2019

Nursing Staff Education for Heart Failure Disease Management

Kerri Murphy
Walden University

Walden University

College of Health Sciences

This is to certify that the doctoral study by

Kerri Murphy

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. Cassandra Taylor, Committee Chairperson, Nursing Faculty
Dr. Cheryl Holly, Committee Member, Nursing Faculty
Dr. Dana Leach, University Reviewer, Nursing Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2018

Abstract

Nursing Staff Education for Heart Failure Disease Management

by

Kerri Murphy

MSN, Walden University, 2014

BSN, Spring Arbor University, 2012

Project Submitted in Fulfillment

of the Requirements for the Degree of

Doctorate of Nursing Practice

Walden University

February 2019

Abstract

Heart failure (HF) has a global significance for the older population and is the most common reason for hospitalization. Patients with HF can reduce their risk for hospital readmissions and adverse outcomes through self-management of their disease. Nurses are responsible for educating patients about HF self-management; however, nurses at the project site lacked sufficient understanding and confidence to perform adequate HF patient education, creating a gap in practice. This project was guided by Pender's health promotion model and adult learning theory with the goal to increase nurses' knowledge and confidence with the self-management principles of HF. The purpose of this project was to develop an educational program for nurses to increase their knowledge of HF disease management and patient self-management principles. The education program was supported by research literature and recommendations from the Agency for Healthcare Research and Quality, in addition to input from a planning team consisting of 3 nursing leaders from the project site. The planning team provided process evaluation regarding satisfaction with the planning process by completing an anonymous, 10-question, Likert-type survey. Seven project evaluations were completed and all respondents indicated that they agreed or strongly agreed in response to questions regarding the effectiveness of the project, it's planning, and the leader. At the completion of the project, the education program was delivered to the project site, with a plan for later implementation and learner evaluation using assessment tools of HF knowledge and confidence. This project has the potential to acheive positive social change in relation to nurses' commitment to improving patient outcomes through quality initiatives and dedication to the implementation of evidence-based practice, thus, promoting positive patient outcomes.

Nursing Staff Education for Heart Failure Disease Management

by

Kerri Murphy

MSN, Walden University, 2014

BSN, Spring Arbor University, 2012

Project Submitted in Fulfillment

of the Requirements for the Degree of

Doctorate of Nursing Practice

Walden University

February 2019

Table of Contents

List of Tables

List of Figures

Nursing Staff Education: Heart Failure

Section 1: Introduction – Overview of the Evidence-Based Project

Nurses' ability to adequately demonstrate the self-care principles needed for patients to comply with their care plan, in the ambulatory care setting, is essential to reduce readmissions and, improve patient outcomes, and quality of life (American Heart Association [AHA], 2013). With knowledge there is confidence and empowerment. The development of expertise and specialization hinge on the knowledge of structure, dynamics, culture and disease progress and management, all which coincide with a nurse's ability to use resources wisely and effectively (Grossman & Valiga, 2009). Using one's strengths and improving upon weaknesses, learning from past mistakes, and knowing one's core values and biases prove to be the best way to achieve self-empowerment (Grossman & Valiga, 2009).

I conducted this project based on Pender's health promotion model and the adult learning theory, to develop an education program that will increase nurses' knowledge of heart failure (HF) disease management and key self-management principals. Increased knowledge builds nurses' confidence, comfort, and abilities to deliver appropriate education to patients who, in turn, engage in their individualized care plan resulting in improved patient outcomes. I worked with a team of experts from an acute care facility Northwest Ohio to develop a nursing education program incorporating existing resources into the project deliverables.

Problem Statement

There is a true knowledge deficit within the nursing profession regarding proper disease management, which affects patient safety, quality of care, patient outcomes, in turn, impedes on the quality of education that patients receive before discharge (Albert, 2013). In a survey conducted by Hart, Spiva, and Kimble (2011), key gaps in nurses' HF knowledge were identified

especially in regards to blood pressures and daily weights. Hart et al.'s data showed that the nurses completing the survey lacked insight into these knowledge gaps. Washburn and Hornberger (2008) reported that, nurses' knowledge may affect optimum patient outcomes and emphasized the importance of addressing all aspects of HF management. Washburn and Hornberger also demonstrated that several nurse participants in their studies lacked understanding of several HF educational areas. Likewise, in Fowler's, (2012) study, 61 nurses completed an HF knowledge survey of 20 questions, with scores ranging from 14% to 100%, and with some only answering two or three questions correctly (see Appendix A).

HF has a global significance for the 65 years of age and older population and is the most common reason for hospitalization (Mahramus et al., 2013). Given that nurses are the key patient educators, patients may be more susceptible to readmissions and adverse outcomes, if the nurses do not provide patient education in the acute care facility before discharge (Mahramus et al., 2013). The lack of proper symptom monitoring patient education, and proper medical follow-up increases hospital recidivism (Mahramus, Aragon, Frewin, Chamberlain, & Sole, 2014). Chronic HF disease manifestation takes quite a toll on the body, decreasing quality of life, and activities of daily living, and contributes to a shorter lifespan. Over 50% of patients admitted to an acute care facility with the primary diagnosis of HF will be readmitted within 6 months (Mahramus et al., 2014).

An audit of current practices at three of the biggest facilities the healthcare system, where I conducted my project, demonstrated that the education provided to HF patients was lacking in many areas related to nurses' lack of comfort, confidence, and knowledge (see Appendix B). This audit included a review of the educational materials and current patient education practices nurses use on the individual units. Hospital leaders observed nurses educating patients and were

concerned by the nurses' lack of confidence, and knowledge deficit. In response leaders disseminated booklets, binders, printed internet handouts, and other non-facility-monitored education were supplied to staff and patients. Core American Heart Association (2013) educational requirements such as weight monitoring, sodium intake monitoring, and medication tracking were missed in the current patient education. It was evident at this point that the organization lacked the standardization of educational procedures and processes needed to educate the patients on HF disease management as well as the information provided the patient, thus indicating, the need for re-education of the nursing staff.

Purpose Statement

The purpose of this project was to develop and standardize an educational program for nurses regarding HF disease management and patient self-management principles. The goal of this educational program was to increase nurses' comfort, confidence, and knowledge of HF disease management and self-care principles for the patient. The majority of the patient's medical care happens when they are at home (without medical supervision), thus, appropriate education is essential to achieving optimal outcomes (Washburn & Hornberger, 2008). Standardized educational tools and processes need to be in place to assist nurses with enhancing their knowledge and comfort with educating patients while preparing them for discharge; thereby, increasing the patient's willingness and desire to follow guideline-recommended HF self-care behaviors (Albert, 2013). The anticipated outcome from use of a standardized nursing education program is an increase in nurses' confidence and comfort for the nurses with providing this education to the patients. This outcome will be measured by summative review.

P-I-C-O

The practice problem is nurses' comfort, confidence, and knowledge of HF self-care principals and ambulatory resources. The planned intervention was the development of nursing education on HF self-care principals and ambulatory resources. To develop this intervention, I compared the published guidelines from American Heart Association and the Centers for Medicare and Medicaid Services. The predicted outcome was increased nursing knowledge of HF self-care principles, with improved confidence and comfort levels in educating patients.

Project Objectives

My project objective was to plan and produce an educational program and deliverables, for nurses providing direct bedside care, regarding HF disease, disease stages, disease management, and patient self-care principals necessary to achieve optimal patient outcomes.

Nature of the Doctorate Project

A team of experts consisting of me and nursing leaders, nurse educators, a HF nurse practitioner, a social worker, and direct care staff members developed the staff education program**.** The team met in several sessions to consider potential educational tools and content. Appendix C includes transcription of the team's feedback. A suggested timeline for implementation and evaluation of the education program is included with the project deliverables. The use of a pre-assessment/post-assessment of nursing knowledge of heart failure patient education principles (Albert, et. Al., 2002) will enable the evaluation of baseline knowledge and evaluation of learning. Team members and I developed a quality survey tool to evaluate nurses' comfort and confidence regarding the educational material (see Appendix D). At the completion of the project comments regarding the student's skill level in project management, the evolution of processes, and leadership will serve as a project summative evaluation (see Appendix C).

The Significance of the Project

The identified stakeholders are the public (consumers, communities, educational programs, community outreach programs, local healthcare providers); industry (drug companies, healthcare systems, health insurance companies, durable medical equipment suppliers, state nursing boards), and policymakers (from local, states, and federal agencies, and organizations). Proper education of the patient not only affects the immediate nurse, patient, and organization. Community programs are based on referral and can be directly affected by the education patients receive. Healthcare systems continued function is significantly based on reimbursement from CMS, and with readmissions, reimbursement will be reduced. Lack of funding for programs and services, due to low volumes, or reduction in patients seeking these resources due to insurance issues impacts all involved.

Fostering a culture that incorporates evidence-based practice, data analysis, and research into the organization's action plans to improve patient outcomes and quality of care requires the development of collaboration, investigation, implementation of evidence-based practice, and comprehensive approaches to the nursing care of special populations, such as patients with HF. Nurses are responsible for advocacy and delivery of evidence-based care with appropriate education for the patient's transition from acute care to ambulatory care. Out of the 118 nurses who were surveyed by Albert (2013), 55% reported spending less than 15 minutes educating their patients, and the frequency of education was under the TJC expectations (Albert, 2013). Nurse-to-patient comfort level while providing education is a possible debilitating factor given the amount and the breadth of education that the patient receives. The more knowledge the nurse has, the more education the patient receives (Albert, 2013). A better educated population of patients may positively impact not only their well-being, but also that of their communities.

To make a positive social change, nurses must be committed to improving patient outcomes with quality initiatives, and dedicated to the implementation of evidence-based practice is essential to promote positive patient outcomes. The education of nurses about the newly-labeled epidemic of HF is essential to improving the health of the local community. The development of disease-specific education for nurses allows for alignment of organizational needs of monetary and resource conservation, leading to quality improvement. Nurses' comfort, confidence and knowledge of the HF disease process and self-care principals directly affects the content of patients' education and may inhibit the patients' access to available resources. The patients' knowledge of when, where, and how to seek medical attention can drastically impact their quality of life, and ultimately the patients' outcome. There are many financial and nonfinancial barriers to access to healthcare. The established associations between the patients' compliance with disease management plans, and the rate of recidivism are directly associated with the barriers to healthcare access. The reimbursement of services received by patients may be endangered due to the recidivism rate of any one facility. It is imperative that healthcare leaders address this issue with determination to make a real social change.

