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Implementation of the Reengineered Discharge Process and Transitional Care Management at a Rural Critical Access Hospital

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Abstract

Healthcare in the United States is changing from a fee-for-service to a value based healthcare delivery system. One area of national focus is reducing 30-day hospital readmissions by providing high-quality transitions-of-care. Patients leaving the hospital without proper assessment of home care needs, patient education, and coordination of care run into barriers managing health conditions, which contributes to hospital readmissions. Poor transitions-of-care contribute to deterioration of health leading to acute care utilization and hospital readmissions, which is costly for healthcare organizations, insurance payers, and individuals. In 2017, the value based healthcare structure will be decreasing reimbursement to hospitals that have 30-day hospital readmissions higher than the national average.

Providing high-quality transitions-of-care is a way to bring value to a health care delivery system. The Agency for Health Research and Quality and Centers for Medicaid and Medicare Services have significant evidence that implementing the Reengineered Discharge process and utilizing the Transitional Care Management program reduces 30-day hospital readmissions and acute care utilization through the provision of high-quality transitions-of-care.

This quality improvement project standardizes all hospital discharges by incorporating the Reengineered Discharge process and includes eligible Medicare recipients in the Transitional Care Management program. This project increased the number of patients who received follow-up appointments, follow-up phone calls, and patients included in Transitional Care Management. Follow-up appointments for inpatient status increased by 22.5% and follow-up phone calls increased by 16.7%, enabling billing for seventeen Transitional Care Management patients.

Key Words: care transitions, hospital readmissions, Reengineered Discharge, transitions of care, transitional care management

Executive Summary

Accountable Care Organizations (ACOs) have an opportunity to increase patient safety, quality of care, and revenues, while decreasing hospital readmissions. ACOs are a group of heath care providers that come together to provide high-quality transitions-of-care. ACOs successful in delivering high-quality transitions-of-care get a share of Medicare cost savings. Furthermore, Medicare is providing additional funding for provision of Transitional Care Management (TCM) for Medicare recipients. The critical access hospital (CAH) where this doctor of nursing practice (DNP) project was implemented is a Medicare Shared Savings ACO.

The goal of TCM is to ensure high-quality health care along a continuum avoiding preventable poor health outcomes. Providing high-quality transitions-of-care prevents unnecessary and repeated hospital readmissions. The Agency for Health Research and Quality and Centers for Medicaid and Medicare have significant evidence that implementing the Reengineered Discharge (RED) process and utilizing TCM reduces 30-day hospital readmissions and acute care utilization. The RED process and TCM align with CMS and ACO practice initiatives for increased quality of transitions-of-care.

The new hospital discharge practice at the CAH is a standardized process with process owners. The discharge process consistently provides assessment of social determinants of health and addresses upstream factors known to be associated with hospital readmissions. The discharge process was documented in the electronic health record to support electronic reporting of ACO quality measures. Changes to the hospital discharge processes at the CAH improved opportunities to increase revenue through decreased 30-day hospital readmissions, Medicare shared savings funding, and utilization of TCM codes. Follow-up appointments for inpatient

status increased by 22.5% and follow-up phone calls increased by 16.7% enabling billing for seventeen TCM patients. TCM billing increased revenue by $2,000 to $3,000 in the first month.

Implementation of the Reengineered Discharge Process and Transitional Care Management at a Rural Critical Access Hospital

Changes in the United States (U.S.) health care system is focusing on ways to increase the quality of health care while decreasing costs. one area of focus is increasing quality of care by providing higher-quality transitions-of-care in order to decrease 30-day hospital readmissions. One out of five Medicare patients discharged from the hospital will be readmitted within thirty days, adding up to 2.6 million older adult admissions annually at a cost of over twenty-six billion dollars per year (Centers for Medicare & Medicaid Services [CMS], 2015). Section 3025 of the Affordable Care Act (ACA) aims to mandate the reduction of payments to hospitals having higher than average 30-day readmissions of Medicare recipients (CMS, 2015). Reimbursement changes are driving organizations to increase the quality of their transitions-of-care processes in order to address this problem.

In conjunction with decreased reimbursement, hospitals are accepting bundle payments for specific admission diagnoses. Bundle payments are a standardized reimbursement for a hospital admission based on expected costs for the admission diagnosis. Organizations that accept bundle payments are pressured to provide higher-quality transitions-of-care. Leadership at a rural critical access hospital (CAH) in western Michigan identified that their current approach to healthcare delivery resulted in a fragmented transitions-of-care process. Effective coordination of care is imperative because the organization is a Medicare Shared Savings ACO. Section 3022 of the ACA requires ACOs to report quality data that demonstrates the organization is addressing factors related to high-quality transitions-of-care (Naylor et al., 2011). Working on ways to improve transitions-of-care is one strategy that this CAH identified in order to continue receiving Medicare Shared Savings incentives.

A care transition occurs when patient care is transferred from one care setting to another; this movement carries major patient safety and medical reimbursement implications (CMS, 2015). Poor care transitions lead to poor patient experiences and higher re-hospitalization rates (Naylor & Keating, 2008). Factors contributing to care gaps during critical transitions-of-care include: understanding treatment plans, ability to obtain follow-up care, and the lack of care coordination (Naylor & Keating, 2008).

The Agency for Healthcare Research and Quality (AHRQ) and CMS has identified key transitions-of-care issues leading them to develop the Reengineered Discharge (RED) process and Transitional Care Management (TCM) program. CMS is providing TCM reimbursement and ACO incentives to organizations providing high-quality transitions-of-care [CMS, 2015; United States Department of Health and Human Services (USDHHS), 2013]. The goal of these interventions is to improve healthcare by providing high-quality transitional care service, resulting in decreased hospital readmissions within the first 30-days.

Government legislation, regulations, and federal funding are driving change at the CAH in western Michigan. Decreased reimbursement for 30-day hospital readmissions and financial incentives for providing high-quality transitions-of-care are the motivating factors for change. Available evidence-based interventions like the RED process and TCM are ways to meet quality measures and organizational goals.

Goal Statement

The focus of this Doctor of Nursing Practice process improvement project was to accomplish three goals. The first goal was to create a standardized workflow that implemented the RED process and TCM for a higher-quality discharge process. The second was to incorporate the RED process and TCM into the electronic health record (EHR), for the purpose of enabling

reporting of ACO quality measures. The last goal was to evaluate staff perceptions of the new transitions-of-care process, the frequency of completed follow-up phone calls, the regularity of scheduled follow-up appointments, and the success of TCM implementation.

Poor transitions-of-care lead to increased hospital readmissions, emergency department visits, increased costs, and decreased patient satisfaction (Naylor & Keating, 2008). Factors associated with poor transitions-of-care are lack of coordinated follow-up care, home equipment, insufficient patient education about diagnosis, lack of understanding of treatment plan, what to do when a problem arises, availability of hospital discharge summary, and provision of telephone reinforcement of the discharge plan (USDHHS, 2013).

The transitions issue experienced at this rural CAH project site was the lack of a consistent process that addressed factors related to increased hospital readmissions and high-quality transitions-of-care. In this CAH, factors known to lead to increased hospital readmissions were not addressed consistently and were not documented in the EHR in a manner that demonstrates quality transitions-of-care. This project identified that discharge processes did not have dedicated process owners, which allowed for critical details of transitions-of-care to fall through the gaps in care. Each hospital readmission costs an average of $10,000 or more (Rizzo, 2013). Failure to address these issues creates increased costs for the organization and patients.

Additionally, the CAH did not have a process to identify high-risk Medicare patients that would meet CMS eligibility criteria for inclusion in TCM; this, is another way to reduce readmissions and increase organizational revenue. The problem the CAH identified was not only about cost, but also quality of care and patient safety. The organization's Press Ganey scores for transitions-of-care were constantly lower than other CAHs, which demonstrates lower patient satisfaction related to transitions-of-care. Addressing issues affecting transitions-of-care was also

important to the organization because they are a Medicare Shared Savings ACO. ACOs need to quantify how they are meeting ACO requirements.

In this project, the DNP student collaborated with interdisciplinary key stakeholders within the organization to facilitate implementation of the RED process and TCM program into the organization, while capturing the process in the electronic health record (EHR). A standardized process was created that identified process owners and steps of the RED process along with documentation in the EHR. Patients eligible for inclusion in TCM were identified by transitions-of-care coordinators. The DNP student assisted with integration of the RED process from acute care hospitalization to transition with primary care and assisted primary care providers to utilize TCM current procedural terminology (CPT) codes. Both the RED process and TCM have been shown to decrease hospital readmissions and acute care utilization, but have not been implemented together. The synergistic effect of both interventions provides increased benefit to Medicare recipients being discharge from hospital care.

The lack of a standardized discharge process resulted in opportunities for patients to fall through gaps in care. Discharge documentation was not recorded in a way that enabled reporting of high-quality transitions-of-care in order to meet ACO compliance metrics. The Press Ganey scores for the transitions-of-care process, demonstrated low patient satisfaction and an area for quality improvement.

Understanding the difficulties faced by the CAH, the DNP student completed a literature review to identify factors related to a high-quality transitions-of-care processes and potential strategies to remedy them. Evidence-based initiatives were identified in the literature that showed significant results in the delivery of high-quality transitions-of-care. The initiatives addressed barrier to care like the ones experienced by the patients at the CAH.

Evidence–Based Initiative

A review of available literature demonstrated that high-quality transitions-of-care are associated with significant reduction of hospital readmissions and connected with a lower readmission rate (CMS, 2015; Naylor et al., 2004). Many patients have multiple health conditions that can benefit from transitions-of-care services (CMS, 2015). It is necessary to understand both patient and organizational factors in order to provide a high-quality transitions-of-care processes. Once factors related to transitions-of-care are understood, evidence-based interventions can be implemented to address the identified factors. In the next sections, several factors identified in the literature are discussed in relation to achieving high-quality transitions-of-care. One important factor related to transitions-of-care is patient education.

Education

Research supports that patient education promotes self-care, which enable individuals to be active participants in their care. Education includes a review of medications and skills for individuals to self-manage disease processes and recovery efforts. Education should include health promoting behaviors and interventions to manage specific conditions. Education is most effective if given in small doses throughout the hospital stay and continued post-discharge. Early communication either by phone or home visit after discharge has been shown to decrease 30-day hospital readmissions and acute care utilization (Coleman, Chalmers & Min, 2006; Jack et al., 2009; Hitch et al., 2016; Legrain et at., 2011; Naylor et al., 1999 & 2004; Wee et al., 2004). Patient understanding of education is best demonstrated by using the patient teach-back method (White et al., 2013). The teach-back method is not a test of intelligence but an opportunity for the patients to describe in their own words their understanding of patient education (USDHHS,

2015). Education comprehension can be hindered by an individual's health literacy, another factor identified as a potential barrier for the provision of high-quality transitions-of-care.

Health Literacy

Health literacy is defined as the level of knowledge an individual has about health-related processes and their ability to use information to make informed healthcare decisions. Individuals with low health literacy do not have the information or knowledge necessary to understand their own health, leading to negative health outcomes and acute care utilization (Barragan et al., 2004; Naylor et al., 2008). Health literacy has been recognized as an emerging issue in the U.S. population. Poor health literacy has been estimated to cost the U.S. health care system thirty to seventy billion dollars a year (The Council of State Governments, 2015). Health literacy can hinder capabilities of hospitals to provide transitional care and patients to understand health care information or access their health care needs (Barragan et al., 2004; Naylor et al., 2008). Health literary can be affected by an individual's language and culture.

Language and Culture

Differences in language and culture can provide significant barriers on an individual's ability to understand discharge instructions and how to access follow-up care. By not addressing language and cultural barriers, the quality of transitions-of-care can be negatively affected. Individuals that use English as a second language may have a harder time understanding medical information and healthcare planning. Complicating the language barrier are issues with medical terminology and phrases that have different meanings or interpretations when translated into other languages. Lack of understanding affects comprehension of instructions, patient education, insurance navigation and transitions-of-care (Brittain, Christy, & Rawl, 2016; Singleton & Krause, 2009).

