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# Care Coordination for Better Outcomes

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# Walden University

College of Health Sciences

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Chad Dunavan

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Walden University  
2017

Abstract

Care Coordination for Better Outcomes

by

Chad Dunavan

MSN, Walden University, 2014

BSN, Texas Tech University, 2000

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

February 2017

## Abstract

A deficiency of care coordination and delayed discharge planning has contributed to increased lengths of stay for telemetry patients and has pressed staff to discharge patients expeditiously, potentially leading to increased 30-day readmissions. Rushing the discharge process on the day of discharge has resulted in breakdowns in communication and lack of collaboration amongst the health care team of this study, contributing to extended lengths of stay, increased readmissions, and low Hospital Consumer Assessment of Healthcare Providers and Systems (HCAPHS) scores. This project highlighted a patient-centered care coordination team approach with 2 clinical registered nurses and a social worker who coordinated the discharge plan with the patients on admission. Discharge planning on admission and daily briefings involving care coordination and bedside staff reduced the length of stay, improved HCAPHS scores, and reduced 30-day readmissions by fostering better communication and collaboration. A 1-group pretest and posttest were utilized to compare data before care coordination and after care coordination. These findings yielded a length of stay reduction of 2.04 days, a 50% reduction in 30-day readmissions, and HCAPHS communication composite scores above the 50th percentile. The care coordination team exposed various programs and community resources that assisted with medications and durable medical equipment and suggested that companionship alleviated potential anxiety post discharge for those financially and socially burdened. The implications of a patient-centered team-based approach to discharge planning on admission eliminated barriers to discharge, improved patient knowledge of disease management, and provided a positive hospital experience.

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## Section 1: Nature of the Project

### **Introduction**

Care coordination management is a process of delivering safe, high-quality care to at-risk populations such as patients with various chronic conditions (Haas & Swan, 2014). An emphasis on care coordination offers opportunities for nurses to work in collaboration with integral parts of the interprofessional team. The care model allows the nurse the opportunity to develop the knowledge, skills, and attitudes to be a resource contributing to high-quality patient and organizational outcomes. Health care improvement under the Affordable Care Act (ACA) supports quality improvement and cost control to change the health care delivery system functions that are dependent on effective care coordination (Haas & Swan, 2014). In alignment with the ACA was the emphasis on care coordination, in which nurses are vital to systematizing patient care requirements, concentrating on improved patient care outcomes and cost efficiencies for diverse patient groups (Kieft, De Brouwer, Francke, & Delnoij, 2014). A care coordination program design provided primary care management for those patients who lack resource availabilities to overcome barriers pre and post hospital discharge (Haas & Swan, 2014). The care coordination model promoted a collaborative approach to a timelier prepared discharge and prevented readmissions. In Section 1, I discuss the formation and implementation of a care coordination program on a telemetry unit to expand patient care planning and to improve patient education and communication.

## **Background/Context**

The telemetry unit targeted for this pilot project was a 30-bed step-down unit with an average daily census of 26 patients. Historically, annualized admissions for the unit was approximately 2,400 admissions with 25% of those admissions admitted for observation. Annualized discharges were approximately 1,820 patients per year excluding transfers out. Coordinating care on this unit was difficult as one third of the patients admitted were unfunded, one third were covered by Medicare/Medicaid, and the last third were privately insured. At the time of this research, the length of stay (LOS) for telemetry patients was 5.5 days using historical data. The current LOS calculation was determined by considering all discharged patients from the telemetry unit. The calculation for determining the current baseline LOS looked at the last 12 months of data based on an average LOS (patient days divided by total discharges) per month. The expected LOS, estimated by the working diagnosis-related group, was the discharge target for the care coordination team to meet with all admitted patients.

A care transition program had been in place for 2 years now but had not delivered any specific outcomes towards patient care or discharge planning. The program had been limited to specific units that were chosen based on the readmission rates for that unit. The transition program houses five transition nurses who are assigned patients based on the LACE score that was completed on admission. The LACE score was configured based on length of stay, acuity of admission, comorbidities, and emergency room visits (Low et al., 2015). For a transition nurse to be assigned to a patient, the LACE score must add up to 10 or greater. Patients that accumulate a LACE score of 10 or greater are high risk for

discharge delays and possible readmission. The care transition program was not a patient-centered shared governance approach to discharge planning.

Some issues that have continued to plague the program are turnover and the use of licensed vocational nurses as transition nurses. The telemetry unit currently had an annualized turnover rate of 35%. The turnover could be a result of the workload incurred by this very busy unit, as the staff was responsible for serving as both the nurse and social worker. The licensed vocational nurses in the transition role have limited knowledge of resource utilization for discharge planning. The role of the licensed vocational nurse focused primarily on basic patient care such as medication administration and activities of daily living. The educational curriculum at the vocational level lacks care planning and the treatment and management of the patient beyond the bedside (National League for Nursing, 2010). Managing the patient as a whole requires advanced critical thinking skills and knowledge of potential resources that are provided in the curriculum of higher education programs of nursing. A strong association had determined that Baccalaureate prepared nurses' care planning leads to improved outcomes by reducing readmissions and LOS and decreasing mortality (Yakusheva, Lindrooth, & Weiss, 2014).

### **Problem Statement**

Recently, due to an increase in telemetry admissions, the unit has remained full with 30 patients. The increased LOS and high census produces telemetry holds in the emergency department (ED) and telemetry diversion as patients are redirecting to other facilities for care due to bed availability. The lack of care coordination and delayed discharge planning contributed to an increased LOS of telemetry patients and pressed

staff to quickly discharge patients to vacate beds for the patients holding in the ED.

Rushing the discharge process and not delivering concise, informative discharge teachings had resulted in low Hospital Consumer Assessment of Healthcare Providers and Systems, (HCAPHS) scores and in increased readmissions from a lack of discharge planning (Kieft et al., 2014).

When patients are admitted, multiple individuals are involved in collecting information from the patient or family. The nursing staff was responsible for developing a care plan, which at best was generic and vague. At times, these plans change on a shift-to-shift basis as nurses and other health care providers identify issues. Often these issues and changes in the plan of care are not communicated, leading to delays in care. Breakdowns in communication and lack of collaboration amongst the health care team have contributed to longer LOS, hospital readmissions, and low HCAPHS scores. In light of insignificant formulation of care and poor discharge planning, a team-based approach to coordinating patient care had been acknowledged and proposed to improve the patient experience and outcomes (Blackman et al., 2014).

### **Purpose Statement**

The purpose of the care coordination model was to improve discharge and care planning on the telemetry unit, supporting reductions in LOS, improving HCAPHS scores, and reducing hospital readmissions (Cipriano, 2012). Care coordination is a collaborative methodology to patient-centered care planning that transpires between the health care team and the patient to associate the appropriate care services exclusive to the patient (Tricco et al., 2014). Organizing services with patient involvement and ensuring

the plan of care was carried out post discharge greatly reduced readmissions and improved HCAPHS scores related to the discharge process. The purpose of this project was to establish care coordination teams consisting of a registered nurse clinical nurse leader, a registered nurse care coordinator, and a social worker for the unit who coordinated the plan of care for all patients admitted or transferred to the telemetry unit. Coordinating care contributed to reducing the LOS, improving HCAPHS scores, and reducing readmissions. Care coordination models foster better communication and improve the continuity of care for all telemetry patients. I collected baseline data electronically on the current LOS, HCAPHS composite percentiles, and readmission rates using the Horizon Business Insight (HBI) analytic tools.

### **Project Objectives**

The project initiative had three objectives. The first was to reduce the LOS on the selected telemetry unit. With an emphasis on the expected LOS, the goal would be to achieve a 10% LOS reduction from the current 5.5 days LOS the telemetry unit. Data were monitored concurrently and reported as a monthly LOS.

The second objective of care coordination was to improve communication by measuring specific HCAPHS measures. Currently, HCAPHS measures focused on communication were at or below the 10th percentile. The measures impacted by care coordination are the nurse communication, physician communication, communication regarding medications, and discharge information. The goals for improvement in these measures would be to increase each measure from at or below the 10th percentile to the 50th percentile. HCAPHS scores were utilized for reporting the monthly scores and

percentile rankings for each measure. Care coordination, in theory, improves communication and teamwork amongst the health care team. Improving communication and discharge planning by taking a shared decision-making, patient-centered approach affords the physician to present the patient with the best evidence about the discharge plan (Faber, Grande, Wollersheim, Hermens, & Elwyn, 2014). Care coordinators and social services met face to face with each patient daily to update the patient and family on the plan of care and expected discharge date and to identify any barriers to discharge.

