs, it is important to establish an education mode. A plan for the evaluation of the data exists in Appendix (B).

### **Summary**

The ongoing research for improving outcomes and decreasing HF readmission spans at least over 20 years. The American College of Cardiology research medical interventions to decrease the suffering of HF patients and to improve outcomes (Blather, 2014). Feltner et al. (2013) expressed the need for further research into best practices for transitional care. Researchers have failed to expand and verify best practices for HF transition. Patient's outcomes improve with increased interventions, but without the consecutive verification for decreasing readmission in 30 days (Levin et al. 2011). Through this project, I determined the validity of content and process of the self-paced, evidence-based video (iPad) for acute HF education.



Within the methodology section, I presented an analysis of a self-paced, evidence-based HF video for the education of acute HF patients based on the literature review. According to Polit and Beck (2013), the mean stands as the most stable of the interval-level-or ratio-level measurements. Also, with an approved project, the sampling methodology, as well as the data collection tools established an emphasis on maintaining the study participant's privacy. In examining the project's potential time restraints as well as the long, and short term impact this proposal created considerations. However, data collection occurred rapidly and data analysis timely. Discussion of the impact occurred earlier. This pre-project study permitted forthcoming research to investigate modes of improved patient education. In the next section findings and implications and recommendations as well as the strengths and limitations of the pre project follow.

## Section 4: Findings and Recommendation

### **Introduction**

The primary purpose of this review was to evaluate and validate a new, self-paced, online, evidence-based video educational tool (iPad) for HF patients pre-discharge for the institution to improve HF education. Presently, all HF patients at my organization do not receive the required hour of teaching pre-discharge. By improving HF education, I hoped to see an increase in the number of patients receiving HF education, a decrease in nurse teaching time, improvement in HF patient self-care, and a decrease in 30-day readmission rate. The purpose of this project was to evaluate a new tool (iPad with video), which could ignite a discussion for evaluating patient education in the future with a pilot study. I initially used a survey to create awareness about a new method to educate patients. Also, through evaluation of the educational process, improvements in the teaching of patients could occur at this institution.

This research provided a formative evaluation to develop information for a future pilot investigation for the assessment of patient education. Also, this experiment permitted early recognition of problems or challenges with this educational model. If the organization chooses to proceed with a pilot project, the survey can be used with changes for identifying the design of a project. Many institutions have not addressed the breach in best practice for the validation of an educational system as a paramount method for decreasing the 30-day hospital readmission rate for HF patients. (Black et al. 2014). Analysis of the preproject data occurred by using an Excel spreadsheet and the Statistical

Package for the Social Sciences (SPSS). I employed descriptive statistics with an emphasis on percentage, mean, and variability of the scores with standard deviation.

In this project, I used five nursing experts from the educational department to validate a 4-point Likert scale that permitted the determination of the opinion or attitudes concerning the content, design, process, and time of the video per iPad. This evaluation acts as a catalyst for a future pilot study to further evaluate educational HF modes.

### **Findings and Implications**

#### **Findings**

Stakeholders from the organization's educational department, five expert nurses, used a tool to evaluate their experience with the video by iPad immediately after watching the 15-minute video by a portable iPad. With a total of 10 questions (see Appendix A), the survey used a 4-point Likert scale. Table 1 describes a summary of the prestudy results.

Table 1

*Prestudy Tool Results*

Question	Domain	N=5 Nursing Experts			Mean
		“2” (%)	“3” (%)	“4” (%)	
<b>How well did this video assist you in understanding heart failure?</b>	Content		20	80	3.8
<b>How well did this video assist you in establishing self-management guidelines for heart failure?</b>	Content		20	80	3.8
<b>How well will this video decrease nursing time to educate the patient?</b>	Process		40	60	3.6
<b>How helpful was this type of video in maintaining your attention?</b>	Content		60	40	3.4
<b>Was the module easy to read?</b>	Design	60	40	20	2.4
<b>Were the images in the module helpful in understanding the content?</b>	Design	20	60	20	2.8
<b>Was the module time well spent?</b>	Time		20	80	3.6
<b>Do you feel that this mode of education can be effective at your institution?</b>	Overall		20	80	3.8
<b>Would you recommend the use of this video for educating patients on self-management?</b>	Overall		20	80	3.8
<b>Do you feel that this video’s mode (iPad) can effectively increase the number of patients educated at your institution?</b>	Design		40	60	3.6

*Note:* Results: “2” = Slightly/Unlikely “3” = Adequately/Most Likely and “4” = Excellently/Definitely on a

4-point Likert Scale.

