Improving the Admission Process of a Home Care Organization

By

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Abstract

Inadequate medication reconciliation is one of the safety issues in the healthcare industry. Adverse medication events can lead to hospital re-admissions and increase medical expenditure. It is one of the leading causes of patient mortality (Sluisveld et al., 2012). Medication discrepancies can occur at any time during patient care, during admissions, routine care, or transition from one health facility to another. Missing medication was one of the problems identified in patients that were transitioned into homecare. The need to improve the admission process in this home care agency was essential to decreasing the chance of medication discrepancies. The use of a medication reconciliation tool was employed in this project as a quality improvement strategy. The purpose of project is to determine the effectiveness of using a medication reconciliation form in decreasing the number of missing medications that occurs in this home care agency at time of patient admission. One of the medication reconciliation form recommended by the Canadian Patient Safety Institute (2020) was used in admitting patient into the home for the project implementation. This medication reconciliation form was chosen because it possesses the features that will ensure a complete and accurate medication records of patients. At the end of the project implementation, a chart audit was performed for the before and after the use of the medication reconciliation form. And at the completion of the project implementation, the outcome showed a decrease in the number of missing medications during transitioning.

Keywords: Transitioning, Medication Reconciliation Form, Quality Improvement, Ineffective medication reconciliation, Missing Medication, Home Care, Admission Process.

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Improving the Admission Process of a Home Care Organization

Hospital readmission is a major concern within the healthcare industry; not only does it increase healthcare expenditure, but it also speaks volumes about the quality of care provided to patients. The 2011 statistical data from the Agency for Healthcare Research and Quality reveals that a total of 3.3 million 30-day readmissions is experienced in the United States, and accounts for $41.3 billion in healthcare spending (NEJM Catalyst, 2018). This number is alarming.

According to the Centers for Medicare and Medicaid Services (CMS, 2019), hospital readmission is the unplanned patient readmission to a hospital within 30 days of discharge from the day of the earlier admission. Poor transitional care management has been identified as a contributor to hospital readmissions (National Transitions of Care Coalition, 2010; Nelson & Pulley, 2015). An estimated $12 billion to $44 billion per year in healthcare spending is linked to poor care transition from hospital to another healthcare facility (Dreyer, 2014). Several transitional care management programs exist to ensure a safe, timely, and effective continuity of patient care while meeting the individual needs of the patient. This project plan was to identify and implement an evidenced-based transitional care management program that has been shown to improve patient outcomes.

Background and Significance

Patients transitioning from one health care setting to another, are left in a vulnerable state from potential factors, such as unclear discharge instructions that occur at the time of discharge (Warren et al., 2019). Such a problem can lead to poor disease management. The transitional care process involves contact between the new, oncoming healthcare provider and the patient or the caregiver (Centers for Medicare Services, 2019). The contact occurs via email, telephone, or face to face. During this time, the care provider can review discharge information, schedule

follow-ups, assess the need for referrals, and recommend community services such as home health services if necessary (CMS, 2019). The interactive contact takes place within two days of patient discharge from a healthcare facility. Based on the assessment of the patient's needs, the new care provider may order treatment or diagnostic tests, reconcile medications, and order referrals for community services (CMS, 2019). At the time of care transition, there is a high risk of errors, lack of coordinated communication among providers, information overload, unclear understanding of medications and discharge instructions (Abu et al., 2018, p. 63; Warren et al., 2019). Additional issues found were duplication of treatments, medication discrepancy, and lack of follow-ups occurring from poor coordination of care during the transition (National Transitions of Care Coalition, 2010). According to Nelson and Pulley (2015), less than 50% of the patients transitioning to homecare follow up with their primary care physician within two weeks of hospital discharge (p.1). These problems can lead to poor care management and gaps in continuity of care.

Effective transitional care management would provide a safe and timely continuity of care for patients. Consequently, mortality rates, healthcare costs, and readmission rates would be reduced (Bilchick et al; 2019., Bindman & Cox, 2018). In 2012, the CMS and Affordable Care Act introduced a Hospital Readmissions Reduction Program (HRRP) that penalizes hospitals with increased hospital readmissions. Hospital readmissions were assessed based on six health conditions: (a) heart failure, (b) acute myocardial infarction (AMI), (c) chronic obstructive pulmonary disease (COPD), (d) pneumonia, (e) coronary artery bypass graft surgery (CABG), and (f) elective primary total hip arthroplasty or total knee arthroplasty (THA/TKA) (CMS, 2019). One of the reasons for the HRRP was to encourage the healthcare industry to improve transitional care services. A report from the Agency for Healthcare Research and Quality reveals

that more than 55% of readmission rate was on Medicare patients with these medical diagnoses: (a) 134,500 for CHF, (b) 92, 900 for septicemia, (c) 88,800 for pneumonia, (d) 77,900 for COPD, and (e) 69,400 for heart dysrhythmias (Hines et al., 2014). Most Medicare patients are 65 years of age and above; more than 80% of them have at least one chronic condition or more than one disease condition (Han et al., 2017). Patients receiving home care are often older adults who are frail and have multiple diseases (Schildmeijer et al., 2017); they may have difficulty following through with discharge instructions or medications.