The third objective was to reduce readmissions rates for telemetry patients. Readmission penalties are on the rise and organizations are scrambling to identify programs to support reducing possible readmissions. Readmissions have been attributed to poor discharge planning, premature discharges, poor medication reconciliation, and lack of communication and interpretation of discharge instructions (Brooks, 2015). Care coordination is an individualized approach geared to improve communication and discharge planning, which specifies personalized care around the needs and preferences of the patient after discharge (Faber et al., 2014). The current readmission rate for the proposed telemetry unit pilot was 20 patients per 30 days. As of March 2014, all-cause readmissions and Medicare penalty readmissions were monitored concurrently per unit. Reducing readmissions from 20 patients per month to 12 patients per month was the expected attainable goal after the care coordination program was implemented.

### **Practice Question**

Will the redesigned care coordination model consisting of a clinical nurse leader, a care coordinator, and a social worker on a 30-bed telemetry unit reduce the current LOS



of 5.5 days, improve HCAPHS composite scores from the 10th percentile to the 50th percentile on communication measures, and reduce readmissions from 20 patients per 30 days to 12 patients?

### **Significance of the Project**

Prior to the current project, there was not one individual who oversaw the patient's plan of care or followed the patient from hospital admission through discharge. Nursing shift work had led to poor communication and poor planning, as a patient could have six to 10 different nurses caring for them and updating the care plan before they were discharged. Care coordination recuperates continuity of care and encompasses informational interactions through clinician and patient communication (Bayliss et al., 2015). These two issues are linked to discharge delays and possible readmissions due to poor discharge education and planning. According to Camicia et al. (2012), "Patient-centered care coordination is a core professional standard and competency for all nursing practice" (p. 2). The implications of the care coordination program were to identify potential impediments to discharge such as financial barriers, self-care, family support, and living arrangements.

Care coordination assigns a specific individual to plan the care of the patient and see that the plan of care was monitored and achieved. The care coordination model allows for better continuity of care through care coordinators and social workers and provides a consistent communication channel amongst the patient, family, and other disciplines. By establishing and optimizing a therapeutic interaction, the care partnership between the patient and the nurse was established (Cropley, 2012). Creating a partnership

with the patient influences an improved approach to care coordination by enhancing the quality of the underlying relationship expressed through shared goals, knowledge, and shared respect (Hartgerink et al., 2013).

### **Reduction of Gaps**

The American Academy of Nursing and the Centers for Medicare and Medicaid Services have acknowledged that evidence-based care coordination supports improved health and enhanced care (Cipriano, 2012). The Agency for Healthcare Research and Quality (as cited in Cipriano, 2012) defined *care coordination* as the thoughtful organization of patient care undertakings across time and settings to facilitate an appropriate distribution of health care services. Introducing a care coordination model affords an interdisciplinary team approach to identifying care barriers and targets high-risk populations that have limited resources and access to care. Evidenced-based studies attest better care, better health, and cost reduction achieved through improved preparation and discharge planning. Research revealed that coordination amongst health care experts improved evidence-processing capabilities and enabled communication by amplifying the conveyance of high-quality care (Hartgerink et al., 2013).

The implications associated with introducing a care coordination model would be to reduce the patient's hospital LOS, improve the patient experience with enhanced communication channels, improve HCAPHS scores, and provide a comprehensive discharge plan that meets the needs of each patient, potentially reducing readmissions. Researchers had not discovered a significant correlation between care coordination and reduced LOS (Tricco et al., 2014). Previous research had uncovered that quality

discharge directives and processes provide the patient valid information regarding health maintenance and improved adherence to health management (Kennedy, Craig, Wetsel, Reimels, & Wright, 2013). Health care professionals must be aware of the patient's hesitancy to ask questions and challenge discharge information. Research had revealed that care coordination influences a nurse-patient shared partnership, improving patient satisfaction and LOS and decreasing unfavorable outcomes in the hospital (Cropley, 2012).

### **Implications of Social Change**

Social change encompasses the individuals followed by the care coordination program and expanding the patient's understanding of their illness and discharge directives (Hodges & Videto, 2011). Care coordination better prepares patients and families for post discharge by providing pertinent information to manage disease processes and preinstructed guidance when questions post hospitalization arise. Providing a comprehensive discharge plan during the hospital stay and reinforcing the education before discharge allows time for patients to verbalize instructions and available resources post hospitalization. The program will deliver an enhanced care model to help the patient understand medical conditions and discharge instructions to promote and maintain health. The social impact will demonstrate a decrease in patient LOS and a reduction in potential readmissions, ultimately leading to a better patient experience.

With the present HCAPHS scores below the 10th percentile composite on the telemetry unit and unit readmissions well above the national average, it was imperative to take action to establish improvements as these are publicly reported and will lead to

financial penalties. A collective approach by the health care team to improve communication and provide a more comprehensive discharge plan and education to patients could increase composite HCAPHS scores and reduce readmission measures. The community the health care organization serves deserves a more patient-centered approach to health care, and a care coordination program will provide the service that focuses on a patient-centered approach to a better quality of care.

### **Definition of Terms**

*Affordable Care Act (ACA):* A law that allows consumers to take charge of their health care. Gives the American people the stability and flexibility they need to make informed decisions about their health (U.S. Department of Health & Human Services, 2015).

*Continuity of care:* The communication of patient care information from shift to shift ensuring each caregiver is well informed about what has been observed and what was needed (Bayliss et al., 2015)

*Care coordination:* Physicians, nurses, and allied professionals working together to clarify responsibilities, care objectives, treatment plans, and discharge plans providing unified care (Tricco et al., 2014)

*Diagnosis-related group:* A system to classify any inpatient stay into groups for the purpose of payment. Involves the patient diagnosis and the resources necessary for the treatment of a condition. Determines the payment structure based on the LOS (Centers for Medicare & Medicaid Services, 2014).

*Evidence-based:* Nursing practices reinforced by incorporating the best available research and clinical expertise in the context of the patient's characteristics, culture, and preferences (Kettner, Moroney & Martin, 2013).

*Hospital Consumer Assessment of Healthcare Providers and Systems (HCAPHS):* A standardized random hospital survey that publicly reports the patient's perspective of hospital care. Discharged patients are chosen randomly to answer 27 questions about their hospital stay. The survey contains 18 core questions about critical aspects of the patient's hospital experience that are translated into composite percentage scores and compared to other health care organizations (Kennedy et al., 2013).

*Length of stay (LOS):* The average period of hospitalized inpatients admissions over a specific period of time. The average was determined by dividing the patient days by patient admissions on the unit (Organization for Economic Cooperation and Development, 2016).

*Patient-centered care:* Care that was respectful of and responsive to individual patient preferences, needs, and values, and ensures the patient's values guide the clinical decisions (Cropley, 2012).

*Readmission:* A hospitalization that occurs for any reason within 30 days of the initial admission discharge date (Brooks, 2015).

### **Assumptions and Limitations**

An expectation of the care coordination program was to balance coordination strengths amongst the health care professionals in the hospital to redesign care delivery (Hartgerink et al., 2013). A more responsive approach to discharge planning early in the

admission identified barriers that might delay the discharge process. I assumed that emphasizing a patient-centered collaborative approach with the health care team would deliver a more comprehensive plan for discharge because each discipline would be involved in the process. As care coordination becomes more prominent, the patients would experience a shorter LOS on the unit, decrease potential readmissions, and improve the patient experience, as the patient was the center of attention during the hospital stay. Leaders must mandate an accountable and fiscally responsible method by committing to the change transforming the culture of care delivery (Cropley, 2012).

One limitation I encountered during the project was a lack of participation from departments that are normally not directly involved in care planning and discharge planning. The project director took on the responsibility for participation supervision to ensure buy-in from all stakeholders. The care coordination team components were not aligned under one leader, and multiple leaders would have to merge services. Because the current positions are budgeted under existing departments, additional funding for the project was not necessary. The allocation of fulltime equivalent positions was assigned to the pilot telemetry unit.

An issue that surfaced during the implementation of the care coordination project was limited staffing availability, as it was necessary to assign staff specifically to the pilot unit. Gaps in discharge planning and social service availability on other units was limited due to assigning social services to the pilot unit; however, nursing and support staff would help meet the immediate needs on the other units. Another potential limitation was the inability of the electronic health record (EHR) to support the project

documentation as best of breed EHR systems lack integration. Not all members of the care coordination team have a common area in the EHR for documentation and communication. Communication and the continuity of patient care are crucial for reducing duplication of work. A shared binder on the telemetry unit for documentation was utilized until an electronic solution was developed. The binder provided applicable patient information for all the members of the team to track the progress made on each patient. Continuation and the exchange of pertinent information amongst the team would provide a better quality care coordination plan if the EHR system were integrated (Graetz et al., 2014).

### **Summary**

Lack of care coordination had been determined to be a precursor to delayed discharges, increased LOS, high readmission rates, and low HCAPHS composite scores. The implementation of a care coordination program offers each patient a specific point of contact, delivering a consistent message and care plan. Section 1 provided an overview of the current difficulties and quality quandaries related to care planning and discharge planning. Objectives specific to refining the coordination of patient care were improving HCAPHS measures, decreasing LOS, and reducing readmissions. The project objectives support a patient-centered approach to care planning to improve communication between the health care team, patients, and family members. Change was difficult, and it was imperative that the unit director, care coordinators, and bedside staff involved in the care coordination program were knowledgeable about how the care coordination program would improve quality outcomes and the patient experience.

