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Heart Failure Readmission Strategy via Heart Failure Script

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This is to certify that the doctoral study by

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2017

Abstract

Heart Failure Readmission Reduction Strategy via Heart Failure Telephone Script

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MSN, Walden University 2012

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Hospital administrators strive to reduce readmission and over use of the acute care setting for chronic health conditions. Historically hospitals have focused on readmission prevention strategies to improve the transition of patients from the hospital to the community and although the causes of a hospital readmission may span multiple providers along the continuum of care, the hospital is currently the only provider being penalized. The project facility implemented a readmission reduction strategy, Re-Engineered Discharge (Project RED), as a means to reduce readmissions and yet continued to have high readmission rates for heart failure (HF) patients. The continued high rate of readmissions led to the practice focused question, which examined the process of developing a discharge phone call script specific for HF patients as a way to reduce readmissions for HF patients. Kristin Swanson's structure of caring model provided the nursing framework for this project with a purpose to plan a telephone call follow up program for HF patients after hospital discharge. The project planning was accomplished in conjunction with the facility's readmission reduction team/LEAN team, resulting in a script about the most prevalent issues among HF patients. Kotter's 8 step change model will be used as a guide for the implementation of the telephone call follow up program at a later date. Readmission rates for HF patients will be monitored monthly as an outcome evaluation measure. Project team members provided evaluation of the project which demonstrated satisfaction and success of the planning process. The results of this project will bring about social change by providing access to healthcare providers regardless the socioeconomic status of the patient and by decreasing the use of acute care setting unnecessarily for chronic conditions.

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Section I: Overview of the Evidence-Based Project

Introduction

In the United States, with more than 32 million adult hospital discharges each year (Levit et al., 2005) deficiencies in the transition of care are implicated in increased illness and unnecessary hospital utilization in both the Emergency Department and in acute care hospital readmissions, leading to waste and increased costs. Jencks, Williams, and Coleman (2009) found that almost one-fifth of Medicare patients (19.6%) were hospitalized within 30 days of hospital discharge and that patients with heart failure (HF) had a higher rate of readmissions at greater than 26%. While healthcare leaders have an interest in reducing readmissions to improve quality of care, economic forces have now added increased impetus to prevent avoidable readmissions. The Centers for Medicare and Medicaid (CMS) stated that readmissions may be adding billions of dollars annually to the Medicare program. Jencks et al. estimated that the financial impact of 30-day all cause readmissions for Medicare patients is $17 billion.

There is growing recognition that health care organizations can generate savings for the nation's health care system by preventing avoidable readmissions. The Patient Protection and Affordable Care Act (ACA), passed in 2010, creates financial incentives for acute care hospitals (ACH) to prevent readmissions. The short-term incentive, effective for discharges occurring in and after October 2012, is a readmissions penalty tied to the ACH's performance on 30-day readmission rates. The mechanism for this penalty is a reduction in payments based on readmission rates for three conditions, heart failure, myocardial infarction, and pneumonia, regardless of the reason for readmission.

In addition to this short-term penalty, proposed mid- and long-term incentives would result in readmissions having an even more significant financial impact on ACHs (U.S. House of Representatives, 2010; U.S. Senate, 2009). For both the quality of care and the financial issues presented by avoidable readmissions, hospital leaders have begun to focus more intently on preventing readmissions.

Many programs have been developed to assist with appropriate discharge planning and care after hospitalization to prevent frequent readmissions, but these studies have had varied results (Bradley et al., 2012). Some programs focus on assessment of risk for readmission and then target activities for readmission prevention (Philbin & DiSalvo, 1999; Simpson, 2014). Other programs have advocated for increased patient education during or after hospitalization (Burke, 2010). Several programs noted success with a variety of telephone interactions post-discharge (Austin, Landis, & Hanger, 2012; Cochran, Blair, Wissinger, & Nuss, 2012; Simpson 2014). Other programs were more complex, involving several discharge planning activities during the hospital stay, post discharge care plan, and visits to a provider (Jencks et al., 2009). A study of hospitals enrolled in the Hospital to Home quality initiative, which recommended 10 key practices for hospitals to use to prevent readmission, found a wide range of implementation of these practices among enrolled hospitals, with the greatest lack being in medication reconciliation and discharge and follow-up processes (Bradley et al., 2012). Evaluation of other more complex programs demonstrated variation and inconsistency in the use of all strategies, which negatively affected the success rate of the programs in prevention of

readmissions (Jack et al., 2009). The programs associated with some success included early patient contact, either by telephone or visit with a provider, after hospital discharge. The facility has implemented Re-Engineered Discharge (Project RED). Project RED is an evidence-based program used to reduce 30-day readmissions. Project RED is a 12-step process that focuses on standardizing the discharge process (AHQR, 2013). Project RED has shown minimal reductions in 30-day readmission for the facility since its implementation.

Problem Statement

The problem to be addressed is the continued high rate of readmission of HF patients related to inadequate, ineffective transition strategies for adult patients discharged from the acute care hospital in northern California. After trying several strategies, this facility has implemented Project RED. Project RED is an evidenced-based 12 step program that focuses on standardizing the discharge process (AHQR, 2013). Currently the facility follows the script provided in the Project RED tool kit to review appointments, medicines, medical issues, and what to do if a non-emergent problem arises during a follow-up phone call within 72 hours of discharge, that have been shown to reduce re-admissions (Agency for Healthcare Research and Quality, AHRQ; 2014). However, the script is not disease specific and thus the questions and responses are general in nature. The readmission rate for the facility for adult HF patients remained higher than the national rate of 19.6% per Jencks, Williams, and Coleman (2009), at 25% for the facility. This rate results in increased risk for the patient with each readmission,

increased cost to the organization with increased utilization of the emergency department or inpatient services, and may result in a reduction of reimbursement for Medicare patients.

Purpose

The purpose of this project was to plan a phone call follow up program for HF patients after hospital discharge. In this project the discharge phone call strategy of RED was revised through the addition of a newly developed discharge questionnaire tool and follow up process specifically for patients with HF. The gap in practice to be addressed is the lack of specificity with the discharge phone call questions that address the most frequent causes of readmissions for heart failure patients.

The guiding question for this project was in patients with HF is the use of the discharge phone with a specific script for HF patient an effective way to reduce readmissions for HF patients? The overarching program goal is to reduce 30-day readmission rates for HF patients. As this project is limited to program planning, the goal to reduce to 30-day readmissions will not be evaluated as a part of this project. The deliverables at the conclusion of this project were a new discharge phone call script specifically for heart failure patients, a plan for implementation and a plan for evaluation.

Nature of the Doctoral Project

The first source of evidence for this project resulted from a search of the literature for evidence-based practices specific for HF patients. The literature search focused on

specific questions pertinent for HF patients and the timing of the post discharge phone call. An interdisciplinary team of experts from the facility was assembled to provide feedback as an additional source of evidence during the program planning. This project resulted in a revised phone call program that will augment the current Project RED intervention specific to HF patients.

Significance

Key stakeholders for the program include the patient and hospital administration. The hospital administrators had a sense of urgency regarding addressing the HF patients and the high readmission rates. They recognized the financial implications of treating this population and had a process improvement team (Lean Team) in place for over a year, which resulted in the implementation of Project RED to reduce readmission rates. Despite the implementation of Project RED, readmission rates for HF patients remained high. The Lean Team suspected that lack of knowledge, home health care and insurance deficiencies along with lack of provider contact in the first week after discharge contributed to a high risk of readmission in HF patients. As the facility serves a number of patients who lack access to healthcare and follow-up care, this program will help alleviate the lack of access and improve knowledge. The use of disease-specific discharge phone calls at multiple intervals will serve as a means of access to health care for those who would not normally have access. The phone calls will allow the patient the opportunity to address specific information pertaining to their disease (HF) and health.

The calls will also serve as a mechanism to better educate the patient on the specifics of HF and how to better manage their disease process.

As healthcare reform continues to dictate less time spent in acute care settings and more emphasis on ambulatory and community aspects of care, more creative strategies that have increased appeal for patients need to be explored. The implications of the program for the practice of nursing is significant as nursing continues to have the most contact with the patients. Nurses can spend as much as 50% of their time with patients (Nursing Times, 2013). Healthcare reform has moved hospitals towards lowering the length of stay in the acute care setting and extending care outside the walls of the acute care setting. Nurses need alternative methods to continue contact with the patient, and the discharge phone call is strategy that can facilitate nursing time spent with the patient.

The implementation of the program will bring about social change by the lowering readmissions of HF patients. Jencks et al. (2009) stated 19.6% Medicare fee-for-service beneficiaries were readmitted within 30 days of discharge. The Centers for Medicare and Medicaid Services (CMS) estimated that patients who are readmitted within 30 days of discharge stay an estimated 0.6 days longer than those who had not been discharged and cost an estimated 26 billion dollars annually (Green Boesen, Leal, Sheehan, & Sobolik, 2015). The financial implications are both a societal and health care provider issue as readmissions contribute to the rising cost of health care without the benefits of improved quality. In addition, the cost of health care can be spread to patients as hospitals attempt to avoid inpatient readmissions by placing patients into observation

status. Placing patients in observation status to avoid a readmission results in increased out of pocket cost for the admission and can interfere with the patient's ability to afford items such as medications, items for activities for daily living, and other items that contribute to well-being. In addition delays in care for those requiring acute care is experienced as patients are held in the emergency department due to unavailability of acute care beds that are potentially being occupied by patients that were readmitted for their primary care diagnosis.

