

2017

Decreasing Thirty Days Hospital Readmission Rates of Adult Heart Failure Patients

Katherine Eyegue-Sandy
Walden University

Follow this and additional works at: <https://scholarworks.waldenu.edu/dissertations>

 Part of the [Nursing Commons](#)

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact ScholarWorks@waldenu.edu.

Walden University

College of Health Sciences

This is to certify that the doctoral study by

Katherine Eyegue-Sandy

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee

Dr. Mattie Burton, Committee Chairperson, Nursing Faculty

Dr. Casey Cole, Committee Member, Nursing Faculty

Dr. Jeannie Garber, University Reviewer, Nursing Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2017

Abstract

Decreasing Thirty Days Hospital Readmission Rates of Adult Heart Failure Patients

by

Katherine Eyegue–Sandy

MSN, Drexel University, 2009

BSN, Drexel University, 2004

Project Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University

May 2017

Abstract

Heart failure is a complex heart disease that incapacitates more than 5 million people, is associated with increasing healthcare cost, and remains the leading cause of admission in the United States. As the United States faces increasing financial burden related to readmission of heart failure patients within 30 days of discharge, many healthcare institutions are evaluating interventions to determine the most effective opportunities to improve systems, including nursing practice. The purpose of this doctoral project was to improve readmission rates within 30 days of discharge from an acute care facility through the development and implementation of a standardized, evidence-based, patient-centered discharge education toolkit using the Teach-Back method. Orem's self-care theory and the situation-specific theory of heart failure self-care were utilized as a theoretical framework to inform this doctoral project. The sources of evidence were obtained from the Get With The Guidelines-Heart Failure database and through a review of nursing and health-related databases. Descriptive statistics were used to compare the pre- and posteducation session readmission rates. The rate of readmissions occurring within thirty days of discharge pre- and post-educational session retrieved from the GWTG-Heart Failure database were 9.4% and 0.0% respectively. These results showed that this discharge toolkit reduced heart failure 30-days readmission rates. The limitations and strengths of this project will be used to guide further research on heart failure readmission and self-care management. This DNP project will promote positive social change for clinicians, who can use this discharge toolkit to improve self-management in adults with heart failure and thus decrease the costs related to readmission.

Decreasing Thirty Days Hospital Readmission Rates of Adult Heart Failure Patients

by

Katherine Eyegue–Sandy

MSN, Drexel University, 2009

BSN, Drexel University, 2004

Project Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University

May 2017

Dedication

I dedicate this paper to the Almighty God who made this possible and my late mother Roseline A. Sweeney. To God be all the Glory and Honor who gave me the grace to complete my doctoral studies with success.

Acknowledgments

I wish to thank my brothers and sisters, friends, and preceptor, for all their support and prayers throughout this journey. I also wish to thank Dr. Mattie Burton for her continued mentorship, expert knowledge and encouragement in every step of the way. I also want to thank all my professors at Walden University who provided direction throughout the project.

Table of Contents

List of Tables	iv
Section 1: Introduction.....	1
Introduction.....	1
Problem Statement.....	5
Purpose.....	7
Nature of the Doctoral Project	8
Significance.....	10
Summary.....	11
Section 2: Background and Context	13
Introduction.....	13
Concepts, Models, and Theories.....	14
Clarification of Terms.....	16
Relevance to Nursing Practice	17
Local Background and Context	20
Role of the DNP Student.....	22
Summary.....	24
Section 3: Collection and Analysis of Evidence.....	25
Introduction.....	25
Practice-Focused Question.....	26
Sources of Evidence.....	28
Analysis and Synthesis	32

Summary	33
Section 4: Findings and Recommendations	34
Introduction	34
Findings and Implications	36
Recommendations	38
Strengths and Limitations of the Project	42
Section 5: Dissemination Plan	44
Dissemination Plan	44
Analysis of Self	45
Summary	47
References	49
Appendix A: IRB Approval from Practicum Site	60
Appendix B: IRB Approval from Walden University	61
Appendix C: Conviction and Confidence Scale	62
Appendix D: Teach-Back Observational Tool	63
Appendix E: Telephone Follow-up Form	64
Appendix F: Post-Educational Intervention Evaluation Form	65
Appendix G: Quality Improvement Project Evaluation Grid	66
Appendix H: Permission to Use IHI “Always Use Teach Back!” Tools	68
Appendix I: Dissemination Poster Presentation	69
Appendix J: Gap in Practice Analysis	70

Appendix K: Nursing Interventions: Evidence-Based Patient-Centered Discharge

Education Using Teach-Back Method to Improve Heart Failure Patient's

Self-Care Deficit71

List of Tables

Table 1. Heart Failure: 30 Days Readmission Rates.....9

Section 1: Introduction

Introduction

The problem addressed in this DNP project was the readmission of heart failure patients within 30 days of discharge from an acute care setting because of discrepancies with heart failure discharge education and process. Heart failure is a complex, incapacitating cardiovascular disease. In the United States, approximately five million people have the disease (Barnason, Zimmerman, & Young, 2012; Centers for Disease Control and Prevention [CDC], 2015). Heart failure is one of the most common hospital admission and readmission diagnoses for Medicare beneficiaries (Hernandez et al., 2010). It is the leading cause of hospitalization in the United States (Barnason et al., 2012; Gonseth, Guallar-Castillón, Banegas, & Rodríguez-Artalejo, 2004).

As the United States faces increasing expenses related to readmission of heart failure patients within thirty days of discharge, many healthcare institutions are evaluating interventions to determine the most effective opportunities to improve or change systems. Medicare expenditures for possibly avoidable readmissions are approximately twelve billion dollars per year (Jencks, Williams, & Colema, 2009). Individuals with coronary artery disease, diabetes and hypocholesteremia are at a higher risk for heart failure. Other risk factors include unhealthy habits like tobacco smoking, sedentary lifestyle, obesity, and poor dietary choice. There is no cure for heart failure, but lifestyle modifications and medications can decrease disease progression. The cure for heart failure and its complications is still a point of focus for researchers. Despite evidence-based optimal medical therapy to reduce hospitalization, delay disease

progression, and improve survival, heart failure patients' outcomes remain poor (Gonseth et al., 2004). Symptomatic heart failure is a multifaceted clinical syndrome demarcated by specific symptoms which include shortness of breath with or without exertion, lower extremity swelling, generalized weakness, and tiredness. Symptomatic heart failure can be burdensome to the patient, caregiver, and healthcare providers due to the substantial symptom burden and recurrent hospitalizations.

The evidence-based Teach-Back method focuses on the intricacy and health literacy of many patients of this era (Peter et al., 2015). Getting the patient ready for self-care management at home post discharge is vital for all heart failure patients. In today's healthcare environment, where the core measures and readmission rates of heart failure are being tracked, monitored, reported, and evaluated, a comprehensive evidence-based patient-centered discharge education is important. Ineffective patient teaching in this patient population is a recipe for poor symptom management and subsequent hospital readmission. In the hospital setting, the registered nurse is the principal clinician who gives discharge education, including self-management of heart failure, to the patient and caregiver (Mahramus et al., 2014; Sterne, Grossman, Migliardi, & Swallow, 2014). The registered nurse at the bedside is challenged each time with furnishing a comprehensive discharge education to a multicultural heart failure population with different levels of health literacy. The Joint Commission, National Quality Forum, Institute for Healthcare Improvement (IHI; 2016a, 2016b), American Heart Association (AHA; 2016a, 2014), Agency for Healthcare Research and Quality, American Association of Heart Failure Nurses, and Centers for Medicare & Medicaid Services have recognized discharge

instructions from the hospital for self-management as a vital piece of patient quality of care (Sterne et al., 2014).

The purpose of this doctoral project was to improve readmission rates within thirty days of discharge from an acute care facility through an evidence-based, heart failure patient-centered discharge education process toolkit provided by the nursing staff. The method to achieve this aim was through the development and implementation of a standardized, evidence-based, patient-centered discharge education process toolkit using the Teach-Back method. The measurement of readmission rates before and post implementation of this new practice determined that there is a relationship between discharge education strategy and admission to the clinical decision unit and step down unit.

A positive social change involves activities that will improve the life of an individual, a local community, and the world (Walden University, 2014). As a change agent, I have focused this DNP project on heart failure which is a disease that is of both local and global importance. One of the activities used in this DNP project to promote a positive social change was educating nurses and healthcare professionals (Walden University, 2014). Heart failure contributes to the burden of increased healthcare costs in the United States (Heidenreich et al., 2013). The readmission of heart failure patients in the hospital accounts for a significant percentage of the cost of heart failure care (Heidenreich et al., 2013). While recognizing the challenges involved in furnishing a comprehensive and effective discharge education, this doctoral project equipped registered nurses at the bedside with an evidence-based, patient-centered discharge

education process toolkit using the Teach-Back method to offer to patient and caregiver during the discharge process.

The cost for heart failure care involves both direct and indirect costs (Heidenreich et al., 2013). The direct costs are heart failure disease-attributed expenditures which include hospital admissions, emergency department visits, clinic visits, transition care, nursing home care, prescriptions, and home healthcare (Heidenreich et al., 2013). These heart failure direct medical costs are projected to rise to fifty-three billion dollars by 2030 (Heidenreich et al., 2013). The indirect costs are associated with loss of productivity from heart failure morbidity and premature mortality (Heidenreich et al., 2013). Heart failure morbidity costs are those lost wages attributed to the loss of productivity due to symptomatic heart failure or unmanaged heart failure. This loss of productivity is from work loss from symptomatic patients who are too sick to work, work loss from the actively employed patients missing work, and home productivity loss from patients being too ill to contribute (Heidenreich et al., 2013). The mortality costs of heart failure are the loss of wages because of the premature mortality that is associated with unmanaged heart failure (Heidenreich et al., 2013). These heart failure indirect costs are projected to rise to seventy billion dollars by 2030 (Heidenreich et al., 2013).

The potential positive social change implications of this doctoral project is for healthcare professionals, who can use this standardized, evidence-based, patient-centered discharge education process toolkit using the Teach-Back method to educate nurses caring for heart failure patients and patients with heart failure. The purpose is to improve self-management and the lives of adults affected with heart failure in the local

communities, the United States, and globally. The proposed outcomes of this DNP project will lead to a reduction of direct healthcare costs and indirect costs associated with loss of productivity from heart failure morbidity and premature mortality.

Problem Statement

The local nursing practice problem that was the focus of this doctoral project was the discrepancies with heart failure discharge teaching and process in various units of the institution. Symptomatic heart failure readmissions were increasing despite the hospital's efforts. The hospital was losing money on these readmissions. Butler and Kalogeropoulos (2012) stated that institutions are obligated to prevent and improve heart failure readmission rates within 30 days of discharge. Through my observation as a student and informal peer-to-peer interviews with nursing staff on various units, I found that the nursing staff was frustrated over the lack of a single, effective, and stable discharge teaching material on heart failure.

The need to address this inconsistency in heart failure discharge teaching was vital, and an effective and comprehensive patient discharge teaching tool was needed to improve a patient's adherence to the discharge plan of care and promote self-care. Heart failure remains one of the most common diagnoses among adult patients admitted and/or readmitted to the hospital (Deek et al., 2015; Halmó, Galuszka, Langova, & Galuszkova, 2015; Hernandez et al., 2010). Appropriate self-care in heart failure patients was proven to improve the quality of life, lower mortality rates, and reduce rates of readmission to the hospital (Vellone et al., 2013). Patient education and self-care management tools have had a positive impact among patients with heart failure (Barnason et al., 2012; Britz &

Dunn, 2010; Chen et al., 2014; Deek et al., 2015; Riegel, Jaarsma, & Strömberg, 2012).

To deliver effective and comprehensive patient teaching, the nurse had to utilize methods that made certain the patient and caregiver understood the material presented and thus increased compliance. The Teach-Back method has been shown to be an effective method used to educate and assess learning in patients with heart failure (AHA, 2014; IHI, 2016a; IHI, 2016b, Mahramus et al., 2014; Peter et al., 2015; White, Garbez, Carroll, Brinker, & Howie-Esquivel, 2013).