Heart Failure

Heart failure (HF) continues to be a major problem for readmission (Bilchick et al., 2019; Pereira & Miguel, 2019;), and it accounts for 875,000 hospitalizations in patients aged 50 and above (Emory Healthcare, 2019). Other disease conditions like renal disease and other cardiac diseases account for 8.4% and 6.9% of the readmission rate (Bradford et al., 2017). According to Azad et al. (2016), HF is the most common cause of hospitalization in those over age 65. The healthcare cost for heart failure in 2012 was about $31.7 billion and is expected to increase by 2030 (Bilchick et al., 2019, p. 127). In 2012, patients who were discharged from the hospital with a primary diagnosis of HF had the highest number of home health care referrals (Bowles et al., 2017). According to the National Association for Homecare and Hospice (2010), approximately 12 million Medicare patients receive home care, which includes medication management. And most of these patients are above 65 years of age (Elflein, 2019).

Medication Management

Patients transitioning from hospital to home are faced with the risk of adverse events which can occur due to lack of communication between health care providers, missed patient follow-up, inadequate patient education, incomplete medication reconciliation, and the absence

of patient involvement in medication management (Kristeller, 2014). Approximately, 1.5 million people in the United States are harmed from a medication error, accounting for at least $3.5 billion every year in Medicare expenditure (National Transitions of Care Coalition, 2010). Home health agencies can play a huge role in the health care management of these individuals; and assist in the detection of undiagnosed medical conditions (Han et al., 2017). However, home care agencies may have existing barriers within the organization that may limit success in reducing medication errors.

The DNP project was implemented in a home care agency serving the four counties in Northwest Houston, Texas. This agency offers a wide range of quality home health care services through multi-disciplinary teams. There are 15-20 new patient admissions occurring every three months with 5-7 client load for each nurse. The client load for a nurse varies with the number of admissions within each period. The total patient load for home visiting nurses was between 45-60 with home visitation scheduled every week. As of 2017, the cost of health services provided within a 60-day episode from all disciplines averaged between $1850 and $32000 per patient based on diagnoses.

Needs Assessment

More than 50% of patients receiving home care from this healthcare organization are above 65 years of age and have a diagnosis of heart failure. Other existing health problems among this population include hypertension, diabetes, chronic kidney disease, various types of wounds, and osteoarthritis. Prior to admission, the physician sends a prescription to the home care agency that includes a referral for home care services, a list of patients' diagnoses, current medications, and the required skilled services. The homecare agency verifies that patients referred for admission into homecare meet eligibility to receive home care services. Then the

registered nurse (RN) who is assigned to conduct the initial visit contacts the patient or family to schedule the visit. During the initial visit also known as “Start of Care” (SOC), the RN performs an admission assessment which includes a complete head to toe assessment of the patient, and a home assessment to identify conditions that may negatively impact care such as fall risk from loose rugs or electrical cords. The admitting RN uses an admission checklist to guide the admission assessment. The admission checklist includes the patient’s emergency contact information, home care service acknowledgment sign sheet, medication record, authorization for home care services, the home health general plan of care, and a notice of privacy rights (HIPAA). In addition, the admitting RN reviews the admitting medical diagnosis and medications to make certain that the plan of care correlates with the referring physician’s orders. At the completion of the admission, the admitting RN contacts the referring physician regarding any discrepancies and informs the agency’s administration as well. The assessment documentation is completed using the Home Health Outcome and Assessment Information Set (OASIS) and sent to a medical coder to confirm the accuracy of information. An intake coordinator who performs weekly chart audits follows up with the admission by reviewing patients’ medical records sent from the discharging facility. The referring physician is notified regarding any discrepancies noted after chart reviews. Homecare services commence the following week for a 60-day period based on the plan of care. Following the admission, the RN case manager schedules two RN visits within the first week, and then one RN visit every week for the remaining 60 days. These visits include services from other disciplines such as physical therapy, depending on the patients' care needs.

Home care service eligibility. A patient is eligible to receive home care services if their medical diagnosis requires skilled services such as nursing or physical therapy (SSM health at

home, 2012). Individuals receiving home care have medical conditions that make it difficult for them to leave their homes. Prior to referring patients for home care, a face to face visit is conducted by a healthcare provider such as a physician, nurse practitioner or physician assistant who indicates the primary reason for referring patients for home health services (SSM health at home, 2012).