Culture can be an additional barrier affecting understanding between patients and transitions-of-care providers. Some cultures promote non-confrontational styles, leading to avoiding the assertiveness needed to obtain follow-up care. In some instances, the patient's cultural differences can convey a sense of understanding by continually agreeing with healthcare providers, when in fact there is not a clear understanding. Some patients from different cultures will listen or follow directions depending on whether the information is delivered by a male versus female or doctor versus nurse. Cultural differences and language barriers can have strong influences on transitions-of-care (Brittain et al., 2016; Singleton & Krause, 2009). It is necessary to adapt the discharge planning process to meet the needs of specific populations, by first assessing language preference and cultural needs.

Follow-up Appointments

Issues surrounding follow-up appointments can also impact quality transitions-of-care. Sending patients home with only provider office contact information on their discharge instructions for their follow-up, does not provide adequate assurance that they will obtain timely follow-up care. One of the biggest obstacles to follow-up care is being able to obtain timely appointments after discharge. One study found a low success with only 40% of patients obtaining a follow-up appointment within one week, regardless of insurance status (Vinson & Patel, 2009). Evidence has shown that providing patients with follow-up appointment date and time, greatly decreases the number of emergency department visits and hospital readmissions (Jack et al, 2009; Naylor et al., 1999; Naylor et al., 2004).

Research supports coordination of care between the hospital and patient's primary care physician and a scheduled face-to-face appointment (Coleman et al., 2006; Jack et al., 2009; Hitch et al., 2016; Legrain et at., 2011; Naylor et al., 1999; Naylor et al, 2004; Wee et al., 2004).

Follow-up with a primary care physician is important in the recovery process for evaluation of patient progress and treatment plans. The primary care physician is the point person to review and revise the outpatient plan of care and make referrals for specialized care.

Intense, early interventions are needed for post-discharge hospital patients within the first few weeks after discharge. The first few weeks post-discharge are a time when patients are at increased risk for health deteriorations that leads to hospital readmission (CMS, 2015). Research studies support that timely follow-up care identifies problems when they are manageable in an outpatient setting, using established in-home visits or communication within 24-72 hours of hospital discharge and weekly contact for the first month (Coleman et al., 2006; Naylor et al., 1999; Naylor et al., 2004). Medical information being available at the follow-up appointment is also crucial to the transitions-of-care process.

Transfer of Health Information

Transfer of health information is another barrier to transitions-of-care. The lack of interoperability between electronic health records hinders access and transferability of health information. Follow-up information is relayed to primary care physicians electronically, by mail or by a hard copy provided by the patient. Primary care physicians need timely access to the discharge plan, hospital visit summary, labs, and medications to provide continuity of care. Delays in receiving patient information leads to untimely follow-up and inability to maintain the discharge plan (Trachtenberg, 2011). It is important for the primary care physician to have information contained in the discharge summary to answer patient questions and coordinate care (Coleman et al., 2006).

Coordination of Care

Another barrier to transitions-of-care is having a single process owner for care coordination. primary care physicians are intended to be the coordinator of care in most healthcare systems. Failure to involve the patient's primary care physician contributes to fractured care, which leads to redundant medical testing and inefficient collaboration between medical professionals needed to manage complex medical conditions. It is also important for primary care physicians to coordinate care to ensure there is not conflicting treatments for chronic disease management (Coleman et al., 2006). Additionally, coordination of care should address patient factors related to the transitions-of-care process.

Patient Factors

Many factors are involved in a patient's ability to have a successful transitions-of-care. An important factor is the involvement of the patients and caregivers. Involving patients and caregivers facilitates understanding of the treatment plan and leads to better follow-through on discharge instructions. Some common barriers to patient's follow-through are transportation, time, and finances (Sommers, Cunningham, & Alvarez, 2011). Assessment of a patient's ability to obtain transportation at a time that works in their schedu increases the odds of the patient attending follow-up appointments. Assuring that specialists participate with the patient's insurance is an important financial consideration as well as transparency regarding the cost of copays and prescriptions (Sommers et al., 2011). In addition to barriers that affect a patient's ability to follow-through with discharge instructions, organizational factors also play a role in effective transitions-of-care.

Organizational Factors

Healthcare organizations also have barriers to providing high-quality transitions-of-care. To facilitate discharge planning, hospitals must dedicate time and resources to coordinate care. Resources and man-hours cost healthcare organization money. Reimbursement has historically been a barrier for coordination of care. Although reimbursement is still a barrier, some costs of coordination of care are reimbursable by insurance payers and other costs are offset by financial rewards for meeting quality-based health care measures (CMS, 2015). Throughout the literature review, multiple evidence-based interventions that address the factors contributing to the transitions-of-care process have been identified. In the next section, key evidence-based interventions that will meet the needs of the CAH are described.

Evidence-based Interventions

Based on transitions-of-care research many evidence-based interventions have been developed to provide high-quality transitions-of-care that address contributing factors that lead to hospital readmissions. The RED process is an evidence-based intervention that has been implemented in over 300 hospitals in the U.S. and found to decrease hospital readmissions by 30% (Jack et. al., 2008; Joint Commission Resources, 2016). The RED Tool Kit was developed through research at Boston University Medical Center, over an eight-year period, with support and funding from the AHRQ (Jack et al., 2008). The RED process is endorsed by the AHRQ as an evidence-based discharge process available to reduce hospital readmissions and emergency department visits (USDHHS, 2013). The RED process includes: making follow-up appointments; laboratory tests; organizing outpatient services and medical equipment; updating medication regiments and a plan to obtain them; educating the patients about their diagnosis and plan in a way they can understand; informing patients of what to do when a problem arises;

expediting discharge summaries; and, reinforcing patient plans through telephone calls or home visits (USDHHS, 2013).

The RED process has been implemented in 19 Colorado hospitals and found to reduce all cause readmission by 30% (Colorado Hospital Association, 2014; Jack et al., 2009). The RED process has been successfully implemented in a rural community hospital like the CAH used for this project. 30-day hospital readmissions decreased 32% over a 4-month period when the RED process was implemented in a similar CAH (Adams, Stephens, Whiteman, Kersteen & Katruska, 2014).

TCM is another evidence-based intervention based on Naylor's research conducted through the University of Pennsylvania over a twenty-year period. TCM research was translated and adopted by CMS. TCM includes a follow-up phone call within 2 business days after hospital discharge and provides a scheduled primary care physician appointment within 7-14 days after hospital discharge. TCM is a federally funded program recognized for decreasing 30-day hospital readmissions and reducing healthcare costs. In one example, implementation of TCM at a family medicine clinic in North Carolina decreased hospital readmissions by 62.6% by utilizing a nurse care manager, medication reconciliation, and a follow-up primary care physician appointment (Hitch et.al., 2016).

Solution

Evidence supports implementing the RED process and TCM into acute care discharges in order to decrease hospital readmissions by providing high-quality transitions-of-care. The RED process and TCM have shown an average of 30% lower rate of 30-day readmissions compared with standard discharge processes (USDHHS, 2013, CMS, 2015). The synergistic effect of these two interventions may yield even better results. The goal of both processes is to reduce

readmissions for vulnerable patient populations. Research has shown that transitions-of-care assistance, reduces hospital readmissions and emergency department visits (Coleman et al., 2006; Jack et al., 2009). Hospitals have been the main drivers of efforts to reduce readmissions, but lack of funding available to pay for additional clinicians has traditionally been a barrier. Recently, CMS is providing reimbursement for physician time and clinician time required to provide TCM (CMS, 2015). TCM funding, ACO incentives, and decreased reimbursement due to increased 30-day hospital readmissions provides financial incentives to provide high-quality transitions-of-care.

The RED process and TCM are both evidence-based interventions shown to decrease 30-day hospital readmissions. Both interventions include patient education, providing follow-up appointments, and utilize follow-up phone calls. Changes in payment structures to a value based system provides incentives to focus attention on high-quality transitions-of-care. Conceptual models were needed for theoretical underpinnings that support the evidence-based interventions. Additionally, conceptual models assisted with the organizational assessment and implementation of the evidence-based interventions.

Conceptual Models

The RED process and TCM are both evidence-based interventions shown to decrease 30-day hospital readmissions. Both interventions include patient education, provide follow-up appointments, and utilize follow-up phone calls. Changes in payment structures to a value-based system, provides incentives to focus attention on high-quality transitions-of-care. In this section, is a discussion of how the Transitional Care Model was used to provide a theoretical underpinning for implementation of the RED process and TCM interventions in the CAH. Furthermore, discussion of the domains of the Burke and Litwin Model were used to assess the

CAH and the Promoting Action on Research Implementation in Health Services (PARIHS) Model was explored to guide and support the interventions for successful implementation.

Transitional Care Model

The Transitional Care Model, (2017) was developed by Naylor at the University of Pennsylvania (Transitional Care Model, 2017). The Transitional Care Model is the theoretical underpinning for TCM and concepts in the model are the basis for many other transitions-of-care interventions including the RED process. The Transitional Care Model addresses factors found to be related to decline of patient's health during transitions-of-care. Addressing these factors have been shown to decrease costs and hospital readmissions, while improving health and patient satisfaction (Transitional Care Model, 2017).

The Transitional Care Model utilizes a point person to coordinate care during an acute illness. Healthcare as delineated in the model is intended to be holistic, meeting preferences, needs, and goals of the patient. Coordination of care is facilitated between the patient, family, and caregivers with an interdisciplinary approach to improve health outcomes and decrease costs. The Transitional Care Model includes in-home healthcare visits and telephone support for assessment of patient status to identify issues early. Early identification of health deterioration allows for interventions to prevent acute care utilization. The goal of the model is to provide education and identify barriers for individuals and families to manage health conditions (Transitional Care Model, 2017).

The Transitional Care Model was utilized in this project by assessing patient barriers to obtaining medications and transportation to follow-up appointments. Interdisciplinary care conferences were held three times a week to provide holistic treatment plans. Care conferences were being held prior to this intervention and fit well with the interdisciplinary focus of the TCM

interventions. Education was given to patients pertaining to management of specific health conditions and health promoting behaviors. Follow-up phone calls were conducted within 48 hours on discharged patients to assess health condition and answer questions about the care management plan.

Concepts from the Transitional Care Model were used as the basis for the RED process and TCM. The interventions provided follow-up appointments, follow-up phone calls, patient education, and an assessment of barrier to high-quality transitions-of-care. The evidence-based interventions were implemented with PARIHS Model.

PARIHS Implementation Model

The PARIHS framework (see appendix A) is a model used for implementing evidence into practice. The model consists of three main concepts: evidence, context, and facilitation. The three main concepts have three sub-concepts, which are rated on a scale from low to high, with high rankings being associated with more successful implementation. Successful implementation, in this project, was operationalized by collaboration between the three main concepts (Kitson, Harvey & McCormack, 1989).

The PARIHS Model was chosen because it assists in analyzing the quality of evidence available in order to give a sense of successful intervention implementation. The PARIHS Model assisted in assessing the organization to determine successful implementation and readiness for organizational change. The success of this process improvement implementation relied heavily on organizational readiness for change and leaderships ability to facilitate changes to the transitions-of-care process. Starting with an evidence-based intervention that was validated by multiple randomized controlled trials was pivotal to the process improvement being successful.

Evidence

Evidence consists of three sub-concepts: research, clinical experience, and patient preferences. Research is assessed based on the level of evidence with randomized control trials, systematic reviews, and evidence-based guidelines being the highest levels of evidence. Evidence is additionally appraised through clinical experience looking for high levels of consensus and consistency of views from clinical experts. Patient preferences incorporated by healthcare providers is also considered high level evidence in the PARIHS model (Kitson et al., 1989).