This doctoral project holds significance for the field of nursing practice in that it equipped registered nurses at the bedside with an evidence-based, patient-centered discharge education process toolkit using the Teach-Back method to use with patient and caregiver during the discharge process. One of the important characteristics of the nursing role is to provide teachings to patients that will encourage patient self-care, independence, prevent misunderstandings, and, eventually, reduce hospital readmissions (Mahramus et al., 2014). In the acute care hospital setting, the registered nurse is the principal clinician who gives discharge education, including self-management of heart failure, to the patient and caregiver (Sterne et al., 2014). It is the registered nurse's responsibility to provide this discharge education, but the changes in healthcare delivery modes in acute care settings have put in place challenges to an effective execution of this education. The higher patient to nurse ratio, the decrease in length of stay in the hospital, the complexity of the patient, the patient's level of health literacy, inadequate nursing resources, and a diverse patient population all create barriers to an effective and comprehensive discharge education for heart failure patients (Albert et al., 2015).

This DNP project consisted of developing and implementing a new evidence-based heart failure patient-centered discharge education process toolkit utilizing the Teach-Back method in the clinical decision unit and step down unit for registered nurses caring for heart failure patients. When the discharge education process for heart failure patients was improved, the nurses were equipped to better manage heart failure patients' care through a standardized discharge process. This standardized discharge process equipped the patient and caregiver with self-management tools, which led to their empowerment on managing their disease process. This empowerment will lead to a positive change within the organization and the patient's community.

Purpose

The gap in nursing practice identified for this doctoral project was the inconsistency in discharge education provided by the nursing staff without assurance that the education provided was a structured guideline for heart failure discharge education based on best evidence and guidelines (see Appendix J). As the length of stay in the hospital decreases and emphasis is placed on better self-management, the discharge process becomes an important aspect in the improvement of heart failure self-care. Self-management is the cornerstone of heart failure management and has proven promising in improving quality of life, mortality, health outcomes, and readmission rates (Barnason et al., 2012; Britz & Dunn, 2010; Halmo et al., 2015; Riegel et al., 2012; Vellone et al., 2013).

The practice-focused question was: "In adult heart failure patients discharged from an acute care inpatient setting, will an evidence-based, patient-centered discharge

education process toolkit utilizing the Teach-Back method reduce the rate of readmissions occurring within thirty days of discharge?” This evidence-based quality improvement doctoral project evaluated the effects of an evidence-based, heart failure patient-centered discharge education process toolkit on readmission rates within thirty days of discharge from an acute care facility. The overall purpose of this project was to decrease readmission rates for heart failure patients through the development and implementation of a standardized, evidence-based, patient-centered discharge education process toolkit. The nurses utilized the evidence-based educational Teach-Back method to educate the patient and caregiver and explore the patient and caregiver’s understanding (Peter et al., 2015). This doctoral project was an example of a development and planning for quality improvement project. It aligned with the types of scholarly projects conducted by doctoral students because it used evidence to improve practice through patient outcomes and healthcare delivery (American Association of Colleges of Nursing [AACN], 2006). It proposed a solution to meet the institutional goal of decreasing heart failure readmission rates and addressed the gap in practice, which was the inconsistency in discharge education provided by the nursing staff.

Nature of the Doctoral Project

To meet the purpose of this doctoral project, evidence was collected from the Get With The Guidelines (GWTG)-Heart Failure database. GWTG-Heart Failure is an in-hospital program for improving care by promoting consistent adherence to the latest scientific treatment guidelines for heart failure management (AHA, 2016b). Data was collected from the GWTG-Heart Failure database pre- and post educational intervention

on 30-days heart failure readmission rates. Teach-Back educational toolkits from the IHI (2016a) website were used to build the teaching plan.

A quasi-experimental design was used for this project. Descriptive statistics were used to compare the data retrieved from the GWTG-Heart Failure database during the pre- and 2 months post-new education strategy implementation to evaluate the effects of the new strategy on readmission rates (see Table 1). This design was chosen because the project took place in a hospital setting where the subjects, who were nurses, were not randomly selected but were selected on the basis of convenience. A Conviction and Confidence Scale (IHI, 2016a) was used for the pre- and posttest of the registered nurse's knowledge of educational intervention (see Appendix C). The anticipated findings from the analysis of this data showed the effect of a standardized, evidence-based, patient-centered discharge education toolkit on decreasing heart failure readmission rates (see Table 1) and addressing the gap in practice (see Appendix J) which was the inconsistency in discharge education provided by the nursing staff.

Table 1

Heart Failure: 30 Days Readmission Rates

Source	Number of heart failure patients discharge	Number of heart failure patients readmitted within 30 days of discharge	Percentage of readmission rate
Pre-educational intervention	85	8	9.4%
Posteducational intervention	7	0	0%

Significance

The stakeholders included the chief nursing officer, the nurse managers of the clinical decision and step down units, the heart failure coordinator, the case managers, the quality improvement coordinator, the staff nurses, the heart failure patients, and caregiver/families. The chief nursing officer, the nurse managers, the heart failure coordinator, the quality improvement coordinator, and the staff nurses are stakeholders who play a role in the promotion of improvement of the quality of patient care in this institution. These stakeholders played the role of change agents for this project. These stakeholders' interest in this quality improvement project was to improve patient care through this standardized discharge toolkit and reduce readmission rates.

The registered nurses at the bedside were provided with a standardized, evidence-based education tool utilizing the evidence-based Teach-Back method to deliver reliable and consistent education. The evidence-based education strategy Teach-Back method and heart failure self-care measures were the focus of this inpatient heart failure discharge education process toolkit. This education strategy needs to be frequently used during the patient's hospitalization to strengthen this information and provide data for future study. This data will add to the current research on reducing heart failure readmission through improvement of the discharge process. It will also give room for further research on the problem at hand.

This study could be transferable to other units in the hospital and similar inpatient acute care settings globally. It could also be transferred to other chronic diseases. While recognizing the challenges involved in furnishing a comprehensive and effective

discharge education, this doctoral project equipped registered nurses at the bedside with an evidence-based, patient-centered discharge education process toolkit to use with patient and caregiver during the discharge process. When the patient and caregivers' ability to manage care post discharge is adequate, there will be savings in healthcare costs, better quality of life for the patient, and improved heart failure readmission rates.

The potential positive social change implications of this doctoral project are for healthcare professionals who can use this standardized, evidence-based, patient-centered discharge education process toolkit using the Teach-Back method to educate nurses caring for heart failure patients. It is also for patients with heart failure to improve self-management and therefore their quality of life. Today in the United States, emphasis is placed on chronic disease prevention and management. This project proposed a solution to improve readmission rates within thirty days of discharge from an acute care facility through an evidence-based, heart failure patient-centered discharge education process toolkit utilizing the Teach-Back method provided by the nursing staff. The proposed outcomes of this DNP project will lead to a reduction of direct healthcare costs and indirect costs associated with loss of productivity from heart failure morbidity and premature mortality.

Summary

Heart failure is a complex heart disease that incapacitates more than 5 million people, is associated with increasing healthcare costs, and is the leading cause of hospitalization in the United States. The problem addressed in this DNP project was the readmission of heart failure patients within 30 days of discharge from an acute care

setting because of discrepancies with heart failure discharge education and process. In this section, I introduced the project, discussing the problem statement, purpose, and nature of this doctoral project. I emphasized the meaning of heart failure, its impact on healthcare, society, and the patient with the disease. I discussed the significance of the project to nursing practice and its implications for positive social change. I also discussed the transferability of the doctoral project to similar practice areas. In the next section I discuss Orem's self-care theory and the situation-specific theory of heart failure self-care that were utilized as a theoretical framework to inform this doctoral project. I also discuss this DNP project implication for nursing practice, local evidence on the relevance of the heart failure readmissions, and the role of the DNP student.

Section 2: Background and Context

Introduction

The practice problem addressed in this project was the inconsistency in heart failure discharge education and the frequent readmission of heart failure patients in an acute care facility. The practice-focused question was: “In adult heart failure patients discharged from an acute care inpatient setting, will an evidence-based, patient-centered discharge education process toolkit reduce the rate of readmissions occurring within thirty days of discharge?” To meet the purpose of this doctoral project, evidence was collected from the GWTG-Heart Failure database pre- and post educational intervention on 30-days heart failure readmission rates. Teach-Back educational toolkits from the IHI (2016a) website were used to build the teaching plan. This evidence-based quality improvement doctoral project evaluated the effects of an evidence-based, heart failure patient-centered discharge education toolkit on the rate of readmissions occurring within thirty days of discharge from an acute care facility. The overall purpose of this project was to decrease readmission rates for heart failure patients through the development and implementation of a standardized, evidence-based, patient-centered discharge education process toolkit.

In this section I discuss the concepts, models, and theories that were used to guide this DNP project, its implications for nursing practice, local evidence on the relevance of the heart failure readmissions, and the role of the DNP student.

Concepts, Models, and Theories

During self-care, the patient uses particular valuation and action methods to manage the normal care following a given treatment plan and for considering when to notify the primary healthcare provider (Riegel & Dickson, 2008). Self-care is vital to improving heart failure patients' outcomes. Orem's self-care theory and the situation-specific theory of heart failure self-care developed by Riegel and Dickson (2008) were utilized as theoretical frameworks to guide this process (Orem, 2001; Orem, Taylor, & Renpenning, 2001).

Orem created the concept of self-care, self-care deficit, and nursing systems as a framework to understand and interpret experiences (Orem, 2001; Orem, Taylor, & Renpenning, 2001). Orem's self-care model considers self-care to be a central phenomenon in nursing (Grove, Burns, & Gray, 2013; McEwen & Wills, 2014). Orem's self-care deficit theory describes the factors to be assessed as universal self-care, health deviation, and developmental self-care requisites (Grove et al., 2013). Orem's self-care theory is used in guiding nursing practice, research, and education (Zaccagnini & White, 2011). The use of Orem's theories and approaches have been shown to impact the outcomes of patients with chronic illness and heart failure (Barnason, et al., 2012; Britz & Dunn, 2010; Chen, et al., 2014; Deek et al., 2015; Halmo et al., 2015; O'Shaughnessy, 2014; Riegel, et al., 2012). Orem's self-care theory is one of the three nested theories that make up the self-care deficit nursing theory and also a component of the self-care deficit theory (Orem, 2001). Applying Orem's theory of self-care to the heart failure patient has been proven to bring about positive therapy and clinical outcomes when self-care

measures were utilized and reinforced in the education of heart failure patients (Barnason, et al., 2012; Britz & Dunn, 2010; Chen, et al., 2014; Deek et al., 2015; Halmo et al., 2015). Offering a patient the opportunity of understanding heart failure disease process, disease management, and treatment plan adherence gives the patient the independence to perform self-care using judgment skills developed throughout a lifetime of experience and education. This self-care knowledge promotes accountability for actions with increased patient self-esteem (see Appendix K).

The situation-specific theory of heart failure self-care is a middle range nursing theory derived from Orem's self-care grand nursing theory (Orem, Taylor, & Renpenning, 2001; Riegel & Dickson, 2008). As a middle range theory, it is more specific to heart failure patients, has fewer concepts, and it is more readily testable in research (McEwen & Wills, 2014). This middle range theory was chosen for this project because (a) it provided a structure for the interpretation of behavior, situations, and events that occur in heart failure self-care management; and (b) it supported the understanding of the links between heart failure as a diagnosis and outcomes and between interventions and outcomes (McEwen & Wills, 2014). Maintenance and management are the major concepts in this model. Self-care in this theory involves the natural decision-making process that an individual undertakes to choose behaviors that will preserve their physical stability (maintenance) and the reaction that occurs when they have symptoms to manage (Riegel & Dickson, 2008). These researchers defined self-care maintenance as regular monitoring of symptoms and adhering to treatment. Self-care management is a process that starts with recognizing and evaluating symptoms, which then prompts the

patient to utilize prescribed self-care treatments and, finally, evaluate the effects of the treatment. This theory offers four propositions which are: (a) recognizing symptoms is vital for heart failure self-care; (b) a heart failure patient with experience and better understanding of disease process has the skill to do better with self-care; (c) patient's self-belief balances the relationship between self-care and related outcomes; and (d) a patient's self-belief arbitrates the relationship between the patient's self-care behaviors and related outcomes (Riegel & Dickson, 2008).