Gap Analysis

Based on the organization's chart audits, the most common problems noted at the time of admission were missing diagnosis and missing medications. According to the home care agency, there has been an incidence where patients were referred for admission into home care but did not meet the eligibility to receive home care services. Patients who did not meet eligibility were refused admission. Inappropriate patient referral, inaccurate or incomplete diagnoses can lead to under-treatment or no treatment at all. For example, a patient who is a high fall risk with a history of neuropathy or osteoarthritis may not qualify for physical therapy if there is missing documentation of the diagnosis. Medicare would not cover services without a need for them; the diagnoses must justify the need for the service been offered.

In addition to performing a physical assessment, the admitting RN reviews patients' medications. The medication list is reconciled based on the patient's or caregiver's knowledge of the patient's current medication. It was noted that some of the home medications were not on the admission medication list. Inadequate medication reconciliation can lead to dosing errors, medication errors, and adverse drug reactions (Green, 2012). According to the Canadian Patient Institute (CPSI, 2020), adverse drug events occur in acute care and long-term care including home care. Medication errors may occur because the prescriber may fail to resume patient's home medications as the patients transition from one health care setting to another (CPSI, 2020).

Poor medication management by home care patients can create gaps in care and increases the likelihood of hospital readmission. According to Hume and Tomsik (2014), close to one-third of patients are faced with unintended medication discrepancies both at the time of admission and during care transition from a hospital to another healthcare setting. In this homecare agency, thirteen out of the twenty patients admitted every three months have either a missing diagnosis or missing medications. Implementing transitional care management using an interdisciplinary team approach can help improve the care transition process (Cardinal Health, 2019), which would be evidenced by a reduction in the number of discrepancies that occur at the time of patient transition to this homecare agency.

SWOT Analysis

Swot analysis is a tool used by organizations to analyze the factors that can improve or limit the execution of a project (Management Study Guide, 2020). It is used to identify the strengths, weaknesses, opportunities, and threats that can affect the implementation of a project. The strength and weaknesses represent the internal factors of the organization, while opportunities and threats represent outside factors that can affect the project. The internal factors can be manipulated to increase the outcome of the project. however, the external factors cannot be controlled. For this project, the strength, weaknesses, opportunities, and threat analyses were performed to identify key issues within the home health agency and means of improvement. The organization continues to look for strategies to improve transitional care management within the organization and eliminate challenges faced during patient admission/care transition.

Strength. The strength of the home health agency lies in the existence of competent and educated registered nurses that are assigned to conduct admissions at the time of transition, while the intake coordinators who are also registered nurses, perform chart audits for quality

improvement. The agency has a checklist along with the package for all assessments such as admission/start of care, post-hospital discharges, re-certification, and discharges. The checklist serves as a standard tool that guides each process to ensure accurate assessment of patients and documentation of care.

Weakness. Although admission assessment was performed by a registered nurse, there were only a few registered nurses that were available to perform admissions; however, the organization was in the process of recruiting both registered nurses and licensed vocational nurses; the interviews are currently in progress. A nurse who already has a 30-50 patient workload may feel overwhelmed with conducting admission assessments. Sometimes the registered nurses are not disposed to assist with admissions; hence leading to a delay in the admission of patients.

Opportunities. The home health agency has an opportunity to connect with other home health agencies by joining the local, state, or national home care organizations (Absher, 2020), learn creative ideas to improve the admission process, and recruit experienced nurses. The home care agency could also participate in local health and other community-sponsored charities (Absher, 2020). Successful care transitions can attract physician referral of patients to this home health agency and increase patient satisfaction of care.

Threats. External threats noted were nurses' driving distance to patients' location, language barrier, and the timing of visits. The distance from one patient to another may take an hour, and from the second patient to the next may take another 45 minutes. An English-speaking nurse who lives close to a Spanish speaking patient would have difficulty caring for the patient. And sometimes, the home visiting nurse schedule would not agree with that of the patients; while at other times, patients cancel visits. This results in missed visits. In addition, a nurse is not

allowed to visit a patient in the hospital at the time of discharge because it may be considered soliciting.

The identified problems within the organization prompted the need for a DNP project to improve transitional care management of this homecare agency by addressing issues that occur at the time of admission. The improvement in the admission process would ensure a safe transition of patients into homecare, eliminate medication discrepancies, and ensure complete documentation of patients' diagnoses.

Problem Statement

Based on the organizations' audit, problems such as missing medications and diagnoses were noted during patient admission into the home care agency. These problems can be a contributing factor to poor care management, which can worsen disease conditions. According to Cureatr (2020), unreconciled medications do not end with obtaining an accurate record of patients' medications; it includes ensuring patient adherence to medication and monitoring medication effectiveness. Although medication reconciliation and education were completed at the time of admission, medication reconciliation was based on the physician's order at the time of referral and the patient's knowledge of current medication. Admission was completed at the patient's home, post-discharge. Therefore, the RN conducting the admission does not get the opportunity to obtain patients' current medications at the time of discharge or transition into homecare. This project attempted to reduce the number of missing medication and diagnoses that existed during the admission of homecare patients in this homecare agency.