By using the PARIHS model to appraise the evidence to support the RED process and TCM, this project was able to yield high results in all three sub-concepts. The RED process and TCM both have randomized control trials and evidence-based guidelines endorsed by the AHRQ and CMS for reducing 30-day hospital readmissions and providing high-quality transitions-of-care (USDHHS, 2013; CMS, 2016; Jack et al., 2009; Naylor et al., 1999; Naylor et al., 2004). Other similarities include processes where patients, families, and caregivers work in a partnership to ensure high-quality transitions-of-care incorporates patient preferences.

Context

Context refers to the organizational environment where the implementation of evidence-based practice is to take place. Context takes into consideration the internal forces of the organization; interaction between leadership and organizational action. Context is divided into three sub-concepts: culture, leadership, and measurement. Organizational culture is considered high in a learning organization that is patient-centered, valuing patient outcomes and utilizing continuing education. Leadership in an effective organizational structure is based on clear roles, effective teamwork, and clear direction from leadership.

During the organizational assessment, it was clear that the context within the CAH had an evolving culture due to recent structural changes within the organization. Although the culture of the organization was changing, implementing evidence-based patient-centered interventions was a priority at all levels. Leadership at this CAH, utilizes a transformational leadership style and utilizes Studer®-based principles to promote effective teamwork (Studer, 2016). Internal measurements of performance were given informally with immediate feedback, and formally through biannual evaluations and reports on quality measures. External evaluations were provided through Press Ganey scores, which are derived from a post hospital visit survey about a patients' experiences during their stay (Press Ganey, 2017). A detailed evaluation of the context of the organization is described in the organizational assessment.

Facilitation

Facilitation within the PARIHS model refers to the characteristic, role, and style of leadership in relationship to the proposed implementation. The characteristics of the team should reflect high levels of mutual respect, authenticity, and credibility for an implementation to be successful. Clear roles must be established and key stakeholders identified for proper facilitation. Input from all team members is needed to obtain buy-in to negotiate a successful change agenda. A flexible leadership style with appropriate presence and support is important for high-quality facilitation.

Facilitation at the CAH is based upon credible leadership that has mutual respect and empathy for subordinates. The availability of some leaders was decreased due to organizational requirements to oversee multiple departments, resulting in the need to attend numerous meetings.

Leadership team members involved in the process changes had the authority and management skills to guide a successful implementation. The organizations project manager

used a transformational style valuing everyone's input equally. Meeting agendas were flexible and consistently used interdisciplinary collaboration to come up with amicable solutions to organization issues. An in-depth evaluation of the organization's facilitation is explained in the organizational assessment.

Burke & Litwin Model

The Burke and Litwin Model (see appendix B) analyzes internal and external factors necessary to identify and support organizational change (Burke & Litwin, 1992). The model is based upon practice domains that were found to impact organizational performance and climate for change. The Burke and Litwin model is an open-system that demonstrates how organizational factors influence each other (Burke & Litwin, 1992). The domains of the model are external environment, mission and strategy, leadership, organizational culture, management practices, structure, systems, work climate, motivation, task and individual skill, individual needs, and performance (Burke & Litwin, 1992).

The top three domains of mission and strategy, leadership, and organizational culture are transformational factors that have the biggest impact on change compared to the transactional factor domains on the bottom half of the model (Burke & Litwin, 1992). Transformational factors are leadership based; transactional factors are management based and are located where organizational decisions are put into action. Transactional factors of systems and policies are important because they address daily workflow and environment to carry out day-to-day operation. Transactional factors are the actions that are organized and implemented based on transformational factors.

The Transitional of Care Model was the theoretical basis for the quality based process improvement project. The PARIHS Implementation Model was used to evaluate the evidence,

context, and facilitation to support the intervention. The Burke and Litwin Model was used to asses and determine the internal and external factors that supported organizational change at the CAH.

Need and Feasibility Assessment of the Organization and Population

In the following section, the Burke & Litwin Model was used to conduct an organizational assessment to identify supporting factors of the transition-of-care process and detect areas that needed change to support the new process. The organizational assessment was done systematically from top to bottom starting with the external environment and working down to the individual level (see Appendix B).

External Environment

The external environment encompasses outside factors that impact the organization (i.e. legislation). One major factor in the external environment is the movement of healthcare reimbursement toward a value-based system that is constructed on quality measures and patient based perceptions of quality care. Under the value-based health care system Medicare is reducing payments to hospitals having higher than average readmissions of Medicare recipients (CMS, 2015). In addition to CMS reimbursement, the CAH is a Medicare Shared Savings ACO. ACOs are a group of heath care providers that come together to provide high-quality coordinated care to reduce costs and duplication of care, while increasing patient safety. ACOs that are successful in delivering high-quality transitions-of-care get a share of Medicare cost savings (CMS, 2016). Organizations performing well on quality measures will be given higher reimbursements for their services than ones that are lower performers (Medicare, 2016). These external environmental factors are driving change in the organization.

Mission and Strategy

The mission is the purpose of the organization and the foundation that guides the work of the organization (Burke & Litwin, 1992). The mission of the CAH is "to provide exceptional, compassionate, personalized healthcare to our community" [Allegan General Hospital (AGH), 2016]. The strategy is how the organization will achieve their mission. (Burke & Litwin, 1992). The mission of the CAH is "To be the trusted healthcare provider of choice by demonstrating clinical and operational excellence, outstanding customer service and an unwavering commitment to our community" (AGH, 2016). The leadership and management teams were very familiar with the mission of the organization and frequently referred to it when working toward goals based on these principles. Subordinate staff were less aware of the mission and strategy of the organization. The mission and strategy is clearly posted in the organization and available on their webpage, but the leadership team does not communicate these principles thoroughly to staff.

Leadership and Management

The leadership team provides the direction for an organization to attain its mission and strategy (Burke & Litwin, 1992). The leadership team structure at the CAH is a hierarchical arrangement headed by a board of trustees and hospital president. Leadership at the CAH are the directors of managers and managers oversee individual departments. Influential leadership includes the chief clinical officer, who has a Doctor of Nursing Practice (DNP) degree and who understands the process of implementing evidence-based interventions into practice.

The CAH is a small organization with frontline managers of the organization overseeing multiple departments. For example, the manager of the acute care unit, also manages the orthopedic unit and the infusion center. The acute care manager is the process owner for this

quality improvement intervention. The primary care manager is new to the organization and is very eager to implement quality improvement changes.

The dominant leadership style within the CAH is transformational leadership. Transformational leadership is a style that helps transform individuals to achieve long-term goals. Transformational style of leadership enables individuals to achieve more than they would normally be able to attain. Transformational leaders are visionary leaders with charisma that motivate individuals to perform at higher levels (Northouse, 2013). Leadership and management are always available to staff for guidance, direction, and problem solving. Leadership utilized Studer®-based principles, which is a framework of evidence-based leadership. Studer®-based principles assist healthcare organizations to obtain clinical outcomes and financial goals. Obtaining clinical outcomes and financial goals is accomplished by creating a culture of accountability, innovation, and provision of exceptional patient experiences (Studer, 2016).

The leadership team at the CAH has identified a need to improve the transitions-of-care process and care coordination services. A standardized process was needed to ensure hospital readmissions remained at an acceptable level and ACO requirements for transitions-of-care were being met. The leadership team made an ongoing commitment to back evidence-based interventions that align with the organizations mission and strategy.

Culture

The culture of an organization is the values and principles that guide behavior of an organizations employees and leadership (Burke & Litwin, 1992). The CAH has a culture of mutual respect, assisting individuals in any way possible to provide exceptional patient care. Individuals in the organization frequently ask staff members “how are you doing” and “what can I do to help”. The organization has many new employees that bring new ideas and enhance the

organizations readiness for change. Longstanding staff members represent a culture based on tradition. Staff members that had been working at the CAH for many years had both a positive and negative impact on the organizations' culture and willingness to implement change. Some of the seasoned team members were more resistant to change and put up roadblocks to organizational changes efforts rather than embracing them.

The organizational culture had been described as an environment of chaos due to the many changes in leadership roles and organizational structure. Leaders in the organization believed that an atmosphere of chaos in the organization creates an environment that is ready for change. Recent changes in leadership in multiple departments have brought new ideas and a willingness to embrace the culture of the organization while bringing new ideas for positive change.

Structure

The structure of an organization is the arrangement of individual staff members and responsibilities necessary to carry out daily function (Burke & Litwin, 1992). The leadership team recognized the structure of the CAH was a silo approach to healthcare. Each separate entity of the organization worked well within individual teams, but did not collaborate to provide high-quality coordination of care. One example of inconsistency within the use of the silo approach was the hospital transitions-of-care process. The transitions-of-care process from hospital care to primary care physician was not a standardized process and had no process owners.

Despite lack of standardization and process owners, the steps of a high-quality transitions-of-care were being completed most of the time, but some elements of the discharge process were not completed reliably or thoroughly. The previous process did not provide assessment of social determinants of health or support upstream factors leading to hospital

readmissions. Examples of gaps in the discharge process were: identification of primary care physician by registration, failure to send discharge summaries to primary care physicians, inconsistency of follow-up appointment scheduled with primary care physician prior to discharge, lack of assessment of patient's ability to obtain transportation to follow-up appointments and pick up prescriptions, no disclosure of who to contact with questions or concerns, and inconsistency of making discharge follow-up phone calls (see appendix C).

In addition to the issues with the transitions-of-care process, the organization functioned in silos of care instead of as a cohesive unit working towards a combined goal. Working as individual entities does not satisfy criteria to receive ACO incentives. Prior to this intervention, the ACO coordinator, who works in the primary care physician office, was working on ACO compliance without incorporating the hospital leadership team. The leadership team of the hospital and primary care physician office have realized that being part of an ACO requires the organization to collectively work on coordination of care.

Another area of opportunity for high-quality transitions-of-care and a source of revenue, was the failure to utilize TCM CPT codes. The CAH medical clinic was not utilizing TCM for complex Medicare patients resulting in lost revenue. Additionally, not utilizing TCM placed individuals at greater risk for hospital readmission, which is costly for the hospital because insurance payers are no longer covering hospital readmissions within 30-days of discharge.

Systems

Systems, as described in the Burke and Litwin model (1992), are facilitators of the work environment. Systems include employee evaluations, budget planning, and human resources. Policies and procedures were also being developed in a silo manner. Each department was developing individual processes rather than streamlining care processes across care areas within

the organization. The development of unit-based policies was in direct conflict with organizational efforts to work on procedures and policies that are universally applicable throughout the organization.

Climate

Climate is defined as the feelings of individuals toward the organization, which reflects how employees relate to co-workers, management, and departments of the hospital (Burke & Litwin, 1992). The climate of the organization was accepting and supportive. Individuals worked together to provide high-quality patient care. However, a divide did exist among clinicians due to some clinicians being union employees while others were not. The leadership and management teams were not eligible to be part of the union. All other clinicians had the option to join the union, but it was not mandatory for employment. During the most recent contract negotiations in January 2017, union leaders and hospital administrators were not able to come to an agreement. The lack of an agreement placed additional strain on the organizational climate. Separation of union and non-union clinicians created a divide and underlying sense of tension. Feelings of divide also existed between clinicians and management. Some clinicians felt they were asked to do too much with increased expectations and did not feel appreciated. Others felt that the leadership team was not present enough at the ground level to understand the day-to-day operations of the organization. A climate of this type can be a barrier to the creation of positive outcomes, but leaves room for changes to occur.

Individual needs and values

Individuals need the right materials, management support, and education to complete their daily activities. The management team made certain that supplies and resources were available to complete daily patient care activities, but many felt that the leadership and

management teams was not present. Complicating matters, the organization does not have nurse educators for staff education or a clinical nurse specialist to implement evidence-based intervention. The organization does provide tuition reimbursement for continuing education which does support an individual's professional development and educational needs.