Clarification of Terms

Self-care: The natural decision-making process that an individual undertakes to choose behaviors that will preserve their physical stability and the reaction that occurs when they have symptoms (Riegel & Dickson, 2008).

Readmission: A hospitalization for any reason within 30 days of discharge after the initial hospitalization (Ryan et al., 2014)

Teach-Back: A method to assess learners' understanding by asking them to state back in their own words what they heard or understood after education is provided (Mahramus et al., 2014).

Get With The Guidelines (GWTG)-Heart Failure: An in-hospital program for improving care by promoting consistent adherence to the latest scientific treatment guidelines (AHA, 2016a).

30 day readmission rate: A percent of initial encounters where there is a readmission within 30 days (AHA, 2014).

Relevance to Nursing Practice

The local nursing practice problem that was the focus of this doctoral project was the inconsistency in heart failure discharge education and the process performed by registered nurses in this acute care facility. Ineffective patient education in this patient population is a recipe for poor symptom management and subsequent hospital readmission. The registered nurse at the bedside is challenged each time with furnishing a comprehensive discharge education to a multicultural heart failure population with different levels of health literacy. When the patient is not given adequate comprehensive discharge education, the patient is at risk for poor symptom management and recurrent hospital admission. Self-care is supposed to be an important factor in an effective heart failure management regimen (Barnason et al., 2012; Britz & Dunn, 2010; Chen et al., 2014; Deek et al., 2015; Riegel et al., 2012; Vellone et al., 2013).

Registered nurses caring for heart failure patients need to have the best evidence-based available knowledge of heart failure self-care concepts to sufficiently get the patient ready for self-care management at home upon discharge (Mahramus et al., 2014). The review of the literature showed that there is a knowledge discrepancy about heart failure self-care concepts among nurses caring for this patient population (Albert et al., 2002; Delaney, Apostolidis, Lachapelle, & Fortinsky, 2011; Fowler, 2012; Hart, Spiva, & Kimble, 2011; Mahramus et al., 2013; Phillips, 2011; Washburn, Hornberger, Klutman, & Skinner, 2005; Willette, Surrells, Davis, & Bush, 2007). Albert et al. (2002) discussed that when a nurse is knowledgeable about the concepts of self-care in heart failure, then the nurse delivers an effective patient education utilizing evidence-based strategic tools.

Self-care is a predominantly significant concept for the nurse caring for the heart failure patient because it captures the core of nursing philosophy and a crucial aspect of nursing practice. Riegel and Dickson (2008) showed that it is vital to encourage self-care in this patient population, for the result is better health outcomes. As such, nurses have to know how to deliver these teachings so as to achieve this educational goal with the patient.

The current state of nursing practice in this facility was that the discharge teachings and process were inconsistent and were not based on recommended guidelines from AHA, the Centers for Medicare and Medicaid Services (CMS), IHI, The Joint Commission (see Appendix J). As a result, there was frequent readmission of heart failure patients within 30 days of discharge. The recommended planned intervention to improve practice was to have patient discharge education provided by registered nurses who have received education through a formal structured guideline for heart failure patients using the Teach-Back method (see Appendix J). This ensured that the provided discharge teaching was based on best evidence and guidelines (see Appendix J). The use of an evidence-based Teach-Back method was to help standardize the process and provide consistent and comprehensive discharge teachings.

Some strategies and standards have been used in the past to address the readmissions of heart failure patients in an acute care facility. The use of a standardized heart failure electronic order set based on clinical practice guidelines was shown to decrease heart failure readmission rates (Ballard et al., 2010). Koelling, Johnson, Cody and Aaronson (2005) showed that an hour in-person teaching session to the usual discharge process with a nurse educator and a heart failure patient reduces readmission

rates. Naylor et al. (2004) showed that a discharge planning and home follow-up protocol directed by an advanced registered nurse decreased heart failure readmission rates. The evidence-based Teach-Back method has been used in the past to decrease heart failure readmission rates (“Education and follow-up,” 2011; “Multi-faceted program,” 2012; “Readmission rates,” 2010).

In Good Samaritan Hospital Medical Center in West Islip, NY, the researchers showed 5.8 % reduced heart failure readmission rates after the implementation of an improved educational process utilizing the Teach-Back method (“Multi-faceted program,” 2012). This hospital staff standardized educational materials and educated staff on utilizing the Teach-Back method (“Multi-faceted program,” 2012). The review of the literature showed that DMC Sinai-Grace Hospital in Detroit reduced their heart failure readmission rates by 30% after implementation of the standardized Teach-Back method for the discharge process (“Readmission rates,” 2010). In Indiana University Health Ball Memorial Hospital in Muncie, the hospital was able to cut down the heart failure readmission rates by 50% when the staff utilized the Teach-Back method to make sure that the heart failure patients comprehended the discharge plan of care (“Education and follow-up,” 2011).

This doctoral project advanced nursing practice through the purposeful development of a discharge process change that utilized national guidelines to improve the discharge education and process for heart failure patients in this facility. It identified change champions, which provided a better opportunity for sustainability. As a result,

this facility was able to meet the national benchmark and reduce readmission rates for heart failure patients within 30 days of discharge.

Local Background and Context

Heart failure readmission within 30 days of discharge is relevant issue plaguing healthcare facilities and the nation. Heart failure is a chronic cardiovascular disease which is marked by symptomatic periods of acute exacerbations requiring hospitalization. Go et al. (2013) discussed that approximately 670 000 Americans are diagnosed with heart failure each year. When a patient is hospitalized with heart failure and discharged, they are at risk for another hospitalization within 30 days of discharge. Due to this fact, in 2012 CMS started penalizing institutions with more than expected readmission rate for heart failure diagnosis. This patient population continues to have poor outcomes despite all the research and efforts placed on improving their prognosis and diminish readmission rates (Gonseth et al., 2004). Heart failure is an expensive disease, and every year Medicare spends approximately twelve billion dollars on possible avoidable hospital readmissions (Jencks, Williams, & Coleman, 2009).

This DNP project took place in a 210-bed acute care community hospital in the northeastern part of the USA with a mission to serve its community through the encouragement of living healthy, disease prevention and optimal health restoration. This hospital was not meeting the national benchmarks regarding readmission of heart failure patients within 30 days of discharge despite all their efforts (P. Grey, personal communication, January 13, 2016). This institution was not consistent in meeting the core measures of heart failure discharge teaching. The frequent readmission of heart

failure patients within thirty days of discharge was becoming costly to this institution being that this institution cares for a good number of uninsured and underinsured patients. The stakeholders were aware that if the patient and caregivers' ability to manage care post discharge was improved, then readmissions rates will in turn decrease.

This site was also this DNP student's practicum site. Hospitals are mandated to prevent and improve heart failure readmission rates within 30 days of discharge (Butler & Kalogeropoulos, 2012). Butler and Kalogeropoulos (2012) discussed the importance of understanding the implementation of the discharge process. Healthcare institutions do not want to see patients readmitted, for it interferes with quality of life for patients and caregivers and is also costly to the healthcare system. Heart failure readmission is a consequence of health systems imperfections in discharge and transition processes (IHI, 2016b). To reduce avoidable readmissions, healthcare institutions will have to improve education, coaching, and support for patients and caregivers when discharged. Heart failure self-management education is the process of informing, strengthening and empowering the heart failure patient for heart failure self-care management. One of the hallmarks of success for this DNP project was for the patient to be able to understand the discharge instructions and return demonstration of this understanding. The patient needs to understand how to effectively self-manage care post discharge and recognize symptomatic heart failure symptoms, using the toolkit provided. Before starting this project, a needs assessment was performed by the organization, reflecting the need to improve the discharge process to reduce the readmission rates.

The federal and state contexts applicable to this project are that hospital readmissions because of heart failure is not only of clinical importance but that of policy relevance (Ryan et al., 2014). Heart failure readmissions are costly and in the United States, is estimated to be almost \$30 billion (IHI, 2016b). Heart failure incapacitates more than five million people and is the leading cause of hospitalization in the United States (Barnason et al., 2012; Gonseth et al., 2004). It is one of the usual discharge diagnoses among the elderly population (Simpson, 2014). Ryan et al. (2014) discussed that the 2010 Patient Protection and Affordable Care Act does impose financial penalties on healthcare institutions with greater than expected 30 day readmission rates for heart failure. This financial punishment is based on the fact that readmission within 30 days of discharge could be avoided if the patient and caregiver were provided with adequate comprehensive discharge information (McHugh & Ma, 2013; Ryan et al., 2014). Therefore, health institutions are looking for ways to improve interventions that can reduce readmission rates. When this is achieved, there will be an overall decrease in that burden of healthcare cost for the patient, institution, state and nation.

Role of the DNP Student

Heart failure is a disease that affects all aspects of an individual's life. My professional context and relationship to this doctoral project was that of an advanced practice registered nurse caring for heart failure patients, whom this doctoral project aid in gaining a better understanding of strategies to improve self-care management for this patient population. This project was derived from an understanding that a problem existed and establishing relevance to current issues, in this case, frequent readmission of

heart failure patients (Ridenour & Trautman, 2009; White & Dudley-Brown, 2012). I re-evaluated and improved the current discharge process (Ridenour & Trautman, 2009) by proposing a standardized discharge process toolkit based on evidence. As a result, the care for patients with heart failure in this facility improved.

I attended hospital nursing discharge rounds to have a better understanding of current discharge procedure. When insight was gained on current practice, I proposed a quality improvement project to standardize the discharge process for heart failure patients. I developed a new practice approach centered on integrating theory, research, and practice knowledge through the implementation of an evidence-based, patient-centered discharge education toolkit presentation utilizing the Teach-Back method for acute care registered nurses taking care of heart failure patients in a clinical decision and step down units.

My motivations for this doctoral project was to improve heart failure patients care through an effective discharge process based on best evidence and clinical guidelines. Disseminating the results of this project will add to the current body of knowledge related to utilizing the evidence-based Teach-Back method to reduce heart failure readmission rates.

Grove, Burns, and Gray (2013) and Zaccagnini and White (2011) discussed that a bias is an influence that distorts findings away from the expected. Bias in research could be related to the researcher, the measurement methods, the sample, the data, the statistics, and the subjects (Grove et al., 2013; Zaccagnini, 2011). One of the biases in this project was gender bias, which was unavoidable since the majority of nurses on these units were

female. Therefore, this project was designed to control this bias and any other bias that may arise.

Summary

Heart failure is a chronic cardiovascular disease which is marked by symptomatic periods of acute exacerbations requiring hospitalization. Heart failure readmission within 30 days of discharge is relevant issue plaguing healthcare facilities and the nation. Self-care is vital to improving heart failure patients' outcomes. The current state of nursing practice in this facility was that the discharge teachings and process were inconsistent and were not based on recommended guidelines. As a result, there was frequent readmission of heart failure patients within 30 days of discharge. In this section, I discussed Orem's self-care theory and the situation-specific theory of heart failure self-care which were the conceptual frameworks used to guide this project. I further discussed some strategies and standards that have been used in the past to address the readmissions of heart failure patients in an acute care facility. I also discussed the federal and state contexts applicable to this project. I also discussed this project's implications for nursing practice, local evidence on the relevance of heart failure readmissions, and the role of the DNP student. In the next section, I will discuss the data collection and analysis of evidence for this project.