The lowering of readmissions for HF patients through the use of discharge phone calls is beneficial to healthcare in total. Healthcare reform continues to dictate less time be spent in acute care settings and more emphasis be placed on the ambulatory and community aspects of care. The discharge phone call can be one of the more creative strategies that can be used by facilities to address patients' needs.

Summary

Decreasing 30-day readmissions is a priority for CMS and health care providers. The use of programs such as Project RED has shown to be effective in decreasing readmission by 30% (AHR 2013). Despite the success of these programs 30 day readmissions still remain a concern for organizations across the nation (Hernandez et al., 2010). Thus, there is a need for a program to augment RED, specific to the needs of HF patients in order to further reduce the rate of readmissions. The purpose of this project was to plan a phone call follow up program for HF patients after hospital discharge.

Section II: Background and Context

Introduction

The problem to be addressed is the continued high rate of readmission of HF patients related to inadequate, ineffective transition strategies for adult patients discharged from the acute care hospital in Northern California. Project RED has been implemented and the readmission rate for adult HF patients remained higher than the national rate, at 25%. The goal of the program is to lower the readmission rate for HF patients by implementing discharge phone calls specific to HF patients. This section of the paper will outline the concepts, models, and theories used to address the problem and the relevance to nursing practice. In addition the local background and context for the problem and role of the DNP and the project as it relates to the problem will be covered.

Conceptual, Models, and Theories

Kotter's eight step change model (see Appendix A) will be used as a guide for the implementation of this project (Kotter, 1996). The first six steps in Kotter eight step change model will be covered by the project and the last two steps will be covered after the project is completed. Creating a sense of urgency will be achieved in the organization through the use of public reporting and the financial implications of readmissions. These elements are at the forefront of the leaders strategic planning and goal setting. The readmissions prevention team has trialed several interventions (Project Red), yet they have not accomplished their overall goal of readmission rate reduction. Finally, the data gathered by the LEAN team through patient interviews and chart review has directed the

team to develop an intervention that will provide patient contact within the first week of discharge. With a sense of urgency, a presentation for the powerful coalition of the Executive team will be conducted and approval of the project team will be granted. The vision of improved care that will result in better financial outcomes is congruent with the organizational values and current goals. The communication of this vision is important to the ongoing development and success of this change process. The short-term wins will be found in the initial team development, the process outcomes of the telephone intervention, and final project outcomes. The success of this program will encourage continued improvement and expansion of the ability to contact and engage patients in their care after hospital admission for additional diagnoses. Finally, with demonstration of improved patient outcomes and cost effectiveness, this method of readmission prevention will be solidly anchored in the organization.

Kristin Swanson's Structure of Caring Model (Appendix B) provided the nursing framework for the project of a targeted intervention to prevent patient readmissions within 30 days of discharge. Her conceptual model demonstrates the processes of caring: maintaining belief, knowing, being with, doing for and enabling that lead to patient mental and physical well-being. It is a practice-based model and a guide for provision of patient care that is focused on assisting patients to attain, maintain, or regain an optimal level of wellbeing (Swanson, 1993). In applying the model to the post-discharge contact with patients to prevent hospital readmissions, every step of that process is guided by the Swanson model. For the contact to be effective the patient needs to be valued as an individual (maintaining belief), the patient and the caregiver need an informed

understanding of the clinical condition (knowing), the message needs to be conveyed to the patient (being with), responding if the patient is exhibiting signs of relapse or is in need of assistance (doing for) and finally by keeping contact and encouraging self-care the caregiver is facilitating patient growth (enabling) all to lead to the intended outcome of physical well-being. (Higdon & Shirey, 2012).

Relevance to Nursing Practice

As stated by Jencks et al. (2009), approximately 19.6% of Medicare fee-for-service beneficiaries were readmitted within 30 days of discharge. CMS estimated that patients that are readmitted within 30 days of discharge stay an estimated 0.6 days longer than those who had not been discharged and cost an estimated 26 billion dollars annually (Green Boesen et al., 2015). The financial implications are both a societal and health care provider issue as readmissions contribute to the rising cost of health care without the benefits of improved quality. In addition, the cost of health care can be spread to patient as hospitals attempt to avoid inpatient readmissions by placing patients into observation status. Observation status for the patient results in increased out of pocket cost for the admission and can interfere with the patient's ability to afford items such as medications, items for activities for daily living, and other items that contribute to well-being. A study conducted by Hiteshaw, Franz, Lamberjack, and Chen (2012) revealed a 7% reduction in 30-day readmissions for patients who received their asthma medications within 24 hours of discharge. Delays in care for those requiring acute care is experienced as patients are held in emergency department due to unavailability of acute care beds that are potentially being occupied by patients that were readmitted for primary care diagnosis.

The review of the literature found that the problem of 30-day readmission is multifactorial. There is not one common factor that leads to readmissions. Reasons for readmissions are both social and clinical and thus require a response that is holistic in nature and spans the continuum of care. CMS believes 30-day readmissions can be reduced if organizations improve the quality and type of care provided, ensure the patient is clinically ready for discharge, reduce the risk of acquiring hospital acquired conditions, reconcile medications at discharge, improve communication with community providers, provide health and medication education at discharge, and ensure the patients understand their follow-up care (Green Boesen et al., 2015). Most literature is focused on strategies listed by CMS as prevention measures. Literature that attempted to address the issue through early follow-up post discharge existed as well. Hernandez et al. (2010) concluded patients who are discharged from hospitals that have higher early follow-up rates have a lower risk of 30-day readmission. In contrast, a study suggested there is no correlation between follow-up appointments and 30-readmission reduction for general medical patients and the correlation only exists for patients who suffer from a chronic illness (Jackson, Shahsahebi, Wedlake, & DuBard 2015).

The ACC/AHA HF guidelines (Hunt et al., 2009) defined HF as a complex clinical syndrome that can result from structural or functional cardiac disorders that affect the ability of the heart ventricle to fill with or eject blood. The manifestations include dyspnea and fatigue, reduced exercise tolerance, and fluid retention leading to pulmonary congestion and peripheral edema. HF is a major and growing public health concern in

the United States with approximately 5 million Americans with the diagnosis accounting for more than 6.5 million hospital days per year (Hunt et al., 2009). Hospitalization of HF patients represents a significant and growing healthcare burden. Generally, patients improve during hospitalization, but the early discharge rehospitalization and mortality rates remain high (Gheorghiade & Pang, 2009). Ross et al. (2008) pointed out that readmission after a heart failure admission has become a focus because: (a) it is one of the most common principal discharge diagnoses for Medicare beneficiaries and (b) there is wide variation among hospital HF readmission rates. Hospitalization for acute heart failure generates re-hospitalizations (Andrietta, Moreira, & de Barros, 2011) with nearly 1 in 4 patients being readmitted within 30 days of discharge (Krumholtz et al., 2009). In an effort to contain costs, on October 1, 2012, the CMS began the Hospitals Readmission Reduction Program (HRRP) to reduce the frequency of re-hospitalizations by leveling financial penalties against hospitals with readmission rates that are deemed to be excessive. In the first year, CMS estimates that approximately two-thirds of hospitals in the United States would receive penalties of up to 1% of their reimbursement for Medicare patients, with these penalties increasing to 3% by 2015 (Joynt & Jha, 2013). Jencks et al. (2009) in their study of Medicare re-hospitalizations posited that more than half of these readmissions were preventable. The causes for readmission have been studied in efforts to target interventions aimed at prevention. In a review by the Pittsburgh Regional Health Initiative (PRHI) (2011), the authors noted that a unique aspect of readmissions is the potential for the causes to span the continuum of care across multiple providers. They also note that although a focus on transition of patients from

hospital to home is important, the readmission may be due to something that did or did not happen during hospitalization and may have little to do with factors the hospital can control (PRHI, 2011). Potential causes listed include limited patient education, mismatch of new prescriptions and current medications, lack of formal hand over to the community provider, and lack of follow-up appointments with community providers. With no contact with a community provider, the hospital emergency department is often the typical choice for care when complications occur. These authors also noted that the hospitalization itself can contribute to further deterioration of the patient's condition, leading to possible readmissions (PRHI, 2011).

In their commentary on Medicare's readmissions-reduction program, Berenson, Paulus and Kalman (2012) listed similar causes of avoidable readmissions such as complications of hospitalization, early discharge from the hospital, failure to coordinate and reconcile medications; inadequate communication between hospital staff, patients, caregivers, and community-based clinicians and poor planning for transitions of care.

The Agency for Healthcare Research and Quality in the Innovations Exchange (2013) noted that HF is associated with high re-hospitalization rates, which are attributed to preventable conditions resulting from the patients' inability to self-manage their condition and to poorly implemented transitions to the next care setting. The underlying causes listed included deficiencies in self-care education, inappropriate medication reconciliation, and lack of a plan for medical follow up after discharge.