Summary

Patients with heart failure can improve their health outcomes, reduce their hospital readmissions, and increase their quality of life through compliance with their plans of care, but they do not always received adequate education regarding self-management. Nurses' deficits in comfort, confidence, and knowledge regarding appropriate HF self-management was the identified gap in practice I addressed in this project. The purpose of this project was to develop and standardize an educational program for nurses regarding HF disease management and patient self-care principals. The project objectives were to plan and produce the program deliverables of

the educational program materials along with plans for later implementation and evaluation. In Section 2, I discuss the guiding theory of the project, existing scholarship, the local context of the project site, and the role of the planning team.

Section 2: Background and Content

HF has a global significance for those 65 years of age and older and is the most common reason for hospitalization (Mahramus et al., 2013). There is a strong correlation between increased recidivism due to lack of proper symptom monitoring as an ambulatory patient and proper medical professional follow-up care (Mahramus, et al., 2014). Chronic HF disease manifestation takes quite a toll on the body, decreasing quality of life and, activities of daily living, and contributing to a shorter lifespan. Over 50% of the patients admitted to an acute care facility with the primary diagnosis of HF will be readmitted within 6 months (Mahramus et al., 2014). Patients with heart failure can improve their health outcomes, reduce their hospital readmissions, and increase their quality of life by complying with their plans of care, but they do not always receive adequate education regarding self-management. The guiding question of this project was: Can an education program based on the AHA HF guidelines increase nurses' comfort, confidence, and knowledge of patient self-care principles? The purpose of this project was to develop and standardize an educational program for nurses regarding HF disease management and patient self-care principles. In this section, I discussed the guiding theory of the project, existing scholarship, the local context of the project site, and the role of the planning team.

Concepts, Models, and Theories

It is essential that practitioners incorporate theory into an intervention. When developing an educational program for nurses, I included a combination of Pender's health promotion model

(HPM; McEwen & Willis, 2014), and the adult learning theory (Billings & Halstead, 2012). HPM emphasizes how individual characteristics and experiences influence behavioral outcomes (McEwen & Willis, 2014). This model reflects the interconnection between perceived actions, barriers, benefits of actions, and self-efficacy to influence an individual's level of commitment to the planned interventions, preferences, and hopefully health-promoting behavior (McEwen & Willis, 2014).

The adult learning theory focuses on "the art and science of helping adults learn," (Billings & Halstead, 2012, p. 220). Adults are more likely to have a vested interest in learning when there is a sense of personal relevance or importance (Billings & Halstead, 2012). When the goals visualized are immediate, useful, and realistic, adults perceive learning as meeting their needs (Billings & Halstead, 2012). Current behaviors can change with added knowledge. Nurses have just enough knowledge to get their tasks completed, but the key component of learning is the *why* factor and the *why* factor assists in further development in their knowledge base. Understanding how to do something, is not the same as understanding why it is being done. The difference being that if a nurse expands on the existing knowledge and behaviors by asking why, the task now becomes meaningful and has purpose to their current nursing practice. The climate for adult learners needs to involve self-direction, and useful information, that allows for them to assume responsibility for their learning and adopt it into their lifestyles.

Figure 1, show how I combined the health promotion model and adult learning theory as they pertain to nursing education provided in this project. Figure 1, shows the steps of education development and the results which consist of improved nursing education, increased patient educations, and improved quality of care received by the patient.

Practitioners' use of the HPM framework for integrating nursing and behavior science viewpoints on aspects that influence health behaviors may motivate individuals to engage in positive health behaviors (McEwen & Willis, 2014). The nurse may offer the positive influence needed to encourage the patient to adhere to a disease management plan. Without proper knowledge of the disease-process nursing would not be able to assist the patient in beneficial health behaviors. The sequential *plan-implement-evaluate* allow for the interdisciplinary team to be a part of the process to plan the individualized care plan and include all major participants in the education process.

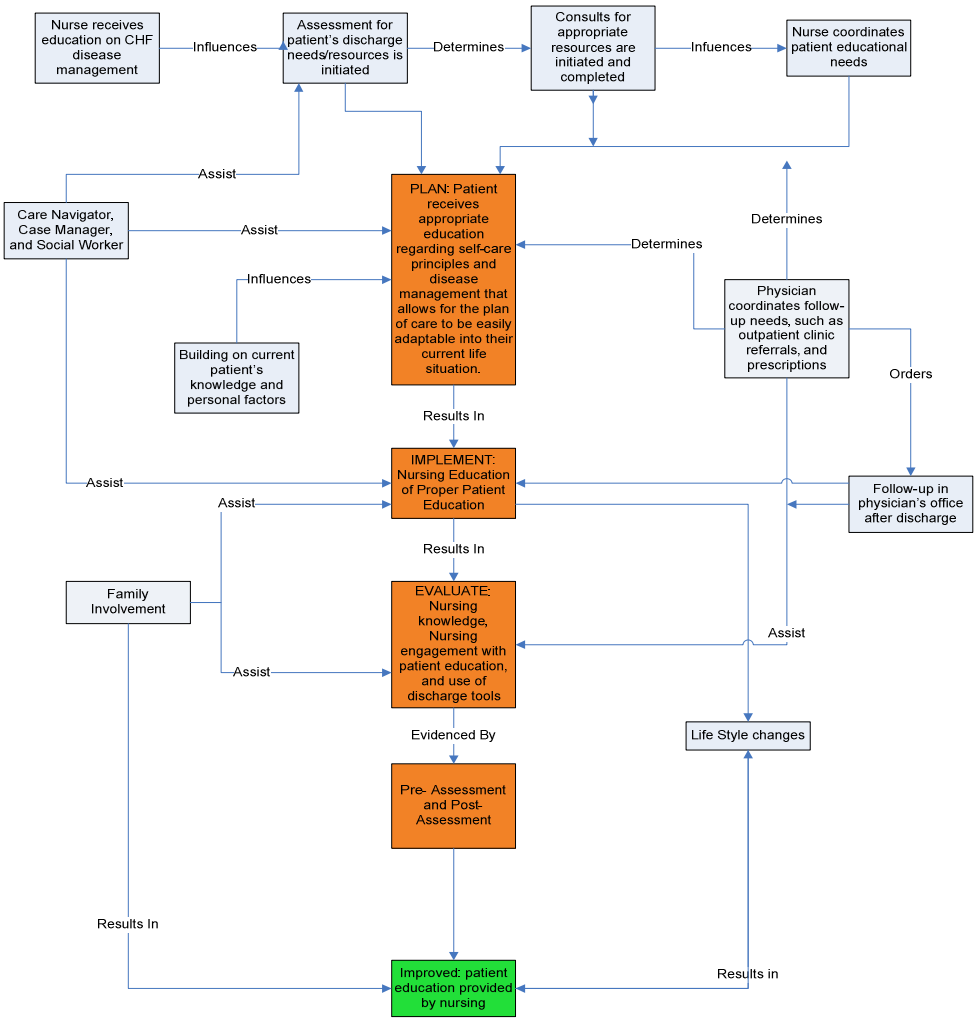


Figure 1. Concept map

Relevance to Nursing Practice

Findings in the Stern, Grossman, Migliardi, and Swallow (2014), study confirmed the conceptual premise that nurses are not knowledgeable in all health topics and that continuous educational programs to enhance comprehension and application are essential to the lifelong learning needs of the nursing profession.

The Society of Hospital Medicine published its *Implementation Guide for Improving Heart Failure Care for Hospitalized Patients*, to help organizations plan approaches to implement key interventions to improve the quality of care HF patients receive. The series of questions under Assessment 8, Education (Society of Hospital Medicine, 2015) is necessary for in-depth analysis of educational gaps and essential to the development of nursing staff education and associated resources. TJC (2015) has an advanced certification in HF that requires a program to demonstrate that it is providing care, treatment, and services according to evidence-based practice and clinical practice guidelines. The criteria and guidelines from the TJC certification can be used to assess, the amount of knowledge the nurse has in regards to the disease processes and management and to assess the care they they deliver to the patients. The assessment of the staff competence defined under the competence assessment and credentialing process includes an evaluation of orientation and training, methods for assessing competence, on-going education, in-service requirements, and relevant education and or experience (TJC, 2015). Hospital based certifications give staff a sense of pride and, empowerment, and assists with positive morale for the organization. Staff members' feelings of knowing that they were a part of the journey of accomplishment makes the experience meaningful.

During the development of this project, "We knew we needed to create an intervention that would increase the accuracy of illness beliefs" (Albert, 2013, p. 294). The outcome measures

of Albert's study of 300 nurses included the overall and topic specifics of the HF self-care management principles including those for diet, fluid restrictions, and weight gain. It is interesting that one of the key components of HF management is a professional medical follow-up, not mentioned in Albert's study in the educational points for nursing. Besides assessing the lack of education in the nursing profession, Albert's (2002) study also focused on the educational needs of the patient and whether those needs were addressed while hospitalized. The theoretical framework of Albert's study is based on the concept of self-efficacy, specifically focusing on health education involving knowledge, motivation, and behavior. Albert sought to assess the nurses' overall knowledge of basic information related to HF disease management. Using a 20 question survey, the responses ranged from 19% to 98.3 % correct.

Evidence through prior studies express how to improve nursing knowledge are limited (Mahramus et al., 2014). It is common for nurses to provide patient education and influence what patients understand about managing their care once discharged from an acute care facility (Mahramus et al., 2013). Studies have shown that nurses from acute-care facilities had less than adequate knowledge of HF self-care principles (Mahramus et al., 2013). The knowledge gap created by nurses' inadequate knowledge of the patient self-care principles leads to neglect of critical, information relayed to the patient, in turn, causing noncompliance and re-hospitalization of the improperly educated patients (Mahramus et al., 2013). For the 250 nurses that attended one of the eight identical educational sessions, 71% was the mean score on the post-test. The lack of nurses' knowledge in the same key areas addressed in other studies such as blood pressure, HF exacerbations, fluid retention, dietary and medication restrictions, and symptom management were replicated in Mahramus' (2014) study; however, this study did include notification of the health care provider. The researchers concluded that there is a huge

knowledge deficit in these areas, and that there is substantial need for a comprehensive educational program and regular reinforcement of these HF self-care management principles (Mahramus et al., 2014).