Below is the following descriptive analysis of the data. The anchors on the Likert scale were as follows: 1= *Poorly/Not at all*, 2= *Slightly/Unlikely*, 3= *Adequately/Most Likely*, and 4= *Excellent/Definitely*.

Queries 1 and 2 were constructed to evaluate if the video satisfactorily provided information content on understanding HF. Questions 3 and 10 concentrated on the process of using the iPad for education. The participants ( $n=5$ ) found the content and process excellent or at least satisfactory. Questions 5 and 6 pertained to the design of the video (images and letter size). In Question 5, (60%) of the responders ( $n=5$ ) who responded to the survey found the design slightly/unlikely easy to read. The design created problems for reading for three out of the five participants. Question 7 included the time used for the video. Of the participants ( $n=5$ ), all designated the time well spent as excellent or at least satisfactory. Questions 8 and 9 evaluated the overall rating of using this video and iPad for education. Those who responded ( $n= 5$ ) to the survey, all found the overall mode and video excellent or at least satisfactory. In summary, the design of the video was questioned for easy reading while the content, process, time, and overall mode and video were considered at least adequate by the experts.

**Content.** Questions 1, 2, and 4 were used to evaluate video content; four out of five participants (80%) reported that the video *Excellent/Definitely* assisted them in understanding HF. Nevertheless, one participant noted *Adequately/Most likely* that the module assisted them in understanding HF (20%). In Question 2, four out of five participants (80%) rated the video in assisting them in establishing self-management *Excellent/Definitely*. However, one responder documented *Adequately/Most Likely* that

the video assisted them in establishing self-management guidelines (20%). In Question 4, two out of five contributors (40%) rated the video helpful in maintaining attention *Excellent/ Definitely*, while three out of five contributors (60%) rated the video helpful in maintaining attention *Adequately/ Most Likely*

**Process.** With the use of Questions 3 and 10, the process of using the video for patient teaching was explored. Three out of the five contributors (60%) agreed that the video decreased nursing time to educate the patient as *Excellent/Definitely*. However, two participants (40%) rated the video as *Adequately/Most likely* that the video decreased nursing time to educate the patient. Sixty percent of the experts, three out of five contributors, rated Question 10 as *Excellently/Definitely* that the video's iPad mode can effectively increase the number of patients educated at their institution. Yet, two of the five expert members (40%) rated Question 10 as *Adequately /Most Likely* that the video's iPad mode can effectively increase the number of patients educated at their institution.

**Design.** Questions 5 and 6 were used to evaluate the design of the video. Two of the five participants (40%) rated Question 5 as *Adequately /Most Likely* as a module easy to read. Sixty percent of the participants, three out of five, scored Question 5 as *Slightly /Unlikely* easy to read. Three out of the five participants (60%) rated Question 6 as *Adequately /Most Likely* for the images in the module as helpful in understanding the content. One participant (10%) rated Question 6 as *Excellently/Definitely* for the images in the module as helpful in understanding the content. Yet, one participant (10%) rated Question 6 as *Slightly/ Unlikely* for the images in the module as helpful in understanding the content.

**Time.** Question 7 was used to evaluate the status of the time spent on the video. Contributors (80%), three out of five participants, deemed Question 7 as *Excellent/Definitely* for time well spent on the module. Two of the five participants (20%) scored Question 7 as *Adequately/ Most Likely* for the images in the module as helpful in understanding the content.

**Overall.** Question 8 and 9 rated the overall use of the video for educating patients and the mode for educating patients at this institution. The participants (80%), four out of five, rated question 8 as a mode of education that can be effective at their institution. However, two responders out of five (20%) rated question 8 as an *Adequately Most Likely* as a mode of education that can be effective at their institution. In question nine, four out of five experts (80%) rated question 9 as *Excellent/Definitely* for educating patients on self-management. However, two responders (20%) rated question 9 as *Adequately/ Most Likely* for educating patients on self-management.

Standard deviation as a descriptive statistic permits measuring the degree of variability in a set of scores (Polit, 2010). Question 1 requests how well did this video assist in understanding heart failure S.D. =.45. Question 2 queried how well this video assisted in establishing self-management guidelines for heart failure with S.D. =.45. Question 3 examined how well the video decreased nursing time to educate the patient with S.D. = .55. Question 4 queried how helpful was this type of video in maintaining your attention with S.D. =.58. Question 5 solicited if the model was easy to read with S.D. =.58. Question 6 inquired if the images in the module were helpful in understanding the content with S.D. =.84. With question 7, S.D. =.58 for a query if the model was time

well spent. S.D. = .48 for question 8 if this mode of education can be effective at your institution. Question 9 requested if this video would be recommended for educating patients on self-management with S.D. =.45. With question 10, it requested if this video's mode (iPad) would effectively increase the number of patients educated at the expert's institution with a S.D. =.58. The S.D. =.84 in question 6 showed an increased set of variability within the set of scores for images. The opinion varied more within the group for this question.