## Section 2: Background and Context

### **Introduction**

Doing what was best for the patient might be an old bioethical belief in health care, but today some see it as the new approach to the delivery of patient care (Faber et al., 2014). Including the patients' standpoint in the treatment plan and decision-making process helps establish clinical strategies that enhance the quality of care (Faber et al., 2014). Evidence-based care clinical pathways are used to standardize operating procedures and documentation for care coordination. Research had challenged patient care coordination related to improving the patient experience (HCAPHS), potentially decreasing the LOS, and reducing readmissions. Section 2 will provide the framework for a patient-centered care coordination model supported by evidence-based research.

### **Search Procedure**

A literature search was conducted considering peer-reviewed published studies. An initial search of the Cumulative Index to Nursing and Allied Health Literature (CINAHL), EBSCO, and Cochrane Database of Systematic Reviews was done using the keywords *care coordination, collaboration, communication, barriers, patient-centered, cardiac, telemetry, readmissions, discharge planning, care planning, and HCAPHS*. A second search utilizing the same key terms was conducted through MEDLINE and Google Scholar. Inclusion criteria comprised studies that focused on collaborative care planning, discharge planning, care coordination, or patient-centered care, whereas I excluded studies that did not identify a collaborative approach to care or planning. I only considered peer-reviewed articles published from 2000 to 2015.



### **Specific Literature**

Care coordination was a model for health care roles that suggests a seamless care-planning approach that prepares patients for a well-organized discharge (Heslop, Power, & Cranwell, 2014). Researchers had determined that a collaborative conglomerate amongst the physicians, nurses, and patients generates a firm underpinning for value-added communication and information exchange (Faber et al., 2014). I have divided specific literature supporting collaborative care planning and discharge planning through a patient-centered care coordination approach into subsections to support each segment.

### **Financial Implications of Care Coordination**

The importance of assisting patients with discharge planning and concerns supports reducing preventable unavoidable readmissions and the amount of time spent in the hospital. Reparatory and cardiac-related health illnesses will exacerbate quickly post discharge when a patient does not receive precise detailed discharge instructions and preparation before discharge (Kieft et al., 2014). An enhanced attribute of care coordination and incorporating the patient and family in the care planning process reduces the fragmentation of care and streamlines the discharge process (Shaw, O'Neal, Siddharthan, & Neugaard, 2014). Patients of all ages and genders combat various medical conditions, complex medication regimens, and limited social support (Shaw et al., 2014). The fragmentation of care was associated with medication prescribing errors that have led to unnecessary hospitalizations and additional emergency room visits (Bayliss et al., 2015). Lack of continuity between the health care team and patient implies a disjointed relationship leading to higher health care costs and mortality (Bayliss et al., 2015). When

admitted to the hospital, older adults who lack care coordination are at a higher risk for poor outcomes leading to readmissions, increase LOS, and functional deterioration (Hartgerink et al., 2013). The Agency for Healthcare Research and Quality (as cited in Brooks, 2015) reported in April 2014 that 3.3 million patients were readmitted within 30 days of discharge costing \$41.3 billion, with 58% of those admissions covered by Medicare. If poor care coordination continues to persist, financial penalties supported by the ACA will place a financial burden on many organizations for readmissions and poor HCAPHS scores (Kocher & Adashi, 2011). On the other hand, if organizations will instill a care model improving the coordination of care, organizations will realize the benefits of reducing readmissions and improving outcomes, leading to cost savings (Kocher & Adashi, 2011).

### **Collaborative Care/Discharge Planning**

Health care is constantly changing as new evidence and technology support changes in practice. The quality of communication amongst the health care team measured by its timeliness and accuracy towards finding solutions to discharge barriers in theory determined the success of care coordination (Hartgerink et al., 2013). A team approach to care coordination correlated delivering high-quality care through health care professionals' goal sharing and support (Hartgerink et al., 2013). A multidisciplinary team approach improved communication and sharing information that was vital for patients to receive high-quality care. Hartgerink et al.'s (2013) cross-sectional study revealed that communication among the multidisciplinary team enhanced care coordination between nursing, medical staff, and patients. Coordinating daily meetings

that discussed each patient's care plan and discharge plan improved communication across the multidisciplinary team and better informed patients. Hartgerink et al. found a positive correlation between open communication and team meetings, which the authors believed to be an important feature of effective discharge planning and well-organized care delivery.

Chronic illness care and management can be complex and costly. Patients with multiple chronic conditions account for 70% of Medicare spending. Peikes, Chen, Schore, and Brown (2009) piloted a meta-analysis of 15 randomized trials to determine if care coordination affected the quality of care delivered to chronically ill Medicare beneficiary patients. Chronic illnesses selected by the program included congestive heart failure, coronary artery disease, and diabetes (Peikes et al., 2009). The telemetry unit scope of service and care coordination focus includes post cardiac intervention or stent placement, acute cardiac episodes, chest pain, and syncope. In 2002, Medicare granted funding to 15 health care organizations to trial a Medicare coordination program demonstration. The 15 randomized controlled trials would implement and evaluate the effect the program had on improving the quality of care the test sites provided (Peikes et al., 2009). The experimental group reported having received help arranging resources for care post discharge and having a better understanding of discharge information. Based on the findings of the study, patients that participated in the care coordination program had a greater knowledge of their disease process before discharge reducing preventable congestive heart failure readmissions (Peikes et al., 2009).

In their meta-analysis, Phillips et al. (2004) determined that discharge planning and postdischarge follow-up for cardiac-compromised patients reduced readmissions. In 18 studies from eight countries, the authors randomized 3,304 older patients with cardiac-related conditions. Analysis of the studies revealed a trend toward decreasing the LOS, lower charges for medical care, and reduced readmission rates (Phillips et al., 2004). Meaningful evidence of discharge planning on admission reduced hospital days, in turn reducing the LOS, and provided a solid knowledge base of disease process reducing unnecessary hospital admissions

In a pilot study, Shaw et al. (2014) tested intensive heart failure education on self-management care post discharge for patients who did not receive care coordination during their hospital stay. Follow-up phone calls were used post discharge to assess the patients' knowledge of heart failure self-management as compared to the customary care patients (Shaw et al., 2014). The authors found that intensive education and care coordination better prepared patients with heart failure to self-manage their medications and weights as compared to those not participating in care coordination (Shaw et al., 2014). Heart failure was a primary contributor to hospital readmissions. Research specific to discharge planning strategies to reduce hospital readmissions had been linked to effective care coordination before discharge. Avoiding unnecessary hospitalizations through detailed planning before discharge and reducing the number of times patients are hospitalized improved health outcomes and the quality of life.

## **Coordination of Care**

Care coordination was dependent on the availability of primary care providers (PCPs) for postdischarge care. With the evolution of hospitalist medicine, many patients are not paired with or do not have a provider they routinely visit. Many patients leave the hospital without having a PCP and are expected to establish a relationship with a provider. Care coordination provides an organizational approach to patient care by multiple health care team members involved in marshalling patient care, including finding a PCP post discharge (Tricco et al., 2014). By establishing a care team consisting of two care coordinators to create a discharge plan and see that the plan was carried out, and having a social worker available to tackle the social issues, eliminated many barriers to discharge. It had been determined that lack of PCPs for follow-up has led to increased readmissions and unnecessary ED visits.

Care coordination was not confined to the four walls of the hospital as it was the health care team's responsibility to ensure follow-up care continues post discharge. High readmission rates triggered the interest of the organization's employed hospitalist group that identified post discharge appointments were difficult to schedule due to lack of funding, PCPs were not accepting new patients, and at many times the hospitalists left the follow-up appointment in the hands of the patient. Loenen, Van den Berg, Westert, and Faber (2004) provided literature on the association between avoidable hospitalizations and the lack of primary care. Avoiding hospitalizations has been associated with the good accessibility to primary care post discharge. Of the 49 articles used in the systematic review, 18 articles evaluated care access, 14 articles investigated the supply of primary

care physicians, and the remainder focused on the number of primary care physicians per population and hospitalization rates (Loenen et al., 2014). These studies identified a positive relation between areas that had a higher number of PCPs and reduced hospital readmission rates as compared to those with less access to primary care physicians. If patients are not paired with a primary care physician, additional resources such as family health clinics and walk-in clinics should be provided. Without accessible primary care, patients that currently did not have a PCP were at risk for readmissions and inconsistent care. Care coordination depends on PCPs for postdischarge follow-up appointments that had challenged continuity of care due to PCPs in the area not accepting new patients.