It is imperative that nurses understand that their actions have repercussions and can affect more than just their task-oriented shift. Thus, the importance of adding this information into the nurse educational session. The direct and indirect costs of HF in the United States in 2006, was estimated to be nearly $29.6 billion dollars, mostly due to hospitalizations (AHA, 2013). HF accounted for more than 800,000 hospitalizations a year, with over two-thirds of them being preventable (Willette et al., 2007). A focus on patient education can lead to increased adherence and detection of body changes or clinical status at an earlier stage in an HF exacerbation. Without the proper education provided by the nursing staff, patient education is sub-optimal and may not prevent future hospitalizations (Willette et al., 2007). In Willette et al.'s (2007) study of nurses' knowledge of HF self-care management principles focusing on the signs and symptoms, diet, fluid management, medications, and exercise, the mean post-test score was 76%. Guidelines including those from the American College of Cardiology, AHA, and the Heart Failure Society of America recommend that all HF patients receive education and individualized counseling by the interdisciplinary team before discharge, (Willette, et al., 2007). Unfortunately, due to time constraints most healthcare providers, including nurses, have moved away from one-on-one teachings, and have resorted to using videos, written materials, and other teaching devices (Willette et al., 2007). The increasing prevalence of HF demonstrates the need for providers to get back to the basics need to be and provide patients with high-quality, accurate information that will help them to understand the proper parameters for when to seek medical attention and what interventions to follow after discharge (Wilmette et al., 2007).

For nurses to use health information technology effectively, patient information must be accurately recorded into the electronic health record. Quality intiatives that integrate care across settings involve providing proper care management, discharge planning as early as the time of hospital admission, patient and family education on how to manage condition, and inctruction at a level that the patients and families can understand. Maintainence of a "lifeline" is indispensable for high risk patients with continuing services or referral to HF clinic. Such lifelines align community providers with hospitals to ensure a smoother transition of care (Silow-Carroll, Edwards, & Lashbrook, 2011). The common theme in all the research located within this project was that nursing must be able to apply their knowledge of HF when educating patients and ensure complete understanding of the self-care principles to create positive outcomes and decrease readmissions.

Local Background and Context

The target population of patients, located in Lucas County Ohio, 18% of the community rated their overall health as poor, with 61% consumers surveyed, stating they were not within good physical health within the last 30 days and 36% lack of medical care due to cost of seeing a physician when sick, injured, or other need for health care (Healthy Lucas County, 2014). Therefore, the compliance rate for medical follow-up is very low. The prevalence of heart disease in Lucas County is 28% of all mortalities (Healthy Lucas County). The project's local community is currently ranked on average an estimated 5% higher in all cardiac related categories (angina, hypertension, heart attack, cardiovascular disease), except cholesterol within the overall state population (ODH, 2015). Although the 30-day readmission rate for this facility ranks lower than the national average, the 11 hospitals in the site's healthcare system have a readmission rate above the CMS required a rate of 21.9% (CMS, 2017). Patients with HF at the

multiple locations within the project site organization have received inadequate education from nurses regarding self-management and the information provided has lacked a standardized approach as demonstrated by Appendix B.

State and Federal policies and funded insurance programs are directly affected by the cost of the healthcare for this specific population. CMS has mandated readmission penalties to facilities with readmission rates above the national average up to 3% of all Medicare claims for the specified reporting period. The increasing cost of healthcare, plus the added number of new HF cases yearly are compounding the need for community-based and hospital-based HF clinics and educational programs. Evidence-based practice interventions such as proper follow-up with health care providers, providing access to these providers is a key issue for this population, especially since 50% of the home care population has an HF diagnosis (Albert, 2012). A recent CMS quality of care strategy (CMS, 2016) is affecting the way the nation delivers health care, the resources allocated to the patients, and the costs incurred for those services. At the beginning of 2017, the project facility responded to this CMS initiative by forming a Heart Failure Clinic Population Health Work Plan which led to the creation of a System Approach to Management of Heart Failure Team. To strengthen the continuum of care for HF patients, the management team's assessment identified the need for an education program for nurses regarding HF self-management. Education provided to nursing staff will contribute to the documentation required as the project facility applies for Heart Failure Certification recognition, which requires documentation of the dedication of the facility to care for this disease-specific population.

The implications resulting from the lack of education to the patients from the nursing staff could increase readmissions to the facilities, decreased quality of life for patients, decrease physician follow-up, decrease medication compliance, and decrease the likelihood of positive

patient outcomes. On a global spectrum, the community as a whole could continue to deteriorate at a rate more than the average of 2% every three years, (Healthy Lucas County, 2014). The healthcare organization potentially could reach the penalty range of readmissions from CMS which could result in a decrease in all Medicare claims payments up to 3%, that's all Medicare claims, not just for heart failure patients (CMS, 2017). Another area of concern is the recognition of private insurance companies following suit with CMS, and not reimbursing hospitals at all for readmissions for HF within a certain time frame. Lack of reimbursement will affect the ability of hospitals to budget for staff, supplies, and other resources accurately.

The project site's mission described as improving the health and well-being of our patients, with values of compassion, innovation, teamwork, and innovation. The healthcare realm is constantly changing and to adapt to these changes innovation must be maintained to keep up with the needs of the consumer. The staff must also stay in tuned to the needs of their patients/families, and be knowledgeable in evidence-based practices. The need to be a life-long learner and professional student is greater now than ever before. The application of education at the bedside is essential to the foundation of the healthcare provided to the patients.

Role of the DNP Student

I am a natural born leader, I am well-respected by my peers and have great ideas that involve the team of operations, not just of the leadership or administration. There are two key concepts that the DNP journey has helped me develop: (1) leaders are within individuals not within titles, and that key leaders are going to be willing to make the changes to incorporate the best care for the patients; (2) the development of teams within the organization- to make them diverseand interprofessional, and to ensure that the right people are at the table to implement and hold others accountable for their actions. The development of my doctoral project comes from

the death of my mother from HF. Heart Failure education is an area that I felt that I could make a change for the better and help my profession at a patient care level. I am not inpatient care at this time; I am the Heart and Vascular Quality Specialist for the healthcare system. As a professional nurse, I use evidence-based practice in my everyday practice, thus providing my peers with great opportunities to evolve the care provided to our patients. During this experience, I have been able to create policies, procedures, and practice changes that I would have never been introduced to otherwise. I have been able to develop leadership skills, working relationships with directors, administration, and other peers as well as, sharpening my critical thinking abilities, and team building. The whole process of this program has been an enlightening journey, which I cannot wait to explore what the world has out there for the DNP and the future of the nursing profession. I would love to continue to grow my role here at my facility as a Quality Specialist as well as mentor other students, and maybe teach at a local university.

Role of the Project Team

The project team of experts assisted the DNP student in obtaining the project objectives by team collaboration and concluded consensus. The project team served as a very insightful group in the development of the education program. This team was essential to the DNP project from the beginning, and offered constructive feedback to the DNP student; from which further professional and educational development occurred. The ability of the team to collaborate on the needs of the education and how to reach our target audience provided a huge impact on the final product produced. The process that the team follow was an agenda and planning schedule based on sections of the education reviewed in each session of the group meetings. This process allowed for adjustments to be made as the project progressed, instead of waiting to edit all at

once, which was a huge time saver. The information provided to the team was transcribed through various types of media such as emails, group text messages, and follow-up summaries, reviewed at each group session. The development of open dialogue and a list of items to follow-up on at a latter time helped the team stay focused, and allowed for each team member to share their specialty area expertise and insight. The follow-up issues were reviewed at the end of each session, allowing for clarification of areas of action, follow-up, and additional questions. The ability of the team to build on team member's strengths was encouraging and professionally challenging, especially when you had opposing views. The opposing views posted for clarification with literature review and physician expert consensus. Each section developed within a two-week timeframe for a completed project in 4 sessions or 2 months. The team met every other week for 2-hour sessions at each time to allow ample time for brainstorming, agenda review, questions, action items, and follow-up questions. The sesions were devised based on areas of expertise: staff roll-out (Staff Development); content (literature review and staff development); and implementation (leadership).

Summary

The planned of the education program for nursing addressed the identified gap of nurses' deficits in comfort, confidence, and knowledge regarding appropriate HF self-management. The purpose of this project was to develop and standardize an educational program for nurses regarding HF disease management and patient self-care principles. Section 3 will describe how a team of facility experts developed the educational program and standardized for the needs of the project facility care sites.

Section 3: Methodology

Nursing education about congestive heart failure disease management has shown a positive correlated to the education provided to patients upon discharge from an acute care setting (Albert, 2013). Nurses' ability to adequately address HF self-care management principles needed for compliance with the ambulatory world is essential to reduce readmissions, improve outcomes, and quality of life. Based on Pender's health promotion model and adult learning theory, an educational program about congestive heart failure disease management and the key points of HF self-management principles will help nurses' confidence, comfort and increase the knowledge nurses need to provide the education their patients need.

The purpose of this project was to plan the development and standardization an educational program for nurses regarding HF disease management and HF self-care management principles. The goal of this planned educational program is to increase nurses' knowledge and understanding of HF disease management and HF self-care management principles. My project objective was to plan an educational program, for nurses providing direct bedside care, to educate the nurses on, HF disease, and its stages, HF disease management, self-care principles, and resources available that are necessary to achieve optimal patient outcomes. The team I assembled was committed to the project as evidenced by its members' dedication to attending meeting sessions and constructively offering critical feedback. This project also help develop professional relationships, expand networking opportunities, and promote professional development on an individual basis. This team consisted of physicians, care navigation, senior leaders and directors of essential programs such cardiac rehab, telemedicine, and home health care. The vast variety of experts involved in the team contributed to the well-rounded overall project deliverables related to the education program.