In their study of 11,855,702 Medicare claims, Jencks et al. (2009) found that re-hospitalizations were frequent and costly events associated with gaps in follow up care.

They conclude that the rate of readmission could be reduced with the implementation of more reliable systems to accomplish a safe transition from the hospital to the next care setting. Elixhauser and Steiner (2013) presented a comprehensive overview of 30-day all-payer, all-cause readmissions to U.S. hospitals for a range of conditions in 2010. They found that for several of the most frequently treated conditions in U. S. hospitals, at least one in five cases resulted in a hospital readmission within 30 days. HF was recognized as one of these conditions, with the highest rate of readmission at 24.7%. The authors also noted higher readmission rates in patients covered by Medicare (25%) or Medicaid (30.1%).

Bradley et al. (2012) also noted the prevalence and costliness of heart failure readmissions. Their descriptive study of 537 hospitals used a web-based survey to examine the reported use of specific hospital practices to reduce readmissions for patients with heart failure. They found that the majority of hospitals had defined objectives to reduce readmissions; however, there was wide variation in the implementation of specific, recommended practices to reduce readmissions. Several of the discharge and follow up practices associated with reduced readmissions were practiced by less than half of the hospitals. They suggested that the limited use of these practices was due to the focus of hospital cultures on the inpatient aspects of patient care and less on the responsibilities post discharge. They also posited that the need for additional resources may inhibit the implementation of these practices. The lack of use of key practices was most apparent in medication management and discharge follow up practices. They point out that given the wide diversity in efforts to reduce readmission rates, establishing more

definitive evidence regarding effective practices is warranted and continued improvement in care coordination may assist hospitals in their efforts to avoid readmissions.

Jack et al. (2009) in their single-center randomized trial studied the effectiveness of a peri-discharge bundle of services in reducing readmission rates. They were able to demonstrate a decrease of approximately 30% in hospital utilization, including emergency department visits and readmissions, within 30 days post discharge. However, because the intervention included several elements, consisting of discharge education and planning by a discharge advocate, a detailed after hospital care plan, and a post discharge phone call, it was difficult to determine the contribution of each activity to the reduction in readmissions. In addition, the study revealed inconsistency in the ability to provide all elements of the bundle to all patients.

In a more recent study, Bradley et al. (2013) reported on six procedural steps recommended for hospitals to implement to avoid hospital readmissions. The six steps were: (a) forming partnerships with community physicians to address readmission issues, (b) collaborating with other hospitals to develop strategies for reducing hospital readmissions, (c) nurse coordination of medication plans, (d) follow-up appointment obtained prior to leaving the hospital, (e) developing systems to ensure discharge information goes to the primary care provider, and (f) providing patients with all test results received after discharge. These researchers analyzed 600 hospital surveys and found that fewer than 30% followed most of the steps and only 7% followed all six. They noted that each step alone had impact, but that if all 6 recommendations were followed, readmissions could drop as much as 2%.

In a systematic review to evaluate evidence-based practice and the use of advanced practice registered nurses in the management of HF patients to avoid readmissions, Case, Haynes, Holaday, and Parker (2010) confirmed the need for specialized management of HF patients. However, because the studies used a variety of interventions, it remained unknown which specific interventions were most effective in improving patient outcomes.

The ACC/AHA guidelines (Hunt et al., 2009) document that hospital readmission can be prevented with good outpatient care, which for HF includes disease management systems. The guidelines described such systems as variable, but comprised of elements such as intensive patient education, encouragement for patients to be active participants in their care, close monitoring of patients through telephone follow up, home care nursing, medication review, and nurse case management. The authors note through their extensive review that it is not clear which elements of the disease management programs are crucial for success. They also posited that it remains unknown whether these interventions are feasible in settings with limited resources (Hunt et al., 2009).

Many studies have found that some combination of interventions such as detailed discharge planning, pharmacist contact, and provider coordination may reduce subsequent hospital readmissions; however, success with such programs has been difficult to achieve and maintain. The depth and cost of case management required to sustain such programs may be out of reach for many hospitals (Amarasingham et al., 2013)

Improved adherence to treatment regimens for HF patients has been demonstrated to result in fewer readmissions. Home-based programs that have shown an effect in improving adherence include telephone interventions, home visits, remote tele-monitoring, and other phone-based applications (Austin, Landis, & Hanger, 2012). The AHRQ guidelines for HF in adults outlined strategies that include telephone contact as a method to improve adherence (Institute for Clinical Systems Improvement (ICSI), 2011). A study using pharmacists to provide a post-discharge call to patients identified as high risk for readmission, demonstrated a reduction in 30-day readmissions from 13.1% to 6% (AHRQ, 2007).

The growing importance of continuity of care associated with increasing prevalence of chronic illness and prevention of hospital readmissions has highlighted the need for effective condition-specific care coordination programs. The transition at hospital discharge involves communication and transfer of complex information, which often fail. Such failures can harm care continuity and lead to readmissions or other adverse events. Hospital-based post discharge phone calls can be a cost effective and practical means to improve care continuity (Cochran, Blair, Wissinger, & Nuss, 2012).

Jack, et al. (2009) in the reengineered Project RED used a structured post discharge phone call to reinforce the discharge plan and to identify and solve post discharge problems. Their randomized trial testing the effectiveness of RED (Jack et al., 2009) and ongoing data analysis demonstrated that this phone call is an important aspect of the program and they recommend that hospitals implement the call strategy to achieve results found in the RED trial.

In a study of an interactive telephone-based intervention (Austin, Landis, & Hanger, 2012), HF patients received a daily telephone call where several clinical questions were asked and a message reinforcing education was provided. Clinical follow-up was done if answers to the clinical questions indicated deterioration in patient condition. The study demonstrated a decrease in the readmission rate for the study group at 10% compared to the facility annual readmission rate for HF patients of 21% (Austin et al., 2012).

Effectiveness of a telephone intervention was also studied by Harrison, Hara, Pope, Young, and Rula (2011) in their retrospective cohort study of 30,272 members of a commercial health plan. Claims data were examined to determine the impact of a call within 14 days of discharge on readmission rates. The intervention group was found to be 23.1% less likely to be readmitted than the comparison group who did not receive a phone call. The authors concluded that a timely post discharge telephone follow-up was effective in reducing near term hospital readmissions and also provided a means of reducing costs for health plans.

In a recent study, Simpson (2014) reported on a quality improvement project to reduce HF patient readmissions. The interventions in the study included risk stratification of HF patients for likelihood of readmission, intensive education, and post discharge telephone contact for high-risk HF patients. Because the majority of patients in the sample were at increased risk for readmission, the risk stratification was discontinued and it was decided that all HF patients would be assumed to be at increased risk for readmission. The readmission rate for patients receiving post discharge telephone contact

from a nurse practitioner (NP) was 41% less than the readmission rate for the patients who did not have telephone contact. The author concluded that transitional care in the form of post discharge telephone contact with patients with the goal of reinforcing HF education and self-care strategies and assisting with problems or issues is key to the prevention of readmissions. The author also suggested that institutions that routinely contact discharged patients to assess for satisfaction with hospital care could add questions specific to HF care for those patients with HF diagnosis (Simpson, 2014).

Local Background and Context

The project setting was a 366-bed community, faith-based, not-for-profit hospital that is a member of a larger, multistate healthcare system. The hospital cares for approximately 1400 inpatients each month and sees over 5000 Emergency Department patients each month. The clinical services include medical, surgical, cardiovascular, with a nationally recognized open heart surgery and cardiac interventional program, a regional cancer center, maternal/child services, and neonatal intensive care. There are approximately 2,300 employees, with over 700 licensed nurses. The hospital provides clinical rotations for nursing students in associate degree, bachelor's degree, second-degree bachelor's, and master's degree programs. Student nurses are employed as Student Nurse Externs (SNE) in a work study program after their initial clinical rotations are completed.

The community this hospital serves consists of a primary service area that is an urban community of more than 500,000 residents and a secondary service area of the surrounding communities that total more than a million residents. The urban community

has many residents who are uninsured or underinsured. It has a high rate of unemployment and the city had recently declared bankruptcy. A recent community health assessment demonstrates that the residents have a high rate of diabetes, cardiovascular and renal disease, and asthma. The hospital admissions reflect these same conditions, with a high rate of HF patients and a higher than national rate of readmissions of patients with HF.

As one of the strategies implemented by the LEAN process improvement team, hospitalized HF patients received targeted discharge planning and education and an effort was made to confirm a doctor's follow-up appointment within 72 hours of discharge. Some patients were referred and accepted to a home health program, which provided weekly home follow-up visits for the first 30 days post discharge. After the first 30 days, home health program patients received telephone contact by a registered nurse (RN). Although initially there was some decline in the readmission rates within 30 days, the decline was not sustained and readmissions continued. The baseline readmission rate (measured in calendar year 2009) for HF patients was 19.6%. Within six months of implementation of the program strategies, it was 12%; however, by the end of that fiscal year (2010) the rate had increased to 22.7 %. For the six month time period of July 1, 2012 to February 28, 2013, the HF patient readmission rate was 25.7%. Lean team investigation into HF readmissions revealed the following: (a) the patient was not seen by a provider within the first week after discharge; (b) the patient was not able to participate in the home health program, due to lack of qualified insurance; and (c) the patient was

not enrolled in the telephone contact program (Lean Readmission Reduction Team, 2012). This program revised the discharge phone call to address these issues.