Despite obstacles, the majority of individuals at the CAH understand the value of working for a smaller organization and state that they feel good about the work they do. Staff nurses are proud to work in a respected profession that assists patients in achieving better health. Many expressed satisfaction of working in an organization that serves a rural population in an underserved area. Job satisfaction was found to be a motivating factor for employees (Burke & Litwin, 1992).

Motivation

Motivation is what drives individuals to take action to achieve goals. It is what inspires them to be successful (Burke & Litwin, 1992). At the CAH opportunities were identified to improve motivation. Individuals at the patient care level were unaware of the organizational mission, goals, and organizational strategy. Individuals expressed feelings that they did not have a say or voice in organizational decisions, even though they failed to participate in opportunities to influence organizational change. Some staff members identified that they liked to see what goes on behind the scenes, give input, have ownership, and be part of the solution. Additionally, some individuals felt that hard work and efficiency was rewarded with increased work and expectations with fewer resources. Consistent motivation at all levels of the organization was doing what was right for the patient. People working in healthcare are motivated by providing exceptional patient care based on personal values, morals, and beliefs (Burke & Litwin, 1992).

Individual and Organizational Performance

Individual and organizational performance is the results and outcomes of individual and organization efforts (Burke & Litwin, 1992). The CAH leadership and management teams gave feedback and ratings of individual performance twice per year. The organization uses Press Ganey scores to evaluate organizational performance measures. Press Ganey is a survey used to evaluated patient experiences during a hospital stay. Press Ganey results at the CAH from July-November 2016 found low hospital ratings for education on new medications, addressing help when leaving the hospital, and incorporating patient preferences. The low scores indicated lower patient satisfaction in components related to the transitions-of-care process. The organizational leadership had identified a strong commitment to addressing these low ratings by improving transitions-of-care along a continuum, thus reducing the silo approach traditionally employed. To address these issues, it was important to identify the strengths, weakness, opportunities, and threats of the organization.

SWOT Analysis

A strength, weakness, opportunity, and treats (SWOT) analysis is a framework for evaluating the readiness for change in an organization. The SWOT analysis helps the organization utilize strengths, identify weaknesses, focus on opportunities, and minimize treats to organizational change (Ojala, 2017).

Strengths

Strengths of the CAH are size and structure. The CAH is a standalone organization, which has not been acquired by a larger health system. Merging with a larger health system has been occurring with increasing frequency by similar critical access organizations (Burley, 2016). As members of an independent organization, hospital leadership are free to make organizational

changes that align with their goals and objectives, rather than the goals and objectives of a large health system. The smaller organizational size allows the CAH to implement organizational change and innovations faster and easier (Burley, 2016). When making changes, the CAH organization utilizes Studer®-based business principles.

The organizational leadership prides itself on the use of Studer®-based business principles to achieve clinical and financial goals. There are nine Studer® principles: commitment to excellence, measure important things, build a culture around service, create and develop leaders, focus on employee satisfaction, build individual accountability, align behaviors with goals and values, communicate at all levels and, recognize and reward success. Studer® principles helps organizations with evidence-based principles that assist in achieving organizational goals (Studer, 2016).

Leadership in the organization identified a readiness to make changes to the provision of a higher-quality transitions-of-care process, to achieve better patient outcomes. The leadership team of the organization is highly motivated to make changes to transitions-of-care because they are an ACO and need to incorporate evidence-based transitions-of-care processes that meet quality measures for Medicare Shared Savings incentives. The organization has an involved leadership team with the authority and willingness to implement evidence-based changes to the organizations transitions-of-care process.

The organization has dedicated an ACO coordinator plus transitions-of-care coordinators in both the hospital and primary care clinic to provide high-quality transitions-of-care. The organization has a high nurse-to-patient ratio which provided ample time and resource to provide high-quality transitions-of-care. The CAH serves a primarily low-income population and many patients have Medicaid or are uninsured. The organization has an assistance program to help

patients pay for medications and medical equipment. The financial counselor assists patients with financial needs and assists patient in signing up for state and federal insurance programs.

Weakness

The small size of the organization is a strength, but also a weakness due to limited physical and human resources. Downsizing of departments and elimination of management has managers now oversee multiple departments. Managing multiple departments leads to an increased number of meetings and decrease in availability to be present on individual units.

The organization does not have a nurse educators or clinical nurse specialist to educate clinicians or implement evidence-based interventions. The lack of nurse educators or clinical nurse specialists is a major barrier because management is often unable to take the time necessary to implement change.

The organization utilizes a silo approach to patient care, which results in lower quality transitions-of-care. The Press Ganey survey scores show the patient perception of coordination of care and transitions-of-care are lower than the organizational goal. The organizational assessment revealed a perceived divide among employees due to some clinicians being members of the union and others choosing not to be part of the union. The divide has created a lack of cohesiveness of clinicians in the organization. Some of the seasoned clinicians have verbalized resistance to any type of change and want to preserve current processes.

Current processes for discharge planning and follow-up care were lacking the process steps for follow-up appointments, education on disease management and who to call with questions about the discharge plan. Inconsistency of information and interoperability of hospital and primary care physician electronic health record led to hospital discharge summaries not

being sent to primary care physicians post hospital discharge. Identification of such weakness provides new opportunities for change.

Opportunities

Increased focus on transitions-of-care by insurance payers and CMS provides an opportunity to implement changes to the CAH's transitions-of-care processes (CMS, 2015). Federal regulations and quality measure reimbursement are external forces driving change in transitions-of-care. Financial incentives are additional opportunities and motivations for implementing changes to the organizational approach to transitions-of-care and standardization of workflow. The CAH is an ACO Medicare Shared Savings program participant. Organizational changes that meet ACO requirements will preserve current incentives and increase payments from the Medicare Shared Savings program. In addition, CMS provides additional reimbursement through TCM codes for coordination of care for moderated to high-risk Medicare patients (CMS, 2015).

The organization was able to utilize a Doctor of Nursing Practice (DNP) student to objectively analyze the organization and work on solutions to increase the quality and efficiency of the transitions-of-care processes. A symbiotic relationship existed for the student to enact the DNP role of implementing evidence-based interventions into practice while assisting the organization to improve their transitions-of-care processes. The DNP student resource presented an opportunity for the organizational need.

Threats

Threats to the organization pertaining to the improvement of transitions-of-care services are related to the rural and underserved environment. Public transportation availability is limited near the CAH for individuals needing transportation to make follow-up appointments. The

hospital is not located on bus route and only scheduled transportation is available. The area has a decreased socioeconomic status and low health literacy rate according to hospital and primary care social workers, which makes navigating the healthcare system difficult for some patients. Additionally, the recent political climate and newly elected president could threaten current CMS incentive programs if the Affordable Care Act is repealed, overhauled, or counteracted with executive orders (Kaplan & Pear, 2017). This organizational assessment was utilized to identify the organizational needs.

Organizational Needs Assessment

Macro System

The organizational needs are based on findings from the organizational assessment at both the macro and micro systems level. Macrosystems are broad concepts like healthcare or an organization. Macrosystems directly affect processes at the microsystems level (Godfrey et al., 2008). The macrosystems analysis revealed reimbursement is changing from a fee-for-service to value-based model (Institute for Health Improvement, 2016). The CAH is a Medicare Shared Savings ACO and needs to change the silo approach to healthcare by providing higher-quality transitions-of-care. Organizational performance in transitions-of-care and care coordination consistently trend low in the organization's Press Ganey scores. Changes to the transitions-of-care process are needed to continue receiving ACO incentives.

CMS is reducing payments to hospitals having high readmissions rates of Medicare recipients (CMS, 2015). Key stakeholders in the CAHs leadership and management teams made an organizational commitment to improve the transitions-of-care process, aligning it with the organization's mission and strategy. The use of Studer®-based principles and transformational

leadership style are helpful in achieving this goal. The smaller size of the organization makes implementing such changes at the CAH easier than at a larger organization (Burley, 2016).

Micro System

A micro system is comprised of the individuals and processes that make up an organization. The micro system is the point of interface between providers and patients (Godfrey et al., 2008). The micro systems assessment revealed a supportive and accepting culture among the CAH clinicians. The primary focus and goal of clinicians is to provide exceptional high-quality patient care. The team is comprised of individuals that are matched to their positions based on experience and personality. Team members needs and values are met by the organization and they are motivated to be an integral part of solutions to providing high-quality patient care. Systems are in place for individual assessment and rewards are provided for positive reinforcement of quality performance. The transformational and transactional factors provide a supportive environment ready for implementation of organizational change.

The macrosystems assessment determined that the discharge process was impacting high-quality transitions-of-care. A standardized process did not exist that illustrated the steps that are supposed to be included in the discharge process. Ownership and accountability were lacking to ensure factors related to low quality transitions-of-care and increased hospital readmissions were addressed. The assessment revealed that a high-quality evidence-based discharge process was needed to address transitions-of-care and factors related to hospital readmissions. The silo approach to healthcare needed to be eliminated with coordination of care to meet ACO requirement. According to the Burke & Litwin Model (1992), external environmental factors and organizational readiness for change provides an environment for successful implementation of the project plan (Burke & Litwin, 1992).

Project Plan

This DNP project was a process improvement initiative designed to provide high-quality transitions-of-care to meet Medicare Shared Savings ACO requirements. The DNP student met with the organizational leadership in the fall of 2016 to determine organizational needs. The DNP student conducted an organizational assessment to determine the organizational needs and implemented evidence-based interventions. A detailed description of the project's plan is provided in the following sections.

Purpose of Project with Objectives

The primary goal of this DNP project was to improve the discharge and transitions-of-care process. The objective was to implement a standardized work process into the EHR based on the RED process, incorporating the TCM program. Incorporating the RED process and TCM into the EHR enables reporting of quality indicators of transitions-of-care to meet Medicare Shared Savings ACO quality measures. This project implemented a standardization of work for discharging patients and documented the process in the EHR, educated staff about the new discharge process, and monitored compliance of discharge documentation in the EHR. Long-term organizational goals beyond the scope of this project are to decrease 30-day hospital readmissions and improve Press Ganey scores for transitions-of-care.

Project planning and implementation was carried out in 8 phases. These phases are the steps from the RED Toolkit for implementing the RED process (see Table 1).

Type of Project

This DNP project is a quality improvement process design that implements an evidence-based protocol for patients transitioning from an acute care hospital setting to outpatient care.

Figure 1. *Phases of DNP project*

Phase	
1	Completed an organizational assessment of the transitions-of-care process.
2	Assembled a transitions-of-care team to analyze organizational transitions-of-care issues and devised a plan to address the identified issues
3	Wrote a standardized work flow for hospital discharges that included input from all stakeholders and incorporated the RED process and TCM
4	Implemented the RED process and TCM into the EHR
5	Educated the staff about new discharge process and documentation in the EHR
6	Administered a pre/post-survey that evaluated staff perceptions of the transitions-of-care process
7	Implemented the new process with onsite support of the DNP student
8	Collected data from nursing informatics on documentation of the new discharge process. Data was recorded in a PDF format, stored on an encrypted flash drive, that was stored in a secure place, and given to the university research director at the end of the project for safe keeping.

The project required staff education and monitoring of data through the EHR. The project evaluates the effectiveness of the RED process and TCM in a rural critical access hospital.

Setting

The setting for this project was a rural CAH in western Michigan. The project was implemented into the CAH's 25-bed acute care hospital setting with transitions-of-care into outpatient settings (primary care physician/Specialist). Patients who met criteria for TCM were incorporated into the TCM program at the CAH's medical clinic. The CAH's medical clinic is attached to the hospital. The clinic has multiple physicians, physician assistants, and nurse practitioners. The clinic manager and transitions-of-care coordinator are members of the transitions-of-care team and were key facilitators for TCM implementation.

Resources

The resources needed for this DNP project included the donation of time and travel expenses by the DNP student. The DNP student spent over 300 hours in the organization doing the assessment, planning, and implementation. Some of these costs were offset by a Health Resources and Services Administration (HRSA) grant received by the DNP student for implementing a scholarly project in a rural area.