Section 3: Collection and Analysis of Evidence

Introduction

The local nursing practice problem that was the focus of this doctoral project was the discrepancies with heart failure discharge education and process in various units of the institution. Symptomatic heart failure readmissions were increasing despite the hospital's efforts. The hospital was losing money on these readmissions. Symptomatic heart failure can be devastating, exacting a substantial toll on a patient's quality of life. As the length of stay in the hospital decreases and emphasis is placed on better self-management, the discharge process has become an important aspect in the improvement of heart failure self-care. Self-management is the cornerstone of heart failure management and has proven promising in improving quality of life, mortality, health outcomes, and readmission rates (Barnason et al., 2012; Britz & Dunn, 2010; Halmo et al., 2015; Riegel et al., 2012; Vellone et al., 2013). As the United States faces increasing expenses related to readmission of heart failure patients within 30 days of discharge, many healthcare institutions are evaluating interventions to determine the most effective opportunities to improve or change systems. The overall purpose of this project was to decrease readmission rates within thirty days of discharge from this acute care facility of heart failure patients through the development and implementation of a standardized, evidence-based, patient-centered discharge education process toolkit utilizing the evidence-based educational Teach-Back method. In this section, I discuss the practice-focused question, the data collection, and analysis of evidence for this project.

Practice-Focused Question

This institution has been inconsistent in heart failure discharge education and seen frequent readmission of heart failure patients. While thinking about the impact the addition of a patient-centered discharge education process toolkit utilizing the Teach-Back method has on readmission rates, the practice-focus question was developed. There is a relationship between the addition of a patient-centered discharge education toolkit utilizing the Teach-Back method and readmission rates. Taking into consideration the nursing education intervention and target population for this project, the practice-focused question was: “In adult heart failure patients discharged from an acute care inpatient setting, will an evidence-based, patient-centered discharge education process toolkit utilizing the Teach-Back method reduce the rate of readmissions occurring within thirty days of discharge?”

I used the Teach-Back educational toolkits from the IHI (2016a) website to build the teaching plan for the evidence-based Teach-Back method. The acute care registered nurses who took care of heart failure patients in the clinical decision unit and step down unit were taught the evidence-based Teach-Back method to utilize in their discharge process. The readmission rate for this patient population decreased (see Table 1). The process and outcome objectives that were developed for this project are discussed below.

The process objectives for this doctoral project included:

- Collected data on thirty days’ heart failure readmission rates before the educational presentation.

- Developed an evidence-based, patient-centered discharge education presentation toolkit utilizing the Teach-Back method for acute care registered nurses taking care of heart failure patients in a clinical decision and step down units (see Appendix K).
- Identified and selected evidence-based, patient-centered discharge education process toolkit utilizing the Teach-Back method unit champions from the clinical decision and step down units.
- Developed an educational presentation for the selected champions and implemented it.
- Completed the educational presentation.
- Collected heart failure 30 day readmission rates post the 2 months after the educational presentation.

The outcome objectives for this doctoral project included:

- All the registered nurses taking care of heart failure patients working in the clinical decision unit and step down unit of this focus acute care hospital attended the evidence-based, patient-centered discharge education toolkit utilizing the Teach-Back method presentation.
- All the registered nurses taking care of heart failure patients working in the clinical decision unit and step down unit of this focus acute care hospital utilized the evidence-based, patient-centered discharge education process toolkit utilizing the Teach-Back method at the end of this education presentation (see Appendix K).

- Two months' post implementation of the evidence-based, patient-centered discharge education process toolkit utilizing the Teach-Back method, the readmission rate of heart failure patients discharged from the clinical decision unit and step down unit dropped when compared to readmission rates before the implementation of this new strategy.

Sources of Evidence

I performed a systematic literature review of nursing and health-related databases for adult, scholarly, peer-reviewed articles in English from 2000 to 2016 to identify the sources of evidence used to address the practice-focused question. The keywords for the literature search included *Teach-Back*, *nursing education*, *30-day readmission*, *Orem's theory*, *Orem's self-care theory*, *patient discharge education*, *heart failure education*, *readmission*, *self-care education*, *patient teaching*, *discharge teaching*, and *heart failure*. The following databases were used: CINAHL Plus, PubMed, Ovid MEDLINE, Medline, Joanna Briggs, Google Scholar, ProQuest, Nursing Academic Search Premier, and Cochrane. These research articles were reviewed for strengths, weaknesses, and level of evidence using the "Grading of Recommendations Assessment, Development, and Evaluation (GRADE)" model (Guyatt et al., 2011).

Registered nurses caring for heart failure patients need to have the best evidence-based available knowledge of heart failure self-care concepts to sufficiently get the patient ready for self-care management at home upon discharge (Mahramus et al., 2014). The review of the literature showed there is a knowledge discrepancy about heart failure self-care concepts amongst nurses caring for this patient population (Albert et al., 2002;

Delaney et al., 2011; Fowler, 2012; Hart, Spiva, & Kimble, 2011; Mahramus et al., 2013; Phillips, 2011; Washburn et al., 2005; Willette et al., 2007). Albert et al. (2002) discussed that when a nurse is knowledgeable about the concepts of self-care in heart failure, then the nurse delivers an effective patient education utilizing evidence-based strategic tools.

The Teach-Back method has been shown to be an effective method used to educate and assess learning in patients with heart failure (AHA, 2014; IHI, 2016a; IHI, 2016b; Mahramus et al., 2014; Peter et al., 2015; White et al., 2013). Self-care in heart failure patients has been proven to improve the quality of life, lower mortality rates, and reduce rates of readmission to the hospital (Barnason et al., 2012; Britz & Dunn, 2010; Chen et al., 2014; Deek et al., 2015; Vellone et al., 2013; Riegel et al., 2012). Patient education and self-care management tools have had a positive impact among patients with heart failure (Barnason et al., 2012; Britz & Dunn, 2010; Chen et al., 2014; Deek et al., 2015; Riegel et al., 2012). Williams (2013) argued that the Teach-Back method is less didactic and more collaborative and that evidence-based practice affirms it is the best method to utilize for patient education. The Teach-Back method is summarizing the entire visit. The Teach-Back method does involve the clinician asking the patient in a nonthreatening manner to repeat back in the patient's words what the patient has learned from the discussion. This evidence-based strategy teaches healthcare professionals to act with patients in a non intimidating milieu where patients do not feel tested but rather are asked to verify how well the nurse explained the instructions (IHI, 2016b; Williams, 2013).

The review of the literature showed that heart failure patients who were educated utilizing the Teach-Back method recalled considerably more information than did patients with briefer teaching (“Education and follow-up,” 2011; “Multi-faceted program,” 2012; “Readmission rates,” 2010; White et al., 2013). A search of the literature showed that there was an improved outcome in disease-specific knowledge, adherence, and self-efficacy in patients who received teaching through the Teach-Back method (Dinh, Bonner, Clark, Ramsbotham, & Hines, 2016). When a patient is able to articulate how to manage the disease, then the transition from an acute care setting to home is easy and achievable (Butler & Kalogeropoulos, 2012). The Teach-Back method allows the patient to feel empowered by giving the opportunity to return the same information to the registered nurse to show understanding of the material provided (“Readmission rates,” 2010).

The evidence collected supported the fact that effective discharge education provided that was based on best evidence and clinical guidelines empowered the heart failure patient to self- manage. In addition, it supported the fact that educating nurses caring for heart failure patients equips the nurses with a new standardized strategy and leads to improved care. As a result, there was a reduction in readmission rates for these patients, which showed there is a relationship between the evidence collected and the purpose of this doctoral project.

A quasi-experimental design was used for this project. Descriptive statistics were used to compare the data retrieved from the GWTG-Heart Failure database during the pre- and 2-months post-new education strategy implementation to evaluate the effects of

the new strategy on readmission rates (see Table 1). This design was chosen because the project took place in a hospital setting where the subjects, who were nurses, were not randomly selected, but were selected on the basis of convenience. A Conviction and Confidence Scale (IHI, 2016a) was used for the pre- and posttest of the registered nurse's knowledge of educational intervention (see Appendix C). The findings from the analysis of this data showed the effect of a standardized, evidence-based, patient-centered discharge education toolkit on decreasing heart failure readmission rates (see Table 1) and addressing the gap in practice (see Appendix J), which was the inconsistency in discharge education provided by the nursing staff. The outcome of this project led to a decrease in thirty days' hospital readmission rates of adult heart failure patients (see Table 1).

The data collected for this project were kept in a safe area, and the results were analyzed in collaboration with the hospital's quality improvement department. Descriptive statistics were used to compare the readmission rates in both units before and after the implementation of the Teach-Back education toolkit. The data collected for comparison were the results of Teach-Back education program evaluation, the readmission rates before and after the implementation of the evidenced-based Teach-Back method education toolkit, and the Conviction and Confidence Scale results. The data used for this project were the readmission rates in both units before and after the implementation of the Teach-Back education toolkit retrieved from the GWTG-Heart Failure database.

Analysis and Synthesis

A quasi-experimental design was used for this project. Descriptive statistics were used to compare the data retrieved from the GWTG-Heart Failure database during the pre- and 2 months post-new education strategy implementation to evaluate the effects of the new strategy on the rate of readmissions within 30 days of discharge (see Table 1). The post intervention data after 2 months of educational training were compared to the pre-intervention data through reports that were generated from the GWTG-Heart Failure database. This data submission and feedback reporting were performed using the AHA's Patient Management Tool™ (PMT), an online, interactive system provided by Quintiles Real World & Late Phase Research, Cambridge, Massachusetts (AHA, 2016b). It meets the institution's data submission requirements and tracks and reports the institution's performance at delivering guidelines-based treatment (AHA, 2016b). This tool also: (a) submits data and other reporting requirements to CMS, (b) checks for data entry errors in real time, (c) reports in real time to end any delay in performance feedback, (d) it benchmarks the institution by size and region in real time, (e) aids in helping to spot individual problems, (f) additional data analysis can be downloaded from the raw data, (g) it serves as an evaluating performance tool for individual physician, and (h) it serves as a point-of-care tool (AHA, 2016b). In addition, each patient who received this new evidence-based discharge education toolkit was monitored for readmission within 30 days.

A Conviction and Confidence Scale (IHI, 2016a) was used for the pre- and posttest of the registered nurse's knowledge of educational intervention (see Appendix

C). The results of this survey were used to identify ways to build conviction and confidence in using the Teach-Back method.

The training was a regular nursing educational program like the ones offered in this hospital. The training was supported by these unit nurse managers, nursing education department nurse manager, quality improvement, and heart failure hospital committee. These educational sessions were scheduled at different times, so as to give all the nurses the chance to participate without any pressure.

Summary

Heart failure, is a common chronic disease that is linked to a poor quality of life, frequent readmissions, and high rates of morbidity and mortality. Self-care has been shown to be vital in improving outcomes in this patient population. An elaborate review of the literature showed the importance an effective discharge instruction utilizing the evidence-based Teach-Back method had on this patient population. In this section, I discussed the DNP project data collection and analysis. In the next section, I will discuss the findings, implications, recommendations, strengths, and limitations of this doctoral project.

Section 4: Findings and Recommendations

Introduction

The local problem of this doctoral project was the inconsistency in heart failure discharge education and frequent readmission of heart failure patients in an acute care facility. The gap in nursing practice identified for this doctoral project was the inconsistency in discharge education provided by the nursing staff without assurance that the education followed a structured guideline for heart failure discharge education based on best evidence and guidelines (see Appendix J). The practice-focused question was: “In adult heart failure patients discharged from an acute care inpatient setting, will an evidence-based, patient-centered discharge education process toolkit reduce the rate of readmissions occurring within thirty days of discharge?” This evidence-based quality improvement doctoral project evaluated the effects of an evidence-based, heart failure patient-centered discharge education toolkit on readmission rates within thirty days of discharge from an acute care facility. The overall purpose of this project was to decrease readmission rates for heart failure patients through the development and implementation of a standardized, evidence-based, patient-centered discharge education process toolkit. During this DNP program, the standardized, evidence-based, patient-centered discharge education process toolkit was developed, and pilot studied. However, this project was not fully implemented and will be done at a later date at the discretion of the leaders and stakeholders of the practicum site.