Practice-focused Question

The gap in practice I identified was nurses' lack of comfort, confidence, and knowledge of HF self-care principles and ambulatory resources. In conjunction with a team of experts, I developed an education program for direct care nursing staff to eliminate this knowledge deficit. By comparing and synthesizing HF disease management and educational guidelines put in place by our governing bodies, the team and I were able to develop a plan for this educational program.

Sources of Evidence

Bloom's Taxonomy, according to Robert and Petersen (2013), defines knowledge as the lowest level of learning within the cognitive domain; however, knowledge is followed by comprehension which is the grasping of the concept meaning. After there is success with comprehension, there is application, the ability to apply the new material in new areas (Robert & Petersen, 2013). Professional nursing vigilance leads to an informed nursing action including assessment diagnosis and intervention (Robert & Petersen, 2013). I developed the educational program to address the nurses' comfort level in providing patient education, and the quality of the education they give the patient. The HPM and adult learning theory framework for quality assessment were instrumental in guiding development of this intervention. Use of user-friendly concepts when planning education helps individuals to see the meaning behind the presentation and how they can relate it into their current practice (Agency for Healthcare Research and Quality [AHRQ], n. d.). The AHRQ's 6 domains of health care quality are: safe, effective, patient-centered, timely, efficient, and equitable; these words define the characteristics behind the education program developed. All domains are addressed in the HPM and were part of the planning process for this educational program.

Development of this educational program plan included a review of the HG guidelines for CMS, TJC, and AHA. The target audience will be: direct care nurses, care navigators, discharge planners, ambulatory caregivers, HF clinic staff, nursing leadership, and unit directors; who are involved in educating patients. My plan for proposed deliverables including existing resources will also include IT department and staff development. The timeframe for this DNP project was limited to the planning and development of the program; however, the stakeholders were completely involved and knowledgeable of the program implementation and evaluation plan to be carried out after program development completion.

Analysis and Synthesis

The planning stage of this educational program consisted of several sessions with the educational development team comprising: nursing leaders, nurse educators, and HF nurse practitioner, a social worker, direct care nursing staff, and a care navigation representative. Existing research, potential educational tools, deliverables, and suggested timelines for dissemination and implementation were all mapped out by the team. As the project leader I kept notes of all research, team homework, planning, scheduling, and feedback. I developed an initial draft of the education program and presented it to the team for feedback. This project included key individuals who will be essential to the implementation, and evaluation of the educational program. This planning process allowed for a complete review of each element and deliverable by the team for constructive feedback, and suggestions.

The implementation of this educational program will include nurse leaders, care navigators, social workers, discharge planners, direct care staff nurses, patient and their families. The team will devise a comprehensive plan to ensure that all staff are aware of the educational program and offer off-shift education time for the staff to participate in the program as part of the

dissemination and implementation. The care navigators, social workers, and discharge planners will be intimately involved in the implementation of the education program to help ensure a multidisciplinary team approach. Also, they will help with the education of nursing to identify the barriers to implementation of the care plan, based on their professional and life experiences. The direct care staff nurses will then take their new found knowledge and comprehension and incorporate it into their daily practice. One of the main essentials to incorporating any patient education into nursing practice is ensuring that the patient's and their families are in a cohesive learning environment, free of distractions and expresses readiness to learn.

Evaluation of the program is key, and the plan for evaluation is to utilize the process of the plan, do, check, and act cycle (Balanced Report Card Institute, 2017). This cycle is vital to the success of any new initiative in all stages from planning to implementation to evaluation. The purpose of assessment and evaluation of an educational program is to ensure that the students (in this project, nursing staff) have been able to achieve their program objectives and have acquired the knowledge, skills, and ability to apply these new skills within their daily practice (Billings & Halstead, 2012). Evaluation is a continuous process for the educator and the students (Billings & Halstead, 2012).

For this program, the evaluation plan will be summative to allow for determination of effectiveness, appraisal of outcomes, and planning of appropriate revisions to the program for improved outcomes (see Billings & Halstead, 2012). The pre-assessment/post-assessment of nursing knowledge of heart failure patient education principles (Albert et al., 2002) has been used for evaluation of the program after the implementation of the education program (see Appendix C). The pre-assessment authenticated by Albert, has been utilized in various studies with complete validity; the quality assessment survey created by the student (5 questions built

using the Likert scale to ensure validity of response on a scale from 1 to 5); will address the level of confidence and comfort level of the nurse in providing education to the patients (see Appendix D). The answers to the pre-assessment and pre-quality assessment survey completed before the start of the educational program will serve as a baseline for the evaluation process after the educational session.

The outcomes of the program will be assessed by the post-test and evaluation; post-test results will be compared to the pre-test results to see if there was any improvement. A quality assessment survey will serve as a review of the comfort and confidence level of the nurse providing the education to the patient and their perception of the quality of the education they are giving to their patients (see Appendix D). If there are individual concerns that arise during this evaluation, the session leader will provide *just in time* coaching, which is education on an individual basis at the time when the event occurs.

At the completion of the project, a summative committee review will occur with all changes and constructive feedback taken into consideration. The final evaluation will include reflective comments involving the student's skill level in project management, the evolution of processes, and leadership (see Appendix C).

Summary

The purpose of this project was to plan and standardize an educational program for nurses regarding HF disease management and patient self-care principles. The education program planned by a team of experts, guided by a project leader, and based on evidence-based guidelines; included a review of each element and deliverables by the team for constructive feedback and suggestions.

Section 4: Findings and Recommendations

The identified gap in practice is that key patient self-care principles are not understood by direct care nurses at my project site; therefore, resulting in patients' lack of understanding on how to treat and manage their HF disease once discharged from the hospital. The HF Self-Care Principles educational program will provide information to the direct care nursing staff and will emphasize important factors regarding education of patients with HF self-care principles. After implementation of the education, the staff should report increased comfort and confidence levels for educating patients and increased knowledge of HF self-management. The purpose of this project was the development and standardization of an educational program for nurses about HF disease management and patient self-management principles. Based on the literature review and input from a team of experts, I was able to develop the educational program.

Findings

The planning team consisted of two physicians, the VP of clinical operations, three nurse practitioners, one care navigator, one quality specialist (project leader), and one home health nurse. This team met monthly for 6 months for 1.5-hour sessions. The planning process consisted of two phases: conducting the initial assessment of existing nursing education materials (see Appendix B) followed by the development of the educational program (see Appendix E) that incorporated the educational objectives in the referenced literature, and the HF management guidelines provided by TJC, and the AHA. I was responsible for facilitating all sessions, preparing agendas, reviewing minutes, and leading activities. All team members familiarized themselves with the evidence-based practice guidelines and recommended staff education before the sessions. The plan-do-check-act model was initiated at the beginning of every session to provide analysis of progression and identify potential barriers to the educational program. The team developed a list of follow-up questions/concerns during the sessions to address at the end of

the session, with a 5-minute time limit. All outstanding items were addressed with communication between team members during the time before the next session. A review of completed actions reflected in the minutes also allowed for clarification and additional action items that would be addressed at the next session.

In the first planning session, the team established session timelines, identified educational program dissemination options, and discussed the involvement of the stakeholders. In this session, I clarified the purpose of the project, program goal, project objectives, and team member roles and responsibilities (see Appendix C). During the first monthly session, the team brainstormed educational goals and objectives, highlighting each of the key areas of education needed for the nurses. Identification of gaps and duplication of processes and resources, development of support to mitigate gaps and standardize definitions and processes of HF self-care were the main focus of this team. During these sessions it was discovered that (a) all units were educating their staff with different materials, (b) there was lack of computer access to tutorials, (c) there was insufficient educational information available in the units, and (d) there was no time allocated to train staff on how to educate patients. The team recognized that the place to start was with the basic information that would be available to all nurses on all units.

The design phase, which occurred during the second and third sessions consisted of building the framework for the educational program. The culmination of the literature review was the organization of HF self-management into the six domains of the CMS (2016) quality strategy (see Table 1). I presented this resulting table, along with completed metrics derived from CMS (2016) Consensus Core Set Cardiovascular Measures (see Appendix G) to the team for discussion and incorporation into the program planning.

Table 1. The Six Domains Comparison to Education.

The Six Domains	Approaches of Education
"Making care safer by reducing the harm caused in the delivery of care"	Providing accurate information to the patient/families/caregivers, etc.
"Ensuring that each person and family is engaged as partners in their care"	Ensuring that patients/caregivers, etc. are educated.
"Promoting effective communication and coordination of care"	Interdisciplinary teams providing the same education (standardization)
"Promoting the most effective prevention and treatment practices for the leading causes of mortality, starting with cardiovascular disease"	Educating healthcare professionals to properly educate the consumer in regards to disease management and treatment options.
"Working with communities to promote wide use of best practices to enable healthy living"	Educating the community about the resources available to assist with prevention and symptom management.
"Making quality of care more affordable for individuals, families, employers, governments, and communities by developing and spreading new healthcare delivery methods"	Modifying education to meet the needs of the consumer, and technological advances.

(CMS Quality Strategy, 2016)

Sessions four and five were spent reviewing the final program product to identify and address potential problems related to the implementation of the education. Some adaptations were made to meet the needs of individual settings and facilities, including a second face-to-face strategy in addition to computer-assisted delivery. I edited the presentation slides to achieve optimum length with a talking point approach and identification of key points (see Appendix J). The team agreed on the developed program, the main educational points, key elements for the presentations and locations for delivery and evaluation testing.

Minutes from planning meetings are shown in Appendix C. Participants commented that the HF education program was long overdue within the organization as a whole, the ability to start with one facility then expand to others within the healthcare system is a great opportunity that will help improve health within our community, and ultimately our consumer base. Team members completed a project evaluation was completed at the conclusion of the planning

sessions (see Appendix C). Seven project evaluations were completed and all respondents chose *agreed or strongly agreed* in response to questions regarding the effectiveness of the project, its planning and the leader (see Appendix C).