Definition of Terms

In this paper, *continuum of care* means the delivery of healthcare over a period of time and may refer to care provided from birth to end of life (McBryde-Foster & Allen, 2005). In this paper, *Care Coordination* means the communication of health care needs in varying patient settings (Shulman, 2015). In this paper, *heart failure patients* are patients whose heart fails to pump blood with normal efficiency (Gheorghiade & Pang, 2009). In this paper, *readmission* means a return to an acute care hospital after discharge (Elixhauser & Steiner, 2013). In this paper, *Project Red* refers to an evidence-based practice used to reduce readmissions (Jack et. al., 2009).

Role of the DNP Student

Currently, I serve as the Director of Care Coordination (Case Management). As Director of Care Coordination, I have oversight of the Case Managers and Social Workers. One of primary responsibilities Care Coordination is the patient's movement throughout the continuum care or the varying health care settings. Those settings include the acute care hospital, skilled nursing facility, acute or inpatient rehab facilities, and home with home health care. Ensuring continuity of care in varying health settings is instrumental in ensuring the best health outcomes for the patient and preventing readmissions. The reduction of readmission for HF patients would indicate we are able to meet the needs of the patient in varying settings. The revision of Project RED's discharge

phone call and the increased number of phone calls will allow me to address access for the underserved, which is an issue that has bothered me since becoming Director of Care Coordination. As the DNP student I will serve as project sponsor and have responsibility for ensuring communication within the team and stakeholders. I will also be responsible for obtaining the necessary resources and addressing any barriers that may arise during the project.

Role of the Project Team

The project sponsor was the CEO of the facility. Key stakeholders included the Performance Excellence/Lean Director and Performance Excellence team (PE) Team participants in the prevention of readmissions team. Team members will include the Performance Excellence Lean Process Improvement facilitator to ensure the process/project is implemented properly. The PE team improvement facilitator provided guidance on proper utilization of Six Sigma methodology for problem solving and solution development. A registered nurse from the Lean Process Improvement Team provided education to the team regarding the previous strategies implemented and also provided clinical guidance for the student nurse externs. A registered nurse first line supervisor who oversees the student nurse extern program also provided education for the student nurse externs. The student nurse externs will conduct the follow-up phone calls and provide education and direction to the HF patients.

The team convened and developed a methodology to identify the patients with the diagnosis of HF weekly. The feedback will occur during the weekly team meetings by way of vetting and formative evaluation. The vetting process will be facilitated by the PE

Director utilizing LEAN methodology for discussion. Discussion on program design, participant selection methodology, program goals, resource allocation and utilization will be some of the topics discussed. The formative evaluation methodology will ensure there is clarification of program goals, development of a plan for monitoring program goal accomplishment, review of performance improvement problems encountered during the program, and implications for program practices and specific changes in practices. Decisions for program changes were made based on consensus vote.

Potential bias for myself are not anticipated as the goal of the project is to complete program planning.

Summary

Hospitals are charged with finding financially responsible interventions that effectively reduce readmissions, and specifically targeted interventions need to be identified. Project Red serves as the current evidence-based practice used to decrease readmissions. This project will add to Project Red and Kotter's eight step change model will be used as a guide for the implementation of this project (Kotter, 1996). The first six steps in Kotter eight step change model will be covered by the project and the last two steps will be covered after the project is completed. In order to address the identified gap in practice of a persistent high readmission rate in HF patients, the project RED process was revised after a literature search and input from team of experts.

Section 3: Collection and Analysis of Evidence

Introduction

The problem to be addressed is the continued high rate of readmission of HF patients related to inadequate, ineffective transition strategies for adult patients discharged from the acute care hospital in northern California. Project Red has been implemented and the readmission rate for adult HF patients remained higher than the national rate at 25%. The goal of the project is to lower the readmission rate for HF patient by implementing discharge phone calls specific to HF patients. This section of the paper will outline practice-focused question, sources of evidence, and an analysis and synthesis of the project.

Practice-Focused Question

The problem addressed was the continued high rate of readmission of HF patients related to inadequate, ineffective transition strategies for adult patients discharged from the acute care hospital in Northern California. The gap in practice to be addressed is the lack of specificity with the discharge phone call questions that address the most frequent causes of readmissions for heart failure patients. The guiding question of this project was: In patients with HF is the use of the discharge phone with a specific script for HF patient an effective way to reduce readmissions for HF patients? The overarching program goal is to reduce 30-day readmission rates for HF patients. As this project is limited to program planning, the goal to reduce to 30-day readmissions will not be evaluated as a part of this project however the means to evaluate the effectiveness of the strategy is

included in the program planning. The deliverables at the conclusion of this project were a new discharge phone call script specifically for heart failure patients, a plan for implementation and a plan for evaluation.

Although several strategies have been tried, the readmission rate for adult HF patients remained higher than the national rate at 25%. This rate results in increased risk for the patient with each readmission, increased cost to the organization with increased utilization of the emergency department or inpatient services, and may result in a reduction of reimbursement for Medicare patients. Despite the implementation of strategies to reduce readmissions the facility and the patients still remained at risk. The baseline readmission rate (measured in calendar year 2009) for HF patients was 19.6%. Within six months of implementation of the program strategies, it was 12%; however, by the end of that fiscal year (2010) the rate had increased to 22.7 %. For the 6-month time period of July 1, 2012 to February 28, 2013, the HF patient readmission rate was 25.7%. Interviews conducted with patients upon readmission and/or a review of their records demonstrated the following deficits in their transition to home: (a) the patient was not seen by a provider within the first week after discharge; (b) the patient was not able to participate in the home health program, due to lack of qualified insurance; and (c) the patient was not enrolled in the telephone contact program (SJMC Lean Readmission Reduction Team, 2012).

Thus, the project question is: How can an HF specific evidence-based program be developed as an effective strategy for decreasing readmission of HF patients?

Sources of Evidence

Literature review regarding strategies that have the potential to reduce readmissions of the HF patient served as the first source of evidence for this project. The resource intensiveness of many of the strategies suggested the need to design a specific, cost-effective program.

Jencks et al. (2009) in their study of Medicare readmissions posited that more than half of HF readmissions are preventable. The causes for readmission have been studied in efforts to target interventions aimed at prevention. In a review by the Pittsburgh Regional Health Initiative (PRHI) (2011), the authors noted that a unique aspect of readmissions is the potential for the causes to span the continuum of care across multiple providers. They also noted that although a focus on transition of patients from hospital to home is important, the readmission may be due to something that did or did not happen during hospitalization and may have little to do with factors the hospital can control (PRHI, 2011).

The project plan was to produce a specific transition strategy, the revision of the current telephone contact within the first 30 days of discharge, as the means for readmission prevention. The result of this project planning was shared with the LEAN team and the feedback from that team regarding the scripts served as a second source of evidence. A single script and single phone call intervention will be developed for HF patients for the hospital and dissemination for the regional service area initially and for organization in the future. A presentation is planned for a future organization-wide quality summit.

Analysis and Synthesis

Analysis of readmission of HF patients was conducted by review of literature for evidence-based practices for HF failure patients and Project RED. Extensive literature searches were conducted in CINAHL and MEDLINE databases for information. The articles were first organized based on readmission reduction strategies for all patient types and then more specifically for HF patients. In addition literature related to Project RED were first sorted all patient types and then those that specifically addressed HF patients. Specific literature was obtained related to the causation of readmissions for HF patients. The specific reasons were used to revise the discharge phone script questions. The evidence obtained from the literature was shared with the LEAN team. In addition there was a review of the current readmission strategies at the facility and throughout the hospital system. Information from the facility's LEAN team was obtained to determine causes of readmission and possible opportunities for improvement. All collected information was presented to the team for discussion and feedback. Once all the information was collected and vetted by the team, the program planning will be initiated. All information collected was used to revise the discharge phone call script of Project RED. The completed revision was given to the facility LEAN team for review and consideration. The implementation and evaluation of the program was conducted by a facility designated LEAN project after the DNP project planning completion.

The program implementation was conducted by a facility designated LEAN project team. The team will implement the plan under the supervision of the LEAN Director and

LEAN Steering Committee. The completed project deliverables included an implementation plan for the project RED revision. The implementation and evaluation of the program will be conducted by a facility designated LEAN project after completion of the revision planning project

Project RED revision was evaluated through review of readmission rates for HF from the MIDAS database and medical records following implementation of the revision. MIDAS is a facility clearing house data base.

Project evaluation will occur at the onset of the project and throughout the project by LEAN team. At the conclusion of the program the LEAN team will complete a summative evaluation form (see Appendix B).

Summary

Readmission within 30 days to the acute care setting presents concerns for health care officials from a financial and quality of care stand point. The AHA (2011) indicated numerous studies have demonstrated the influence of patient characteristics such as age and gender on readmission; however, there is not yet consensus on the most important predictive factors. Evidence does show that demographic and socioeconomic factors have a significant effect on readmissions. Continued research and the development of process that crosses the continuum of care are needed to address the multiple factors that lead to readmissions. The implementation of the selected intervention will further test whether the proposed intervention can be used to address readmissions for given a population.