Due to the poor coordination of care and lack of primary care, EDs are becoming a source of primary care. White, Kaplan and Eddy (2011) conducted a descriptive study to identify what attributes triggered patients to return to the ED within 72 hours post discharge. Information from the electronic medical record was abstracted utilizing the National Hospital Ambulatory Medical Care Survey instrument to eliminate and modify patient identifiers (White et al., 2014). White et al. examined 393 initial and returned visits with one third of the return visits having cardiac-related issues. The findings indicated the lack of primary care to manage chronic conditions such as heart failure contributed to unnecessary hospital admissions (White et al., 2014). Inserting a care coordinator in the ED to provide resources and direction to establish a PCP could potentially reduce unnecessary ED visits.

## **Patient-Centered Care**

A patient-centered approach to care has sparked the interest of public policy makers and leaders in health care. Professional organizations advocate that the patients' voice be integrated into the plan of care and decision making process to improve the patient experience (Cropley, 2012). Tricco et al. (2014) conducted a systematic and meta-analysis review to evaluate the effectiveness that coordination of care had on reducing the use of unnecessary health care services. They concluded that care coordination reduced hospital readmissions rates with proper patient education (Tricco et al., 2014). Promoting self-management and education to patient populations at risk for readmission was found to be highly effective among patients with chronic illnesses. The interventions examined in the research review, care coordination and the promotion of self-management, had a positive impact on reducing hospital readmissions (Tricco et al., 2014). Reducing readmissions rates with a care coordination model had proven to be effective by taking a multidisciplinary approach and involving the patient in the planning process. Pairing the patient with a PCP before discharge through care coordination had a significant effect on reducing readmissions.

## **General Literature**

Care coordination designates a service where providers and patients work closely to realize similar patient-centred goals specific to the care for each individual (Heslop et al., 2014). Registered nurses, social workers, community workers, and transition coaches maintain numerous care models comparable to care coordination to affect patient outcomes positively (Cipriano, 2012). Measures for expected outcomes affected by a

patient-centered care coordination approach include reducing readmissions, increasing the patient experience (patient satisfaction), and improving the quality of life post discharge. Cipriano (2012) expressed the importance of communication and including the patient and family in the plan. Discharge planning involving the patient and family heightens the knowledge and understanding of clinical deteriorating symptoms and emphasizes medication management. The American Academy of Nursing (as cited in Cipriano, 2012) urged prompt recognition, implementation, compensation, and evaluation of evidence-based interprofessional care coordination.

Care coordination provides nurses the opportunity to develop a discharge plan using the knowledge, skills, and characteristics that contribute to safe, high-quality care to all populations (Hass & Swan, 2014). Evidence-based approaches to improving care emphasize an organizational focus on wellness programs, prevention, and recognition of illness early. Expectations specific to the care coordination model include the patient seeking a PCP post discharge; patients choosing to be engaged in care processes; and providers collaborating and working interprofessionally to develop patient-centered care plans and improve outcomes (Hass & Swan, 2014). If the assumptions were present, it was highly possible a successful care coordination program would be achieved.

### **Framework**

Specific literature supported the implementation of the care coordination model on the telemetry unit. In efforts to improve the patient experience and quality of care, a patient-centered care model should be surveyed (Cropley, 2012). The model most applicable for supporting this care coordination initiative was the relationship-based care



model (RBC). Evidence-based practice claims that every decision should be established on the best available evidence aligning with the patient's preferences in the decision making process (Faber et al., 2014). The RBC model stresses high quality care by facilitating patient involvement in the decision-making process, improving education, communication, and enhanced care coordination. Delivering a patient-centered approach to patient care and discharge planning acknowledges the patient's position and involvement in their care. An RBC approach ensures the patients that the medical team was working collectively to warrant safe, high-quality care based on their needs.

The RBC model influences a patient-centered approach through care coordination, encouraging a shared decision-making process. Individualized care specific to the patient's needs necessitates involvement from the patient or family to establish a course of treatment, care planning, and discharge planning. Allowing the patient and family members to participate in the care plan process increases the knowledge specific to the disease process being managed, thus ensuring buy-in, communication, and consistency in the care plan. The implementation of the care coordination program in correlation with RBC offers a patient-centered shared governance approach care model.

The recognition of high readmission rates, increased LOS, and low composite HCAPHS scores on communications measures triggered the care model assessment within the organization. Reviewing discharge instructions and education documentation on patients provided adequate information consistent with poor coordination of care and discharge preparation. Examining the impact a better care coordination model had on

reducing the patient length of stay, reducing readmission rates, and increasing HCAPHS composite scores was essential.

### **Summary**

Section 2 provided a literature review and pertinent evidence supporting the importance of establishing a care coordination model on the pilot telemetry unit to reduce readmissions, improve the patient experience, and reduce the current LOS. The implementation of a care coordination model is beneficial to the organization by improving the collaboration of the care management team. The studies verified that chronically ill patients were better prepared for the transition home when a care coordination program was utilized. In this section, I also provided literature identifying health care issues and defined the patient population of interest being all patients admitted to the pilot unit. The significance of the studies supported the concept of early discharge planning and care coordination reducing readmissions and LOS (Phillips et al., 2004). The RBC model was recognized as the foundation to support the medical team approach to care coordination and collaboration. The care coordination model takes a patient-centered approach involving the patient in the care planning and discharge planning process. A care coordination model requires a series of data collection procedures and data analysis, which provide the foundation for a successful care coordination model (Hodges & Videto, 2011).

### Section 3: Collection and Analysis of Evidence

#### **Introduction**

Program design encompasses a comprehensive methodology and using necessary resources to address the needs of clients; it also identifies service agreements allowing the best possibilities of achieving program goals (Kettner et al., 2013). Aligning these services included an assortment of key stakeholders whom the program will directly affect to construct a proper program design to service the needs of all clients. Designing a program for coordinating the care of patients throughout and after their hospital stay has incorporated a multidisciplinary team approach to planning. It was crucial to request information on how the coordination of care process may be adjusted or what information needed to be provided or excluded to ensure the client interprets the information as intended. In this section, I discuss the program design and importance of having representation from the target population involved in the development of objectives and goals in the planning process of a care coordination program.

#### **Project Design and/or Methods**

Choosing the right project design was critical to evaluate the impact the care coordination program would have on decreasing the LOS, reducing readmissions, and improving HCAPHS composite rankings. The use of a one-group pretest comparing historical data on LOS, HCAPHS, and readmissions pre implementation and then a posttest examining data post implementation determined the impact care coordination had on the selected sample population. The pretest data collection established a baseline on the selected measures and the posttest design compared the data after the project was

completed. I examined and compared the data to the preproject baseline data on LOS, readmissions, and HCAPHS composite scores to determine if care coordination improved the measures. The validity of the data cannot be generalized, as it was not clear whether the same study method would work for similar organizations.

### **Population and Sampling**

The target data for consideration were collected from all discharged adult telemetry patients with heart failure, coronary artery disease, acute myocardial infarction, postoperative coronary artery bypass with graft, hypertension, and all general chest pain diagnosis. The pilot telemetry unit admits 2,400 patients per year. The data that I used for the care coordination study consisted of two quarters of data, approximately 1,200 admissions. The population was high risk for readmissions and increased LOS when the coordination of care and discharge planning are deficient.

All the data from admitted patients to the pilot telemetry unit were abstracted automatically for the care coordination pilot study. Initially, data with specific cardiac related diagnosis were targeted for the project enrollment, but after careful consideration, I decided that a “no patient left behind” approach would be used, thus changing the inclusion criteria to all data from admitted and transferred patients to the telemetry unit. Patients who were admitted to the telemetry unit and then transferred to or discharged from another unit were included in the study.

### **Data Collection**

Baseline data collection was comprised of historical LOS, HCAPHS, and current readmission data. Four quarters of data were reviewed on the telemetry unit’s HCAPHS

composite scores and LOS. Readmissions data collection and reporting at the unit level were not available until the care coordination program and objectives were discussed with the performance improvement department. As of July 2015, 30-day readmissions at the unit level were reported monthly and correlated with the patients discharged unit. Each measure was benchmarked against four quarters of historical data trends and the data collection methods within HBI and was validated and reviewed quarterly for progress.

I retrieved data for the patient experience measures or HCAPHS from the HCAPHS reporting module currently being used to gather data. This module was current, and the data were available at any time during a defined period. The HCAPHS module was utilized to translate the patient experience into a reportable composite score. A baseline LOS was collected electronically, entailing historical and the current LOS data for the past four quarters. I placed the LOS data abstraction in a spreadsheet and calculated each month's LOS by dividing the patient days by admissions on the unit. The readmission rates were collected using the HBI analytic tool by identifying patients that had been readmitted within a 30-day time frame post index hospitalization.

### **Instruments**

I used an HBI solution currently used within the organization to capture crucial data points. The HBI analytics tool was a web-based instrument that trends performance data, utilization data, quality data, and cost. Electronic data collection allows organizations to collect and track fresh data across the health system. The HBI tool performs the task of tracking and reporting the overwhelming data points organizations

are required to track and report, by which HBI permits leaders the time to transform viable data into clinical outcomes.