Resources from the organization involved the reallocation of clinicians to organize and implement the new discharge process. Registered nurse's (RN) utilizing the new discharge process had to be educated about the process and change in work flow. RNs are now responsible for ensuring all steps in the discharge process are completed and documented in the EHR (see Appendix D). For example, in the new process, RNs complete the follow-up phone calls, this, was previously done by the unit secretary. A meeting room was needed to hold weekly/biweekly meetings with the transitions-of-care team for planning the implementation. Informatics department time was needed for incorporation of the evidence-based initiative into EHR.

Design for Evidence-Based Initiative

The design for the evidence-based RED process came from the RED Toolkit, which was available for guidance on planning and implementing the RED process (USDHHS, 2013). The RED Toolkit is an eleven-phase process specifically designed for implementation of the RED process. Based on the project plan, phase three of the implementation process was omitted because it was outside the scope of this project. The organization has committed to measuring 30-day readmissions over time.

The RED process and TCM included similar components which made it easy to implement in both the hospital discharge process and primary care. Both programs include

scheduled follow-up appointments, follow-up phone calls, medication reconciliation, and patient education. The PARIHS Framework was used for evaluating the evidence, context, and facilitation for a successful implementation.

The first phase of this project was to establish a clear goal with the CAH leadership to implement the RED process and TCM to provide a higher-quality transitions-of-care process (USDHHS, 2013). This was a priority to the organization from a reimbursement standpoint due to readmission costs, ACO incentives, and missed opportunities from TCM funding. The new discharge process aligned with the organizations' mission, by providing exceptional healthcare to the community (AGH, 2016).

The new discharge process implemented evidenced-based guidelines endorsed by the AHRQ and CMS. A high level of consistency in results were established by clinical experts who implemented the RED process and TCM in other organizations. According the PARIHS Model the intervention has a high level of evidence to support a successful implementation (Kitson et al., 1998).

Phase two was to identify the implementation leadership team at least six months prior to implementation. Identification of project leaders within the organization was important to manage this process. The project leaders are individuals with authority to implement organizational change. Key stakeholders were assembled into a team that represented all areas impacted by the proposed process change. Process owners and change champions for implementation and education of process changes were also identified. Clinician support was important for information and involvement in the process (USDHHS, 2013).

The culture of the organization was patient-centered, valuing high-quality evidence-based interventions. The organizational leadership team implored effective team work and clear roles

about organizational objectives. The leadership team provided feedback about process changes and progress toward established goals. Key stakeholders possessed credibility and authority to facilitate a successful implementation. Based on the PARIHS Model the context and facilitation of the organization has high level attributes that are associated with more successful implementations.

Phase four was to identify the patient population that received the RED process. In most organizations, the RED process was implemented in a single unit or specific diagnosis. The RED process has been successfully implemented in multiple hospitals and across entire hospital systems. In this project, the RED process was implemented and utilized for all hospital discharges, since the size of the CAH organization was similar to one unit in a larger organization. (USDHHS, 2013).

In phase five, a process map was created that defined the current state of the discharge process. The purpose of the current state process map was to give a clear picture of the steps involved in the discharge process employed. Examining the process allowed for identification of areas for improvement in the discharge process. The process map illustrated how the process was carried out and weaknesses in the process. The process map showed how the discharge process worked on different units and on weekends (USDHHS, 2013).

The purpose of phase six was to compare the discharge process employed by the CAH in the current state to the RED process, to eliminate duplication and overlap. Incorporating quality measures from the organizations previous discharge process was important. All members of the implementation team were included to ensure that government regulatory quality measures were not overlooked in the new process (USDHHS, 2013). A standardization of work was created based on the RED process and incorporated TCM (see Appendix D).

During phase seven responsibilities of the RED process were assigned to individual clinicians (see Appendix E). In the literature, some organizations hired additional staff to carry out the RED process and others utilized existing staff. The CAH utilized existing staff to carry out the components of the RED process (USDHHS, 2013).

Phase eight implemented education to the clinicians about the RED process. The education process can be accomplished in multiple short sessions or in a one-day training session. An outline of staff education was available in the RED Toolkit (USDHHS, 2013). In this organization education was completed in one-day, at a staff meeting.

In phase nine, the leadership team decided how to deliver the post hospitalization discharge instructions. The RED Toolkit contains some suggestions on how to address this step. The organizational leadership decided to use a word processing program template. Use of the template was more time consuming, but was easy to learn and could be individualized for each patient. Follow-up appointment information and assessment of social determinants of health were manually entered into the word processing template. Diagnosis education was provided using guidelines from Truven Health® (Truven Health Analytics, 2017). Information was presented and organized in the newly adopted patient experience binders. The binder was a multi-tabbed folder that organized diagnosis, plan, and follow-up appointments. The post hospital discharge instructions were placed in the patient experience binder (USDHHS, 2013).

Phase ten included tailoring the discharge process to accommodate diverse populations. Assessment of preferred language and incorporating cultural preferences increased compliance with the discharge plan (Brittain et al., 2016; Singleton & Krause, 2009). It was necessary to adapt the discharge planning process to meet the needs of specific population. Discharge plans

were printed in the primary language of the patient and additional education was given to populations with low health literacy (USDHHS, 2013).

The new standardization of work used registration to obtain the patients preferred language and primary care provider. Discharge instructions and education is now given in the patients' preferred language, when it is available. RNs educated patients and caregivers one-on-one about medications and medication side effects. Education is now provided to patients about their diagnosis utilizing print outs from Truven Health®. Patients are educated about who to call with problems or questions about their discharge instructions or health management plan. Patient understanding is now assessed using the teach-back method. The discharge instructions and education materials are placed in the patient experience binder.

Follow-up appointments are made by RN clinicians and documented in the EHR in a location where all clinicians can visualize. The follow-up appointments are part of the printed discharge instructions. The RNs and case management team assess the patient's ability to obtain and pay for any discharge prescriptions. Patients who have no insurance are referred to the CAH's financial counselor for assistance in applying for Medicaid. Patients who are unable to pay for prescriptions or copayments are assisted with a community fund that helps pay for prescriptions and follow-up appointments. Patients who need transportation are now assisted with setting up and paying for scheduled bus transportation. The RNs complete the follow-up phone calls within 24-48 hours to assess patients' health condition and answer any questions they may have. Follow-up phone calls are documented in the EHR to meet TCM compliance.

Phase eleven was the monitoring of progress of the RED process. Evaluation of outcomes were measured and shared with staff and stakeholders to show progress toward goal attainments.

Monitoring and evaluation allows for identification and modification of any issues with the RED process (USDHHS, 2013).

Participants

An interdisciplinary transition-of-care team was assembled consisting of the DNP student, chief clinical officer, acute care manager, hospital, and primary care transitions-of-care coordinators, ACO coordinator, hospital social worker, homecare manager, nursing informatics manager, quality control officer, medical records representative, registration manager, and staff nurses. Transition-of-care meetings took place everyone two weeks for six months. The purpose of the meetings was to address planning and implementation needs. The RED intervention was utilized for all patients being discharged from inpatient hospital care. TCM was utilized for all Medicare patients being discharged from hospital care who were patients at the CAH medical clinic. The hospital and primary care transitions-of-care coordinators identified eligible Medicare patients to be included in TCM. TCM billing was only available for patients who were billed for a moderate to complex follow-up appointment. The CAH acute care nursing staff were the participants educated on the new transitions-of-care process, delivered the process to patients, and documented the process in the EHR.

Measurement: Sources of Data and Tools

The DNP project was evaluated based on RN perception of the discharge process and documentation compliance. RN perception compared the current discharge process to the RED process and TCM through a survey before and after implementation. The survey was designed by the AHRQ and included in the RED Toolkit. The survey consisted of a ten question Likert scale used to evaluate the quality indicators for transitions-of-care (see Appendix F) (USDHHS, 2013). The survey measured RNs perceptions of the organization and efficiency of preparing

patients for discharge. The survey measured perceptions of interdisciplinary collaboration, which was identified in the literature review as an important factor in transitions-of-care. The survey measured RNs perceptions of patient understanding of the discharge instructions and medications. The survey also assessed the perceptions of consistency of follow-up appointments, receiving of after-visit hospital summaries by primary care physicians, and follow-up phone calls completed (USDHHS, 2013).

Documentation of compliance with the RED process and TCM was evaluated through the EHR over a 30-day period with the assistance from nursing informatics along with the hospital and primary care transitions-of-care coordinators. Compliance documentation consisted of hospital discharge documentation of the RED process. Documentation measurements consisted of completed hospital follow-up phone calls within 24-48 hours, number of patients who were provided with follow-up care appointments and the number of patients included in TCM. Patients who were eligible to receive follow-up phone calls were patients that were discharged home with an independent living status. Patients discharged to a long-term care facility or another hospital were not eligible for follow-up phone calls. Follow-up phone calls needed to have three documented attempts or communication with the patient or caregiver to be considered completed. Organizational long term evaluations beyond the scope of this project are 30-day hospital readmissions and transitions-of-care Press Ganey scores.

Implementation and Timeline

The suggested amount of time from planning to implementation of the RED process is six months (USDHHS, 2013). Collaboration between the DNP student and the organization started in September 2016. The first step in implementing a new transitions-of-care project was to conduct an organizational needs assessment to determine the needs of the organization. The

organizational need for increased quality of transitions-of-care was identified in the first meeting with the transitions-of-care team in early September 2016. The next step was to conduct an organizational assessment of the current transitions-of-care process as described in the RED Toolkit (USDHHS, 2013). The organizational assessment was completed over a one-month period through interviews and observation of each element in the discharge process. The current discharge process was then compared to the RED process to identify areas that needed change.

Over a two-month period, weekly meetings were held to gather input and to determine progress on changes to current processes that supported implementation of the RED process. During these meetings, the RED Staff Assignment Planning Chart from the RED Toolkit was used as a guide for designing the process to fit the organization and to assign process owners (See Appendix E). The RED Staff Assignment Planning Chart was then used during the fourth month to write a standardization of work process that was implemented in the organization (see Appendix D).

During the fifth month, the RED process steps were incorporated into the EHR discharge planning tabs for documentation. A check box in the EHR was included to identify patient inclusion in TCM. The sixth month was used for education of staff, which took place in mid-February 2017, with an official rollout on February 20th, 2017. Prior to staff education, the pre-survey was administered in a Survey Monkey® email format and the post-survey was administered 30-days after the start of the intervention (see Appendix F). Compliance was assessed through the evaluation of documentation of the RED process in the EHR over the first 30-day period. The CAH is committed to continue compliance monitoring and give feedback to clinicians. The entire planning and implementation process occurred over 6 months, which was consistent with the timeline in the RED Toolkit (USDHHS, 2013) (see Appendix G).

Project Evaluation

Determining the success of the RED implementation involved the use of an evaluation plan that was developed in accordance with the project goals. Evaluations were based on staff perceptions of the discharge process before and after the RED implementation. Objectives were measured by comparing data before and after implementation such as scheduled follow-up appointments and follow-up phone calls. Measurements of scheduled follow-up appointments and completed follow-up phone calls are important for ACO quality reporting and TCM compliance. The number of patients included in TCM was an additional outcome measure to evaluate the success of the implementation.

Primary evaluation of the project took place in March of 2017. Surveys evaluated staff perceptions of the transitions-of-care process prior to implementation and one month after implementation of the RED process and TCM. Data were obtained for the first 30-days of the process change from the nursing informatics department on completed follow-up phone calls and scheduled follow-up appointments documented in the EHR. TCM data was obtained from the primary care transitions-of-care coordinator. Chart audits were conducted two to three times per week with in-the-moment feedback to reinforce RED process steps being documented in the EHR and completion of follow-up phone calls within 24-48 hours.

Budget

There was no increased cost to the organization to implement the RED Toolkit and TCM. The organization needed to reallocate resources and time. Services from the DNP student were provided at no cost to the organization. Costs incurred by the DNP student were offset by a HRSA rural health grant.