### **Implications**

**Individuals.** In this project the researcher engaged in collaboration with the nursing experts through the survey to evaluate a new mode for the education of heart failure patients. Also, the capability of utilizing an iPad and video on a moving structure further educated these experts on a new process. Grol and Grimshaw (2003) proposed that education remains an avenue for changing behavior. The educators consented as a participant in reviewing the video per iPad. Education provides a method for an intervention to promote change within an organization (Hodges & Videto, 2011).

**Communities.** A new mode of education could benefit the community. This organization could extend education to the community through its website by utilizing internet marketing. Organization could capitalize on using two social websites Yammer and Facebook that are already popular sites at the hospital. Podcasts and videos with consumer promotions related to heart failure could further promote patient education. Provision of the ability to replay a video seen during pre-discharge would provide further affirmation of concepts. Videos on low salt food preparation within the hospital website,



with the ability to download the recipes, would promote nutrition and decreased salt usage. With a pilot study, the organization could establish a repertoire of well received videos.

**Institutions.** Those institutions committed to the establishment of an EBP utilize information technology to establish processes for clinical practice. These activities include required education documentation as well as systems for educating patients and nurses. In evaluating outcomes nursing has a responsibility within institutions to link patient care to outcomes. When patients are readmitted to a hospital, prior interventions should be reviewed. Rather than assuming patient noncompliance for early readmission, perhaps not only physician performance but also nursing performance should be judged. If nursing care increases the ability for self-care, the need for emergency room visits and hospital readmissions could be decreased with improved outcomes. (White & Dudley-Brown, 2011). The point at which health services improve individual health; population health will benefit. Ongoing social change, even a small project evaluating a patient education tool, permits research findings that support the effect of improved patient teaching in the future. Guideline improvement occurs with stakeholders involved from relevant groups (White & Dudley-Brown, 2011). Nevertheless, this fact substantiates utilizing the stakeholders, the experts, in the education department for review of the video Ipad. Advanced heart failure guidelines from organizations such as the American Heart Association gives credence for improving patient outcomes through patient education. Just as the success of organizations depends upon the success of connecting people with

purpose, social change depends on the nurse with a commitment to the provision of clinical changes through EBP (White & Dudley-Brown, 2011).

### **Recommendations**

With the survey, the evaluation of content process, design, time and overall functionality of the video was examined. With slight changes to the survey, additional information could be accumulated. The size of the iPad may determine the legibility of information on the video. An exploration of this with a larger iPad would identify if the issue lies with the video or iPad. To close the gap on decreased education, the organization must adapt a new process for patient education. As a small organization with limited funds, the solution must be accepted by nursing as well as economically feasible. A pilot study on the unit centered for heart failure care would further identify the ideal mode and video.

With the exposure of the mobile iPad at the experts' meeting, further questions on cost and purchase questions have been submitted to me. Informative evidence from this pre-pilot study, gives the organization the opportunity to move forward with a future pilot study. Several new EBP heart failure videos are available for purchase. A pilot study comparing two videos would be a future worthwhile investigation to close the gap. However, a future pilot study actually utilizing the present video and mode with changes to the survey could further clarify if this process increases patient education. The nurses could evaluate the video unchanged on clients on the heart failure centered unit. The survey gives the staff an opportunity to evaluate the video and futuristically make decisions about their practice. The organization maintains several internal methods to

evaluate an educational project. With the establishment of objectives, including the number of patients taught and readmission rates, this data already receives abstraction through Quintiles. The organization utilizing Quintile's Patient Measurement Tools can evaluate patient outcome data as well as the evaluations of a new project.

### **Strength and Limitations of the Project**

#### **Strengths**

In evaluating the strength of the project the consideration of several items occurred:

- The introduction of a new mode of education to the organization happened
- Permitted the experts an opportunity to view and make recommendations
- Education of the experts established a pathway for change
- Exposure of a system increased discussion among the educators for future patient education in not only heart failure but stroke, woman's health and medical surgical areas.

The project initiated a discussion about patient education that has been absent from considerations presently. In comparison to other activities this project may act as a mere reminder to the experts that change must occur in the near future. The financial investment remains low but the rewards in outcomes could be well worth the investment.