A HCAPHS solution was used to track the patient satisfaction and experience metrics specific to the care coordination pilot focusing on the nurse-to-patient communication and discharge education. The tool allows unit-specific composite scores to be abstracted and trended against composite percentiles. The HCAPHS module tracks the number of participants who respond to the patient satisfaction survey, which determines the denominator for responses. All of the data for the pilot study were accessible at the unit level.

### **Protection of Human Subjects**

The care coordination project was submitted to the Institutional Review Board (IRB) for approval; the study #184 was identified as a minimal risk to the human subjects as the data collection methods were not associated to specific patient information. A secure password-protected data collection method took place electronically through the HBI module and HCAPHS module. Individual subjects would not be singled out as patient identification was not needed for data collection, as the LOS, readmissions, and patient experience data were collectively measured on all admissions to the unit. Under the Health Insurance Portability and Accountability Act, protection of patient information in accordance with the organization policy was incorporated and respected.

### **Data Analysis**

Data post care coordination were analyzed and compared to the quarters prior to the care coordination study. A quantitative evaluation of the historical data of the

telemetry unit's LOS, readmissions, and HCAPHS composite scores pre and post care coordination was equated. The LOS was calculated by dividing the number of patient days by the number of admissions to the unit. Care coordination's attention to discharge planning and focus on the LOS will provide data that will rationalize the need for meeting the expected discharge date. With the calculated LOS consistently over 5 days on a month-to-month trend, and averaging 5.7 days over the previous 6 months, there was a sizeable margin for improvement with better care coordination and discharge planning. With a more transparent emphasis on the LOS and discharge date, the care coordination team will initiate discharge talks with the physician early in the hospitalization to meet the expected discharge date and potentially decrease the unit LOS.

The HCAPHS composite scores are calculated and the percentile ranked was determined before it was reported to the hospital. The HCAPHS composite scores was examined over the past four quarters and was compared against the top box 90th percentile rankings. The proposed HCAPHS measures for improvement by care coordination were the nurse communication, physician communication, communication regarding medications, and discharge information. The composite scores containing communication and discharge education rank in the 10th percentile. The low rankings are associated with poor clinical communication and collaboration. As care coordination takes a patient-centered approach, the greatest opportunity for improvement was in the measures of communication and discharge education. The 10th percentile ranking places the organization in the lowest range for the patient experience, with financial penalties

tied to these measures. A patient-centered approach through care coordination improved communication amongst the health care team and patient.

A readmission rate was calculated by the number of patients discharged as the denominator divided into the number of readmitted patients. A readmission taskforce was assembled to examine the readmission data and determine if some or all readmissions could have been avoided. Readmissions rates were correlated with poor discharge planning and education. Several readmissions after investigation have been avoided as more comprehensive social and financial assessments have been conducted identifying barriers to purchasing medications. Other identified issues that led to patients possibly being readmitted were a lack of transportation resources to PCPs, not being able to get a follow-up appointment with PCP, and poor medication reconciling.

### **Project Evaluation Plan**

The model most appropriate for evaluating a care coordination model was the Plan-Do-Study-Act (PDSA) model. The PDSA method, created by Walter Shewhart and Edward Deming, eventually became known as the four stages of PDSA (Taylor et al., 2013). The model allows an individual to design a plan of change based on a current process that was not meeting specific objectives set forth by the project manager. Care coordination was not a new concept, but to better transition care for patient pre and post discharge, a sound program and collaboration amongst the health care team must be transparent. The PDSA model will allow for the evaluation of the care coordinators' and social workers' involvement in the process and steps of care coordination. If the proposed plan was not being followed or not meeting the predicated expectations, the process was



altered, tested, and reevaluated to improve the process, ultimately improving patient outcomes. In recent years, quality improvement techniques such as PDSA cycles have been used in an effort to drive improvements in health care (Taylor et al., 2013). In line with the systematic experimental process, the PDSA cycle endorses predictions of the desired outcomes of a change and subsequently measurement over time to evaluate the impact of an intervention or practice leading to the outcomes of concentration (Taylor et al., 2013).

### **Summary**

In Section 3, I discussed the care coordination project design and the target population sampling on the pilot telemetry unit. The data collecting methods and HBI and HCAPHS instruments for data abstraction were explained. Each data measure was analyzed and benchmarked against budget for LOS, 90th percentile ranking for HCAPHS composite scores, and the national average for readmissions. The PDCA method for evaluating the project was utilized.

## Section 4: Findings and Recommendations

### **Introduction**

The care coordination project was supported by an evidence-based approach to discharge planning. Section 4 uncovers the findings of the pretest and posttest results on the LOS, readmissions, and HCAPHS when discharge planning was initiated on admission. Allowing the patient to participate in the discharge planning and taking a collaborative approach amongst the care coordinators and health care team helped eliminate barriers to discharge. Section 4 includes the findings of the care coordination Doctorate of Nursing Practice (DNP) project, discussion of the findings in the context of the literature, the implications for practice and social change, projects strengths and limitations, and a self-analysis.

### **Summary of Findings**

Through the implementation of the care coordination pilot project, and assembly of the care coordination team, significant improvements in the LOS, reduced readmissions, and HCAPHS composite scores are evident. The role of the care coordinators bridged the communication gaps between the patient, nurse, and physician. The study revealed that the care coordinators' and social workers' partnership with the frontline nursing staff and unit charge nurse improved communication and discharge planning. These groups worked collaboratively to ensure barriers to discharge were avoided and discharge plans were readily available for all patients who were admitted or transferred to the telemetry unit. The care coordination team created comprehensive, transparent discharge plans that paved the way for forecasting potential barriers to

discharge before the actual discharge date. The findings addressed the following question: Will the redesigned care coordination model consisting of a clinical nurse leader, care coordinator, and social worker on a 30-bed telemetry unit reduce the current LOS of 5.5 days, improve HCAPHS composite scores from the 10th percentile to the 50th percentile on communication measures and reduce readmissions from 20 patients per 30 days to 12 patients? Pretest data collection established a baseline on the selected measures and the posttest design compared the data when the project was completed. The following objectives for the care coordination project were identified:

1. To reduce the LOS on the selected telemetry unit to achieve a 10% LOS reduction from the current 5.5 days LOS the telemetry unit.
2. To reduce readmissions rates from 20 patients per month to 12 patients per month
3. To improve specific HCAPHS composite scores in nurse communication, physician communication, communication regarding medications, and discharge information from 10th percentile to the 50th percentile.

### **Project Objective 1**

The first objective was to reduce the LOS on the selected telemetry unit to achieve a 10% LOS reduction from the current 5.5 days LOS the telemetry unit. The LOS reduction on the telemetry unit did achieve a much higher reduction than originally proposed. With the baseline LOS of 5.7 days, there was an opportunity to improve the LOS for the unit with care coordination focusing on the expected LOS and eliminating barriers that have led to additional patient days. The reduction in the telemetry unit LOS

was attributable to the transparency of the projected discharge date. The date of discharge was discussed with the care team during daily briefing meetings that included an in-depth discussion and identification of possible barriers that delayed the discharge. An emphasis on the LOS was infused in the care coordination team, as the success of the pilot study would support the expansion of the program to other units. The process of having a discharge plan on admission and collaborating with the other disciplines daily contributed to reducing the LOS. I observed that care coordination and proper discharge planning could eliminate potential delays in discharges, decreasing the LOS. The 2.04 patient day reduction far exceeded the expectations of the project as care coordination was more geared to reduce readmissions (Figure 1).

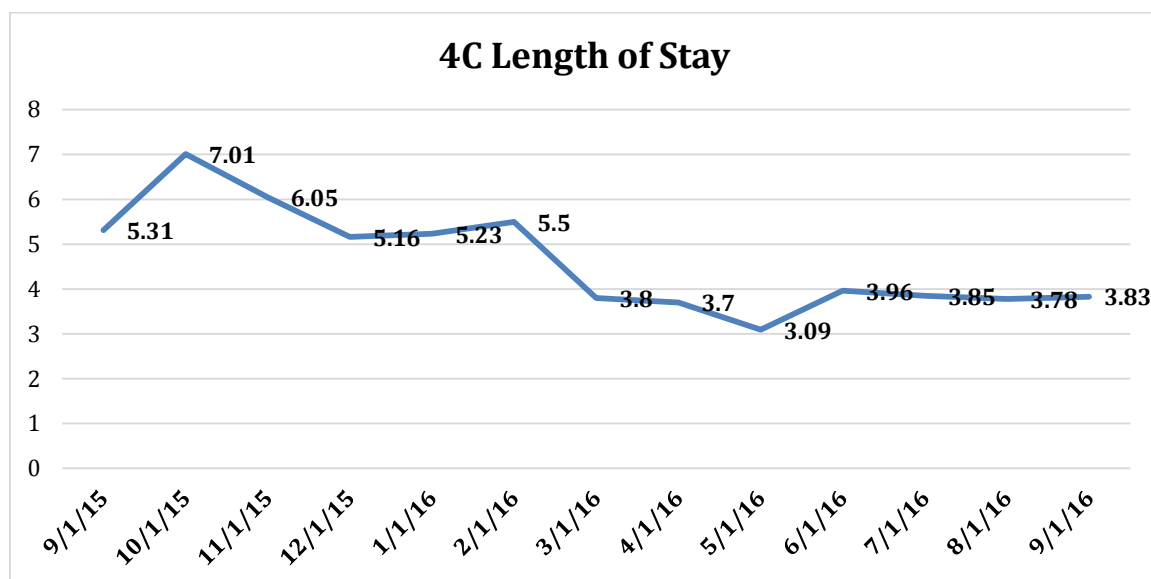


Figure 1. Trending LOS on the telemetry pilot unit.