Implications

The planning sessions resulted in the development of an education program for staff regarding self-management principles for patients with HF. Standardized education will have a ripple effect (Figure 2) across the entire organization. Starting with the small individualized hospital units and advancing outside the hospital walls to include the case managers, provider offices, skilled nursing facilities, and home healthcare staff to all deliver the same education to the community. The implementation and delivery of this program throughout the organization has the potential to positively impact the HF patients and the local community. The ability of something so small to have such a huge impact is the cornerstone of how innovation gains positive outcomes.

In respect to organizational processes, the ripple effect demonstrates the balance between top-down and bottom-up processes that work together to encourage engagement within the organization and the flexibility to manage as needed to achieve the organizational goals and objectives, ultimately improving the healthcare delivered to patients (McAlearney et al., 2014). The standardization of the education that nursing staff receives will increase nurses' awareness of the condition, assist with further professional growth within their nursing practice, and allow for the patient to receive the same message throughout the continuum of care. These in turn, creates memories and understanding of the disease management process. The gap in practice is huge when comparing healthcare facility to outpatient resource departments; I developed this project to bridge that gap into a cohesive, standardized message.

Figure 2. Ripple Effect.

Potential implications for positive social change are:

- Individual units Teach back method used at discharge, that will adequately address the fundamentals of the self-care principals for HF disease management.
- Hospitals/facilities - Reduction of 30 days readmission rates and increased standardization of educational practices for staff and patients.
- Healthcare system - Reduction of fragmentation of patient experience and support of targeted process improvement.
- Ambulatory care (physician offices, home health care, skilled nursing facilities, etc.) – Medication reconciliation occurring at discharge, increased percentage of patients with scheduled follow-up care for post-discharge and leverage of use of the electronic health record to assist in the identification of gaps and duplication of processes.

Recommendations

My primary recommendation is to make the key points of HF patient education available to all nurses. As direced by the educational program learning objectives, the nurse should be able to do all of the following before educating a patient prior to discharge:

- Discuss the definition of HF.
- Discuss guideline-directed medical therapy.
- Describe current dietary guidelines for managing heart failure.
- Explain the warning signs and symptoms of congestive HF.
- List available resources within the facility and the community for out-patient and follow-up care.
- Understand the multidisciplinary approach to disease management and treatment of HF.

The complete education presentation is shown in Appendix J. The evaluation of the program learning objectives is summative and subjective. The nurse's ability to educate appropriately should be reviewed through observation, as this was a recommendation from the team; however with scarce resources team members determined that a different approach was necessary.

The creation of the Quality Assessment Survey for Comfort and Confidence would allow for baseline data before the educational program, and then for a reflective view of the program to determine if there were any gains. This assessment would allow for the nurses to assess their current comfort and confidence levels when educating a patient. The team discussed that comfort and confidence would not always be immediate, this survey is intended to see if the nurses received information to give them the extra boost.

The evaluation approach based on post-assessment test scores, review of case study scenarios, and nurses evaluation of the program as a whole validates the overall quality of the program. The information is relevant, concise, literature-based, and the added learner input for future improvements to the program demonstrates the ability to adapt to changes quickly and reinforce the education within everyday practice.

Secondary product recommendations produced during the team sessions were corrections/additions incorporated into the HF management order set used in the electronic medical record. This order set was reviewed and updated during the sessions to include the following:

- Orders for discharge planning, cardiac rehabiliation evaluation, discharge referral to ambulatory heart failure clinic, and patient education
    - Patient education for heart failure: Prior to discharge, provide patient with written HF education which includes diet, activity, weight monitoring, when to contact physician with worsening symptoms, smoking cessation, medications, information regarding the Heart Failure Clinic and available community resources.

Implementation Plan

The developed HF self-management educational program reviewed by the VP of clinical outcomes and deemed a mandatory education for all nursing staff within the facility. Nursing managers will be notified and given a deadline for all nursing staff to complete all sections of the program, Pre-test, educational session, post-test, and program evaluation, to receive a certification of completion.

Classrooms will be available for eLearning sessions, equipped with computers for access to the education materials, sign-in and sign-out tracking, evaluations, and capability to generate a printable certificate of completion to be turned into their nursing director. It is the recommendation of the team that this to be completed by all nursing within 90 days of when the education becomes available with an 85% or higher score on the post-test to secure a competent understanding of the material. If the required completion rate within two attempts, is not

obtained, then the nurse will be asked to review the educational session with the unit leader one-on-one question and answer time. The ability to hold staff accountable for education is necessary to meet the goals of quality patient education prior to discharge.

Evaluation Plan

Evaluation of learning begins with the assessment of current knowledge through a pre-test to bring the lack of knowledge in HF self-care principles to the forefront and allow leadership to gain knowledge of current knowledge level. The Pre-Assessment/Post-Assessment of Nursing Knowledge of Heart Failure Patient Education Principles (Albert, et al., 2002) was chosen as the pre-test/post-test assessment tool (see Appendix A) and the use of the same tool for both pre and post-test allows for question analysis. The insight gained through question analysis will assess for identify program improvement needs and allow for on-the-spot education for the staff at the review of the test, followed by a change in the educational program if warranted by the trend analysis conclusion.

To capture the nurses' perspective of the program, the Continuing Education Program Evaluation Tool (see Appendix H) used for this organization was tailored to meet the needs of this educational program. This evaluation tool utilized within the organization for all its continuing education programs. The results will provide the opinion of the staff nurses who are attending the program regarding, constructive feedback, program ideas, and future topics for training. The quality specialist and two staff nurses will monitor the results of the post-test question analysis and the results of the organizational evaluation tool. When dissemination is complete throughout the project facility, the evaluation information results to the planning team, for consideration of revisions to the HF education program.

The planning team added evaluation of patient outcomes through the examination of HF patients' discharge appointments and readmissions. These data are routinely gathered by the project facility (Appendix H and J) through a monthly tracking system. Previously existing processes monitor these data for compliance with the interdisciplinary care team's involvement at discharge for non-fragmented transition back into the ambulatory setting (home with out-patient care services). Future examination of this data allows for the determination of how the HF education applied to current practice.

The Contribution of the Doctoral Project Team

The ability of the planning team to work cohesively was not difficult due to shared common goals: educate, reduce costs, reduce resources spending, and provide quality care, and at the end have positive patient outcomes and improved quality of life. The team roles were listed by areas that they represented, demonstrated in the session minutes. The roles of the team were segregated by the ability to reach certain audiences, such as in-patient care setting, out-patient care navigation, physician support/education, telehealth program, and other areas, as documented in the team minutes. All decisions about the word choices, what to include in the education was approved by the team, as a group, and any concerns were rectified before final project production. At the conclusion of the education program development, discussions of dissemination occurred to ensure that all areas were addressed. The team agreed that each facility's dissemination plan could be similar, but adaptable to meet the needs of that specific facility within our healthcare organization.

Strengths and Limitations

The main strength of this project viewed across the members of the project team was the destruction of the silos put in place by the culture of the facility. Within the first facility, the

amount of culture change that has occurred in the last year has been amazing, which allowed for the acceptance of new leadership and new information. It is the perfect time to roll-out new educational standards for the facility's direct care nursing staff. Thus, with the continued change in leadership throughout the healthcare system, this will allow for the expansion of the culture change and the perceived success of the new education program.

We are in constant battle with the ability to help our fellow nursing professionals to build on their existing knowledge, and change their nursing practice to reflect evidenced-based best practice. Due to the nursing silos that have not yet adapted to the culture change within our facility, one may fear that this will hinder the acceptance of the new education program and standardization efforts. However, with the backing of senior leadership and the Chief Nursing Officers, this will help eliminate this barrier and force conformity.

The facilities recently switched electronic medical record software systems, which is an unanticipated limitation due to knowledge deficit of where to locate educational resources within the system. During this project, it was discovered that there was a pilot program with another software company to provide "on-demand" education via tablets enabling the start of education upon admission to the facility. The project has not expanded to the facility or system-wide utilization as of yet, for lack of technical support, resources to (tablets, software licenses), nor staff resources for deployment of the program and individualized for each patient's needs. The competing nature of the silos holds true in the case. However, I have been added to the other project team to assist with the streamlining process.

Section 5: Dissemination Plan and Analysis of Self

The ability to identify one's strength and weaknesses within a team environment is essential to self-awareness and professional growth. The ability to develop a project with a

completed dissemination plan is complementary to the success of the team and the project manager.

Dissemination Plan

I will present the educational program plan to the chief nursing officers committee which consists of every chief nursing officer (CNO; 13 total), within our healthcare system for implementation consideration. In preparation for this session, the project leader has met and discussed this program with two of the 13 CNO's at length to prepare for questions and literature review analysis. The CNOs provided feedback that I incorporated into the presentation of the dissemination program. The presentation will occur sometime soon.

Again, to achieve the top-down management backing of administration the target audiences for this presentation will be the CNO committee and the nursing educators for the facilities within the organization. Supporting the same message and same cultural changes within leadership and the staff will show a more confident message of delivery and buy-in from the nursing staff. For the presentation, it is imperative that I to express the *why* and describe the current state of the nursing education. We will not be able to affect the change needed for the health of the community without changing within ourselves first.

During the dissemination process, I will display this project at the healthcare system's annual nursing research conference, and potentially at the 2019 National Data Repository Conference in New Orleans, Louisiana.

Analysis of Self

The role of a practitioner is to ensure that we are giving our patients the tools needed to be successful when not in our care. The practitioners' ability to assist in the development of peer education invites life-long learning and promotes prevention and management of the disease. As

a practitioner, I have a professional responsibility to practice evidence-based best practice and ensure that we are providing quality care to our patient that will allow for positive outcomes and improve quality of life.

As a scholar, my ability to determine which literature will enhance our profession, and to introduce new research at the bedside is an essential component to improving care at the bedside.

In my role as the project manager for this team, determining the interworking of the team members was essential to the success of the project. The leader of a team does not need to be the master of all knowledge, but must involve the team members to allow for all the different areas to be represented, leading to project success. Serving as the project lead, enhanced my skills in inter/intra-communications with senior leadership, middle management, and direct care staff working together for a common cause. This project was a great experience.