#### **Limitations**

The project highlighted the opportunity for an avenue to change patient education in the organization. However, a main limitation for the future project surrounds the student's absence from the organization. The pre-project utilized a small sample size for evaluating the tool; a future project could increase the sample size. In a reevaluation of the video, mode and tool, the student makes recommendations for a future pilot. The content, process, time and overall review received a positive evaluation. The researcher's choice of video and creation of the survey increased potential bias (Polit & Beck, 2012). The student's absence removes this bias. The researcher considered other variables in the expert group that may have placed limitations on the study. Variables such as age and vision impairment could affect how well the expert read the iPad. The one question requested if the video was easy to read with a Mean (60%) *Slightly/ Unlikely* to read easily. To further expand this study, the pilot could include a new video recommended by the Nursing Heart Failure Organization. In evaluating the data from the tool's summary, the author concurs this data could be utilized to implement a future pilot study.

## Section 5. Dissemination Plan

### **Plan**

Communication of studies can occur through written or oral means (Polit & Beck, 2008). In planning the messages from the pilot study, the author must provide information that can be understood by the audience. The audiences in my plan will include nurses, providers, pharmacists, physical therapists, and speech therapists. Dissemination of knowledge into practice remains a challenge for the profession of

nursing (Ousley, Swartz, and Millikan, 2010) However, to provide high quality evidence based care, information must be translated and disseminated.

My dissemination plans include the following:

- Poster presentation at the Bay Nursing conference in Lewes
- Oral presentation at the heart failure meeting in August
- Oral presentation at the educator's staff meeting in August.

Education serves as the pathway to spread new findings for incorporation at the bedside. The poster represents a story with an introduction, a body and a conclusion. Presentation by a poster may not be as intimidating but can still represent an effective means of communicating information. Also, small oral presentations or a formal lecture can be used for distribution of information. In a broader sense, the author plans in the future to submit an abstract of the project to the American Association of Heart Failure. If possible, the goal would be to present at a heart failure conference. In consideration of the audience, nurses at this meeting may not require as much detailed background information about heart failure.

### **Analysis of Self**

#### **Practitioner**

As a practitioner I believe the importance lies in my ability to demonstrate personal qualities as well as professional qualities of assertiveness, engagement in professional activities as well as demonstrating advocacy for change. The project provided an opportunity to demonstrate my leadership abilities not only in nursing but within the health care system. The project supported my daily endeavor to improve the

transition of care for heart failure patients. Although, I can't claim that I've changed the educational system for heart failure patients, the need for change has been defined. I've had the opportunity to further educate community nurses for evaluating those patients at risk for readmission. My goal in 2017 will be to become a certified practitioner in heart failure.

### **Scholar**

Scholarship represents not only an individual's involvement in research but also the realms of discovery, integration, application and teaching (Conrad & Pape, 2014). In an effort to improve patient outcomes, the DNP student knowingly adopted the scholarly role. Nurse scholars engage in widespread literature research to become an expert in their topic. The project increased my desire for every bit of heart information printed. In an effort to promote my teaching role, I will return to school in October to take the necessary courses for certification in education.

### **Project Manager**

Without full acknowledgement of a project manager's role, I initially cleared the route for my project. Early in my project getting permission from the executives and the Internal Review Board (IRB) and then waiting patiently for Walden's blessing, my project management skills were in full display. Upon Walden's permission, my project was executed and documented appropriately. As coordinator of the stroke team, my project management skills are on demand for improvising new procedures to improve stroke outcomes at the bedside. My experience in this project increases my ability to move forward with projects to improve stroke care.

### **Summary**

Acknowledgment exists that organizational success or failure depends on the quality of leaders(Dudley& White,2011). With this contemplation, the study was started in an excellent environment. The principal purpose of this project was to “evaluate and validate a new self-paced online evidence-based video educational tool (iPad) for heart failure patients pre-discharge for the institution to improve heart failure education (Toth, p. 6). With this phase completed, the further translation of this project awaits an executive decision. In this study, description of education ensued with further definition of the capabilities of a video and iPad for the education of heart failure patients. Before widespread dissemination of this video and iPad, a pilot study could further define this educational process to improve widespread utilization of these tools.

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## Appendix A: Evaluation Tool for Video and iPad

**Clinician Video Evaluation Form**

Person completing the questionnaire (circle one): **Nursing Educators** **NP/PA** **RN**  
**PATIENT**

<b>Please rate your experience with the clinician-guided module by putting a number in each box. See scoring scale below</b>	
<b><u>Scoring</u></b>	
1= Poorly/Not at all 2= Slightly/Unlikely	3= Adequately/Most Likely 4= Excellently/Definitely
1. How well did this video assist you in understanding heart failure?	
2. How well did this video assist you in establishing self-management guidelines for heart failure?	
3. How well will this video decrease nursing time to educate the patient?	
4. How helpful was this type of video in maintaining your attention?	
5. Was the module easy to read?	
6. Were the images in the module helpful in understanding the content?	
7. Was this module time well spent?	
8. Do you feel that this mode of education can be effective at your institution?	
9. Would you recommend the use of this video for educating patients on self-management?	
10. Do you feel that this video's mode (iPad) can effectively increase the number of patients educated at your institution?	