To ensure the accuracy of all patients' medications during care transition, it was imperative for the RN who conducts the admission assessment to obtain the patient's current medication and diagnoses at the time of discharge and reconciles them with that of the physician.

According to Gorman (2016), a more-effective handoff and improved provider communication can have a positive effect on hospital readmissions, quality of care, and patient satisfaction. Transitional care programs can reduce readmission rates up to 45% through “discharge planning, post-discharge telephone outreach, home visits, patient-centered discharge instructions, follow up with primary care physician, and medication reconciliation” (Nelson & Pulley, 2015). Therefore, the DNP project would improve the admission process to ensure a successful transition and continuity of care.

Project Aim and Purpose

The aim of this project was to improve the health outcomes of homecare patients within the Northwest of Houston who are receiving care from this home health agency. The project implemented a new admission process by using a new medication reconciliation form for all patients admitted in the home care agency and expecting that it would improve outcomes. The transitional care approach was to cover areas that might significantly affect the health outcomes of patients receiving home health services from this health care agency, such as medication reconciliation, understanding symptoms, self-medication management, and physician follow-ups. This project was implemented over an eight-week period, after approval by the Institutional Review Board (IRB). The purpose of this DNP project was to have an effective transitional care management model aimed at reducing the number of missing medications encountered during patient admissions. The goal is to achieve a reduction in the number of missing medications for the post intervention period compared to the pre-intervention period by 40%.

Clinical Question

PICOT is a mnemonic used for establishing a search method aimed at answering a research question (Gulliver, 2017). In PICOT, the ‘P’ stands for the problem, population or

patient; 'I' represents the intervention or the proposed plan for the problem; 'C' is what the person is trying to control or compare to the intervention; 'O' stands for the outcome or the result to be achieved; and 'T' which may not be present in every research study, determines the time it would take to achieve the result (Gulliver, 2017). The PICOT for this DNP project was: In patients transitioning to homecare at this home health agency, how does an effective transitional care management program compared to current practice reduce the number of medication discrepancies that occur at the time of patient admission at this home care agency?

Congruence with Organizational Strategic Plan

The mission of this home care agency is "to provide professional and paraprofessional services to clients in their homes, assisting them to achieve the highest level of potential in their day to day self-care activities" (Home Care Senior Services Inc, 2019). The home care agency strives to provide the best quality of care to patients in the comfort of their homes. The agency addresses the health needs, illness, and recovery of clients. There is a team of nurses, therapists, home health aides, and medical social workers who are ready and willing to visit different homes within the Northwest Houston community. Prior to the implementation of the project plan, the home care agency was in the process of interviewing and hiring educated and competent candidates who were willing to travel and provide health services in a home care setting. This DNP-led project worked to contribute to the goal and mission of the organization by improving the admission process that occurs at the time of care transition. The implementation of the transitional care approach would eliminate some of the discrepancies that occur during admissions, improve patient management of disease conditions and medications, and compliance with treatments.

Chapter II: Evidence

Search Strategy

The literature search was conducted via different databases, Wolter's Kluwer Ovid, Cumulative Index of Nursing and Allied Health Literature (CINAHL) plus with full text, and Google scholars. Related articles were obtained by typing phrases like *transitional care management* and *effectiveness, discharge issues, impact or consequences, homecare patients and quality of care* in the search box. The year of publication was limited between 2012 to 2019 because it was difficult for the DNP-project lead to find articles that focused on transitional care management. Selected articles included participants that represented the elderly, patients with chronic medical conditions like CHF, outpatient discharges, those requiring care transition, Medicare patients, homecare patients, those with chronic health conditions, and transitional care management programs. The inclusion criteria were patients requiring care transition, a diagnosis of CHF, implementation of transitional care programs, and home care patients. The articles were excluded if care transitioning occurred within the same healthcare setting such as moving from the emergency room to an intensive care unit. The articles provided information about the existing transitional care management programs and their impact on patient outcomes including hospital readmissions.

Evidence Appraisal

The selected studies were evaluated using the John Hopkins Hospital Research Evidence appraisal tool, the strength of the evidence was rated from level 1, which is a randomized control trial (RCT) or meta-analysis of RCTs to level III, non-experimental research evidence. Of the selected articles, one was a level I evidence. Ten of the articles were level II evidence, and eleven were level III evidence. All the studies focused on care transitioning issues.