Section IV: Findings and Recommendations

Section 4: Findings and Recommendations

Introduction

The problem addressed by the project was the continued high rate of readmission of HF patients related to inadequate, ineffective transition strategies for adult patients discharged from the acute care hospital in Northern California. Project Red had been implemented and the readmission rate for adult HF patients remained higher than the national rate at 25%. The goal of the project was to lower the readmission rate for HF patient by implementing discharge phone calls specific to HF patients. This section of the paper will report the findings and implications of the analysis of evidence and describe recommendations. This section will also summarize the contribution of the doctoral project team and the strengths and limitations of the project.

In summary, the sources of evidence were obtained through literature review and review of current strategies in place at the facility. The literature revealed many strategies that have the potential to reduce readmissions of the HF patient; however, there was a lack of definitive evidence about which hospital practices were effective. The resource intensiveness of many of the strategies suggested the need to design a specific, cost-effective program.

Findings and Implications

The project consisted of revising the discharge phone script and having the LEAN team review the script as a strategy to be implemented for readmission reduction among

heart failure patients. The facility utilizes LEAN Six Sigma as a methodology for process improvement that incorporates the use of interdisciplinary teams to address opportunities for improvement. The rapid improvement event (RIE) is the format in which current processes are reviewed and new processes and strategies are developed and implemented. The RIE process involves key process stakeholders focused on solving a narrowly scoped process improvement opportunity. The key stakeholders and participants involved in RIE included the LEAN Director who facilitated the team, nursing staff, a physical therapist, a financial analyst, the RN complex case manager, a social worker, and a team sponsor and contributor. The team was tasked to look at all readmissions to identify and address opportunities to lower the overall rate of readmissions. The assembled LEAN team served as a team of experts and will evaluate the revision of the discharge phone call script for heart failure patients.

The first day of RIE was spent developing a team charter and developing a problem statement that specifically identified the area that needed to be improved. The team also identified quantifiable objectives and target measures that could be specifically linked to a facility or system strategic goal or identified key performance indicator. The team selected a team leader who would help facilitate the team during RIE and developed a set of rules to govern conduct during the RIE. It was determined by the team there would be a morning meeting to discuss the plan of the day and any work completed outside the RIE and have a debrief at the end of the day to discuss the events of the day and any opportunities for improvement. The goal of LEAN team was to lower readmission/readmission rate through the development of strategies as was the goal of

this project planning project. In addition, the team would complete the summative evaluation (see Appendix C) of the revised discharge phone script.

Project Red's discharge phone call is but one of the strategies outline in the program. The program compromised a 12-step process that focused on standardizing the discharge process (Agency for Healthcare Research and Quality [AHQR], 2013). The purpose of the post-discharge phone call program was to identify and remedy possible issues with symptoms, medications, and follow-up care that may arise early in the post discharge period and to reinforce key elements of the discharge instructions, medication changes, and follow-up plans (Harrion et al., 2013). The questions contained in the script are general in nature and thus lacked specificity for specific chronic condition (see Appendix D). The current script being utilized for HF patients was obtained and reviewed. The questions were developed based on a review of literature that revealed the common causes of heart failure readmissions. Retrum et al. (2014) identified five common themes as reasons cited for hospital readmission: distressing symptoms, unavoidable progression of illness, influence of psychosocial factors, good but imperfect self-care adherence, and health system failures. Based on information obtained as to the causation of readmission for HF patients, a new script was created with specific questions related to heart failure patients (see Appendix E).

The script was presented to the team on Day 2 for review and recommendations. The team vetted the script and asked for minor revisions to the section of the script titled 'Education and Recommendations Given." The revisions were completed and the script was represented and the team approved the revised script for implementation.

On Day 5, the team completed the summative evaluation (see Appendix F) of the work related to the script. In summary, the team either "strongly agreed" or "agreed" with the work related to the completion of the script revision and rated my leadership of the project as excellent. One area of opportunity for improvement related to meeting time frames. Though the meetings for the most part adhered to the time frames, there were times in which more time was needed to complete tasks and, thus, the meetings ran longer than expected.

The facility has utilized RIE format for many years and we have seen fewer moments of disagreement and more moments of collaboration and understanding. One opportunity for learning came for the clinical staff from the financial analyst. The financial analyst was able to provide information specific to the impact of clinical process and the revenue cycle. The analyst informed the team of the $300,000 readmission paid by the facility. Though the information did not directly change the clinical process, it did provide an additional factor for the need to change and evaluate clinical practice related to readmissions. The opportunity for information sharing allowed the clinical staff an opportunity to see how clinical process directly impacts financial performance and our ability to answer requests of the clinical staff for new equipment and improved staffing.

The revision of the discharge phone call will address the deficits identified in the literature as principle causes for readmissions. The revision will provide the patients with the needed communication with health care professionals to aid in the management of their chronic illness. In addition, by reducing readmissions for HF patients the facility would see an overall decrease in emergency room (ER) utilization. The decrease in ER utilization would

allow for those requiring acute care to receive timely care. Implications for social change are that the telephone call(s) will also allow for those who lack access to health care due to social economic status to continue access with no cost to the patient and minimal cost to the organization. The lack of resources can be a deterrent for follow-up care for the underserved. The follow-up call treats all patients as equal and is not based on socioeconomic status.

Recommendations

The project was designed to address the continued high readmission rate for heart failure patients despite the implementation of Project RED, which initially had positive results. The project was to create a revised discharge phone call script specifically for HF patients (see Appendix E). The resulting script specifically ask the HF patients about issues that are most prevalent among this patient population. As an example, the script asks very specific questions about weight (see Appendix E), which is a key factor used to determine compliance with fluid consumption. The project design is influenced by studies that demonstrated a telephone intervention is a valuable component of a post hospital discharge strategy to prevent readmissions.

The outcomes measure will be readmission rates for SJMC within 30 days of the index discharge for heart failure patients. The baseline rate for readmissions will be obtained from the quality department. After implementation of the script, readmission rates for HF patients will be monitored monthly.

The current Project RED script (see Appendix D) is utilized by the nurse call center and is based on the Re-engineered Discharge (Project RED) (Jack et al., 2009). Appendix

D was modified by to address specific complications related to heart failure patients. The modified script addresses the patient's disease knowledge, medications, signs and symptoms of deterioration, weight-monitoring, and provider follow up. It also adds specific education (Appendix E, Section 3 for the patients related to weight gain with specific recommendations for follow up. Appendix E unlike Appendix D tests the patient's knowledge about heart failure complications through the use of teach-back.

The final plan for implementation will be determined by the LEAN team. A recommendation for the utilization of the student nurse externs will be made to make follow up phone calls to HF patients. The student nurse externs (SNE) are already employed by the hospital in a competitive program that allows student nurses in their final semesters to work with registered nurses to provide care. The student nurses are funded annually and are available with flexible shifts that could accommodate the phone call schedule. There is a large pool of student nurses from which to draw and a waiting list to participate in the program. The student nurses are supervised by the Float Pool nursing supervisor, a registered nurse prepared with a Master's degree in Nursing. An office with phones and computers is available for the telephone program. The script will be provided to the SNE. Training on the script will be provided by the LEAN team. The LEAN team will develop a mechanism to receive feedback from the SNE regarding the script and any necessary changes needed to the script.

Readmission rates for HF patients will be monitored monthly and compared to the baseline time frame. Baseline rates will come from the Midas Database. The readmission rates are continuously monitored and reported by the facility quality department. Thus,

there is no need to dedicate additional resources to the project solution once implemented for oversight.

Contribution of the Doctoral Project Team

Resources available to this project included the support of the administrative team and the current process LEAN improvement team, which included an analyst. The team utilized LEAN methodology to determine current state of readmissions, the current state process for readmission reduction, future state process for readmission reduction and project evaluation of this planning project. The team vetted the revised discharge script (see Appendix E) and provided feedback for revisions. The team also completed the project evaluation (see Appendix C). Each day team members were asked to complete varying task such as communication with staff regarding readmission knowledge, completion of process flow maps and fishbone diagrams, and review of readmission rate data.

Strength and Limitations of the Project

As hospital administrators strive to reduce readmission rates to avoid CMS penalties, they also are looking for a cost-effective method, as there is currently no additional reimbursement to the hospital for the resources used in transition strategies. Hospitals have focused on readmission prevention strategies to improve the transition of patients from the hospital to the community because, although the causes of a hospital readmission may span multiple providers along the continuum of care, the hospital is currently the only provider being penalized. A strength of the project is the telephone method for follow up that can be applied cost effectively over a large number of patients, regardless of their payer source. The revision addresses the specific information related to

HF self-care management. A potential weakness can be that it requires the patients be willing participants in the phone call and that they take initiative to follow-up and follow through with the guidance provided.

The revision of a known evidence-based strategy was also strength. The script provided the foundation for the creation of the specific script. Additionally the literature available related to HF patients was abundant and accessible. The utilization of the LEAN process was also a strength as it provided the framework in which to work along with valuable feedback related to the script revised by the LEAN team.