Before the development of this educational process toolkit and Teach-Back method educational session, I obtained permission from the IHI (see Appendix H) to use

“Always use Teach Back!” tools in this project. I received Institutional Review Board (IRB) from the practicum site (see Appendix A) and from Walden University (see Appendix B). Before offering the educational session on the Teach-Back method, heart failure 30-days readmission data were obtained from the GWTG-Heart Failure database (see Table 1). Then the Conviction and Confidence Scale (see Appendix C; IHI, 2016a) was used to assess the nurses’ conviction and confidence level prior to the educational session on Teach-Back method. Then the Teach-Back method education session was delivered to 20 nurses caring for heart failure patients. The post education evaluation (see Appendix F) using a Likert scale (1 and 2 = Strongly disagree, 3 = Agree, 4 and 5 = Strongly agree) was completed by all the nurses who attended the educational session to measure their understanding of the education that was offered, the effectiveness of education method provided, and also if the objectives were met. A Conviction and Confidence Scale (see Appendix C; IHI, 2016a) was used after the educational intervention to assess the registered nurses’ confidence in their knowledge of this new educational intervention. The results of this survey were used to identify ways to build conviction and confidence in using the Teach-Back method. Two months following the educational intervention, heart failure 30-days readmission data was obtained from the GWTG-Heart Failure database (see Table 1). The results of this evaluation were used to compare with the data retrieved from the GWTG-Heart Failure database before the new educational intervention. Descriptive statistics were used to compare the pre- and posteducation session readmission rates. The final results evaluated the effects of this

new educational strategy on heart failure readmission rates within 30 days of admission in this acute care setting (see Table 1).

Findings and Implications

As earlier stated, the overall purpose of this project was to decrease readmission rates for heart failure patients through the development and implementation of a standardized, evidence-based, patient-centered discharge education process toolkit. During this DNP program, the standardized, evidence-based, patient-centered discharge education process toolkit was developed and pilot studied. However, this project was not fully implemented and will be done at a later date at the discretion of the leaders and stakeholders of the practicum site.

The findings that will be discussed will be the pilot study results. The Teach-Back method education session was delivered to 20 nurses caring for heart failure patients. The posteducation evaluation (see Appendix F) using a Likert scale (1 and 2 = Strongly disagree, 3 = Agree, 4 and 5 = Strongly agree) was completed by all the nurses who attended the educational session to measure their understanding of the education that was offered, the effectiveness of education method, and also if the objectives were met. The Conviction and Confidence Scale (see Appendix C; IHI, 2016a) was used pre- and post-the educational intervention to assess the registered nurses' confidence in their knowledge of this new educational intervention. The results of this survey were used to identify ways to build conviction and confidence in using the Teach-Back method. The readmission rate of heart failure patient pre- educational session retrieved from the GWTG-Heart Failure database (see Table 1) was 9.4%. The heart failure readmission rate

2 months post educational session retrieved from the GWTG-Heart Failure database (see Table 1) was 0.0%. The final results evaluated the effects of this new educational strategy on heart failure readmission rates within 30 days of admission in this acute care facility. The results do show that an evidence-based patient-centered discharge education toolkit using the Teach-Back method impacts readmission rates in this patient population as the literature has shown.

This study had some unanticipated limitations which included: (a) sample size, (b) time, (c) effective use of all the “Always use Teach-Back!” tools, and (d) identification, education, and establishment of unit champions. One of the limitations was the sample size for the pilot study. All the nurses caring for heart failure patients in these units did not attend the educational session on the Teach-Back method. Time was a constraint, and unit champions could not be trained during this pilot study but were identified. The nurses were not observed by unit champions using the Teach-Back method to deliver discharge education to heart failure patients. The reason was that they were no established unit champions. Also, the IHI Teach-Back observational tool (see Appendix D) was not used during this pilot study. Therefore, I cannot conclude the nurses delivered an evidence-based patient-centered discharge education using the Teach-Back method 100% of the time but can conclude that the registered nurse performed the discharge education correctly from the resulting outcome. The resulting outcome showed a decrease in readmission rates within 30 days of discharge. These results could have been skewed due to the patient census before and after educational intervention, which may have also affected the readmission rate.

The implications that this doctoral project has on an individual with heart failure is its addition to the strategies to improve self-care/self-management through education of this patient population. Its implications for institutions and healthcare systems is that this education strategy, when frequently used during the patient's hospitalization, will strengthen the information base and provide data for future study. This doctoral project gives room for further research on heart failure readmission within 30 days of discharge from an acute care hospital. Its implication for communities is that this project adds to the current research on decreasing heart failure 30-days readmission by improving the discharge process. This project can be transferable to similar inpatient acute care settings globally. It can also be transferred to other chronic diseases.

The potential positive social change implications of this doctoral project are for healthcare professionals who can use this standardized, evidence-based, patient-centered discharge education process toolkit using the Teach-Back method to educate nurses caring for heart failure patients to help those patients improve self-management in the United States and globally. The outcomes of this DNP project will lead to a reduction of direct healthcare costs and indirect costs associated with loss of productivity from heart failure morbidity and premature mortality for the patient with heart failure.

Recommendations

It is postulated that if every heart failure patients discharged from the hospital (a) receive discharge teachings using this new strategy utilizing the evidence-based Teach-Back method, and (b) get a follow-up phone call within 72 hours of discharge using a telephone survey developed by the AHA's (2016a) GWTG-Heart Failure campaign and

IHI's (2016b) transforming care at the bedside, how to guide campaign (see Appendix E), the patient will have a smooth transition home from the hospital with a greater understanding of disease process and thus better self-care management skills. Therefore, if the patient has better self-care habits and self-management of heart failure, it will lead to a decline in hospital readmission within 30 days of discharge from an acute care facility.

The registered nurse should be observed by the unit champions who are designated observer using the Teach-Back observational tool from the IHI (see Appendix D) performing the discharge education using the new strategy as they build their skills and confidence with the Teach-Back method (IHI, 2016a). This observation will ensure the nurses are teaching to the toolkit appropriately. Using checklists within the Teach-Back observational tool from the IHI (see Appendix D) while observing ensures all the steps, topics, and behaviors are being captured in the education. The findings of the data collected from this observation will be used to guide additional learning, evaluation, coaching, and establishment of a reliable habit in the clinical setting. One then can conclude the registered nurse do use an evidence-based patient-centered discharge education toolkit using the Teach-Back method 100% of the time and performing the discharge education correctly.

Self-management in a chronic disease like heart failure emphasizes on promoting risk factor and lifestyle modification and patient self-care (Adams, 2010). For this process to be effective, there must be better information and communication practices.

For the heart failure patient to benefit from this education, this individual will require a great level of participation and commitment related to their health (Adams, 2010).

All the nurses caring for heart failure patients should attend the education sessions on the Teach-Back method. Unit champions should be identified, educated and established as designated observer. All the unit champions should attend an additional 45-minute Interactive Teach-Back Learning Module on the IHI “Always use Teach-Back!” website (IHI, 2016a) after attending, the Teach-Back method session until they feel comfortable being unit champions.

The formative evaluation of the planning stage of this project has already occurred. During that stage, the program plans, materials, procedures and modification of existing practice were tested (Hodges & Videto, 2011). Now, formative evaluation activities are verifying the feasibility, appropriateness, and acceptability of this new evidenced-based patient-centered discharge toolkit in this facility and with heart failure patients (Hodges & Videto, 2011). The present stage comprises of pilot-testing this new evidence-based discharge toolkit. Then process evaluation to describe, monitor, document organizational and project related factors to improve the effectiveness of the project will follow (Hodges & Videto, 2011).

The Reach, Effectiveness, Adoption, Implementation and Maintenance (RE-AIM) framework is recommended to be utilized to evaluate the patient and organization outcomes for it looks at both the effectiveness and adoptability of this quality improvement project (Glasgow, Vogt, & Boles, 1999; Planas, 2008; White & Dudley-Brown, 2012). At the organizational and individual level this model will evaluate if an

evidence-based heart failure patient-centered discharge education using Teach-Back method will lead to (a) documented improvements in patients' understanding of heart failure disease process; (b) better quality of life for the heart failure patient; (c) a continued drop in readmission rates for patients with heart failure; and (d) overall, decrease in healthcare cost for both the heart failure patient and the healthcare organization. The first part of this model called Reach which is an individual level measure will concentrate on the number of participants in this quality improvement project. The next component Efficacy which is also an individual level measure will look at the negative and positive outcomes of the project. The Adoption component of this model which measures at the organizational level will measure this acute care inpatient setting and the registered nursing staff providing the evidence-based patient-centered discharge education using the Teach-Back method. The implementation component which is measured at the organizational level measures how skillfully the discharge education process is delivered. The last component of this model which is Maintenance which will measure to what level the registered nurses and this acute care facility sustains their involvement in a long run (Adams, 2010; Planas, 2008; White & Dudley-Brown, 2012).

Process evaluation will also provide support for the maintenance of the project, indicate if the RE-AIM framework has been applied appropriately and help explain if project objectives may or may not have been attained (Glasgow et al., 1999; Hodges & Videto, 2011). This evaluation plan was discussed and supported by the leadership and stakeholders of this facility.

Strengths and Limitations of the Project

One of the strengths of this project was its addition to the current research on heart failure readmissions and its transferability to other inpatient setting and chronic diseases. The positive impact of incorporating education and training for nurses caring for heart failure patients including the creation of unit champions was an identified strength for this project. The active involvement of nurses at every level of this project was a strength for an effective implementation. The identification, creation, and establishment of unit champions as designated observer was a strength for this project and will provide continuous sustainability. Engaging stakeholders and leadership was a strength for when important health care employees who are at the point of care in the selection and prioritization of the patients' safety initiatives are implicated and have a clear understanding of the impact of reducing readmission rates for heart failure patients, it contributed to reducing the undue stress on the organizational culture caused by change initiatives.

Some limitations of this project included: (a) non-response to surveys, (b) time – duration of the project, (c) observational tool not utilized, (d) unit champions not created, and (d) the small number of participants. Another limitation found during this process was the GWTG-Heart Failure database. The readmission report from GWTG-Heart Failure database showed 30-day readmissions and provided a rate. Patients may be found on this list numerous times because every instance of a patient admission and discharge are listed for the reporting period. This readmission measure from GWTG-Heart Failure database was not equivalent to the CMS 30-day Risk-Standardized Readmission Measure

(CMS, 2015). It was not risk adjusted and did not represent all-cause readmission including capturing readmissions to other hospitals within 30 days of discharge from an acute care setting (AHA, 2016b). The data from the GWTG-Heart Failure database were limited to the extent that the facility's quality improvement department utilize the right functionality to enter repeat readmissions for a single patient. Therefore, if repeat readmissions were not entered rightly, the data might be skewed. These limitations could affect the results of the project.

I recommend future projects utilizing the Teach-Back method to improve self-care management and reduce readmission rates in heart failure patients to use all the tools provided by the IHI "Always use Teach-Back!" effectively. The data of the GWTG-Heart Failure database should be used in conjunction with data retrieved from the CMS 30-Day Risk-Standardized Readmission Measure (CMS, 2015). The CMS (2015) calculates annual heart failure readmission data through claims and administrative data for public reporting. These limitations and strengths will be used to support further research on heart failure readmission and self-care management.

Section 5: Dissemination Plan

Dissemination Plan

Once implemented, the findings of this DNP project will be disseminated to the stakeholders and leadership of this facility through a poster presentation (see Appendix I) that can also be presented at a professional conference. A poster will be used because it will broadly disseminate the findings of this DNP project to the leadership and stakeholders and can be displayed at the health care facility to inform health care professionals about this practice change and the study's findings.