## Project Objective 2

The second objective was to reduce readmissions rates from 20 patients per month to 12 patients per month. Since the inception of the care coordination project,

readmissions for the telemetry unit were averaging 9.8 readmissions per month of all discharged patients. Care coordination provided a comprehensive review of potential barriers post discharge that led to a readmission. The readmission data remained consistent on a month-to-month comparison and the total patients readmitted did show an overall reduction. Because care coordination and disease management are ongoing outside the hospital, patients that are identified as high risk for readmission are followed post discharge by patient navigators. Data showed that care coordination reduced readmissions through comprehensive discharge education and the use of proper resources post discharge (Figure 2).

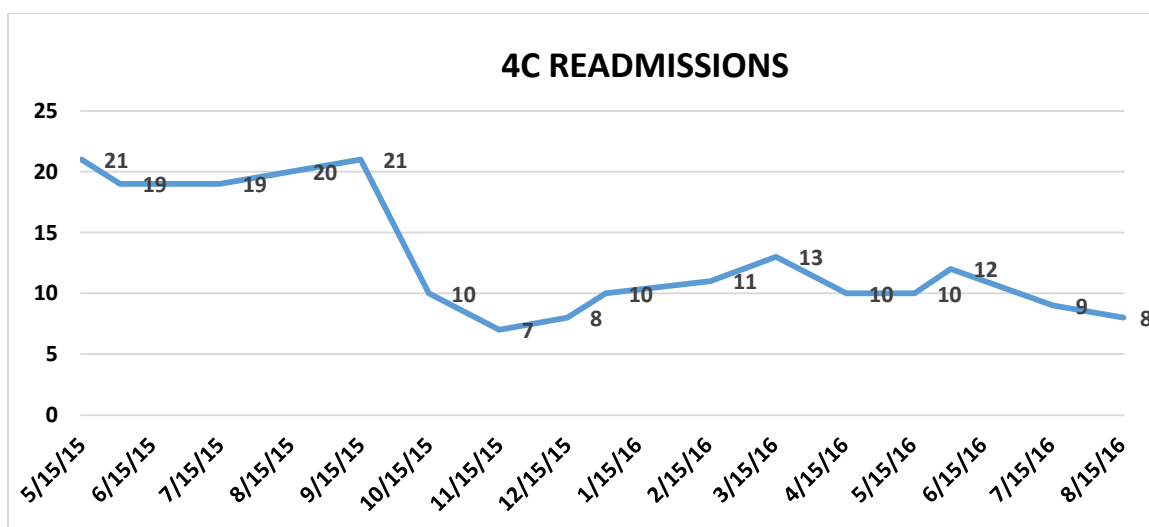


Figure 2. Trending readmissions on the telemetry pilot unit.

### Project Objective 3

The third objective was to improve specific HCAPHS composite scores in nurse communication, physician communication, communication regarding medications, and discharge information from 10th percentile to the 50th percentile. Collective approaches by the health care team to improve communication and provide a more comprehensive

discharge plan and education to patients increased composite HCAHPS scores. Although the HCAHPS composite scores have not all met the 50th percentile, there was a significant increase in the scores related to communication about medications, discharge information, the nurses explaining and listening to the patient, and the overall patient experience. Because the HCAHPS communication composites met the 50th percentile rank, it was evident that the care coordination team and the bedside staff have improved the patient's perception of communication. The care coordination positively affected HCAHPS composite scores, indicating improved communication. The patient experience data in the chart were the quarterly data for the telemetry pilot unit for the previous and current fiscal year (Figure 3).

Medical Center Hospital											
Fiscal Year 2016											
Goal: Increase the number of HCAHPS composites in the 50th percentile or higher to 2/9 as measured by Press Ganey for 2016											
4C Telemetry	CMS %tile Benchmarks			Q4 15	FYTD 15	Q1 16	Q2 16	Q3 16	Q4 16	FYTD 16	CHG
	10th	25th	50th								
Nurses explained and listened to me	73	76	79	78	77	77	81	82	84	79	1.3
Doctors explained and listened to me	76	78	81	78	85	72	75	68	68	73	-4.6
Hospital staff were there when I needed them	57	62	67	61	60	65	53	45	45	51	-9.7
My pain management was taken seriously	65	68	71	70	70	69	70	79	79	72	2.6
I was taught about my medication	57	61	64	61	62	60	70	68	68	70	8.5
Hospital and my room were quiet and clean			66	64	70	56	62	73	73	64	0.4
My discharge information was explained	81	84	87	70	69	70	88	87	96	85	14.7
My overall experience at MCH	60	65	71	68	76	63	64	71	71	67	-1.0
My transition as I left the hospital	44	48	52	43	46	49	48	42	42	47	3.3
Total N				45	180	50	56	51	53	210	

Figure 3. Trending HCAHPS composite scores on the telemetry pilot unit.

### **Discussion of the Findings in the Context of the Literature**

The objective of this practice improvement initiative was to compare the impact care coordination had on the patient's LOS, HCAPHS composite scores, and readmissions as discharge planning was initiated on admission. The patient-centered approach to discharge planning afforded both the care coordination team and direct care staff the opportunities to identify barriers to discharge and to discuss the current social status of the patient that could potentially delay the discharge plan and discharge date. Daily briefings were conducted every morning with the care coordinators and the bedside staff to assure discharge-planning consistency amongst the health care team. Previous studies on the care coordination relationship to reducing the LOS did not show a significant change (Tricco et al., 2014). Former systematic reviews determined that care coordination and early discharge planning reduced readmissions by supporting self-management and improving the patient's disease process knowledge. Unplanned readmissions are lessened when information shared amongst the health care team, families, and patients was consistent (Brooks, 2015). Improving communication and discharge planning by taking a shared decision-making approach affords the physician to present the patient with the best evidence about the discharge plan (Faber et al., 2014).

### **Implications**

#### **Policy**

The ethical and legal implication associated with the ACA was an influential driver supporting care coordination and improved quality care. By linking financial incentives and penalties related to readmissions and patient satisfaction, the ACA

endorses care coordination through organizing discharge planning and teamwork to improve communication across the care continuum (Kocher & Adashi, 2011). Medicare does not take into consideration the size of the hospital, the severity of illness, or the socioeconomic status of the population the hospital serves. By maximizing the effectiveness of the ACA, readmission initiative creates partnerships between hospitals and community services, reducing fragmented transitional communication and care. Ethically, care coordination supports the organization and providers ensuring the patients' needs are met post hospital discharge. The legal consequences for readmissions and penalties have brought awareness to health care, challenging organizations to ensure the quality of care that was provided to the community was valued.

### **Practice**

Current health care reform under the ACA supports quality improvement and cost control measures to modify the health care delivery system functions generating effective care coordination methods. Nurses possess a unique understanding of care continuity, cultivating care coordination efforts that lead to higher quality care as well as cost reductions. In alignment with the ACA and the emphasis on care coordination, organizations and nurses are central to organizing patient care needs pre and post discharge. Care coordination provides a comprehensive review of the patient as a whole, meaning all facets of the patient's clinical status, social status, and economical status are considered during and after the hospitalization to ensure a safe, high-quality discharge.



**Research**

The results of the practice improvement initiative determined that a care coordination approach to discharge planning and taking a patient-centered care approach could reduce the LOS, reduce unplanned readmissions, and improve the patient experience through better quality teamwork and communication. Although, the care coordination study findings were consistent with previous care coordination studies, the LOS was remarkably reduced. The LOS finding sparked an interest in the physician's knowledge and correlation of diagnosis-related groups and the relationship to expected LOS. Implications of this discharge improvement study suggest a systematic approach to discharge planning through care coordination reduces the LOS, reduces readmissions, and improves the patient experience through better communication and early planning.

**Social Change**

The care coordination program enhanced the patient experience through a patient-centered approach by allowing the patient to participate in the care and discharge planning. The patients were able to verbalize the plan of care and provide feedback specific to their disease treatment and management. Care coordination enhanced the patient's knowledge and provided a timeline for the plan of care to meet the expected LOS, providing a discharge date for the care team and patient to meet. Care coordination also exposed various programs and community resources that are able to assist with medications, durable medical equipment, and proved companionship alleviated potential anxiety post discharge for those financially and socially burdened. The care coordination

program provided the nursing staff the confidence to collaborate with the medical staff, improving communication specific to discharge planning and care.