As for long-term professional goals, my ability to influence the profession of nursing through the inclusion of evidence-based practice at the bedside, introduction of quality of care metric education to the unit levels, and forging of accountability partnership with educators, leaders, and direct care nurses is essential to improve patient outcomes.

The completion of this project was challenging in the sense of gaining consensus on the information to present to the nurses. Some team members wanted the entire anatomy and disease progression in the education, others just wanted what was needed for the patient; thus, the compromise of simple background, focus on the recommended treatment and prevention, and patient education. The delay in the completing this project, allowed for me to further develop negotiating skills, and conduct additional literature reviews. Within the additional review of internal documents, it was easier to determine the areas of education lapses, and the silos that were otherwise not acknowledged.

The scholarly journey that this program has allowed me to travel has been tense, stressful, and abundantly filled with information; however, the learning experience would not have been the same without the hurdles. This educational journey has been life-changing, and a significant enhancement to my professional practice, and career.

Summary

My goal in this project was to raise awareness of the lack of knowledge of HF disease management and patient self-care principles. I developed a standardized nursing education program that may be disseminated throughout the healthcare system. The buy-in from all facilities leadership confirmed the essential need for nursing staff education. Providing this education to the nursing staff will also increase the education received by the patients because we teach what we know.

References

Agency for Healthcare research and quality. (n.d). The six domains of health care quality. Retrieved from https://cahps.ahrq.gov/consumer-reporting/talking quality/create/six domains/HTML

Albert, N. (2013, July). Parallel paths to improve heart failure outcomes: Evidence matters. *American Journal of Critical Care*, *22*(4), 289-296. http://dx.doi.org/10.4037/ajcc2013212

Albert, N., Collier, S., Sumodi, V., Wilkinson, S., Hammel, J., & Volpat, L. (2002). Nurses' knowledge of heart failure education principals. *Heart and Lung*, *31*(2), 102-112.

American Heart Association. (2013). ACC/AHA guidelines for management of patients with heart failure. Retrieved from http://circ.ahajournals.org/content/128/16/e240.full

Balanced Report Card Institute. (2017) http://www.balancedscorecard.org/BSC-Basics/Articles-Videos/The-Deming-Cycle

Billings, D. M., & Halstead, J. A. (2012). *Teaching in nursing: A guide for faculty* (4th ed.). St. Louis, MI: Elsevier Saunders.

Centers for Medicare and Medicaid Services (CMS). (2017). Readmissions Reduction Program (HRRP). Retrieved from https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/Readmissions-Reduction-Program.html

Centers for Medicare and Medicaid Services (CMS). (2016). CMS Quality Strategy. Retrieved fromhttps://www.cms.gov

Fowler, S. (2012, February). Improving community health nurses' knowledge of heart failure education principles. *Home Healthcare Nurse*, *30*(2), 91-99. http://dx.doi.org/10.1097/NHH.0b013e318242c5c7

Grossman, S. C., & Valiga, T. M. (2009). *The new leadership challenge: Creating the future of nursing* (3rd ed.). Philadelphia, PA: F. A. Davis Company.

Hart, P. L., Spiva, L., & Kimble, L. (2011, November). Nurses' knowledge of heart failure education principles surveys: A psychometric study. *Journal of Clinical Nursing*, 20(21/22), 3020-3028. http://dx.doi.org/10.1111/j.1365-2702.2011.03717.x

Healthy Lucas County. (2014). 2014 Lucas County, Ohio Health Assessment Project. Retrieved from www.hcno.org/pdf/counties/lucascounty2014healthassessment.pdf

Joint Commission. (2016). www.jointcommission.org

Mahramus, T., Aragon, D., Frewin, S., Chamberlain, L., & Sole, M. (2014). Assessment of an educational intervention on nurses' knowledge and retention of heart failure self-care principles and the teach-back method. *Heart & Lung*, *43*(), 204-212. http://dx.doi.org/10.1016/j.hrtlng.2013.11.012

Mahramus, T., Penoyer, D., Sole, M., Wilson, D., Chamberlain, L., & Warrington, W. (2013, July/August). Clinical nurse specialist assessment of nurses' knowledge of heart failure. *Clinical Nurse Specialist*, 198-204. http://dx.doi.org/10.1097/NURS.0b013e3182955735

McAlearney, A., Terris, D., Hardacre, J., Spurgeon, P., Brown, C., Baumgart, A., Nystrom, M. (2014). Organizational coherence in health care organizations: Conceptual guidance to facilitate quality improvement and organizational change. *Quality Management Health Care*, 23 (4), 254-267.

McEwen, M., & Willis, E. (2014). *The theoretical basis for nursing* (4th ed.). Philadelphia, PA: Wolters Kluwer Health.

Ohio Department of Health. (2015). 2013-2014 Lucas county health status assessment report. Retrieved from http://www.hcno.org/pdf/counties/Lucas2014PPT.pdf

Robert, R., & Petersen, S. (2013, March/April). Critical thinking at the bedside: Providing safe passage to patients. *MedSurg Nursing*, *22*(2), 85-93, 118. Retrieved from www.WaldenuLibrary.edu/CINAHL Database

Silow-Carroll, S., Edwards, J., & Lashbrook, A. (2011, April). Reducing hospital readmissions: Lessons from top-performing hospitals. *The Commonwealth Fund*, *5*(), 1-11. Retrieved from http://www.commonwealthfund.org/~/media/Files/Publications/Case%20Study/2011/Apr/1473_SilowCarroll_readmissions_synthesis_web_version.pdf

Society of Hospital Medicine. (2015). Implementation guide fro improving heart failure care for hospitalized patients. Retrieved from: http://www.hopitalmedicine.org

Sterne, P., Grossman, S., Migliardi, J., & Swallow, A. (2014, September/October). Nurses' knowledge of heart failure: Implications for decreasing 30-day re-admission rates. *MedSurg Nursing*, *23*(5), 321-329. Retrieved from Walden Database CINAHL Database Full Text

Washburn, S., & Hornberger, C. (2008, June). Nurse educator guidelines for management of heart failure. *The Journal of Continuing Education in Nursing*, *39*(6), 263-267. http://dx.doi.org/10.3928/00220124-20080601-10

Willette, E., Surrells, D., Davis, L., & Bush, C. (2007). Nurses' knowledge of heart failure self-management. *Progress in Cardiovascular Nursing*, 190-195. Retrieved from www.WaldenuLibrary.edu/CINAHL Database

Appendix A: Pre- and Posttest
Nursing Knowledge of Heart Failure Patient Education Principles

Please circle your answer (True or False)

1. Patients with HF should drink plenty of fluids each day. True or False

2. As long as no salt is added to foods, there are no dietary restrictions for patients with HF. True or False

3. Coughing and nausea/poor appetite are common symptoms of advanced HF. True or False

4. Patients with CHF should decrease activity and most forms of active exercise should be avoided. True or False

5. If the patient gains more than 3 pounds in 48 hours without other HF symptoms, they should not be concerned. True or False

6. Swelling of the abdomen may indicate retention of excess fluid due to worsening HF. True or False

7. If patients take their medication as directed and follow the suggested lifestyle modifications, their HF condition will not return. True or False

8. When patients have aches and pains, aspirin and non-steroidal anti-inflammatory drugs (NSAIDs) should be recommended. True or False

9. It is ok to use potassium-based salt substitutes (like no-salt) to season food. True or False

10. If a patient feels thirsty, it is ok to remove fluid limits and allow them to drink. True or False

11. If a patient adds extra pillows at night to relieve shortness of breath, this does not mean that the HF condition has worsened True or False

12. If a patient wakes up at night with difficulty breathing, and the breathing difficulty is relieved by getting out of bed and moving around, this does not mean that the HF condition has worsened. True or False

13. Lean deli meats are an acceptable food choice as part of a patient's diet. True or False

14. Once the patient's HF symptoms are gone, there is no need for obtaining daily weights. True or False

15. When assessing weight results, today's weight should be compared with the patient's weight from yesterday, not the patient's ideal or "dry" weight. True or False

<u>The following five statements reflect signs and symptoms that patients may have regarding CHF</u>

Please circle your answer. Yes or No

1. BP recording of 80/56 without any CHF symptoms.	Yes or No
2. Weight gain of 3 pounds in 5 days without symptoms.	Yes or No
3. Dizziness or lightheadedness when arising that disappears within 10-15 mins.	Yes or No
4. New onset or worsening fatigue.	Yes or No
5. New onset or worsening of leg weakness or decreased ability to exercise.	Yes or No

(Albert et al., 2002)

Appendix B: Patient Education for Heart Failure Audit Results

Patient Education for Heart Failure

Standardization across the Metro Facilities

Submitted by Kerri Murphy, 2017

Executive summary of the education given to patients in regards to heart failure, including staff resources and materials given.

Patient Education for Heart Failure

Standardization across the Metro Facilities

Facility A

- On the day of admission, the patient receives the binder from the direct care staff
- 2nd day of admission the nurse/nursing assistant reviews the EMMI education with the patient.
- The process is to audit the nurses by who is showing the videos, and documenting education provided to the patient in the medical record.
- Does not have admission/discharge nurses nor clinical nurse resource.
- No discharge phone calls are being completed at this time.
- Efforts are made to refer patients to the Heart Failure clinic, and the nurses try to arrange the 7-day follow-up appointments.
- The nurse practitioner that sees the patient in the hospital for H & P is also the NP for the heart failure clinic so she is able to see who needs to be referred to the clinic.
- No tracking of core measure best practices

Facility B

- Heart Failure Certification July 2016
- Heart Failure management order set
- Cardiac Rehab Order – referral and pre-authorization for insurance prior to discharge
- Use of clinical nurse resource
- 7-day follow-up set before discharge
- Abstraction of charts for certification with American Heart Association – corresponds with core measure requirements.
- Binders are given to patient that have not already received one.
- Heart Failure Certification tracking includes standing daily weights.
- The clinical nurse resource uses a sticky note in the chart with smart phrasing for tracking purposes and fills in the blanks of the checklist.
- Discharge phone calls are for patient satisfaction and completed by the nurses on the floor

Nursing Knowledge of Heart Failure

Does nursing know what they need to know about heart failure disease management and progression? Is their knowledge vast enough to be able to education the patients on self-management principles for care plan compliance after discharge?