The estimated cost savings for the organization were based on decreased 30-day readmissions, increased patient inclusion in TCM, and meeting ACO quality measures to receive Medicare Shared Savings incentives. The CAH admits about 1,200 patients per year and averages a 30-day readmission rate of 8%. Using a conservative average readmission cost of $10,000 per patient the hospital costs equates to $960,000 per year for 30-day readmissions. A 30-day readmission rate reduction of 20-25% could save the hospital between $192,000 and $240,000 per year. Patients included in TCM increases revenue on follow-up appointments from $68 to $180 for moderate complexity and $240 for high complexity Medicare patients. Additionally, by meeting Medicare ACO quality measures the CAH will continue to receive ACO Medicare Shared Savings incentives.

Ethics and Human Subjects Protection

The DNP project was a process improvement initiative that included staff RN participation for education and feedback on the transitions-of-care process through the pre/post survey. An Institutional Review Board (IRB) application was submitted to Grand Valley State University and the CAH. The IRB determined that this process improvement project was not research (appendix H). The CAH provided a letter that granted permission to work on the process improvement project (appendix I).

Project Outcomes

Standard Process

The CAH leadership established a clear goal to implement the RED process and TCM to provide a higher-quality transition-of-care process. It was crucial to have a transitions-of-care team with the authority to implement organizational change. The team decided to implement the RED process for all hospital discharges. The transitions-of-care team created a process map and

compared it to the RED process. A standardize process was created based on the RED process and adopted by the organization (see Appendix D).

Clinicians were educated on utilization of the new discharge process during a monthly staff meeting and by mentoring from the DNP student. The new process included a diagnosis and education on the management plan and medications, and assessment of the plan to obtain medication and transportation to follow-up appointments. Hospital clinicians now schedules patient follow-up appointments, home care, and needed durable equipment.

Information was organized in the patient experience binder that was used prior to the intervention to organize discharge information and educational materials. Patients were educated throughout the hospital stay on information included in the patient experience binder. The binder contained education on the diagnosis and treatment plan printed from Truven Health®. The teach-back method was used to verify patient understanding throughout the hospital stay and prior to discharge.

RNs conduct follow-up phone calls within 24-48 hours on all patients that are discharged with an independent living status. Documentation of the discharge process and follow-up phone calls are now documented in the EHR for ACO reporting and TCM compliance. Medicare CAH medical clinic patients are now included in the TCM program. Patients who received home care are not eligible for TCM billing, but were still included in the TCM program due to the organizations mission to provide exceptional health care to the community. An outcome of the implementation was RN perceptions of the new discharge process, which was evaluated through a survey administered before and after the implementation.

Survey Data

The nurse perception survey was administered prior to the RED implementation and one month after implementation. Twenty-six nurses were surveyed. Ten pre-surveys were completed and only seven post-surveys were completed. The experience level of the RNs ranged from less than one year to more than twenty years of experience. The survey respondents were not linked for pre/post-survey comparison and some individuals responded to the pre-survey and not the post-survey and vice versa.

The surveys did not show any meaningful variability among the responses of staff perceptions of the discharge process. A less than one percent change was seen in RN staff perceptions of the discharge process from preintervention to post-intervention. The low change in perceptions could have been due staff feeling that the discharge process already worked well prior to the process improvement project.

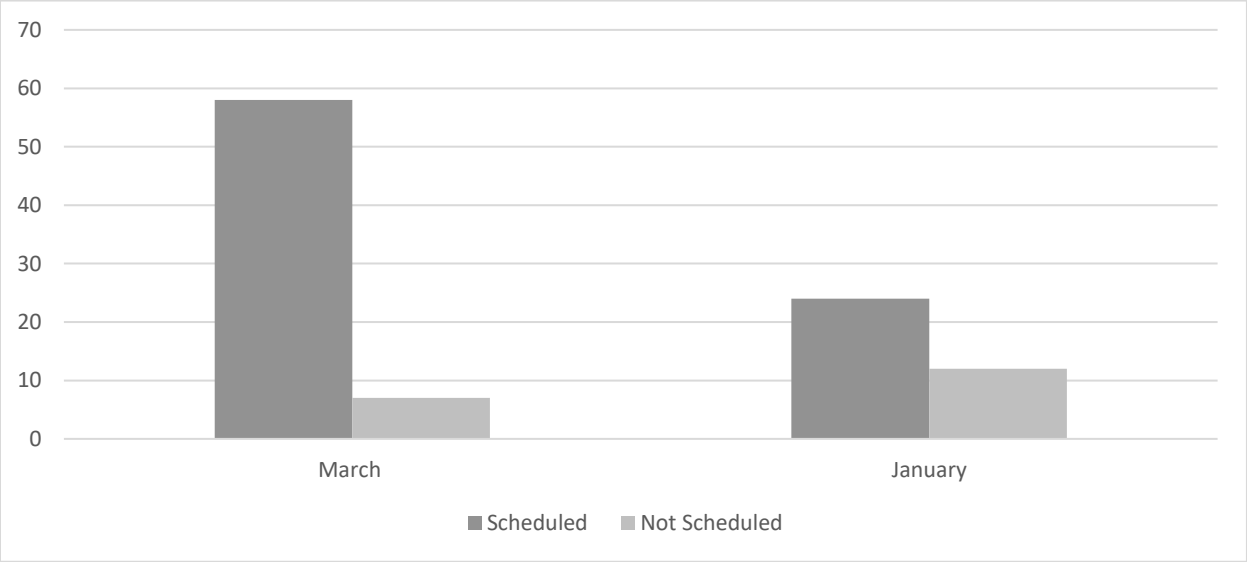
The survey did show very minimal increased perceptions of organization, efficiency, and interdisciplinary communication about discharge planning. Staff perceived that discharge planning started sooner in the hospital visit, prepared patients better for discharge, and educated patients better on medication regiments. Staff also perceived that more patients received follow-up phone calls. Staff perceptions indicated a decrease in follow-up appointments and hospital visit summaries being given to primary care physicians, even though more patients received follow-up appointments and primary care physicians reported a noticeable increase in transitions-of-care communication and receiving hospital visit summaries.

Follow-up Appointments

Follow-up appointments are important for evaluation and modification of the treatment plain. Patients were considered to have a follow-up appointment if they were provided with an

appointment prior to discharge or if staff were to call them with follow-up appointments. Patients were considered to not have a follow-up appointment if the follow-up appointment was blank on the discharge instructions or the patient was to make their own appointment. To determine the change in Follow-up appointments, data from March 2017, was compared to follow-up appointments from January 2017. Follow-up appointments from February 2017, were excluded because the intervention started mid-month and time was allotted for staff to adjust to the new process (see Figure 2).

Figure 2. *Follow-up appointments*

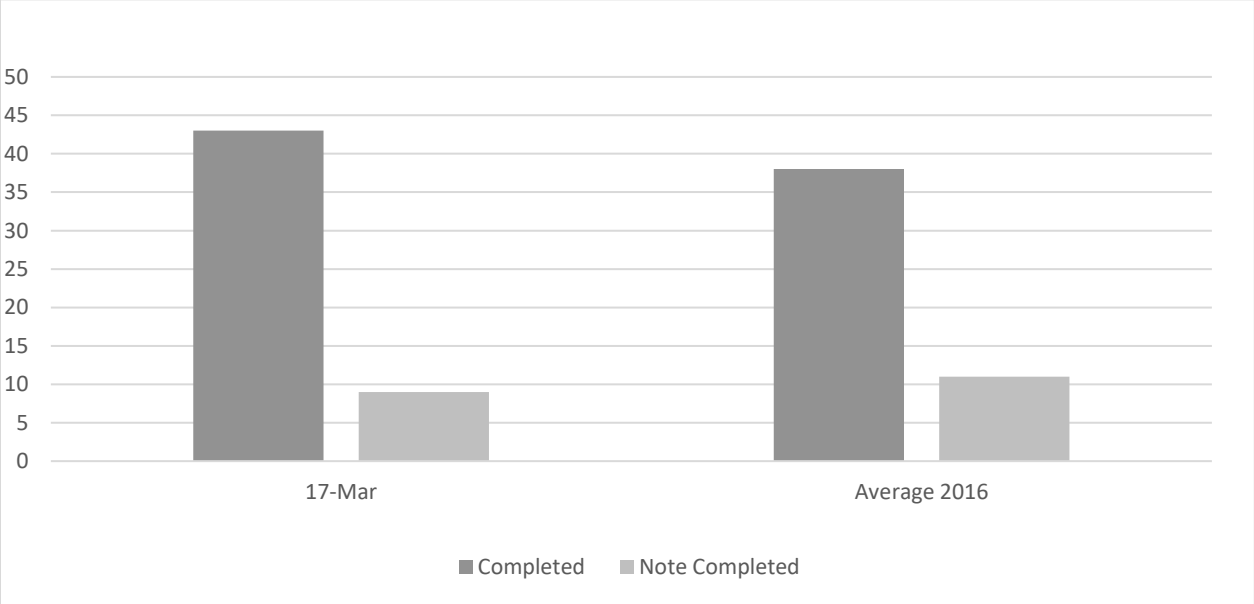


Follow-up appointments for March increased by 22.5% compared to follow-up appointments in January. The change in percentage of patient receiving assistance with follow-up appointments was statistically significant using the Pierson Chi-Square test (χ^2 = .005). Follow-up appointments are important in sustaining patient health and were needed within seven to fourteen days for TCM billing compliance. An additional TCM compliance measure was follow-up phone calls.

Follow-up Phone Calls

Follow-up phone calls are important for assessment of health status to address health concerns while they are still manageable on an outpatient basis. Patients who were eligible to receive follow-up phone calls were patients who were discharged home with and independent living status. Patients discharged to a long-term care facility or another hospital were not eligible for follow-up phone calls. Follow-up phone calls needed to have three documented attempts or communication with the patient or caregiver to be considered completed. Follow-up phone calls for March of 2017, were compared to an average of previous year (see Figure 3).

Figure 3. *Follow-Up phone calls*



In March of 2017, 43 inpatient follow-up phone calls were completed with 9 left uncompleted. In the previous year, 2016, the average was 38 completed and 11 uncompleted. Follow-up phone calls increased on average by 5.1% (χ^2 =.517) for inpatients and by 16.7% (χ^2 = .132) for observation patients. The change in percentage of patients receiving follow-up phone calls was not statistically significant for inpatient or observation patients using the Pierson Chi-

Square test. Although not statistically significant, the increase in follow-up phone calls completed was clinically significant for TCM compliance billing.

TCM

TCM implementation was a goal of the organization and a necessary component for ACO compliance. The organization was not able to implement the TCM program previously due to the lack of a standardized process that supported compliance components. Since the implementation of this quality process improvement project the CAHs primary care office had thirty patients in the first month incorporated into the TCM program, which seventeen patients met all inclusion criteria for TCM billing. Some TCM patients were not eligible for billing due to no follow-up phone call, appointment scheduled out longer than fourteen days or they received home care services. Patients that were not eligible for TCM billing still received the same services as those that were eligible for billing, paralleling the organizations commitment to providing high-quality patient care. Outcomes from this project had significant implication for practice.

Implications for Practice

Important Successes

Success of this DNP project was measured by accomplishing of all the goals listed in the goal statement and meeting the organizations transitions-of-care needs. The focus of this Doctor of Nursing Practice process improvement project was to accomplish three goals. The first goal was to create a standardized work-flow that implemented the RED process and TCM for a higher-quality discharge process. The second was to incorporate the RED process and TCM into the electronic health record (EHR), to enable reporting of ACO quality measures. The last goal was to evaluate staff perceptions of the new transitions-of-care process, frequency of completed follow-up phone calls, scheduled follow-up appointments, and success of TCM implementation.