### **Project Strengths and Limitations**

#### **Strengths**

As care coordination became more prominent on the telemetry unit, the staff and care coordination team experienced the value of the program through trial and error. Strengths of the care coordination initiative were the bedside staff and unit director's dedication to transforming and cultivating the care coordination model. Establishing a commitment through the bedside staff's enthusiasm to reduce readmissions, decrease the LOS, and provide the best patient experience possible was visible in the project findings. Another strength of the study that contributed to the decreased LOS on the telemetry unit was the collaboration and communication amongst the health care team, including the physicians.

#### **Limitations**

The limitations of the project initiative were the inability of the EMR to provide a common area for the care coordination team to document. The EMR limited the physician's ability to electronically see the progress of discharge planning, making handwritten progress notes hard to follow and not visible remotely. Trying to decipher handwritten notes often led to additional phone calls for clarification. Another limitation that was prominent was the lack of the physician buy-in to the care coordination program. Physicians understood the methodology behind the concept and agreed that the early discharge planning was essential but felt they were being pressured to be more aggressive

with treatment and at times forced to discharge patients earlier than expected. The physicians voiced concerns that aggressive treatment and early discharges would lead to increased readmissions. The physicians witnessed first-hand the impact care coordination had on decreasing the LOS and reducing readmissions and questioned why care coordination has not expanded to other units.

### **Recommendations for Remediation of Limitations in Future Work**

As care coordination advances, strategies to improve care coordination include integrating or designing the EMR to support care coordination documentation. The EMR would provide the physician and health care team with a comprehensible progression plan that will guide efficient treatment. The other recommendation for future studies would be to provide the physicians with the LOS data, correlating them to the readmission rate. If early discharges potentially lead to increased readmissions, an additional study or data comparison should be conducted to associate readmissions to early discharges prior to expected discharge date. Care coordination was contingent on continuous communication and physician buy-in before additional projects or studies should be considered in the best interest of the patient.

### **Analysis of Self**

#### **As Scholar**

The DNP program prepared me as a leader to weather the demands of the ever-changing health care practice by increasing my educational knowledge, expectations, preparation, and ability to institute evidence-based practice into daily practice. Understanding how research defines best practices and the reason for applying best

practice to day-to-day practice was fundamental for others to accept new ideas. The education preparation through the DNP program has afforded me the knowledge to identify potential problems and analyze how issues may be changed, supporting the change with scientific evidence. After examining the evidence, the DNP prepared nurse designed the plan of change and provided a comprehensive plan for completing the project. The DNP program has fully equipped and prepared me to apply the scientific knowledge to everyday practice and establish high-quality outcomes.

### **As Practitioner**

With the ever-changing demands of health care and clinical practice, a higher degree of knowledge was necessary to assure quality patient outcomes. Doctorally prepared nurses are primed to integrate and implement evidence-based nursing practice into the daily nursing regimen. The participation in the dissemination of a scholarly evidence-based project allows the nurse leader to identify a health care problem and assemble a plan to prove the matter was addressed. With this being said, the DNP program prepares leaders to weather the demands of the ever-changing practice by increasing educational expectations, preparation, and application through evidence-based leadership. The DNP prepared nurse, with the advantage of expertise in practice built on a strong base of education and knowledge, is and will continue to be in the forefront of this movement to transform care (Zaccagnini & White, 2011).

### **As Project Developer**

When developing goals and objectives specific to designing a care coordination program, it was essential that all members of the health care team were involved. The key

indicators that I selected for the project all have a potentially negative or positive financial impact on the organization based on outcomes. The care coordination project allowed me to apply the knowledge gained through the DNP program to establish successfully a program that benefits the patient and the organization. Having oversight through the design and implementation of the care coordination program provided significant challenges and barriers that I was able to work through using methods adopted through the DNP program. A critical approach to the successful implementation was how the project was communicated effectively and involved the key stakeholders. As the developer of the care coordination program, I had to establish an engaged team with my same vision for care coordination. My biggest takeaway as the project developer was watching the program develop and progressively improve month to month.

### **What This Project Means for Future Professional Development**

An area of insight related to my professional growth was promoting interprofessional collaboration. *Interprofessional collaboration* was a term that was voiced on a consistent basis by the care team in the health care setting referring to a team methodology. Implementing programs or processes that affect the wellbeing of all patients served using a collaborative approach has afforded me the opportunity to be part of and understand health care both clinically and financially. Organizations are always looking for avenues to reduce expenses and increase the bottom line. The DNP program has provided me the knowledge necessary to take a different position on growing the bottom line by taking a cost savings approach instead of cutting services to save money. Having the capability to identify cost savings by assessing processes and challenging the

status quo is my future contribution to professional development. Understanding how new research defines best practices and the reason for applying a collective relationship to day-to-day practice was fundamental for new ideas to be accepted by others. The DNP prepared nurses are fully equipped to apply the science used by nurse researchers to establish high-quality outcomes.

### **Summary and Conclusions**

In Section 4, I examined the findings of the care coordination study and compared the pre and post care coordination data on LOS, HCAPHS, and readmissions. The findings of the project initiative revealed a positive correlation related to reduced LOS, reduced readmissions, and improved composite scores on communication HCAPHS measures. The implications for policy, practice, and research were examined along with the strengths and limitations of the study as it relates to possible future analyses. A summary and self-analysis of the influence this study had on me as a practitioner, scholar, and project developer was assessed.

This project emphasized the importance of early and ongoing discharge planning through a care coordination approach. The findings suggested that a health care team based patient-centered approach to discharge planning contributes to a lower LOS, reduces readmissions, and improves communications. Daily briefing meetings provided consistent communication and information exchange amongst the care coordination team and bedside staff, providing reliable information to the patient. Although previous care coordination evidence was not supportive of reducing the LOS, the findings of this project improvement initiative suggested that there was a correlation to reducing patient

days when there was an emphasis on the expected discharge date. Future considerations for ongoing monitoring of the care coordination methodology should be measured to strengthen the evidence that discharge planning on admission leads to a shorter LOS, reduced 30-day readmissions, and improves the patient experience.

## Section 5: Dissemination Plan

### **Introduction**

Incorporating the DNP essentials into the care coordination quality improvement project provided guidance and growth through a transformational leadership approach. The DNP essentials identify an in-depth knowledge of interprofessional collaboration, health care policies, and quality improvement programs (Mohammadi & Hill, 2015). Each DNP essential played a vital role in the social and clinical outcomes for the DNP scholarly evidence-based project. Evidence-based nursing practice will continue to drive nursing practices by supporting quality improvements and better patient outcomes. The care coordination project integrated the scientific knowledge gained from the DNP courses and supported the translation into nursing practice. The care coordination project was a win for the organization and the nursing staff because the project experience provided a real change management blueprint for successfully implementing change.

### **Manuscript**

A setting that would provide a valuable platform for disseminating the results of the care coordination program includes a poster or oral presentation at the annual American Organization of Nurse Executives (AONE) conference. The AONE is compassionate about high-quality care and seeks evidence-based studies to disseminate via poster presentations or conference breakout sessions. This approach was extremely useful, as poster presentations support the dialogue and create a visual picture of the approach and findings of the study as illustrated in Figure 4.