Level 1 evidence. According to the John Hopkins Research Evidence appraisal tool, experimental study designs or randomized control designs are rated a level one evidence. Th**e** study design must have two groups, the independent group and the control group where participants are assigned randomly and there is a manipulation of an independent variable. Studies with a systematic review of RCTs with or without meta-analysis (source) are also considered a level I evidence. The study by Vedel and Khanassov (2015) is considered level I evidence because their study design was that of systematic and meta-analysis of a randomized trial, that showed how transitional care intervention can reduce hospital.

Level II evidence. This design is like a level I except that the assignment of participants to a group is not random. It may have a control group and some manipulation of an independent variable. Studies with these design features are likely quasi-experimental studies. According to White and Sarbawal (2014), quasi-experimental studies determine the cause and effect relationship. The independent variable is manipulated to examine its impact on the dependent variable. The articles rated as level II evidence aimed to show the effect of transitional care programs on reducing readmission or improving patient outcomes.

Level III evidence. These are the non-experimental study designs. According to the Statistical Consulting Blog (2018), there is no manipulation of variables. Studies that use surveys, case studies, correlational studies, comparative studies, and descriptive studies are likely non-experimental. They are used to describe relationships between variables (Statistical Consulting Blog, 2018).

Synthesis of Evidence

Readmissions

Heart failure ranked the top leading cause of most readmissions in Medicare patients above age 65 (Advisory Board, 2014; Berman et al., 2019; Bradford et al., 2017; Bilchick et al., 2019; Koser et al., 2018; Pereira & Miguel, 2019; Wu et al; 2017). Several studies noted that contributing factors for readmission among CHF patients were poor lifestyle decisions, weight gain, poor medication adherence, lack of knowledge of worsening of diseases which led to delays in seeking early treatment (Berman et al., 2019**;** Schildmeijer et al., 2017; Wu et al., 2017). Schildmeijer et al. (2017) noted an increased risk for falls, poor medication management, infections, and pressure ulcers among homecare patients, which can be preventable through the implementation of safety measures (p. 4). In contrast, Strano et al. (2019) did not show any significance in the timing of homecare visits for heart failure patients. In this project, the targeted population of interest were the home care patients receiving home care from this home health agency and represented the elderly who may have trouble managing their health. According to Koser et al. (2018), older adults have at least more than one chronic medical condition; and Han et al. (2017) detected undiagnosed diseases in Medicare patients through clinical home visits. According to Schildmeijer et al. (2017), most patients receiving home health care are older, have chronic disease and have functional decline. And these factors leave the elderly at risk for fragmented care.

Transitional Care Issues

Some of the research studies identified issues that were encountered during patients' transition from a hospital to an outpatient care setting, and how these problems could lead to a poor outcome. Some of the factors that influenced care transitions were undiagnosed diseases in Medicare patients through clinical home visits (Han et al., 2017), unclear or overload discharge instructions, route of discharge information, poor collaboration process, miscommunication

among care providers, and provider to patient (Abu et al., 2018; Pinelli et al., 2017). While Hume and Tomsik (2014) noted poor medication reconciliation as an issue. Patients' understanding of discharge instructions and the ability to manage their health conditions contributed to a reduction in readmissions (Herzig et al; 2016). Transitional care management programs can reduce readmissions as well as healthcare costs (Baldwin et al., 2018; Bilchick et al., 2019; Bindman & Cox, 2018; Boykin et al., 2018; Brummel et al., 2018; Dizon & Reinking, 2017; Henriksen & Stuckey., 2018; Hitch et al., 2016; Hung et al., 2018; Koser et al., 2018;).

Transitional Care Management Programs

Several studies revealed the effectiveness of transitional care management programs in reducing hospital readmissions (Bittner et al., 2019; Boykin et al., 2018; Geriatric Interdisciplinary Teams in Practice; Dizon & Reinking, 2017**;** Koser et al., 2018; Schildmeijer et al., 2018). According Nelson and Pulley (2015), effective transitional care management must include discharge planning, post discharge telephone follow-up, home visitations, patient-center teaching, medication reconciliation and physician follow up to ensure effectiveness of the transition. Boykin et al. (2018) implemented the use of interprofessional teams during the transition of care to explain the importance of collaboration among healthcare professions in promoting patient outcomes. A pre-post intervention study utilizing a transition of care program was conducted by Dizon and Reinking (2017). Their study showed a reduction in the 30-day readmission rate from 11.8% during planning to 12.0% during implementation and 11.4% during the intervention period (p. 435). Bittner et al. (2019) employed a community-based care transition program (CCTP). They noted medication issues as the main reason for readmission. Therefore, the transitional care team included a nurse practitioner, a pharmacist, and a transition facilitator. The inclusion of a pharmacist showed a significant reduction in the 30-day

readmission rate from 436 to 28 (Bittner et al., 2019, p. 44). Cunha et al. (2015) reported that having adequate tools such as the provision of continuing education for care providers can improve home healthcare. According to Smirnow et al. (2015), existing transitional programs including Eric Coleman's care transitions intervention model have shown to reduce the rate of rehospitalization at 30, 60, and 90 days. Transitional care programs improve coordination of care, ensure effective communication between the discharging and receiving care providers, increase patient and family participation in the discharge plan and improve compliance with the plan of care post-discharge (Nelson & Pulley, 2015). For an effective transition to occur, seven foundations must exist: leadership support, multidisciplinary collaboration, early identification of patients/clients at risk, transitional planning, medication management, patient and family action/engagement, and transfer of information (Joint Commission, 2015).