A standardization of work was created and adopted by the organization that supports the RED process and TCM. The new transitions-of-care processes provide a higher level of coordination of care which addresses social determinants of health and upstream factors related to increased 30-day hospital readmissions and acute care utilization. The new process is incorporated into the EHR for documentation and reporting of ACO and TCM compliance metrics. The organization now attempts to provide all patients with follow-up appointments and is seeing an increased rate of patients provided with follow-up appointments. The CAH was able to launch their TCM program which was unable to be done previously due to the lack of a standardized process that supported TCM. During the first month of the intervention 30 patients were included in TCM.

Difficulties encountered

A lack of human resources was a difficulty encountered during this DNP project, which is common in smaller organizations (Burley, 2016). There was a lot of time and human resources put into the planning of the quality improvement project, but very little human resources were given towards implementation of the project. The lack of human resources was overcome by the DNP student's commitment to the quality improvement project.

Another major difficulty was changing individual routines to perform and document the new discharge process. Staff had difficulty starting the discharge process on admission and was consistently struggling to do discharge planning closer to the time of discharge. Documentation was sometimes not completed on patients who were transferred to another hospital or long-term care facility because these discharges were documented on paper in the old discharge process and scanned into the patients EHR. Changing mindsets and habits was difficult for some staff members, which was also identified in the organizational assessment and highlighted during the

implementation process. Chart audits and immediate feedback was used to reinforce and increase compliance with the discharge and documentation process, which was more consistent toward the end of the evaluation period. Compliance with the new discharge process should increase and be sustainable over time.

Project Strengths/Weaknesses/Sustainability

Strengths

The RED process and TCM are evidence-based strategies for providing high-quality transitions-of-care. These two interventions have been implemented in many organizations and found to be associated with decreased 30-day hospital readmissions. Support for this DNP project and these initiatives has been supported and embraced by key stakeholders at all levels of the CAH. The adoption and implementation of the DNP project into the organizations workflow had strengthened the effectiveness and commitment to providing a higher-quality transitions-of-care processes. Medicare Shared Savings, TCM, and decreased 30-day hospital readmissions provided a financial incentive to continue the new transitions-of-care processes and work toward future goals.

Weaknesses

Sustainability of this project is a concern because a dedicated person has not been assigned to continue directing this quality improvement project. The transitions-of-care committee continues to meet regularly to support the process, but the members are all in charge of multiple departments and sit on numerous committees.

Additionally, the care management team does not see every patient, which would be a recommendation going forward. Care management should be assessing every patient to address social determinants of health. Care management should determine if barriers exist to patients

obtaining discharge medications and transportation to follow-up appointments. RNs currently do this step, but it is typically done by care management in other organizations.

During the initial implementation phase the discharge instructions did not include a number to call with questions in the first 24 hours due to a technology freeze for an EHR system upgrade. The phone number was supposed to be hand written on the discharge instructions, but was frequently forgotten. The phone number will be printed on the discharge instructions when the EHR upgrade is completed in May of 2017.

Sustainability

The organization was extremely supportive of the transitions-of-care process improvement initiative at all levels of organizational leadership. The organization adopted a standardized process that supported the implemented RED process and TCM. The transitions-of-care project will be sustained through continued evaluation and improvement by the transitions-of-care team at the CAH. Feedback will continue to be given to staff regarding the quality of the new discharge process and documentation compliance through chart audits of the discharge process and follow-up phone calls documented in the EHR. Support and sustainability will additionally be assisted by the need to utilize documentation of transitions-of-care data for quality reporting and ACO compliance.

Relation to other evidence/healthcare trends

This DNP project addressed national initiatives in the ACA including: the AHRQ "Triple Aim", Medicare Shared Savings Program, and TCM. The project improved quality of care and patient outcomes, while lowering costs to the organization, patients, and insurance payers (Institute for Health Improvement, 2016). Potential reduction of hospital 30-day readmissions will reduce the cost of health care further by preventing reduction of reimbursement under

section 3025 of the ACA. The project met ACO quality metrics and utilized TCM, which are evidence-based healthcare trends found to increase patient outcomes, through higher-quality transitions-of-care.

Limitations

Limitations of this DNP project were the short evaluation time of outcomes and the small sample size of the pre/post-survey. The Survey Monkey® format used did not allow for matching of respondents. There was no way to correlate individual perceptions of the change in the transitions-of-care process, only the change in department perceptions. Further, monitoring of organizational long-term goals of reduced 30-day readmissions and increased Press Ganey ratings could make this project more generalizable. An additional evaluation was the enactment of the DNP essentials during this process improvement project.

Reflection on enactment of DNP Essentials Competencies

Essential I

The project highlighted the value a DNP prepared nurse practitioner brings to practice through enactment of DNP essential competencies. The Quality-based process improvement project utilized scientific underpinnings for the organizational evaluation, implementation, and theoretical bases for the intervention.

The DNP student used the Burke and Litwin Model to complete the organizational assessment. The model incorporated business and organizational sciences from another discipline to improve nursing practice. The model helped identify external and internal forces driving change in the CAH. The model guided the DNP student through the assessment of the organization and the process map of the transitions-of-care process. The model helped identify

the transformational factors in leadership necessary for the successful implementation and the transactional factors necessary to carry out the implementation plan (Burke & Litwin, 1992).

The DNP student used the PARIHS Implementation Model to guide the implementation of the quality improvement project. The model helped the student with the assessment of the evidence to ensure the intervention had a strong research base. The student used the model to assess the context of the intervention to determine that the right culture and leadership existed for a successful implementation. The model helped the student determine that the implementation of the evidence-based intervention would likely be successful due to the high levels of evidence, context, and facilitation within the intervention and organization (Kitson, et al, 1989).

The Transitional Care Model was used by the student to develop a new organizational discharge process aimed to enhance the transitions-of-care process and alleviate patient barriers to self-management health conditions. Patients have difficulty navigating the health care system and obtaining follow-up appointments. The implementation of the RED process and TCM enhanced the health care delivery process to alleviated and ameliorated health disparities by helping individuals navigate the health care system, by providing coordination of care [American Association of Colleges of Nursing (AACN), 2006].

Essential II

The DNP student was an organizational and systems leader for the quality improvement project. Advanced communication skills were used to lead an interdisciplinary team to design and implement a high-quality transitions-of-care process that improved patient safety, and meet current and future needs of patients in the CAH's health care system. The DNP project incorporated principles of economics and health policy by increasing the quality of the transitions-of-care process, to decrease the costs of health care, while increasing revenue for the

organization. The project followed health policy guidelines, which, increased the quality of transitions-of-care and patient safety during the transitions-of-care process (AACN, 2006).

Diverse populations were considered during the planning and implementation process. The process provided for assessment of patient preferences including cultural considerations for treatment. Discharge instructions were printed in the patient's native language when possible to increase understanding and compliance (AACN, 2006).

Strategies were developed to address barriers to patient care. Patients were provided with follow-up appointments and their ability to obtain prescriptions and get to follow-up appointments was assessed to identify barriers to maintaining the discharge plan. Prescriptions and transportation assistance was made available through a community fund for individual without insurance or transportation to follow-up appointments (AACN, 2006).

Essential III

The DNP student utilized analytical methods to critically appraise available literature to inform evidence-based best practice. A literature review was completed which found that the RED process and TCM were evidence-based intervention available to provide safe, timely, efficient, and patient-centered care. The findings from the literature were used to develop practice guidelines for the CAH to improve health care practices. Data was gathered and evaluated to generate meaningful evidence to support the RED process and TCM intervention, from examples seen in other CAHs. The DNP project identified gaps in care that benefited from the implementation of the evidence-based interventions. The DNP student functioned as a practice specialist and consultant for the CAH, which generated knowledge about the benefits of implementing the RED process (AACN, 2006).

Essential IV

The DNP student incorporated the quality improvement project in the organizations EHR to enable electronic reporting of quality measures. EHR data is important to the CAH for reporting ACO quality measures, to continue receiving Medicare Shared Savings incentives. EHR documentation of follow-up phone calls is also needed to meet metrics for TCM compliance and billing. Incorporating the quality improvement process in the EHR contributed to the improvement and transformation of health care through electronic reporting (AACN, 2006).

Essential VI

The DNP student used advanced communication skills to collaborate with interdisciplinary care team members, to design and implement the new discharge process. The inter-disciplinary care team collaborated to create practice guidelines for the CAH. The DNP student lead the inter-disciplinary care team in analysis of the complex transitions-of-care process and ACO compliance issues. The DNP student used inter-disciplinary leadership skills to make changes to the complex transitions-of-care health care delivery system at the CAH (AACN, 2006).

Essential VII

The DNP student integrated the concepts of the RED process and TCM to develop and implement an intervention that improved access and addressed gaps in care for individuals. The intervention assisted individuals with follow-up appointments, funds for medications, and rides to appointments. The intervention addressed the socioeconomic dimension of health in the rural CAH population (AACN, 2006).

Essential VIII

The DNP student enacted the role of an advanced nursing practice through designing, implementing, and evaluating the quality-based process improvement process. The intervention developed therapeutic partnerships with patients and other health care professionals to provide optimal patient care. The DNP student demonstrated advanced clinical judgment and systems thinking during designing, implementing, and evaluating the evidence-based change in the transitions-of-care process. The student guided and mentored nurses at the CAH to achieve excellence in nursing practice to achieve improved patient outcomes though providing patients with quality transitions-of-care. The quality improvement project assisted patients through the complex health care system and transitions-of-care process (AACN, 2006).

Dissemination of Outcomes

Dissemination of this DNP project was given in a written and oral presentation to the organization during a leadership team meeting. The project was defended through an oral dissertation defense with feedback and peer review. The final project was published on Scholar Works for further evaluation and implementation into practice.

Conclusion

A quality process improvement project was implemented to improve the transitions-of-care process at a CAH in western Michigan. The goal of this DNP process improvement project was to accomplish three goals. The first goal was to create a standardized workflow that implemented the RED process and TCM for a higher-quality discharge process. The second was to incorporate the RED process and TCM into the electronic health record (EHR), to enable reporting of ACO quality measures. The last goal was to evaluate staff perceptions of the new

transitions-of-care process, frequency of completed follow-up phone calls, scheduled follow-up appointments, and success of TCM implementation.

The project outcomes were the development of a standardized work flow that incorporated the RED process and TCM. The RED process and follow-up phone calls were integrated into the EHR for quality data reporting and TCM compliance. A staff perception survey was completed which only showed minimal perceptions of increased quality of the transitions-of-care process. The new transitions-of-care process increased follow-up phone calls, scheduled appointments, and patient inclusion in TCM. The project accomplished greater inter-disciplinary collaboration among all professionals involved in the transitions-of-care process, while allowing the DNP student to enact the essential competencies to drive change in health care.

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Appendix A: PARIHS Model

	Low	High
A. Evidence		
Research	Anecdotal evidence Descriptive Information	Randomized controlled trials Systematic reviews
Clinical Experience	Expert opinion divided Several camps	Evidence-based guidelines High levels of consensus Consistency of view
Patient preferences	Patients not involved	Partnerships
B. Context	Task driven	Learning organization
Culture	Low regard for individuals Low morale Little or no continuing education	Patient centered Valuing people Continuing education
Leadership	Diffuse roles Lack of team roles Poor organization or management of services Poor leadership	Clear roles Effective team work Effective organizational structure Clear leadership
Measurement	Absence of: Audit and feedback Peer review External audit Performance review of junior staff	Internal measures used routinely Audit of feedback used routinely Peer review External measures

C. Facilitation		
Characteristics	Respect Empathy Authenticity Credibility	Respect Empathy Authenticity Credibility
Role	Lack of clarity around: Access Authority Position in organization Change agenda	Access Authority Change agenda successfully negotiated
Style	Inflexible Sporadic Infrequent Inappropriate	Range and flexibility of style Consistent and appropriate presence and support

Figure 1. PARIHS Model. Reprinted with permission from "Enabling the implementation of evidence based practice: a conceptual framework," by Kitson, A., Harvey, G., & McCormack, B. (1998). *Quality in health care, 7,* 149-158.