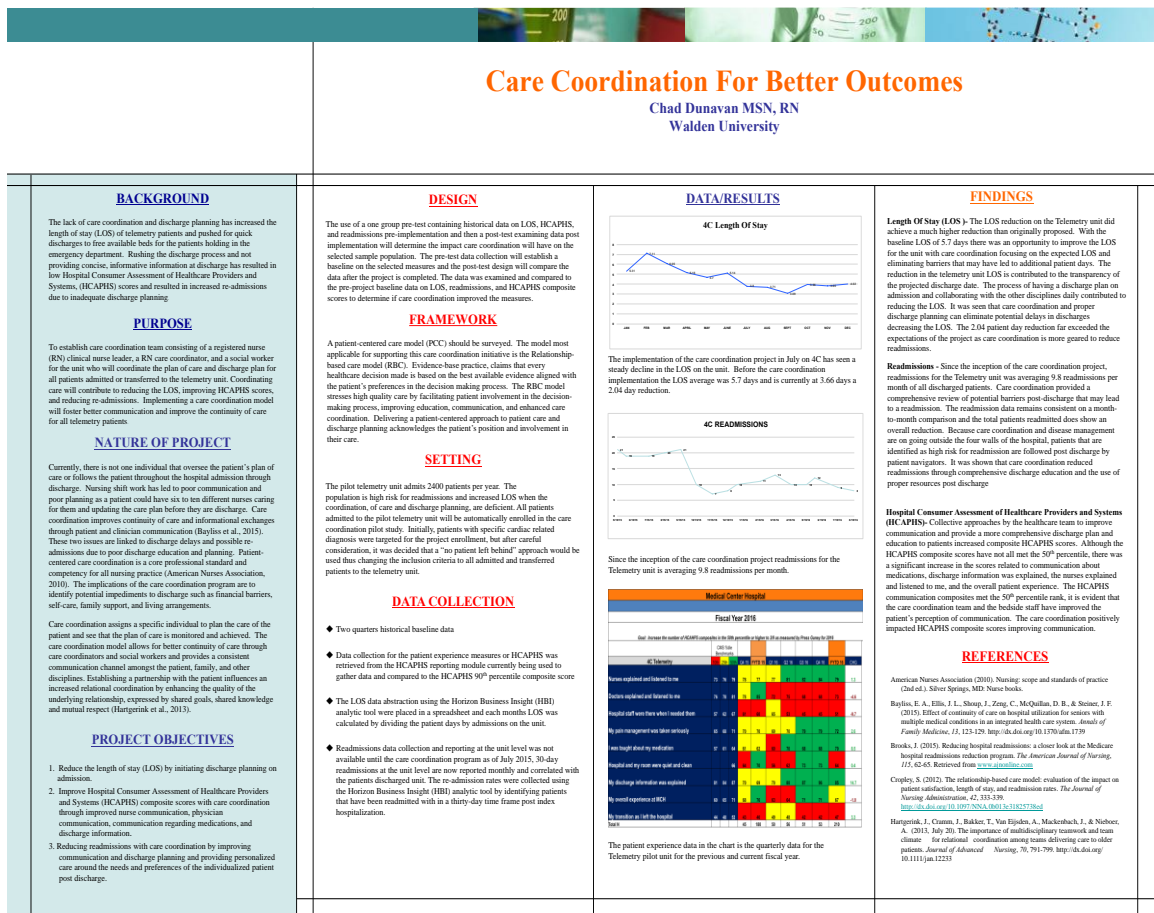


Figure 4. Poster presentation, "Care Coordination for Better Outcomes."

### Dissemination

The venue that would provide a valuable platform for discussing the results of the care coordination program would include a poster or oral presentation at the annual AONE conference. Posters contain both supporting narrative and illustration to present scholarly work, which is used to provide context and to enhance the viewers' interpretation of the topic (Christenbery & Latham, 2013). A poster presentation involves the interpretation of the care coordination project.

## **Summary**

Section 5 outlines how the care coordination project design and outcomes will be disseminated and which organizations will gain the greatest benefit when published and presented. As DNP prepared nurses relate their knowledge and apply scientific approaches to process improvement, best practices will continue to be challenged and refined. The dissemination of the project findings affords other organizations insight and the methodology behind a successful implement of a care coordination program.

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Appendix A: Multidisciplinary Discharge/Transfer Instructions

### Discharge/Transfer Instructions

Discharge Date \_\_\_\_\_ Time \_\_\_\_\_ Accompanied by  Family  Friend  Other

Discharged to:  Home  Nursing Home  SNF/LTAC  Home with Home Health  
 Transportation:  Ambulance  Car  Taxi  Bus

Preferred language:  English  Spanish  Other \_\_\_\_\_  
 Interpreted by \_\_\_\_\_

Home medications returned to patient  
 Personal belongings returned to patient or family member

Vital Signs: T: \_\_\_\_\_ P: \_\_\_\_\_ B/P: \_\_\_\_\_ SP02: \_\_\_\_\_ Weight: \_\_\_\_\_

Vaccines:  Flu: \_\_\_\_\_ date  Pneumovax: \_\_\_\_\_ date

Appointment	Dr/Team/Clinic	Date	Time	Telephone

Referrals:  No referrals needed

Name of referred service	Contact Number	Contact Person
<input type="checkbox"/> Home Health/Hospice _____	_____	_____
<input type="checkbox"/> Equipment: _____	_____	_____
<input type="checkbox"/> Oxygen: _____	_____	_____
<input type="checkbox"/> All equipment needed before discharge ordered/delivered verified by: _____		

<b>Treatments/Wound Care</b> <input type="checkbox"/> Supplies given to patient	Describe: _____
	_____



## Discharge/Transfer Instructions

<p><b>Diet</b></p> <p><input type="checkbox"/> <b>Dietary Consult</b></p>	<p> <input type="checkbox"/> Resume usual diet    <input type="checkbox"/> Diabetic    <input type="checkbox"/> Low Salt    <input type="checkbox"/> Low Fat    <input type="checkbox"/> Cardiac/Heart Healthy  <input type="checkbox"/> Other _____    <input type="checkbox"/> Restrictions _____  *Instructions given by <input type="checkbox"/> Dietician    <input type="checkbox"/> RN  If patient is going home on tube feedings: <input type="checkbox"/> Feeding supplies provided    <input type="checkbox"/> Home Health arranged  If patient has a cardiac diagnosis monitor weight daily.  <input type="checkbox"/> if there is a 2 pound weight gain in 1-2 days or 5 pounds in one week, contact your doctor. </p>
<p><b>Activity</b></p>	<p> <input type="checkbox"/> Resume usual activity    <input type="checkbox"/> No lifting &gt; ___ lbs for ___ days    <input type="checkbox"/> No driving until Dr. visit  <input type="checkbox"/> Bedrest  <input type="checkbox"/> Special Equipment _____    <input type="checkbox"/> Mobility Limitations _____  <input type="checkbox"/> Return to work/school on: _____  <input type="checkbox"/> Other _____ </p>
<p><b>Hygiene</b></p>	<p> <input type="checkbox"/> As before    <input type="checkbox"/> Tub bath    <input type="checkbox"/> May Shower    <input type="checkbox"/> Sponge bath only  <input type="checkbox"/> Avoid: _____    <input type="checkbox"/> Other: _____ </p>
<p><b>Education</b></p> <p><input type="checkbox"/> <b>Handouts</b></p>	<p> <input type="checkbox"/> Education information and/or handout given to patient/family:  <input type="checkbox"/> Diabetes (orange self-care book)    <input type="checkbox"/> A1c results _____    <input type="checkbox"/> Glucometer given  <input type="checkbox"/> Heart Failure (red book)    <input type="checkbox"/> Scale provided  <input type="checkbox"/> Stroke handout given to patient (warning signs, lifestyle changes, how to call 911)  <input type="checkbox"/> Bariatric Surgery Instruction Sheet  <input type="checkbox"/> Other: _____  <input type="checkbox"/> Medication Side Effects Handout  <input type="checkbox"/> Medication Teaching by: _____  <input type="checkbox"/> <b>MEDICATION RECONCILIATION FORM REVIEWED WITH PATIENT/FAMILY MEMBER</b> </p>
<p><b>Outpatient Service</b></p> <p><input type="checkbox"/> <b>Registration</b> Call 640-____</p>	<p> <input type="checkbox"/> Wound Care    <input type="checkbox"/> Infusion Services    <input type="checkbox"/> Dialysis    <input type="checkbox"/> Special Procedures    <input type="checkbox"/> Cardiac rehab  <input type="checkbox"/> Pulmonary Rehab    <input type="checkbox"/> Dialysis    <input type="checkbox"/> Physical Therapy    <input type="checkbox"/> Occupational Therapy </p> <p>_____</p> <p>Location</p> <p>_____</p> <p>Contact information</p>

## Discharge/Transfer Instructions

<input type="checkbox"/> <b>Special Instructions:</b> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <p><b>SMOKING CESSATION</b></p> <ul style="list-style-type: none"> <li>• If you smoke, it is <b>VERY IMPORTANT</b> to stop.</li> <li>• Free tobacco cessation counseling available contact 432- 640-1160 to schedule appointment</li> <li>• National quit line 1-800-Quit-Now</li> </ul> <p> <input type="checkbox"/> ECHDA application  <input type="checkbox"/> Paratransit Application  <input type="checkbox"/> Voucher: _____         </p>	<p><b>Call your doctor for:</b></p> <hr/> <hr/> <hr/> <hr/> <p><b>Call 911 if you have chest pain, shortness of breath, or any other symptom that requires immediate medical attention.</b></p> <p><b>For access to your medical records visit <a href="http://mchodessa.com">mchodessa.com</a> then click on MYMCHRECORDS.</b></p>
<b>RN</b>	<p>_____ Signature</p> <p>_____ Printed Name</p> <p>_____ Date</p> <p>My signature means that I reviewed this form with the patient, recipient, patient representative</p>
<b>Patient/Family</b>	<p>_____ Signature</p> <p>_____ Printed Name</p> <p>_____ Date</p> <p>My signature means that I understand all instructions on this form.</p>
<b>Additional Healthcare providers</b>	<p>_____ Signature</p> <p>_____ Printed Name</p> <p>_____ Signature</p> <p>_____ Printed Name</p> <p>_____ Signature</p> <p>_____ Printed Name</p> <p>_____ Signature</p> <p>_____ Printed Name</p>