Care Transitions Intervention Model

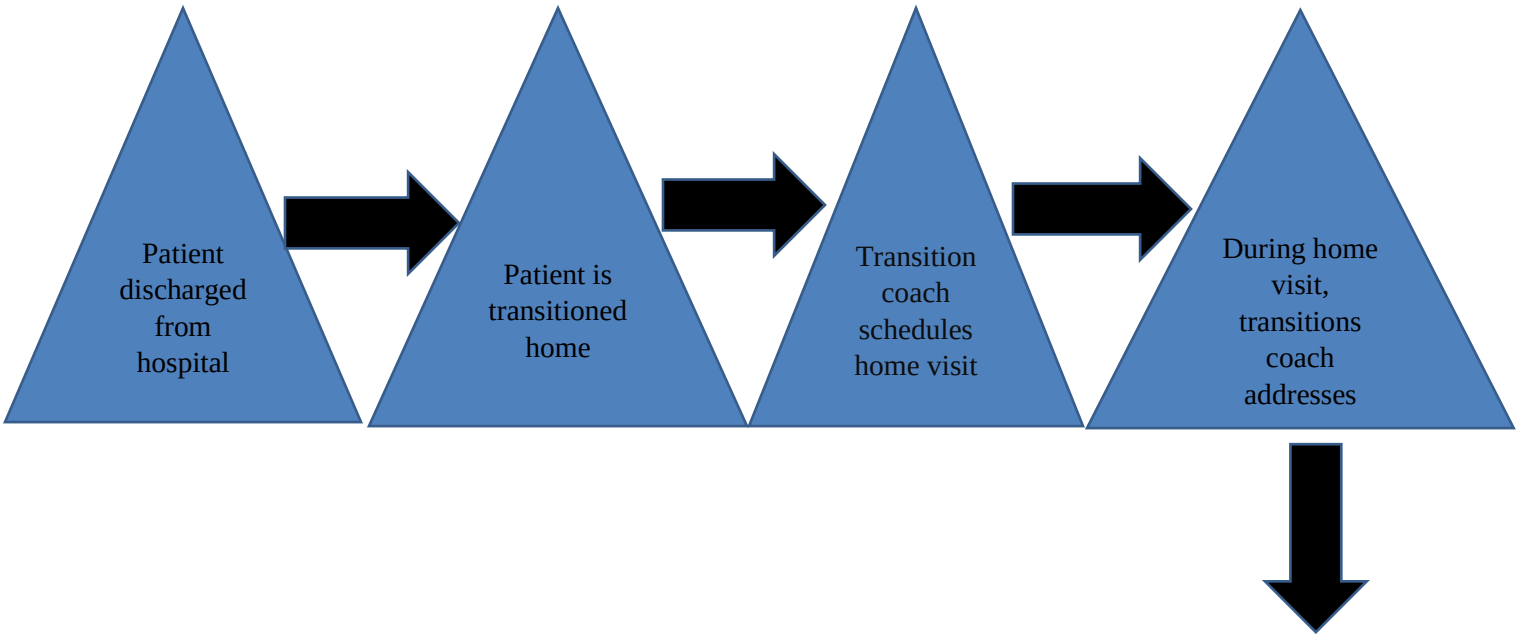
Transitional care management programs are effective in promoting a safe transition of patient care from one healthcare setting to another (Geriatric Interdisciplinary Teams in Practice, 2007; Dreyer, 2014; Smith & Treschick, 2018). According to Dreyer (2014), Eric Coleman's care transitions intervention model (CTI) achieved a thirty percent reduction in a 30-day readmission reduction rate. And in 2007, more than 100 healthcare systems had already implemented Eric Coleman's care transition intervention model (Geriatric Interdisciplinary Teams in Practice, 2007). Smith and Treschuck (2018) utilized the care transitions intervention model (CTI) by Eric Coleman in their study. Due to the nurses' lack of knowledge of the CTI model, the communication between the transitions coach and the home care nurses were poor; there was no face to face communication between the disciplines involved in the care transitions process. In addition, the home care nurses obtained most of the information from the care

coordinator notes which included the patient's diagnoses, medications, follow up physician appointments and red flags that are concerning (p. 134). In this study, the participants did not consistently utilize the CTI model (Smith & Treschuck, 2018, p. 134); therefore, the study failed to show the effect of the CTI model in improving patient outcomes.