The planning process was strength in that it identified potential future opportunities related to the development of scripts for other chronic conditions with specific questions that address factors related to readmissions for those conditions. The script also can serve as the spring board for the use of advanced practice nurses with medicine community-approved treatment protocols related to chronic conditions. The protocols would provide treatment regimens based on medically approved parameters. The next step in the process is the creation of protocols for the administration of diuretics related to weight gain for HF patients. The current cardiology committee is willing to collaborate after the implementation of the new discharge phone call script.

Evaluation of the effectiveness of script could be challenging. SJMC currently has an initiative to lower the length of stay; thus, patients are being discharged at a higher rate than anticipated, and the volume of discharges could influence the timing of the telephone call interventions. Another aspect that could influence the readmission rate is the low socioeconomic patient population and the lack of access to follow-up care. The key to the

success of the project is primarily centered on the patient's willingness to be involved in self-care.

Section V: Dissemination Plan

A presentation is planned for a future organization-wide quality summit. A poster presentation will be submitted for the Annual Program of the statewide nursing leadership organization, the Association of California Nurse Leaders (ACNL). Readmission prevention strategies are a current focus of healthcare literature. A manuscript will be prepared and submitted to a quality, care management, or nursing administration journal for publication.

Analysis of Self

The development of a program in the dynamic setting of the acute care hospital proved challenging for me as a scholar and practitioner. The simple concept of program development versus conducting research proved to be the biggest challenge. As a practitioner in leadership, I am charged with program development, research, and implementation. I am not often asked to design only and, thus, the urge to conduct research was very difficult to contain. Bridging the gap between theory and application is one of the many charges I have as a leader and this project asked that I stymie my "natural" instinct to conduct research. This process has definitely made me realize I am more in line with conducting research than simply program planning. As I completed the project, I found it easier to build upon the foundation of information gathered during the process. I have better understanding of the IRB process and what is expected with data collection and subject identification. The biggest challenge I endured during the process is in regard to time. This process took far longer than I would ever have imagined. The balance between family, work, and school is one that in theory sounds great but in

actuality is very difficult. I know now as scholar I have to be realistic about the projects, research, and programs to which I commit to become involved.

Summary

Evaluation of effectiveness of readmission prevention strategies needs to continue. As healthcare reform continues to dictate less time spent in acute care settings and more emphasis on ambulatory and community aspects of care, more creative strategies that have increased appeal for patients need to be explored. This project focused on the revision of an evidence-based discharge telephone script that addressed specific factors related to HF patients. The project involved the use of the facilities QI process and a LEAN team. The LEAN team provided feedback on the revised script and evaluation of the DNP student. The script was completed with a recommendation for implementation.

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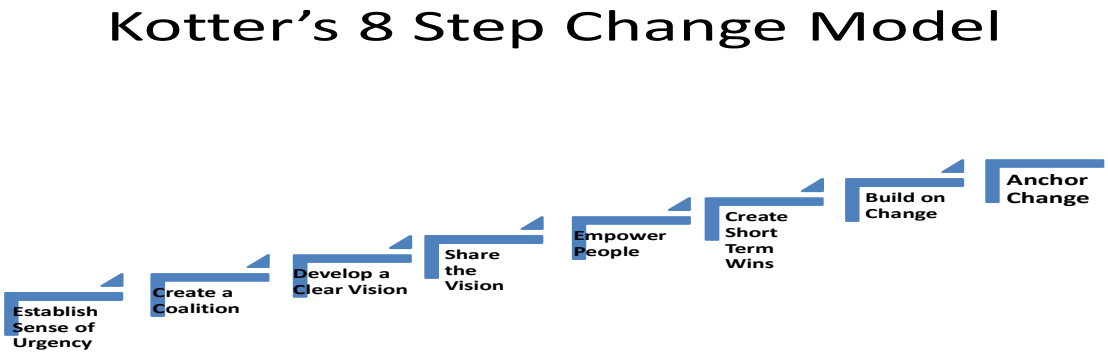
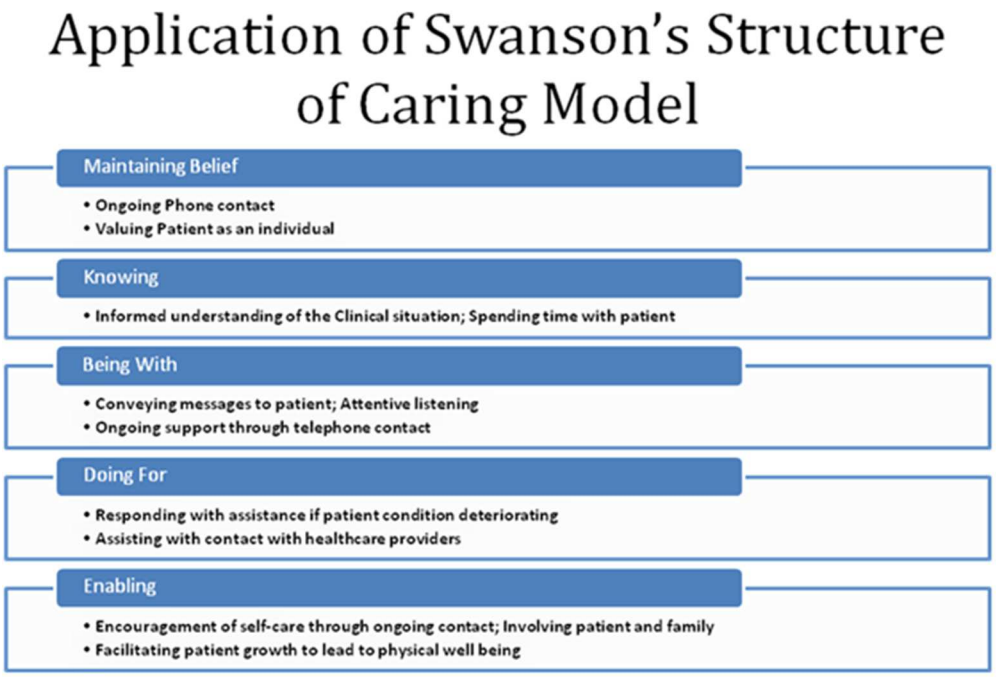
Appendix A

Kotter's 8 Step Change Model



Appendix B:

Swanson's Structure of Caring Model



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
N/A = Can not judge

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

Q1 The problem was made clear to you in the beginning. ___ ___ ___

Q2 The DNP student analyzed and synthesized the evidence-based literature for the team. ___ ___ ___

Q3 The stated program goal was appropriate. ___ ___ ___

Q4 The stated project objective(s) was met. ___ ___ ___

Meeting agendas sent out in a timely manner. ___ ___ ___

Q6 Meeting minutes submitted in a timely manner. ___ ___ ___

Q7 Meetings held to the allotted time frame. ___ ___ ___

Q8 The meetings were productive. ___ ___ ___

Q9 I had input into the process. ___ ___ ___

Please use the following scale for the question

Scale: Ex= Excellent G = Good NGP = Neither good nor poor, P= Poor, VP= Very Poor
N/A = Can not judge
Ex = 5 G = 4 NGP = 3 P = 2 VP = 1 N/A= 0

Q10 How would you rate the DNP student's leadership throughout the process? ___ ___ ___

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

Appendix D

Project RED Discharge phone call script

Post-discharge Follow-up Phone Call Script (Patient Version)

This form reinforces the information provided to the patient at discharge. The patient's discharge information should be available to the interviewer at the time of this call.

CALLER: Hello Mr./Ms. _____. I am [caller's name], a [type of clinician] from [name of hospital]. You may remember that when you left, the [hospital name] discharge educator, [DE name], mentioned you'd receive a call checking in on things. I am hoping to talk to you about your medical issues, see how you are doing, and see if there is anything I can do to help you. Do you mind if I ask you a few questions so I can see if there is anything I can help you with?

Is this a good time to talk? It will probably take about 15 to 20 minutes, depending on the number of medicines you are taking.

If yes, continue.

If no, CALLER: Is there a better time that I can call you back?

A. Health Status Diagnosis

CALLER: Before you left the hospital, [DE name] spoke to you about your main problem during your hospital stay. This is also called your "primary discharge diagnosis." Using your own words, can you explain to me what your main problem or diagnosis is?

If yes, confirm the patient's knowledge of the discharge diagnosis using the "teach-back" method. After the patient describes his or her diagnosis, clarify any misconceptions or misunderstandings using a question and answer format to keep the patient engaged.

If no, use this opportunity to provide patient education about the discharge diagnosis. Then conduct teach-back to confirm the patient understood.

CALLER: What did the medical team at the hospital tell you to watch out for to make sure you're o.k.?

Review specific symptoms to watch out for/things to do for this diagnosis (e.g., weigh self, check blood sugar, check blood pressure, create peak flow chart).

Measure patient's understanding of disease-related symptoms or symptoms of relapse (e.g., review diagnosis pages from AHCP).

CALLER: Do you have any questions for me about your main problem [diagnosis]? Is there anything I can better explain for you?

If yes, explain, using plain language (no jargon or medical terms).