The main route to disseminate new findings into practice is via education (Ousley, Swarz, Milliken, & Ellis, 2010). The dissemination of this DNP project to the broader nursing profession will be done via a clinical practice journal such as the *Journal of Clinical Nursing* (JCN) as it adds a new perspective on using an evidence-based patient-centered discharge education using the Teach-Back method for the heart failure population (Oermann & Hays, 2016). This dissemination will take place once this project is implemented and findings will be presented as a manuscript to the JCN. The JCN is an international, peer-reviewed, scientific journal that promotes scholarship advances in nursing practice.

Once the project has been implemented, creating flyers, posters, brochures, or research briefs about the findings offers another concise and visually-appealing way to disseminate information to the broader nursing profession (Forsyth, Wright, Scherb, & Gaspar, 2010; Yale University, n.d.). Another method of disseminating this DNP project's results following implementation could be through interactive and multifaceted

programs such as small group discussions, interactive workshops, and educational outreach visits, which have been found to be more effective for inducing changes in provider behavior (Ousley et al., 2010).

Analysis of Self

This Doctor of Nursing Practice (DNP) degree journey has been filled with opportunities that have developed my skills both personally and professionally. This journey has given me an increased level of confidence in all my undertakings. This increased confidence has supported my ability to adapt to change and to be successful in the innovations, development, and implementation of new ideas. I find that my personal identity has strengthened, and I am comfortable being a scholar-practitioner, a mentor, and a nurse leader who will inspire others.

As a scholar, I have been able to integrate, apply and synthesize data in the translation of research and theory to practice. The DNP Essentials (AACN, 2006) have served as a guide and road map for me all through this DNP journey. This program has prepared me as a scholar to translate evidence into practice. It has also prepared me to be able to contribute knowledgeably to the field of nursing through education, research, leadership, and dissemination. As a DNP, prepared nurse, I am aware that I do not have to embrace the process only but also implement the findings in ways that will ultimately change and improve practice and outcomes. Thus, my role as a DNP-prepared nurse in scholarship is the dissemination of these findings in publications, poster presentations, internet webinar sessions, media communications, and journal clubs that can be used by others (AACN, 2006; Zaccagnini & White, 2011).

As a practitioner, this program has equipped me with the mastery of essential information. The dynamic nature of healthcare requires that a DNP-prepared nurse such as myself be up to date on new information and be able to discern nuances in research findings so as to translate those findings in understandable ways that improve care and practice. In my practice, I use evidence-based models, tools, and protocol to deliver care, acting as a leader in the clinical arena while providing a critical interface between practice, research, and policy (AACN, 2006).

As a project manager and transformational nursing leader, the skills gained during my DNP project development can be translated into many activities in my practice and practicum site. This DNP journey has led to an enhancement of my clinical skills. It has led me to get involved in other committees within the organization, an example being in the use of technology to advance practice and patient care. I am more confident to demonstrate professional behaviors that encompass strong ethical, holistic, and organizational values.

My practicum time was used to hone my skills and role as a DNP-prepared nurse, a scholar-practitioner, and a nurse leader. This program has helped this scholar-practitioner apply research to promote evidence-based medicine, use technology to improve the quality and safety of patient care, provide essential leadership, and perform at the highest level of clinical practice. I am prepared through my advanced education and clinical training to provide leadership in clinical areas and clinical decision making processes. My practicum experience has prepared me to be a change agent and utilize the skills and knowledge learned to effectively translate evidence to practice in the practicum

setting and beyond. The skills that I have learned will be utilized to ensure that the evidence gap is bridged and to disseminate scholarly work to other healthcare professionals and healthcare policy makers.

Proposing a change in my practicum site meant that some elements of established routines and modes of working had to be altered. To achieve an effective implementation requires time and effort (Hewitt-Taylor, 2013). One thing I observed was that though everyone seemed to agree that things had to be improved, actually changing them was not readily welcomed. One of the challenges encountered during this project was the lack of time and participants. The nurses were very busy, and it was not easy for them to leave what they were doing to attend education sessions on the Teach-Back method. As such, to remedy this challenge, I had to be flexible and scheduled these educational sessions at different times so as to give all the nurses the chance to participate without any pressure. Even still, attendance remained an issue. Another challenge encountered during this project was the involvement of stakeholders. I realized that it is important to involve stakeholders at the beginning of the project. When key health care personnel who are at the point of care in selecting and prioritizing patient safety initiatives are engaged and have a clear understanding of the impact of reducing readmission rates for heart failure patients, it will contribute to reducing the undue stress on the organizational culture caused by change initiatives (Hughes, 2008).

Summary

In this section, I discussed the plan to disseminate this DNP project and provided an analysis of self in the role as practitioner, scholar, and project manager. Heart failure is

a chronic cardiovascular disease that incapacitates individuals. Medications and modifying an individual's lifestyle can slow the disease progression. Heart failure readmission within 30 days of discharge is a prominent issue that plagues healthcare facilities throughout the nation. The gap in nursing practice identified for this doctoral project was the inconsistency in discharge education provided by the nursing staff without assurance that the education provided followed a structured guideline for heart failure discharge education based on best evidence and guidelines. Ineffective patient education in this patient population is a recipe for poor symptom management and subsequent hospital readmission. Patient education has been proven to have a positive outcome in heart failure patients. The Teach-Back method has been shown to be an effective method used to educate and assess learning in patients with heart failure. This doctoral project proposed a standardized, evidence-based patient-centered discharge education toolkit using the Teach-Back method to be used on heart failure patients admitted and discharged from an acute care facility. The results showed that there was a decline in heart failure readmission rates 2 months post this new educational strategy intervention.

References

- Adams, R. J. (2010). Improving health outcomes with better patient understanding and education. *Risk Management and Healthcare Policy*, 3(1), 361-72.
doi:10.2147/RMHP.S7500
- Albert, N. M., Barnason, S., Deswal, A., Hernandez, A., Kociol, R., Lee, E., . . . White-Williams, C. (2015). Transitions of Care in Heart Failure a Scientific Statement from the American Heart Association. *Circulation: Heart Failure*, 10(3).
<https://doi.org/10.1161/HHF.0000000000000006>
- Albert, N. M., Collier, S., Sumodi, V., Wilkinson, S., Hammel, J. P., Vopat, L., . . . Bittel, B. (2002). Nurses' knowledge of heart failure education principles. *Heart & Lung: The Journal of Acute and Critical Care*, 31(2), 102-112.
- American Association of Colleges of Nursing. (2006). *The essentials of doctoral education for advanced nursing practice*. Retrieved from
<http://www.aacn.nche.edu/publications/position/DNPEssentials.pdf>
- American Heart Association. (2014). *Heart Failure Fact Sheet*. Retrieved from
http://www.heart.org/idc/groups/heart-public/@wcm/@hcm/@gwtg/documents/downloadable/ucm_467882.pdf
- American Heart Association. (2016a). *Get With the Guidelines®-Heart Failure overview*. Retrieved from
http://www.heart.org/Heartorg/HealthcareResearch/GetWithTheGuidelines/GetWithTheGuidelines-HF/Get-With-The-Guidelines-Heart-Failure-Overview_UCM_307806_Article.jsp#.VyRp4lLbLok

- American Heart Association. (2016b). *Get With the Guidelines®-HF patient management tool*. Retrieved from http://www.heart.org/HEARTORG/HealthcareResearch/GetWithTheGuidelines/GetWithTheGuidelines-HF/Get-With-The-Guidelines-HF-Patient-Management-Tool_UCM_307819_Article.jsp#.V15FoY-cE2w
- Ballard, D. J., Ogola, G., Fleming, N. S., Stauffer, B. D., Leonard, B. M., Khetan, R., & Yancy, C. W. (2010). Impact of a standardized heart failure order set on mortality, readmission, and quality and costs of care. *International Journal for Quality in Health Care*, 22(6), 437-444.
- Barnason, S., Zimmerman, L., & Young, L. (2012). An integrative review of interventions promoting self-care of patients with heart failure. *Journal of Clinical Nursing*, 21(3/4), 448-475. doi:10.1111/j.1365-2702.2011.03907.x
- Britz, J., & Dunn, K. (2010). Self-care and quality of life among patients with heart failure. *Journal of the American Academy of Nurse Practitioners*, 22(9), 480-487. doi:10.1111/j.1745-7599.2010.00538.x
- Butler, J., & Kalogeropoulos, A. (2012). Hospital strategies to reduce heart failure readmissions: where is the evidence? *Journal of the American College of Cardiology*, 60(7), 615-617.
- Centers for Disease Control and Prevention. (1999). Framework for program evaluation in public health. *MMWR Recommendations and Reports*, 48(RR11),1-40.
- Centers for Disease Control and Prevention. (2015). *Heart Failure in the United States*. Retrieved from

http://www.cdc.gov/DHDSP/data_statistics/fact_sheets/fs_heart_failure.htm

Centers for Medicare & Medicaid Services. (2015). *Outcome Measures: Background*.

Retrieved from <https://www.cms.gov/medicare/quality-initiatives-patient-assessment-instruments/hospitalqualityinits/outcomemeasures.html>

Chen, A. M., Yehle, K. S., Albert, N. M., Ferraro, K. F., Mason, H. L., Murawski, M. M., & Plake, K. S. (2014). Relationships between health literacy and heart failure knowledge, self-efficacy, and self-care adherence. *Research in Social and Administrative Pharmacy, 10*(2), 378-386.

Chodosh, J., Morton, S., Mojica, W., Maglione, M., Suttorp, M., Hilton, L., & ... Shekelle, P. (2005). Meta-analysis: chronic disease self-management programs for older adults. *Annals of Internal Medicine, 143*(6), 427-438.

Deek, H., Nouredine, S., Newton, P. J., Inglis, S. C., MacDonald, P. S., & Davidson, P. M. (2015). A family-focused intervention for heart failure self-care: conceptual underpinnings of a culturally appropriate intervention. *Journal of Advanced Nursing, 72*(2), 434-450. doi:10.1111/jan.12768

Delaney, C., Apostolidis, B., Lachapelle, L., & Fortinsky, R. (2011). Home care nurses' knowledge of evidence-based education topics for management of heart failure. *Heart & Lung: The Journal of Acute and Critical Care, 40*(4), 285-292.

Dinh, H. T., Bonner, A., Clark, R., Ramsbotham, J., & Hines, S. (2016). The effectiveness of the teach-back method on adherence and self-management in health education for people with chronic disease: a systematic review. *JBIR Database of Systematic Reviews and Implementation Reports, 14*(1), 210-247.

doi:10.11124/jbisrir-2016-2296

Education and follow-up cut HF readmissions. (2011). *Hospital Case Management: The Monthly Update on Hospital-Based Care Planning and Critical Paths*, 19(10), 158-159.

Forsyth, D., Wright, T., Scherb, C., & Gaspar, P. (2010). Disseminating evidence-based practice projects: Poster design and evaluation. *Clinical Scholars Review*, 3(1), 14-21. doi:10.1891/1939-2095.3.1.14

Foster, D., & Harkness, G. (2010). *Healthcare reform: Pending changes to reimbursement for 30-day readmissions*. Retrieved from https://www.communitysolutions.com/assets/2012_Institute_Presentations/acareimbursementchanges051812.pdf

Fowler, S. (2012). Improving community health nurses' knowledge of heart failure education principles: a descriptive study. *Home Healthcare Now*, 30(2), 91-99.

Glasgow, R. E., Vogt, T. M., & Boles, S. M. (1999). Evaluating the public health impact of health promotion interventions: the RE-AIM framework. *American Journal of Public Health*, 89(9), 1322-1327.