- Meds to Beds program – offer to fill scripts, service to all patients. The hospital fills one-month for uninsured, under insured and completes the patient assistance programs for patients prior to discharge.
- Assist with Medicare and Medicaid applications prior to discharge.
- Care Navigators available as well as social workers.

Facility C

- Use of binders, booklets, and EPIC print-out education
- Some units provide 7-day follow-up appointment arranged prior to discharge.
- Care Navigators and social worker available
- Teach-back is not standardized.
- Some units provide information about the heart failure clinic.
- Heart Failure binders are not available on all units; some didn't even know they existed.
- Discharge Packets for new medications mostly for blood thinners and Entresto.

Appendix C: Stakeholder/Team member Evaluation of DNP Project

Problem:

Purpose:

Goal:

Objective:

Scale: SD=Strongly Disagree D=Disagree U=Uncertain A=Agree SA=Strongly Agree

1=SD 2=D 3=UC 4=A SA=5

Q1 Was the problem made clear to you in the beginning? _5_(7)__

Q2 Did the DNP student analyze and synthesize the evidence-based literature for the team? ___5 (7)_

Q3 Was the stated program goal appropriate? ___4(3) 5(4)__

Q4 Was the stated project objective met? _5__(7)__

Q5 How would you rate the DNP student's leadership throughout the process?__4 (3) 5 (4)___

Q6 Were session agendas sent out promptly? ___5 (7)__

Q7 Were session minutes submitted promptly? ___5 (7)__

Q8 Were sessions held to the allotted time frame? __5 (7)___

Q9 Would you consider the sessions productive? ____5 (7)_

Q10 Do you feel that you had input into the process? __5 (7)___

Q11 Please comment on areas where you feel the DNP student excelled or might learn from your advice/suggestions:

Kerri has done an excellent job at relaying relevant information to the team needed for proper decision making in regards to educational material to include in the program for the staff. She has assisted the Population Health Department of our Facility with the development of data

reporting analysis to allow for tracking of the improvement in patient compliance and tallying of Quality of Life Surveys from our patients. As for the physician collaboration, working with Kerri is a true sentiment to understanding *why* we do things the way that we do them, and explaining information in a way her peers and colleagues will understand. Great asset to the team, great project.

Appendix D: Quality Assessment Survey for Comfort and Confidence

Quality Assessment Survey for Comfort and Confidence
Please circle your answer 1= Least 4= Most

1. How user-friendly do you feel the Heart Failure Teach-back form is for the patients?

Unfriendly	Somewhat Unfriendly	Somewhat Friendly	Most Friendly
1	2	3	4

2. How comfortable to do you feel talking about CHF with a patient and providing education?

Not comfortable	Somewhat uncomfortable	Somewhat Comfortable	Very Comfortable
1	2	3	4

3. Do you feel that an educational program will help enhance your knowledge of CHF disease management and patient self-management principles?

Unlikely	Somewhat Unlikely	Somewhat Likely	Likely
1	2	3	4

4. How engaged are you in the incorporating evidence0based practice into your nursing practice?

Unengaged	Somewhat Unengaged	Somewhat engaged	Engaged
1	2	3	4

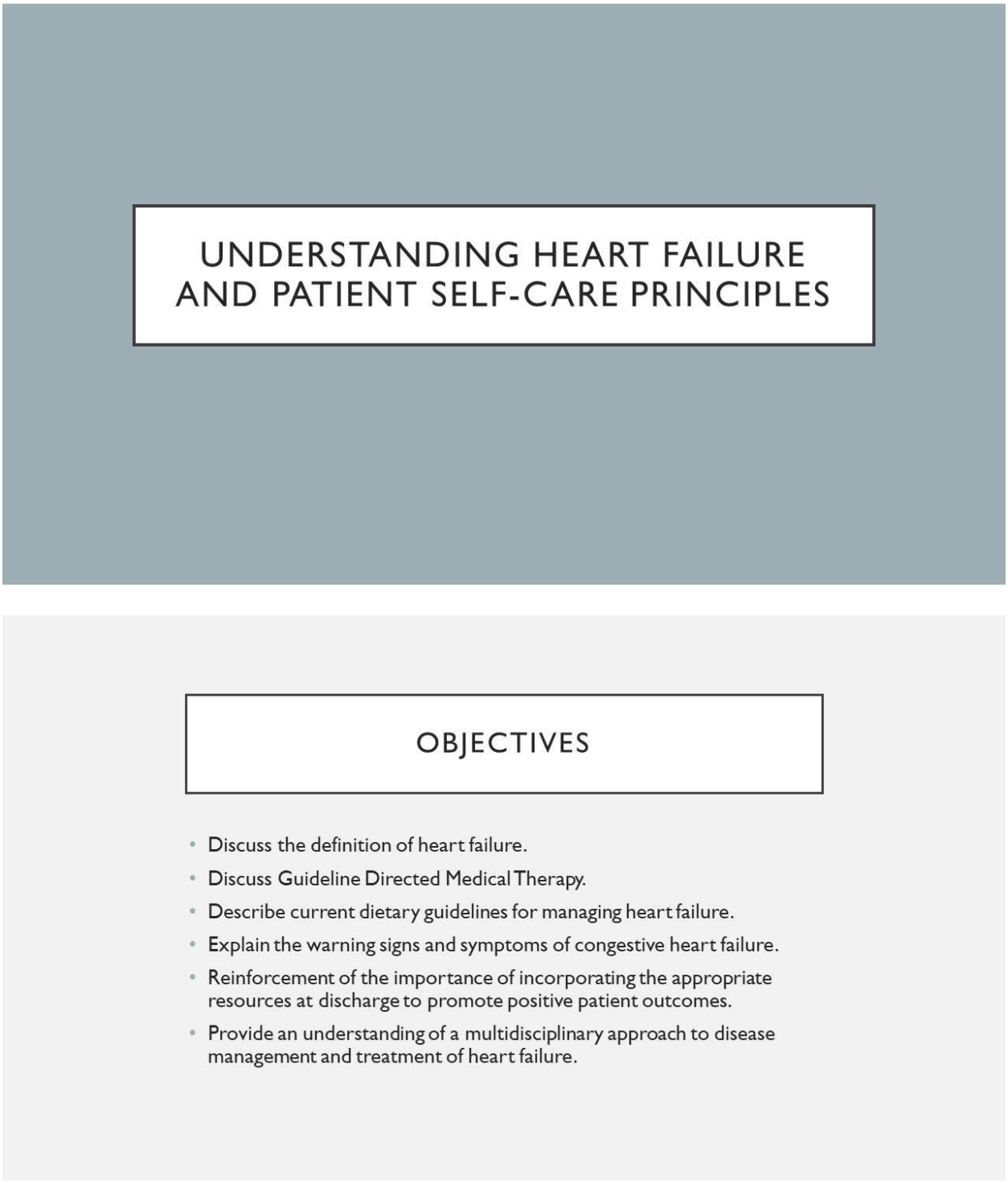
5. Do you feel that you have enough time to educate your patients before discharge?

Not at all	Somewhat	Depends on the day	Definitely
1	2	3	4

6. Do you feel that your unit leadership is aware of the difficulties with educating patients before discharge?

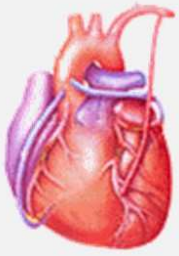
Unaware	Somewhat Unaware	Somewhat Aware	Aware
1	2	3	4

Appendix E: Understanding Heart Failure and Patient Self-Care Principles



WHAT IS HEART FAILURE?

- Structural or functional impairment of ventricular filling or ejection of blood, causing the heart to work inefficiently.
- The heart muscle is too weak (dilated=systolic) or too think (hypertrophy=diastolic) to pump effectively causing fluids to back up
- Causes: Malfunctioning heart valves, heart attack, hypertension, anemia, alcohol, arrhythmias, cardiomyopathy (enlarged heart), congenital defects



(Google, 2017)

TERM CLARIFICATION

- **Heart Failure:** is a general term meaning the heart muscle has been damaged or impaired.
- **Congestive Heart Failure**: is an ACUTE condition where the patient is experiencing fluid overload
- Heart Failure is the "preferred" term

FIRST THINGS FIRST

- 1. Treat the underlying cause, if known.
- 2. Behavior and lifestyle modifications
  - No alcohol
  - Dietary changes
  - Exercise regularly
  - Follow medication directions
  - Follow healthcare treatment plan and follow-up appointments
  - Use community resources to assist with disease management and caregiver support

(Google, 2017)

GUIDELINE DIRECTED MEDICAL THERAPY (GDMT)

- Symptom management medications:
  - Diuretics: reduces accumulation of fluids, assists with the excretion of sodium and water
  - Digoxin: assists with the management of heart failure symptoms when patients are already compliant with GDMT
- GDMT:
  - Beta-blockers: improved survival, control of blood pressure
  - ACE/ARB: improved survival, improves blood flow
  - Entresto: used in place of an ACE/ARB
  - Aldosterone antagonist: used in combination with other GDMT to increase survival and manage symptoms

(Google, 2017)

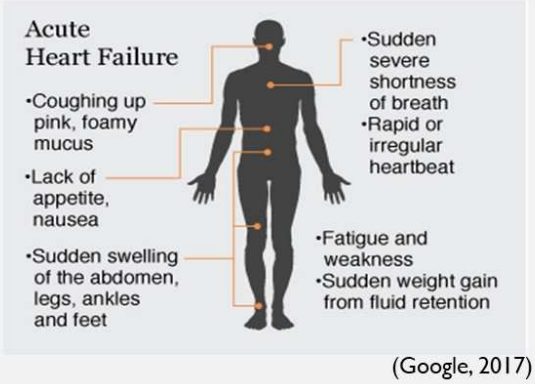
DIETARY GUIDELINES

(Google, 2017)

- Daily limit of 1500mg of sodium (package label education)
- Minimize fast food or processed food
- Fluid restriction
- Avoid adding salt to food: pay close attention to sauces and dressings that may have high amounts of sodium.
- NOTE: a low sodium diet is just as important as taking daily medications