If no, continue.

CALLER: Since you left the hospital, do *you* feel your main problem, [diagnosis], has improved, worsened, or not changed? What does your family or caregiver think?

If improved or no change, continue below.

If primary condition has worsened,

CALLER: I'm sorry to hear that. How has it gotten worse? Have you spoken to or seen any doctors or nurses about this since you left the hospital?

If yes, CALLER: Who have you spoken with/seen? And what did they suggest you do? Have you done that?

Using clinical judgment, use this conversation to determine if further recommendations, teaching, or interventions are necessary.
Record any action patient/caregiver has taken and your recommendations on the documentation sheet.
CALLER: Have any new medical problems come up since you left the hospital?
If yes:
CALLER: What has happened?
CALLER: Is there anyone else involved in your care that I should talk to?
If yes, Name: _____
Phone number: _____
CALLER: Have you spoken to anyone about this problem? Prompt if necessary: Has anyone:
Contacted or seen PCP?
Gone to the ER/urgent care?
Gone to another hospital/provider?
Spoken with visiting nurse?
Other?
Following the conversation about the current state of the patient's medical condition, consider recommendations to make to the caregiver, such as calling PCP, going to emergency department, etc. Record any actions and recommendations on documentation sheet.

B. Medicines

High Alert Medicines

Use the guide below to help monitor medicines with significant risk for adverse events.

Drug Category	**What To Look For**
Anticoagulants	Bleeding; who is managing INR
Antibiotics	Diarrhea; backup method of birth control Should not taken at same time as calcium and multivitamin
Antiretrovirals	Review profile for drug interactions
Insulin	Inquire about fasting blood sugar
Antihypertensives	Dizziness If yes, suggest patient space out medicines (keep diuretic in a.m.)
Medicines related to primary diagnosis	Focus on acquisition and medication adherence

Can you bring all of your medicines to the phone, please? We will review them during this call. Bring both prescription medicines and over-the-counter medicines, the ones you can buy at a drugstore without a prescription. Also, bring any supplements or traditional medicines, such as herbs, you are taking. Finally, could you also please bring to the phone the care plan that we gave you before you left the hospital?
CALLER: Do you have all of your medicines in front of you now?
CALLER: I'm going to ask you a few questions about each one of your medicines to see if there is anything I can help you with. We will go through your medicines one by one.
First of all, I want to make sure that the medicines you were given were the right ones. Then we'll discuss how often you've been able to take them and any problems or questions you might have about any of them.
Choose one of your medicines to start with.

What is the name of this medicine? The name of it should be on the label. **If the patient is using a generic,** check that he or she understands that the brand and generic names are two names for the same medicine.
At what times during the day do you take this medicine?
How much do you take each time?
If the patient answers in terms of how many pills, lozenges, suppositories, etc. What is the strength of the medicine? It should say a number and a unit such as mg or mcg.
How do you take this medicine? **If there are special instructions** (e.g., take with food), probe as to whether the patient knows the instructions and whether he or she is taking the medicine as instructed.
What do you take this medicine for?
Have you had any concerns or problems taking this medicine? Has anything gotten in the way of your being able to take it? Have you ever missed taking this medicine when you were supposed to? Why?
Do you think you are experiencing any side effects from the medicine?
If yes, Could you please describe these side effects?
Are you taking any other medicines? Repeat list of questions for each medicine.
After patient has described all medicines, ask: Are you taking any additional medicines that you haven't already told me about, including other prescription medicines, over-the-counter medicines, that is, medicines you can get without a prescription, or herbal medicines, vitamins, or supplements?
If patient has been prescribed medicines that the patient hasn't mentioned, ask whether he or she is taking that medicine.
If yes, go through the list of medicine questions.
If not, probe as to why not. **If patient is unaware of the medicine,** make a note to check with discharge physician as to whether patient is supposed to be taking it, whether a prescription was issued, etc.
CALLER: Have you been using the medicine calendar (in your care plan) that was given to you when you left the hospital?
If yes, provide positive reinforcement of this tool.
If no, suggest using this tool to help remember to take the medicines as directed. **If patient has lost care plan,** offer to send a new copy of AHCP by mail or email.
CALLER: Do you use a pill box?
If yes, provide positive reinforcement of using this tool.
If no, suggest using this tool to help remember to take the medicines as ordered.
CALLER: What questions do you have today regarding your medicines and medicine calendar (if using)?
CALLER: Does your family or caregiver have any questions or concerns about your medicines?
Please note on the documentation sheet any recommendation you made to the patient and followup actions you took.

C. Clarification of Appointments

CALLER: Now, I'm going to make sure you and I have the same information about your appointments and tests that are coming up. You were given appointments with your doctors [and for lab tests] when you left the hospital. Can you please tell me:
What is the next appointment you have scheduled?
Who is your appointment with?

What is your appointment for?
When is this appointment?
What is your plan for getting to your appointment?
Are you going to be able to make it to your appointment? Is there anything that might get in the way of your getting to this appointment?
If yes, Let's talk about how we can work around these difficulties.
If patient plans to keep appointment, ask, Do you have the phone number to call if something unexpectedly comes up and you can't make the appointment?
If patient can't keep appointment, get the patient to reschedule: As soon as we hang up, can you call to reschedule your appointment? **If patient is unable or unwilling to make the call to reschedule,** offer to make the call: I can reschedule that appointment for you. What days and times would you be able to make an appointment? **After you get several times, say,** Thanks. I'll call you back when I've been able to set up the appointment. **If patient refuses to cooperate,** consult the DE and hospital team.
Do you have any other appointments scheduled? **If yes,** repeat the set of questions. **If no,** but other appointments are scheduled, ask, Are you looking at the care plan? Are there any other appointments listed there? Review these appointments.
D. Coordination of Postdischarge Home Services (if applicable):
CALLER: Have you been visited by [name of service, e.g., visiting nurse, respiratory therapist] since you came home?
If no, CALLER: I will call to make sure they are coming soon.
CALLER: Have you received the [name of equipment] that was supposed to be delivered?
If no, CALLER: I will call to make sure it is coming soon.
CALLER: I understand that [name of caregiver] was going to help you out at home. Has [name of caregiver] been able to provide the help you need?
If no, CALLER: Are you going to call [name of caregiver] to see if she [or he] is going to be able to help you?
If no, Is there anyone else that could help you out? Can you call [her/him] to see when [she/he] could come?
E. What To Do If a Problem Arises
CALLER: Before we hang up, I want to make sure that if a medical problem arises, you know what to do. If you're having an emergency, for example [give disease-specific examples, e.g., chest pain, trouble breathing], what would you do?
If patient does not say, "Call 911," explain the need to get an ambulance so he or she can see a doctor right away, and confirm patient understanding.
CALLER: And what about if you [give example of urgent but not emergent problem] in the evening? What would you do then? Check if patient knows how to reach the doctor after hours.
If DE help line operates after hours, check that the patient knows that and can find the number on the AHCP. Confirm understanding.
CALLER: And what about if you are having a medical problem that is not an emergency, such as [give disease-specific examples] and want to be seen by your doctor before your next scheduled appointment, what would you do?
If patient does not know, instruct: You can call your doctor's office directly and ask for an earlier appointment. Sometimes your doctor is very busy, so if you are having difficulty obtaining an appointment, ask if you can be seen by someone else in the office, such as a nurse, nurse practitioner, or physician's assistant. Confirm understanding.

CALLER: Just to make sure we're on the same page, can you tell me what you'd do if [create nonemergent scenario]?
If patient answers incorrectly, ask: Do you have your doctor's phone number handy? It should be on the care plan on the appointments page. **If patient can't tell you the number, say,** Let me give you the phone number for your primary care doctor just in case. Do you have a pen and paper to write this down? Do you need me to mail or email you another copy of your care plan?
If yes, confirm address or email.
CALLER: Do your caregivers have these numbers also?
If no, ask: Would you like me to email or mail a copy of your care plan to them?
If yes, confirm address or email.
CALLER: That's all I needed to talk to you about. We've covered a lot of information. What questions can I answer for you?
If none, CALLER: Thank you and have a good day. If you have to follow up with patient on anything, remind him or her that you will be calling back.
If the patient has questions, answer them

Appendix E

Revised Discharge phone call script

"Hello, may I please speak with <u>Mr/Mrs.Ms first and last name?"</u>

- **If not that person: Is there a better time or different number where I could reach _____?**

If it is that person: My name is [name]. I'm a Registered Nurse and I am calling in behalf of [hospital name]. Dr. [name] asked that I call you to see how you are feeling. How are you today? [Escalate as per diagnosis as applicable]

**OPTIONAL for disease management patients: Disease management questions

[Is this person a high risk patient? Which high risk group? → take to applicable high risk group questions]

- **[Not high risk – go to rx question]**
- **[CHF]**

1. Health Status and Diagnosis

Do you know why you were in the hospital? In your own words, can you explain your problem or diagnosis?

Since you left the hospital do you feel your main problem is improved, gotten worse or about the same?

Since you left the hospital have any new medical problems come up?