Go, A. S., Mozaffarian, D., Roger, V. L., Benjamin, E. J., Berry, J. D., Borden, W. B., . . . Turner, M. B. (2013). Executive summary: Heart disease and stroke statistics—2013 update: A report from the American Heart Association. *Circulation*, 127(1), 143-152. doi:10.1161/CIR.0b013e318282ab8f

Gonseth, J., Guallar-Castillón, P., Banegas, J. R., & Rodríguez-Artalejo, F. (2004). The effectiveness of disease management programmes in reducing hospital re-

admission in older patients with heart failure: a systematic review and meta-analysis of published reports. *European Heart Journal*, 25(18), 1570-1595.
doi:10.1016/j.ehj.2004.04.022

Grove, S. K., Burns, N., & Gray, J. R. (2013). *The Practice of Nursing Research: Appraisal, Synthesis, and Generation of Evidence* (7th ed.). St. Louis, MO: Elsevier.

Guyatt, G., Oxman, A. D., Akl, E. A., Kunz, R., Vist, G., Brozek, J., . . . Schünemann, H. J. (2011). GRADE guidelines: 1. Introduction—GRADE evidence profiles and summary of findings tables. *Journal of Clinical Epidemiology*, 64 (4), 383-394.

Halmo, R., Galuszka, J., Langova, K., & Galuszkova, D. (2015). Self care in patients with chronic heart failure. Pilot study-self care includes problems. *Biomedical Papers*, 159(1), 124-130.

Hart, P. L., Spiva, L., & Kimble, L. P. (2011). Nurses' knowledge of heart failure education principles survey: A psychometric study. *Journal of Clinical Nursing*, 20(21-22), 3020-3028.

Heidenreich, P. A., Albert, N. M., Allen, L. A., Bluemke, D. A., Butler, J., Fonarow, G. C., . . . Trogon, J. G. (2013). Forecasting the impact of heart failure in the United States: A policy statement from the American Heart Association. *Circulation: Heart Failure*, 6(3), 606-619. doi:10.1161/HHF.0b013e318291329a

Hernandez, A., Greiner, M., Fonarow, G., Hammill, B., Heidenreich, P., Yancy, C., . . . Curtis, L. (2010). Relationship between early physician follow-up and 30-day readmission among Medicare beneficiaries hospitalized for heart failure. *JAMA*:

Journal of the American Medical Association, 303(17), 1716-1722.

doi:10.1001/jama.2010.533

Hewitt-Taylor, J. (2013). Planning successful change incorporating processes and people.

Nursing Standard, 27(38), 35-40.

Hobbs, F. D., Kenkre, J. E., Roalfe, A. K., Davis, R. C., Hare, R., & Davies, M. K.

(2002). Impact of heart failure and left ventricular systolic dysfunction on quality of life: A cross-sectional study comparing common chronic cardiac and medical disorders and a representative adult population. *European Heart Journal*, 23(23), 1867–1876.

Hodges, B. C., & Videto, D. M. (2011). *Assessment and planning in health programs*

(2nd ed.). Sudbury, MA: Jones & Bartlett Learning.

Hughes, R. G. (2008). *Patient Safety and Quality: An Evidence-Based Handbook for*

Nurses. Retrieved from <http://www.ncbi.nlm.nih.gov/books/NBK2659/>

Institute for Healthcare Improvement. (2016A). *Always use teach back!* Retrieved from

<http://www.ihl.org/resources/Pages/Tools/AlwaysUseTeachBack!.aspx>

Institute for Healthcare Improvement (2016B). *Good heart failure care follows patients*

home. Retrieved from

<http://www.ihl.org/resources/Pages/ImprovementStories/GoodHeartFailureCareFollowsPatientsHome.aspx>

Jencks, S.F., Williams, M.V., & Coleman, E.A. (2009). Re-hospitalizations among

patients in the Medicare fee-for-service program. *New England Journal of*

Medicine, 360(14), 1418-1428.

- Koelling, T. M., Johnson, M. L., Cody, R. J., & Aaronson, K. D. (2005). Discharge education improves clinical outcomes in patients with chronic heart failure. *Circulation, 111*(2), 179-185.
- Mahramus, T., Penoyer, D. A., Frewin, S., Chamberlain, L., Wilson, D., & Sole, M. L. (2014). Assessment of an educational intervention on nurses' knowledge and retention of heart failure self-care principles and the Teach Back method. *Heart & Lung: The Journal of Critical Care, 43*(3), 204-212.
doi:10.1016/j.hrtlng.2013.11.012
- Mahramus, T. L., Penoyer, D. A., Sole, M. L., Wilson, D., Chamberlain, L., & Warrington, W. (2013). Clinical nurse specialist assessment of nurses' knowledge of heart failure. *Clinical Nurse Specialist, 27*(4), 198-204.
- McAlister, F. A., Stewart, S., Ferrua, S., & McMurray, J. J. (2004). Multidisciplinary strategies for the management of heart failure patients at high risk for admission: a systematic review of randomized trials. *Journal of the American College of Cardiology, 44*(4), 810-819.
- McEwen, M., & Wills, E.M. (2014). *Theoretical basis for nursing* (4th. ed.). Philadelphia, PA: Wolters Kluwer Health.
- McHugh, M., & Ma, C. (2013). Hospital nursing and 30-day readmissions among medicare patients with heart failure, acute myocardial infarction, and pneumonia. *Medical Care, 51*(1), 52-59 8p. doi:10.1097/MLR.0b013e3182763284
- Multi-faceted program cuts HF readmissions. (2012). *Hospital Case Management: The Monthly Update on Hospital-Based Care Planning and Critical Paths, 20*(6), 92-

93.

- Naylor, M. D., Brooten, D. A., Campbell, R. L., Maislin, G., McCauley, K. M., & Schwartz, J. S. (2004). Transitional care of older adults hospitalized with heart failure: a randomized, controlled trial. *Journal of the American Geriatrics Society*, 52(5), 675-684.
- Oermann, M. H., & Hays, J. C. (2016). *Writing for publication in nursing* (3rd ed.). New York, NY: Springer Publishing Company
- Orem, D. E. (2001). *Nursing: Concepts of practice*. (6th ed.). St. Louis: MO: Mosby.
- Orem, D.E., Taylor, S.G., & Renpenning, K.M. (2001). *Nursing: Concepts of practice* (6th ed.). St. Louis, MO: Mosby.
- O'Shaughnessy, M. (2014). Application of Dorothea Orem's theory of self-care to the elderly patient on peritoneal dialysis. *Nephrology Nursing Journal*, 41(5), 495-498.
- Ousley, A. L., Swarz, J. A., Milliken, E. L., & Ellis, S. (2010). Cancer education and effective dissemination: Information access is not enough. *Journal of Cancer Education: The Official Journal of the American Association for Cancer Education*, 25(2), 196-205. doi:10.1007/s13187-010-0129-3
- Peter, D., Robinson, P., Jordan, M., Lawrence, S., Casey, K., & Salas-Lopez, D. (2015). Reducing readmissions using teach-back: Enhancing patient and family education. *Journal of Nursing Administration*, 45(1), 35-42.
- Phillips, C. (2011, May). "A program evaluation of an educational intervention to improve nurses' knowledge of heart failure." In National Association of Clinical

- Nurse Specialists: 2011 student poster abstracts. *Clinical Nurse Specialist*, 25(3), 153. doi:10.1097/NUR.0b013e3182198865
- Phillips, C., Wright, S., Kern, D., Singa, R., Shepperd, S., & Rubin, H. (2004). Comprehensive discharge planning with postdischarge support for older patients with congestive heart failure: a meta-analysis. *JAMA: Journal of the American Medical Association*, 291(11), 1358-1367.
- Planas, L. G. (2008). Intervention design, implementation, and evaluation. *American Journal of Health-System Pharmacy*, 65(19), 1854–1863.
- Readmission rates for HF reduced by 30%. (2010) *Healthcare Benchmarks and Quality Improvement*, 17(12), 137-138.
- Riegel, B., & Dickson, V. (2008). A situation-specific theory of heart failure self-care. *Journal of Cardiovascular Nursing*, 23(3), 190-196.
- Riegel, B., Jaarsma, T., & Strömberg, A. (2012). A middle-range theory of self-care of chronic illness. *Advances in Nursing Science*, 35(3), 194-204.
- Riegel, B., Moser, D. K., Anker, S. D., Appel, L. J., Dunbar, S. B., Grady, K. L., ... & Peterson, P. N. (2009). State of the science promoting self-care in persons with heart failure: a scientific statement from the American Heart Association. *Circulation*, 120(12), 1141-1163.
- Ryan, J., Andrews, R., Barry, M. B., Kang, S., Iskandar, A., Mehla, P., & Ganeshan, R. (2014). Preventability of 30-day readmissions for heart failure patients before and after a quality improvement initiative. *American Journal of Medical Quality*, 29(3), 220-226 7p. doi:10.1177/1062860613496135

- Simpson, M. (2014). A quality improvement plan to reduce 30-day readmissions of heart failure patients. *Journal of Nursing Care Quality, 29*(3), 280-286.
doi:10.1097/NCQ.0000000000000038
- Sterne, P. P., Grossman, S., Migliardi, J. S., & Swallow, A. D. (2014). Nurses' knowledge of heart failure: Implications for decreasing 30-day re-admission rates. *MEDSURG Nursing, 23*(5), 321-329.
- Stone, J., & Hoffman, G. (2010). *Medicare hospital readmissions: Issues, policy options and PPACA*. Retrieved from [http://www.hospitalmedicine.org/AM/pdf/advocacy/CRS Readmissions Report.pdf](http://www.hospitalmedicine.org/AM/pdf/advocacy/CRS_Readmissions_Report.pdf)
- Walden University. (2014). *Social change impact report*. Retrieved from <https://mediacdn.waldenu.edu/-/media/files/wal/about/scir/2014-social-change-impact-report.pdf?la=en&v1>
- Washburn, S. C., Hornberger, C. A., Klutman, A., & Skinner, L. (2005). Nurses' knowledge of heart failure education topics as reported in a small Midwestern community hospital. *Journal of Cardiovascular Nursing, 20*(3), 215-220.
- White, K. & Dudley-Brown, S. (2012). *Translation of evidence into nursing and health care practice*. New York: Springer Publishing Company, LLC.
- White, M., Garbez, R., Carroll, M., Brinker, E., & Howie-Esquivel, J. (2013). Is "teach-back" associated with knowledge retention and hospital readmission in hospitalized heart failure patients? *Journal of Cardiovascular Nursing, 28*(2), 137-146. doi:10.1097/JCN.0b013e31824987bd
- Whittaker, B. D., Soine, L. A., & Errico, K. M. (2015). Patient and process factors

associated with all-cause 30-day readmission among patients with heart failure.

Journal of the American Association of Nurse Practitioners, 27(2), 105-113.

doi:10.1002/2327-6924.12123

Willette, E. W., Surrells, D., Davis, L. L., & Bush, C. T. (2007). Nurses' knowledge of heart failure self-management. *Progress in Cardiovascular Nursing*, 22(4), 190-195.

Williams, T., D. (2013). *Using teach back: Find out what your patient really understands*. Retrieved from aahfn.org/educationcenter

Vellone, E., Riegel, B., D'Agostino, F., Fida, R., Rocco, G., Cocchieri, A., & Alvaro, R. (2013). Structural equation model testing the situation-specific theory of heart failure self-care. *Journal of Advanced Nursing*, 69(11), 2481-2492.

doi:10.1111/jan.12126

Yale University. (n.d.). *Beyond Scientific Publication: Strategies for Disseminating*.

Retrieved from http://medicine.yale.edu/ycci/community/disseminationstrategies_tcm368-55858_tcm368-284-32.pdf

Zaccagnini, M.E., & White, K.W. (2011). *The doctor of nursing practice essentials: A new model for advanced practice nursing* (Laureate Education, custom ed.).

Sudbury, MA: Jones & Bartlett.