6 RIGHTS TO PATIENT EDUCATION

1. Instruct a low sodium diet
2. Regular exercise
3. Daily weight monitoring: best time is in the morning after using the bathroom, wearing the same type of clothing
4. Educate on the signs and symptoms, and how/when to report to healthcare provider
5. Medication reconciliation and education: what/when/why/how to take their medication
6. Healthcare provider follow-up, treatment plan compliance, and community resources

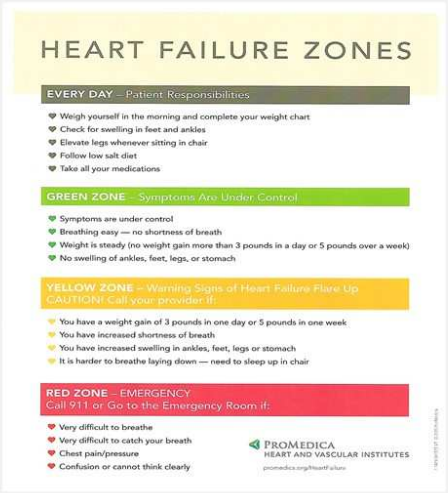


(Google, 2017)

PATIENT EDUCATION

- Instruct patient that if not in acute distress to please contact healthcare provider and report symptoms, before going to the emergency room.
- Review daytime and after hour phone numbers with patient and family
- Instruct patient to contact healthcare provider if experiencing any of the following:
  - 3 lb. weight gain overnight or 5 lb. gain in one week
  - Increased lower extremity edema – feet or ankles normally
  - Increased shortness of breath
  - Decreased ability to perform normal activities
  - Any symptoms that are causing the patient to have concerns

SIGNS AND SYMPTOMS



PATIENT EDUCATION RESOURCES

- When does education for the patient start?
  - Answer: upon arrival
- What resources do you have available to assist with teaching?
  - Answer: Heart Disease Patient Binder (Please ask your unit manager where these are located on your unit)
    - Heart Failure Guide Booklet
    - Patient Teach-Back Form – REQUIRED to be completed and scanned into chart until electronic version is available.
    - Heart Failure Zones

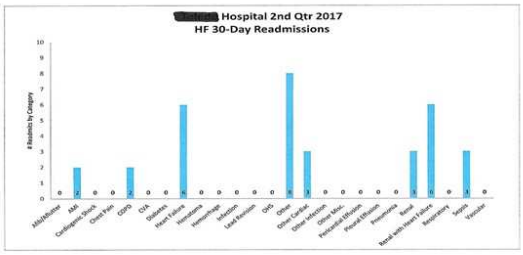
DISCHARGE RESOURCES

- Care Navigation/Social Workers: case management
- Home Health Care
- Cardiac Rehab
- Heart Failure Clinic
- Pulmonary Rehab
- Ambulatory (Out-Patient) Care Navigation
- Physician offices
- Skilled Nursing Facilities

- (Google, 2017)

MULTIDISCIPLINARY APPROACH

- Who is on your team?
  - Pharmacy
  - Peers
  - Physicians
  - Care Navigation
  - Social Workers
  - Physical Therapy
  - Dietary



Months	Total Discharges 2Q2017	Total Readmissions 2Q2017	Readmission Rate 2Q2017
April	74	14	18.9%
May	92	14	15.2%
June	87	10	11.5%
2Q2017 Rollup	253	38	15.0%
1Q2017 Rollup	213	29	13.6%

(Murphy, 2017)

REFERENCES

- Centers for Medicare and Medicaid Services (CMS). (2016). CMS Quality Strategy. Retrieved from https://www.cms.gov
- Google. (2017). Retrieved from google.com

Appendix F: Consensus Core Set: Cardiovascular Measures

Consensus Core Set: Cardiovascular Measures
Version 1.0

Future Areas for Cardiovascular Care Measure Development
Heart Failure: • Evidence-based anticoagulation status -- ACC note: Not all HF patients are on anticoagulants • Outpatient – symptom control or change in symptoms • Functional status or quality of life measure for patients with heart failure.   o Seattle Angina Questionnaire. Update is slow but can consider in work group • Goals of care (does not need to be specific to heart failure) • Follow-up visit after hospitalization by PCP • End of life measures for heart failure • Management of women with peripartum cardiomyopathy • Proportion of days covered for beta blocker therapy: Heart Failure patients
Hypertension: • Renal function measures (e.g., creatinine measures)
Other: • Lipid measure based on new guidelines. With changes in guidelines and pending evidence, not yet comfortable adding lipid measures until medical consensus is reached. New data coming out which push levels back towards previous guidelines. • Additional cost and over-utilization measures. • Rehabilitation measures • Mental health measures following cardiovascular events • Symptom Management measures • Disparities in cardiovascular care • ICD counseling and appropriate use of ICDs measure. Article in JAMA noting severe underutilizations of ICDs in women and elderly.

[i] Wright JT Jr, Fine LJ, Lackland DT, Ogedegbe G, Dennison Himmelfarb CR. Evidence supporting a systolic blood pressure goal of less than 150 mm Hg in patients aged 60 years or older: the minority view. Ann Intern Med. 2014 Apr 1;160(7):499-503.

[ii] James PA, Oparil S, Carter BL, et al. 2014 evidence-based guideline for the management of high blood pressure in adults: report from the panel members appointed to the Eighth Joint National Committee (JNC 8). *JAMA* 2014; 311: 507–20.

Appendix G: Continuing Education Evaluation

Continuing Education Evaluation

Date:

Moderator:

Please check the appropriate category	
	Director
	Direct Care Nurse
	Nursing Student
	Nursing Resident
	Allied Health
	Other

Were the following objectives successfully addressed during this case presentation?	YES	NO
Reviewed the definition of heart failure.		
Discussed Guideline-Directed Medical Therapy.		
Describes current dietary guidelines for managing heart failure.		
Explained the warning signs/symptoms of heart failure.		
Reviewed the importance of incorporating the appropriate resources at discharge to promote positive patient outcomes.		
Provided an understanding of a multidisciplinary approach to disease management and treatment of heart failure.		

Moderator	YES	NO
Was the knowledge level appropriate and detail adequate?		
Was the activity well organized?		
Did the audiovisual support enhance the presentation?		
Did the moderators invite and stimulate audience questions?		

	APPLICABLE	SOMEWHAT APPLICABLE	PROVIDED BACKGROUND
The information will apply to my practice			

Based on the information presented today, cite a specific application you intend to incorporate into your patient care strategy:

_____

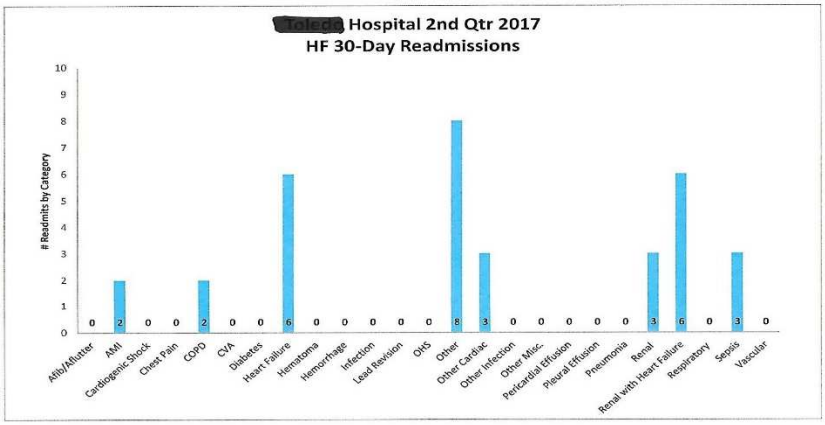
_____

Comments:

_____

_____

Appendix H: Heart Failure 30-Day Readmission Graph

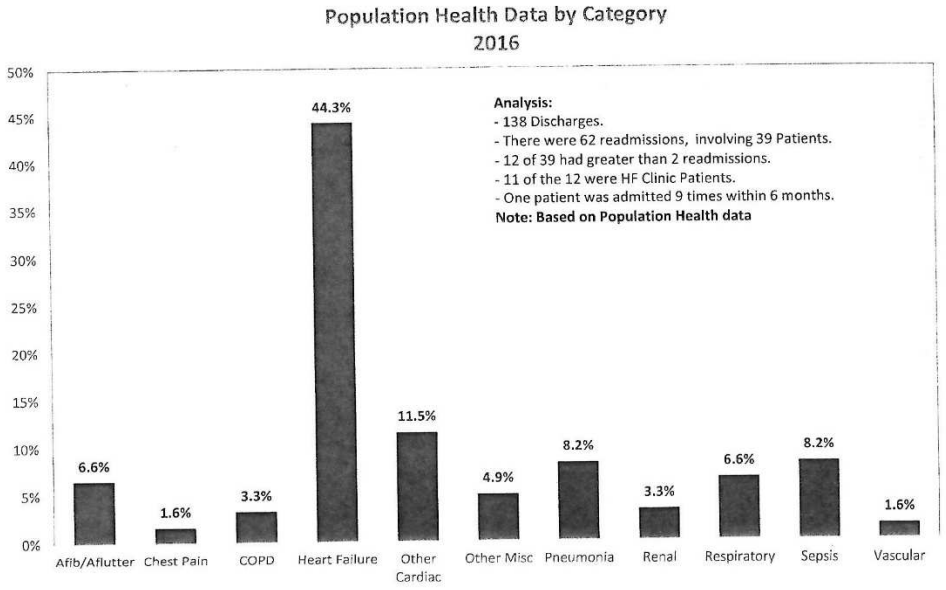


Months	Total Discharges 2Q2017	Total Readmissions 2Q2017	Readmission Rate 2Q2017
April	74	14	18.9%
May	92	14	15.2%
June	87	10	11.5%
2Q2017 Rollup	253	38	15.0%
1Q2017 Rollup	213	29	13.6%

10/4/2017

(Murphy, 2017)

Appendix I: Heart Failure Population Data Graph



(Murphy, 2017)