Transitions care intervention model. In Eric Coleman's transitions care intervention model, a transitions coach meets with the patient in a hospital prior to discharge to discuss the transition process (Qualis Health, 2012). The coach proceeds to set up a home visit to address any concerns, provide education on disease and medication management (see Figure 1). This CTI model is implemented over a four-week period. The model focuses on four major aspects of care transition that includes, medication self-management, personal health record, timely primary care/specialty care follow up and knowledge of red flags that indicate a worsening in their condition and how to respond (Geriatric Interdisciplinary Teams in Practice, 2007). The transitions coach assists with scheduling follow-ups and providing additional resources.

Figure 1

Eric Coleman's TCI Model



- Medication management,
- patient health records: allergies, medical diagnosis,
- physician follow-up schedule,
- warnings/red flags such as signs & symptoms, med interactions, contraindications and how to recognize them

Conceptual Framework

Every health care system search for strategies to improve effectiveness and efficiency in healthcare practices to enhance patient outcome and safety. Quality improvement is a vital tool used by organizations to assess, make changes, and improve quality of practice (iPatientCare, 2016). This DNP project focused on quality improvement and was carried out using Donabedian's framework. Donabedian's framework is a quality improvement model that has shown to better health outcomes of patients in the healthcare setting (Agency for Healthcare Research and Quality, AHRQ, 2011). It evaluates the quality of care and sets ideas for improvement. Using the Donabedian framework, the quality of care can be measured using three components, the structure, process, and outcomes (Agency for Healthcare Research and Quality, AHRQ, 2011). The structure describes the make-up of the organization which includes the healthcare setting, the staff and care tools. The process has to do with the system of the organizations; the activities that must occur to achieve an outcome. The process aspect deals with the existing standard practices such as conducting a home assessment at the time of admission, that must be carried out prior to patient admission into homecare; the process is dependent on the structure. It guides the operations of the organization and delivery of

healthcare. The implementation of the activities would yield outcomes that would validate the effectiveness of the intervention. Outcomes were measured by evaluating the impact of the project on medication management, which may be negative or positive. The problems identified in the need assessment highlighted the need for improvement in the admission process. The goal was to reduce the number of missing medications that occur at the time of patient transition into this homecare. The basic components of quality improvement are to create a culture of quality in the organization's practice, identify potential areas for improvement, collect and analyze data, communicate result, continue to evaluate result and share results to assist others in improving their practice (American Academy of Family Physicians, 2019)

A quality improvement project would demonstrate the effectiveness of an intervention through the outcome. The outcome would determine the need for a change if the result showed any difference or improvement in the change compared to the previous process. The outcome of this project was to show a reduction in the number of missing medications for patients admitted during the implementation phased.

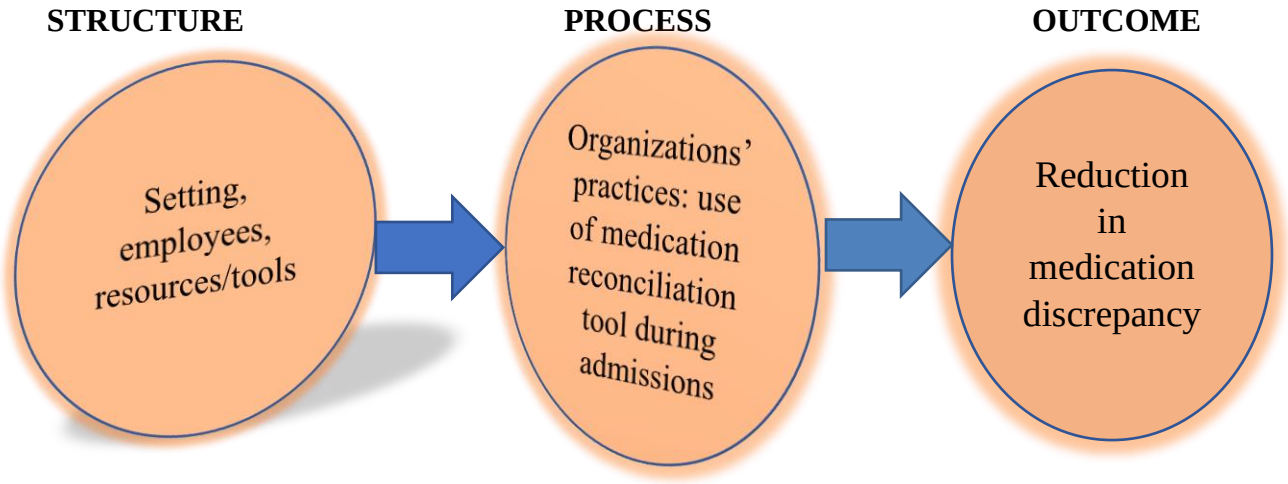
Chapter III: Method

Project Design

Project design is necessary for the successful execution of a project. It provides direction on how to organize ideas and processes that focus on the need for the project (Ray, 2018). A quality improvement design was utilized for this DNP project. Quality improvement is used to evaluate an organization's practice performance by looking at the structure, processes, and outcomes. And it provides approaches that would promote the outcome. This project was implemented using the Donabedian model approach (See Figure 2).