Appendix B: Burke & Litwin Model

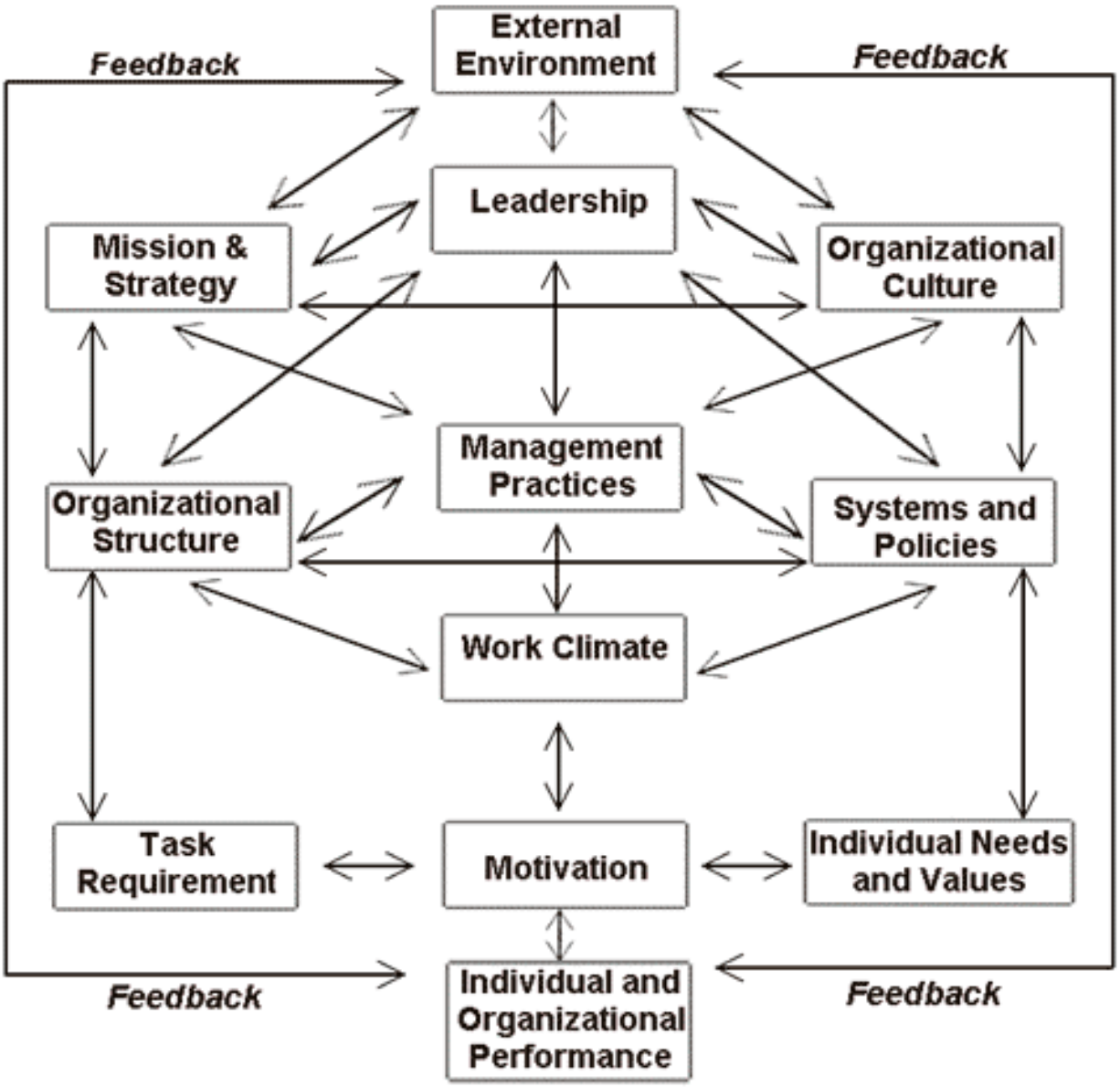

Figure 1. A model of organizational performance and change. Reprinted with permission from "A Causal Model of Organizational Performance and Change," by W. W. Burke and G. H. Litwin, 1992, *Journal of Management, 18*, 528. Copyright 1992 by Southern Management Association.

Appendix C: Organization Discharge Assessment Data

Qualitative organizational assessment data from interviews with key stakeholders:

- Inconsistency of registration documenting primary care physician
- Failure to send discharge summary to primary care physician
- Inconsistency of follow-up appointment scheduled with primary care physician prior to discharge
- No assessment of patient's ability to obtain transportation to follow-up appointments and pick up prescriptions
- Low quality discharge diagnosis/plan education
- No disclosure of who to contact with questions or concern after discharge
- Inconsistency of making discharge follow-up phone calls.
- No one responsible to follow-up on outstanding labs and tests
- Not utilizing Transitional Care Management
- No discharge process owners
- No discharge planning standard of work
- Silo approach to healthcare

Appendix D: Standard Work

Standard Work: Transitions-of-care plan to ensure patients continuing healthcare needs are met post hospitalization.

Procedure:

1. Registration should obtain the patients preferred language and primary care provider and document in the patients face sheet.
    a. Staff should offer the patient instructions given in verbal and written form in their preferred language if available.
2. RN staff should discuss all medications and medication side effects with the patient or care giver prior to discharge and place this information in the "patient experience" booklet.
    a. RN or case management staff should address:
        i. How will the patients pick up prescriptions?
        ii. When will the prescriptions be picked up?
        iii. The patient's ability to pay for the prescriptions.
3. RN should educate the patient or care giver about the patient's diagnosis utilizing print outs from Truven® and document in patients' medical record and place print outs in the "patient experience" booklet under diagnosis tab.
4. RN/Case management should arrange for all home equipment and home care and document the specific equipment and home care agency in the discharge tab.
    a. Respiratory therapy should set up all home oxygen and document in the discharge tab.
5. RN/Case manager should fill out LACE tool tab to identify risk of readmission.
6. RN should teach discharge plan to the patient/family/caregiver using "teach back" methodology and place in the "patient experience" booklet under the summary tab.
7. Monitor tech or RN should make all follow up appointments for the patients prior to discharge. If this falls on a weekend the monitor tech on Monday should attempt to make the appointment.
    a. Follow-up date and time should be placed in the discharge tab including the providers contact information, date, and time. If multiple appointments need to be made it should all occur in the same tab.
    b. RN/Case management should identify how the patient will get to the follow-up appointment and should be documented in discharge tab.
    c. RN/Case management to assess if barriers exist for patient to pay their copayments or for their transportation.
8. RN to educate the patient/family/caregiver on whom to call with problems, concerns, and questions post hospitalization.
    a. Patient should be provided with the phone number to call.
9. Follow-up phone calls should be completed by nursing staff within 24-48 hours of discharge and documented in the EHR and on the discharge follow-up form.
10. If there are outstanding labs/tests PCP should be notified for follow-up.

Appendix E: RED Staff Assignment Chart

Red Component	Person Responsible
1. Ascertain need for and obtain language assistance.	
2. Make appointments for followup care (e.g., medical appointments and postdischarge tests/labs).	
3. Plan for the followup of results from lab tests or labs that are pending at discharge.	
4. Organize post discharge services and medical equipment.	
5. Identify the correct medicines and a plan for the patient to obtain them.	
6. Reconcile the discharge plan with national guidelines.	
7. Teach a written discharge plan the patient can understand.	
8. Educate the patient about his or her diagnosis and medicines.	
9. Review with the patient what to do if a problem arises.	
10. Assess the degree of the patient's understanding of the discharge plan.	
11. Expedite transmission of the discharge summary to clinicians accepting care of the patient.	
12. Provide telephone reinforcement of the discharge plan.	

Appendix F: Pre/Post Clinician Transition-of-Care Survey

Years of Experience: as a licensed healthcare, professional

- 1-3 years
- 3-5 years
- 5-10 years
- 10-15 years
- 15-20 years
- 20 years or more

Using the scale below, circle the response that best describes your level of agreement.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

1. Staff on this unit think the discharge process is effective at preparing patients for discharge.

   1 2 3 4 5
2. The discharge process on my unit is organized and efficient.

   1 2 3 4 5
3. Team members' communication of discharge information is clear and direct.

   1 2 3 4 5
4. On our unit, we begin discharge planning on the day of admission.

   1 2 3 4 5
5. We have a process, such as discharge planning rounds that communicates clear and concise information about the discharge plan.

   1 2 3 4 5
6. We check that our patients can follow the discharge instructions they are given.

   1 2 3 4 5
7. Our patients have follow-up appointments scheduled prior to leaving the hospital.

   1 2 3 4 5
8. Our patients' primary care physicians have the information about their patients' hospital visit immediately after discharge.

   1 2 3 4 5
9. Our patient or family member knows and understands the medications (dose, route, procedure, schedule, etc.) prior to discharge.

   1 2 3 4 5
10. Our unit calls the patient after discharge to see how they are doing.

    1 2 3 4 5

Appendix G: Project Timeline

2016

September

Organizational goal to improve Transitions-of-care process

October

Organizational assessment

November/December

Plan changes to discharge process using RED Toolkit And write standard of work

January

Standard of work adoption and incorporation into EHR

February

Staff education and Implantation

April

Evaluation and Dissemination

Appendix H: IRB Approval Letter

DATE:	February 14, 2017
TO:	Chad Wilfong
FROM:	Grand Valley State University Human Research Review Committee
STUDY TITLE:	[1026863-1] Implementation of the Re-Engineered Discharge Process and Transitional Care Management at a Rural Community Hospital
REFERENCE #:	17-150-H
SUBMISSION TYPE:	New Project
ACTION:	NOT RESEARCH
EFFECTIVE DATE:	February 14, 2017
REVIEW TYPE:	Administrative Review

Thank you for your submission of materials for your planned research study. It has been determined that this project:

Does not meet the definition of covered human subjects research* according to current federal regulations. The project, therefore, *does not* require further review and approval by the HRRC.

Any research-related problem or event resulting in a fatality or hospitalization requires immediate notification to the Human Research Review Committee Chair, Dr. Steve Glass, (616)331-8563 AND Human Research Protections Administrator, Dr. Jeffrey Potteiger, Office of Graduate Studies (616)331-7207. See *HRRC policy 1020, Unanticipated problems and adverse events.*

Exempt research studies are eligible for audits.

If you have any questions, please contact the Office of Research Integrity and Compliance at (616) 331-3197 or rci@gvsu.edu. The office observes all university holidays, and does not process applications during exam week or between academic terms. Please include your study title and reference number in all correspondence with our office.

*Research is a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge (45 CFR 46.102 (d)).

Human subject means a living individual about whom an investigator (whether professional or student) conducting research obtains: data through intervention or interaction with the individual, or identifiable private information (45 CFR 46.102 (f)).

Scholarly activities that are not covered under the Code of Federal Regulations should not be described or referred to as *research* in materials to participants, sponsors or in dissemination of findings.

Appendix I: Letter of Agreement

February 8, 2017

To Grand Valley State University Kirkhof College of Nursing:

I am familiar with Chad Wilfong's transition-of-care process improvement (PI) project that started in August of 2016 and will continue to May 2017. The title of the project is "Implementation of the Reengineered Discharge process and Transitional Care Management at a Rural Critical Access Hospital". I understand Allegan General Hospital's involvement to be the healthcare facility where this improvement project will occur. This PI project is based on the Agency for Healthcare Research and Quality's Re-Engineered Discharge (RED) Toolkit and will include a pre-and post-education survey included in the RED Toolkit.

I understand this PI project will be carried out following sound ethical principles and that participant involvement is strictly voluntary and provides confidentiality for any generated data, as described in the proposal. Therefore, as a representative of the critical access hospital, I agree that Chad Wilfong may continue his PI project work at our facility.

Sincerely,