Appendix A: IRB Approval from Practicum Site

August 29th, 2016

Dear Ms. Eyegue-Sandy: Thank you for submitting your proposed research for review to the Institutional Review Board at [REDACTED]: Decreasing Thirty Days Hospital Readmission Rates of Adult Heart Failure Patients. The IRB granted approval of the above named study for a period of 12 months from the original review date and will expire on August 29th, 2017. This was done through the expedited review process as this is a minimal risk study involving research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. For tracking purposes, all materials received by the IRB for submission will be tagged with the hospital IRB study number assigned to this research of IRB08292016. Any changes to any of the documents will need to be approved by the IRB before use. Consistent with Federal regulations, the IRB must be promptly notified of unanticipated problems involving risk to human subjects or others; of any modifications to the protocol, changes in the status of the research activity (including closure of the trial); and of any changes in the status of the investigators. Please contact me if there are any questions or concerns.

Sincerely, [REDACTED], Pharm.D.

Vice -Chair, Institutional Review Board, [REDACTED]

Appendix B: IRB Approval from Walden University

The Walden University IRB approval number for this study is [10-27-16-0337424](#).

Appendix C: Conviction and Confidence Scale



Conviction and Confidence Scale

Fill this out before you start using teach-back, and 1 and 3 months later.

Name: _____

Check one: Before - Date: _____

1 month - Date: _____

3 months - Date: _____

1. On a scale from 1 to 10, how **convinced** are you that it is important to use teach-back (ask patients to explain key information back in their own words)?

Not at all important Very Important

1 2 3 4 5 6 7 8 9 10

2. On a scale from 1 to 10, how **confident** are you in your ability to use teach-back (ask patients to explain key information back in their own words)?

Not at all confident Very Confident

1 2 3 4 5 6 7 8 9 10

3. How often do you ask patients to explain back, in their own words, what they need to know or do to take care of themselves?

- I have been doing this for 6 months or more.
- I have been doing this for less than 6 months.
- I do not do it now, but plan to do this in the next month.
- I do not do it now, but plan to do this in the next 2 to 6 months.
- I do not do it now and do not plan to do this.



Source: Institute for Healthcare Improvement. (2016A). Always Use Teach Back! Retrieved from <http://www.ihl.org/resources/Pages/Tools/AlwaysUseTeachBack!.aspx>

Appendix D: Teach-Back Observational Tool



Teach-back Observation Tool

Care Team Member: _____ Date: _____

Observer: _____ Time: _____

Did the care team member...	Yes	No	N/A	Comments
Use a caring tone of voice and attitude?				
Display comfortable body language, make eye contact, and sit down?				
Use plain language?				
Ask the patient to explain in their own words what they were told to do about: <ul style="list-style-type: none"> • Signs and symptoms they should call the doctor for? • Key medicines? • Critical self-care activities? • Follow-up appointments? 				
Use non-shaming, open-ended questions?				
Avoid asking questions that can be answered with a yes or no?				
Take responsibility for making sure they were clear?				
Explain and check again if the patient is unable to use teach-back?				
Use reader-friendly print materials to support learning?				
Document use of and patient's response to teach-back?				
Include family members/caregivers if they were present?				



Source: Institute for Healthcare Improvement. (2016A). Always Use Teach Back! Retrieved from <http://www.ih.org/resources/Pages/Tools/AlwaysUseTeachBack!.aspx>

Appendix E: Telephone Follow-up Form

TELEPHONE
FOLLOW-UP FORM
TARGET: HF
TAKING THE FOLLUP OUT OF HEART FAILURE

GENERAL INFORMATION	
Discharge date: (mm/dd/yyyy)	
Patient name:	
Date of birth: (mm/dd/yyyy)	
Primary care physician:	
Cardiologist:	
Homecare?	<input type="checkbox"/> YES <input type="checkbox"/> NO
Labs ordered/done prior to first follow-up call or appointment?	<input type="checkbox"/> YES <input type="checkbox"/> NO
Date: (mm/dd/yyyy)	
PATIENT EDUCATION	
INTRODUCTION: My name is _____. I am calling from [INSERT HOSPITAL NAME]. I am doing a follow-up courtesy call to see how you are doing.	
Weight monitoring	
Do you have a scale at home that you can use to weigh yourself?	<input type="checkbox"/> YES <input type="checkbox"/> NO if no: Comments _____
<i>[If patient answered no, advised the patient to buy a scale]</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
<i>[If patient answered yes to having a scale]</i> Can you see the numbers on the scale?	<input type="checkbox"/> YES <input type="checkbox"/> NO
Have you been weighing yourself daily?	<input type="checkbox"/> YES <input type="checkbox"/> NO
Dry weight (at home, 1st day after discharge)	
Did you take your dry weight 1 day after discharge?	<input type="checkbox"/> YES <input type="checkbox"/> NO
Do you have a weight diary?	<input type="checkbox"/> YES <input type="checkbox"/> NO
<i>If no, was the patient provided with a weight calendar during this visit?</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
Do you understand how and when to check your weight? <i>[Tell patient that he/she should check weight every AM, after first void, prior to PO intake; with same amount of clothing on]</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
Do you understand the importance of measuring and recording your daily weights? <i>[Tell patient that daily weights are important to self-monitor for fluid retention]</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
Confirmed understanding by Teach Back? <i>[The pt or family member can verbalize your instructions back to you in their own words to confirm understanding]</i>	<input type="checkbox"/> Yes <input type="checkbox"/> Patient needs reinforcement Comments: _____

JUNE 2011 | PAGE 01

©2011 American Heart Association

Source: Institute for Healthcare Improvement. (2016A). Always Use Teach Back! Retrieved from <http://www.ihl.org/resources/Pages/Tools/AlwaysUseTeachBack!.aspx>

Appendix F: Post-Educational Intervention Evaluation Form

Instructor:					
Name:					
	Strongly Disagree		Agree	Strongly Agree	
1. Instructor knew the subject matter	1	2	3	4	5
2. Instructor presented content in an organized manner	1	2	3	4	5
3. Instructor maintained my interest	1	2	3	4	5
4. How effective was instructor?	1	2	3	4	5
5. How effective was the instructor's teaching method?	1	2	3	4	5
6. Was instructor responsive to questions, comments, and opinions	1	2	3	4	5

Appendix G: Quality Improvement Project Evaluation Grid

Goal for DNP Quality Improvement Project	Benchmark GWTG Heart Failure/CMS	Method of Measurement: Numerator	Method of Measurement: Denominator	Data Collection	Evaluation Method
Decrease heart failure readmissions within 30 days of discharge	0% readmission rate of heart failure patients within 30 day of discharge	Number of heart failure patients readmitted within 30 days of discharge	Number of patients admitted with the 30 – day period	Retrospective review of data from the GWTG heart failure database after completion of quality improvement project and implementation	Quantitative: Number of heart failure patients readmitted within 30 -days retrieved from GWTG heart failure database Formative: Retrospective review of number of patients discharged with diagnosis of heart failure and 30 – day review for readmission retrieved from GWTG Heart failure database
Standard patient-centered heart failure discharge education	All heart failure patients discharged from this facility will receive evidence-based patient-centered discharge education using Teach-Back	Number of patients receiving the new evidence- based patient-centered discharge education during the quality improvement project implementation process	Number of patients admitted with heart failure during the quality improvement project implementation process	Follow – up telephone survey within 72 hours of discharge to determine that patient received evidence-based patient centered discharge education using Teach-Back method Retrospective review of number of patients discharged with diagnosis of heart failure and 30 – day review for readmission retrieved from GWTG Heart failure database after completion of quality improvement project and implementation	Formative Quantitative: Documentation of nurses providing evidence- based patient-centered discharge education using Teach- Back method during the quality improvement project implementation process using the IHI observational tool – performed by unit champions
Self-care/	All heart failure patients	The number of heart failure patients able to identify all criteria	The number of heart failure patients admitted during this	Follow up telephone survey with 72 hours of discharge to	Formative: Identify barriers to

management	discharged from this facility will have better self-management of their disease process through evidence-based patient-centered discharge education using Teach-Back method	in their discharge documentation including; medications, diet, follow up appointment, daily weight and identify all criteria of questions asked in the telephone survey (see Appendix E). Heart failure patients unable to identify any of the criteria mentioned above.	quality improvement project and implementation period	measure the effectiveness of the education provided during discharge.	effective follow-up telephone survey within 72 hours of discharge. Quantitative: Data from the Teach-Back observational tool from the IHI (see Appendix D) verifying that all patients with heart failure are receiving 100% of evidence-based patient-centered discharge education using Teach- Back method.
------------	---	---	---	---	---

Appendix H: Permission to Use IHI “Always Use Teach Back!” Tools

Good morning Katherine,

Thank you for your response.

Your permission form has been approved. Please be aware that you must follow these four bulletin points from our terms page on our website:

You may not modify the content or any copyright notices or source indications.

You may NOT post the content directly into another website. Instead, because we update the content on IHI.org frequently and want to make sure people are using the most up-to-date information, you should link to the content on IHI.org.

You must always credit IHI (and any other sources specified for a specific piece of content) as the source of the material, as follows: “[Name of content item]. Cambridge, Massachusetts: Institute for Healthcare Improvement; [Year]. (Available on www.IHI.org)”

You may not repackage our content for commercial purposes or otherwise offer it for sale. Please let me know if you need anything else.

Also, please take a moment to let us know about anything we could have done to better serve you by clicking [HERE](#). We greatly appreciate your feedback.

Best,

XXXXXXXXXX

Customer Service & Systems Project Assistant

Institute for Healthcare Improvement

20 University Rd, 7th Floor

Cambridge, MA 02138

Appendix J: Gap in Practice Analysis

Current process	Gap identification	Planned intervention	Desired outcome
<ul style="list-style-type: none"> • Inconsistency in heart failure discharge education and process from registered nurses in the acute care facility. • Discharge teachings is not based on recommended guidelines from AHA, AHA, CMS, IHI, the joint commission. • Frequent readmission of heart failure patients 	<ul style="list-style-type: none"> • The discharge teaching provided by the registered nurses at the acute care facility is inconsistent without any certainty that the teaching provided is based on best evidence and recommended guidelines for heart failure discharge process from AHA, AHA, CMS, IHI, the joint commission. 	<ul style="list-style-type: none"> • Patient discharge education will be performed by registered nurses who have received education through a formal structured guideline for heart failure patients using the teach back method • Discharge teaching will be based on best evidence and guidelines 	<ul style="list-style-type: none"> • The adult heart failure patient discharge from the acute care facility will experience an increased ability of heart failure self-care management post discharge • Reduction of heart failure readmission within 30 days of discharge at the facility.

Appendix K: Nursing Interventions: Evidence-Based Patient-Centered Discharge

Education Using Teach-Back Method to Improve Heart Failure Patient's Self-Care

Deficit

Self-care deficits	Goals (in accordance with guidelines from AHA, IHI, CMS)	Discharge education
Inadequate awareness of heart failure disease process	<ul style="list-style-type: none"> • Knowing the concepts of symptomatic heart failure • Knowing complications that involve poor diet, lack of activity, medication and follow up non-compliance 	<ul style="list-style-type: none"> • Information of heart failure will be provided • Effects, and importance of diet, activity, daily weight, signs and symptoms and whom to contact, medication and follow up compliance
Inadequate awareness of medical treatment and rehabilitating interventions	<ul style="list-style-type: none"> • Management of flexible diuretic treatment for signs and symptoms of fluid overload • Knowing all other heart failure medications • Elimination of alcohol and tobacco products 	<ul style="list-style-type: none"> • Information on how to administer diuretic treatment and recognition of signs and symptoms of fluid overload will be provided • Information on compliance of beta blocker, nitrate, ace inhibitor or ARB, Lasix, Aldactone, and all prescribed medications on discharge will be provided including side effects. • Information on alcohol and tobacco cessation will be provided
Inadequate awareness of effects of medical care	<ul style="list-style-type: none"> • Explaining signs and symptoms of symptomatic heart failure • Explaining importance follow up appointments with primary care provider and cardiologist 	<ul style="list-style-type: none"> • Patient will be given information on signs and symptoms of symptomatic heart failure to monitor on discharge • The importance of resorting to their primary care provider and cardiologist when making health care related changes and decisions will be reiterated • The importance of keeping follow up appointments with primary care provider and cardiologist will be reiterated