## Appendix B: Evaluation Plan

Table 2. Evaluation Plan

Evaluation Question	Information Needed	From Whom	How collected	When Collected	Type of data	Analysis
How well did this video assist you in understanding heart failure?	Data from clinician evaluation form	experts	Through evaluation form	In the future	Questionnaire	Descriptive data (measurement of central tendency, shape of the curve and standard deviation)
How well did this video assist you in establishing self-management guidelines for heart failure?	Data from clinician evaluation form	experts	Through evaluation form	In the future	Questionnaire	Descriptive data (measurement of central tendency, shape of the curve and standard deviation)
How well will this video decrease nursing time to educate the patient?	Data from clinician evaluation form	experts	Through evaluation form	In the future	Questionnaire	Descriptive data (measurement of central tendency, shape of the curve and standard deviation)
How helpful was this video in maintaining your attention?	Data from clinician evaluation form	experts	Through evaluation form	In the future	Questionnaire	Descriptive data (measurement of central tendency, shape of the curve and standard deviation)
Did the video give you enough information to feel comfortable accepting heart	Data from clinician evaluation form	experts	Through evaluation form	In the future	Questionnaire	Descriptive data (measurement of central tendency, shape of the curve and

failure treatment?						standard deviation)
Was the module easy to read?	Data from clinician evaluation form	experts	Through evaluation form	In the future	Questionnaire	Descriptive data (measurement of central tendency, shape of the curve and standard deviation)
Were the images in the video helpful in understanding the content?	Data from clinician evaluation form	experts	Through evaluation form	In the future	Questionnaire	Descriptive data (measurement of central tendency, shape of the curve and standard deviation)
Was this module time well spent??	Data from clinician evaluation form	experts	Through evaluation form	In the future	Questionnaire	Descriptive data (measurement of central tendency, shape of the curve and standard deviation)
Do you feel that this mode of education can be successful at your institution?	Data from clinician evaluation form	Experts	Through evaluation form	In the future	Questionnaire	Descriptive data (measurement of central tendency, shape of the curve and standard deviation)
Would you recommend the use of this video for educating patients on self-management?	Data from clinician evaluation form	experts	Through evaluation form	In the future	Questionnaire	Descriptive data (measurement of central tendency, shape of the curve and standard deviation)
Do you feel that this video's mode (iPad) can effectively increase the	Data from clinician evaluation form	experts	Through evaluation form	In the future	Questionnaire	Descriptive data (measurement of central tendency, shape of the curve and standard deviation)

number of  
patients  
educated at  
your  
institution?

Descriptive  
data  
(measurement  
of central  
tendency,  
shape of the  
curve and  
standard  
deviation)



### Appendix C : Email Invitation to Participate

Dear Nursing Educators,

My name is Lynn Toth. I'm writing to you outside my role as a nurse practitioner in Lewes, Delaware.

Presently as a doctoral student at Walden University I am investigating nursing education expert opinions regarding a video and method to educate heart failure patients. The study is not sponsored by the Walden University.

I would greatly appreciate your participation.

Involvement in this project requires watching an evidence-based patient video by iPad at a private location at Beebe Health Care face to face. After watching the video, a required questionnaire will take about 5 minutes to complete.

A separate invitation will be sent for the preceding process. The information from the questionnaire as well as the identity of the participant will be kept closely confidential in all reports that I complete.

If you have any questions about the study, please notify me at [Lynn.toth@waldenu.edu](mailto:Lynn.toth@waldenu.edu) or call me at 302-858-3682.

If you are interested in participating in the study, please let me know by e-mail. Also, after you agree I will send instructions and a consent form.

Thank you for your consideration and assistance with my research project.

Sincerely,

Lynn Toth RN MSN, NP-C

Instrument (10 items), which will take approximately 5 to 10 minutes.

Electronic signatures are regulated by the Uniform Electronic Transactions Act. Legally, an “electronic signature” can be the person’s typed name, their email address, or any other identifying marker. An electronic signature is just as valid as a written signature as long as both parties have agreed to conduct the transaction electronically.

Date of Consent \_\_\_\_\_

Participant's Signature \_\_\_\_\_

Researcher's Signature \_\_\_\_\_