(If improved or stayed the same, continue with script below (**BOLD**). If worsened or new problem say, I am sorry to hear that. How has it gotten worse, ask: Have you spoken to or seen a doctor or nurse since you left the hospital? If so, who did you speak with and what have they decided to do:

Have you

Seen your primary care doctor (name)_____
Call or contacted primary care doctor (name)_____
Gone to ED or Urgent Care (specify)_____
Gone to a hospital (name)_____
Spoke with visiting or home health nurse_____
Other_____

Was your follow-up appointment made with your PCP or specialist before you left the hospital?

- Yes
- No
- Not applicable/Didn't ask

[PCP Escalation Documentation]

- No escalation indicated
- THMCC RN reinforce importance and timing
- THMCC RN warm transfers to PCP

Are you planning on keeping that appointment?

- Yes
- No
- Not applicable/Didn't ask

[PCP Escalation Documentation]

- No escalation indicated
- THMCC RN reinforce importance and timing
- THMCC RN warm transfers to PCP

If services were ordered for you at discharge, have they started yet?

- Yes
- No
- Not applicable/Didn't ask

[Services Escalation documentation]

- No escalation indicated
- Escalated to hospital designee

2. Medication Review

Dr. [name] gave you some prescriptions to be filled. Did you get those filled?

- Yes
- No
- Not applicable

[Rx Filled Escalation Documentation]

- No escalation indicated
- THMCC RN resolved with caller
- Referred to PCP
- Referred to Hospital Designee

I would like to review your medicines with you. Do you have all the medicines you are taking now in front of you? Do you also have a list of these medications that was given to you when you left the hospital? I am going to go over your medicines with you one by one, including the medicines your doctor has prescribed for you and any medicines that you buy without a prescription.

Do you understand how to take them?

- Yes
- No
- Not applicable

[Rx Understanding Escalation Documentation]

- No escalation indicated
- THMCC RN resolved with caller
- Referred to PCP
- Referred to Hospital Designee

Let's review the medicines one by one (refer to the discharge medication list and ask the following questions for each medication). Do you have _____medication? What is the strength of the medicine? What is the reason/purpose you take this medicine? How many times a day are you supposed to take this medicine? Are you taking the medicine as directed? Do you have any concerns about the medicine? Do you think you are experiencing any side effects of the medicine? Do you use a pill box to organize your medications?

If any discrepancies or problems with the medications are noted, instruct the patient to call the primary care or treating doctor immediately.

Do you understand your discharge instructions; did we answer all your questions?
[Document review of discharge instructions]

- Yes
- No
- Not applicable/Didn't ask

[Dx Instruction Escalation Documentation]

- No escalation indicated
- THMCC RN resolved with caller
- Referred to PCP
- Referred to Hospital Designee

Are you experiencing any new or unexpected problems?

- Yes
- No

[Symptoms Escalation Documentation]

- No escalation indicated
- THMCC RN resolved with caller
- Referred to PCP/warm transfer to PCP
- Referred to Hospital Designee

Comment

Congestive Heart Failure – CHF

1 **Are you having any chest pain? Tell me the location.**
   a. No pain
   b. Sternum
   c. Radiating down arms, back, into the neck and jaw
   d. Pressure-like feeling in chest
   e. Feels as it did with previously diagnosed heartburn; acid taste in mouth

2. **How long does the chest pain last?**
   a. None/Not applicable

b. Seconds
c. Less than five minutes
d. Greater than 5 minutes
e. Constant

3. **Are you having any shortness of breath?**
   - Yes
   - No

4. **Does it increase when lying down?**
   - Yes
   - No
   - Not applicable/Didn't Ask

3. Weight monitoring and Symptoms

When you were in the hospital were you told to monitor your weight daily? Tell me in your own words why weighing yourself daily is important. Did you weigh yourself today? What is your weight in pounds today? Do you know what to do if gain more than 2 pounds in a day? (If the patient has gained more than 2 pounds since the previous day, have them contact their physician immediately).

When you were in the hospital were you told what symptoms you should report to your doctor? In your own words can you tell me what symptoms you should report? Are you having any of these symptoms now.

I want to make sure you know what to do if a medical problem comes up. If you are having a medical emergency, such as chest pain or trouble breathing, you or your family members need to call 911 to get an ambulance so you can be taken care of right away.

5. **Have you been keeping a log of your weight every morning?**
   - Yes
   - No

6. **Has your weight increased since you were discharged?**
   - Increased 1-2 lbs.
   - Increased 3-5 lbs.
   - Increased >5lbs
   - No – weight has not increased
   - Don't Know

Offer weight education: Weigh yourself at the same time each morning after urinating, wearing similar clothing and using the same scale on hard flooring, not carpet.
   - Offered

- Not discussed

7. **Do you have any questions about your low sodium diet orders or fluid retention?**
8. **If any services were ordered for you after discharge, have they started?** (Telehealth, CTI, Meals on Wheels, DLC)

Education Recommendations Given: (multi-select - check which ones were provided)

- None

- After congestive heart failure is diagnosed, treatment should be started immediately. Perhaps the most important and yet most neglected aspect of treatment involves **lifestyle modifications**. Sodium causes an increase in fluid accumulation in the body's tissues. Because the body is often congested with excess fluid, patients become very sensitive to the levels of intake of sodium and water. Restricting salt and fluid intake is often recommended because of the tendency of fluid to accumulate in the lungs and surrounding tissues. An American "no added salt" diet can still contain 4 to 6 grams (4000 to 6000 milligrams) of sodium per day. In individuals with congestive heart failure, an intake of no more than 2 grams (2000 milligrams) of sodium per day is generally advised. Reading food labels and paying close attention to total sodium intake is very important. Severe restriction of alcohol consumption also is advised.

- Likewise, the total amount of fluid consumed must be regulated. Although many people with congestive heart failure take diuretics to aid in the elimination of excess fluid, the action of these medications can be overwhelmed by an excess intake of water and other fluids. The maxim that "drinking eight glasses of water a day is healthy" certainly **does not** apply to patients with congestive heart failure. In fact, patients with more advanced cases of congestive heart failure are often advised to limit their total daily fluid intake from all sources to 2 quarts.

- An important tool for monitoring an appropriate fluid balance is the frequent measurement of body weight. An early sign of fluid accumulation is an increase in body weight. This may occur even before shortness of breath or swelling in the legs and other body tissues (edema) is detected. A weight gain of two to three pounds over two to three days should prompt a call to the physician, who may order an increase in the dose of diuretics or other methods designed to stop the early stages of fluid accumulation before it becomes more severe.

- It is normal to feel more tired some days than others. You need to gradually build up your activity level. Space you activities to avoid extreme fatigue. Take rest periods when necessary. Elevate your feet to reduce ankle swelling.

9. **CHF - Nurse Action/Recommendation**
    - No action indicated
    - Referred to PCP
    - Escalated to Hospital Designee

- Recommended Emergent Care

1. **"Can you think of anything the doctor or staff could have done to serve you better?"** Comments

(Checkboxes/drop down "trend" items)

2. **Would you recommend this hospital to your family and friends?** Yes/No Comments
3. **We like to recognize our staff. Is there anyone you would like me to compliment for the excellent job they did during your visit?"** Name/Comment
4. **Is there anything else I can help you with?**

Comments

[Don't forget to warm transfer to PCP if offered in initial assessment]

[This following statement is said to only those patients who give 'very good/excellent' comments. Otherwise go to the next section.] **Patient satisfaction is very important to our hospital. As such, you may receive a survey in the mail over the next few weeks. I hope you will take the time to complete it and send it back.**

Thank you so much for speaking with me and thank you for choosing our hospital to take care of you.

I hope you [continue to] feel better, Mr. (s) [name]

Do you or your family members have any additional questions or concerns? Can you tell me in your own words what you would do if you have an emergency medical problem?

Do you have the phone number for your doctor easily available?

Remember, we will be calling you daily for the next 2 weeks. We will be checking on you and asking for your weight monitoring. If you are experiencing any problems, do not wait for our phone call. Contact your doctor or go to the emergency department if necessary.

Do you have any questions for me? If not, Thank you and have a good day.

Appendix F

Results of Summative Evaluation

Scale: SD=Strongly Disagree D=Disagree U=Uncertain A=Agree SA=Strongly Agree N/A = Can not judge

Q1 The problem was made clear to you in the beginning. 7/7 =SA

Q2 The DNP student analyzed and synthesized the evidence-based literature for the team. 7/7 = SA

Q3 The stated program goal was appropriate. 7/7 = SA

Q4 The stated project objective(s) was met. 7/7 = SA

Q5 Meeting agendas sent out in a timely manner. 1/7 = A, 6/7 = SA

Q6 Meeting minutes submitted in a timely manner. 7/7 = SA

Q7 Meetings held to the allotted time frame. 2/7 = A, 5/7 = SA

Q8 The meetings were productive. 7/7 = SA

Q9 I had input into the process. 7/7 = SA

Please use the following scale for the question

Scale: Ex= Excellent G = Good NGP = Neither good nor poor, P= Poor, VP= Very Poor N/A = Can not judge
Ex = 5 G = 4 NGP = 3 P = 2 VP = 1 N/A= 0

Q10 How would you rate the DNP student's leadership throughout the process? 7/7 = EX