Figure 2

Donabedian model



Structure. The structure describes the setting of the organization. This home care agency has a multidisciplinary team that provides skilled health services to patients within the Houston community. The home care agency offers home health services such as skilled nursing, physical therapy, occupational therapy, and medical social services. The homecare agency accepts and admits patients who are deemed eligible to receive homecare and are referred by physicians to receive skilled health services. About 10-15 patients are admitted every three months in this homecare agency.

Process. The process examines the operations or activities that take place in the organization to provide quality health services to patients. The process of admission in this home care agency starts after patients are referred by a physician for homecare services. A registered nurse is assigned to complete the admission assessment including a medication review. Medication reviews and reconciliation were based on the admission medication list from the referring physician and that of the patient/caregiver's knowledge about the medications. However, it was noted that some of the medications verbalized by patients or their caregivers were missing on the admission medication list. And some of the patients had more than one care

provider. Medication prescription by multiple care providers can lead to duplication of treatments and medications. This would explain the unreconciled medication noted at the time of patient transition. For this project, a new-intake coordinator would be recruited to serve as the admission RN. The function of the admission RN was to perform medication reviews and reconciliation including medication and disease education upon patients' admission into the home care. The DNP-project lead would develop a medication reconciliation tool that would be used for all admissions, to ensure a complete and accurate patients' medication records. The tool would assist in reducing the number of medication discrepancies that are encountered at the time of patient transition from an inpatient facility to this home care agency. The implemented process was to improve the admission process of the home care agency through medication reconciliation, ensuring patient understanding of disease symptoms, self-medication management, and physician follow-ups.

Outcome. This step would measure the impact of the project implementation in reducing discrepancies such as missing medications that were encountered at the time of patient admission into this homecare agency. The use of the medication reconciliation tool would ensure that patients' medications are up to date through medication reconciliation. The anticipation was that the tool would assist in decreasing the number of missing medications for patients admitted to this organization.

Setting

The project took place in a home health agency after the CEO of the agency had approved the site for the project (see Appendix A). The home care agency had multi-disciplinary teams that consisted of visiting physicians, two registered nurses (RN), two licensed vocational nurses (LVN), four home health aides (HHA), one physical therapist, and four intake

coordinators. Additionally, there were over 40 therapists offering physical therapy, occupational therapy, speech therapy, and a medical social worker (MSW) that are contracted through external companies. There were about 50-65 patients receiving skilled nursing from this agency. The number of patients fluctuated depending on admissions and discharges.

Population/Sample

The population of interest included both the non-clinical and clinical staff that work for the home care agency. The non-clinical staffs consisted of the CEO, Chief financial officer (CFO), a scheduler, a medical coder, and a medical biller. The CEO oversaw the affairs of the organization. The CFO handled all the financial activities of the organization which included budget analysis and planning. The medical coder received all patient medical information at the after OASIS documentation that occurs during admissions, post-hospitalization, resumption of care, re-certification of care, and at discharge. The scheduler certified that home visit schedules were in order, communicated meeting dates, staff in-services and other information that needed staff attention. The clinical staff included those that provided direct patient care. They included two RN case managers who performed weekly home visits, two LVNs who fill-in for the RNs' when they are not available. The intake coordinators were registered nurses that performed weekly chart audits per organization policy and oversaw that the OASIS documentation was complete and accurate before being sent to the medical coder. There were also four home health aides who assisted patients with activities of daily living (ADL) based on the RN's plan of care established at the beginning of each episode of care.

The participants for this project were the CEO, two RN case managers, a newly hired RN intake coordinator, and an LVN. The participants were directly involved with patient care and were employed by the home care agency. Fifty patients from ages 50 and above, who were

receiving home care services from this agency would be impacted by the implementation of the project, irrespective of their diagnosis.

Recruitment

The CEO and all the nursing staff were aware of the project and agreed to the improvement of the admission process to reduce the number of medication discrepancies that occur during patient admissions. Participants were aware that patient identifiers would not be included in the project to maintain patient confidentiality of protected health information, and Health Insurance Portability and Accountability Act (HIPAA) compliance. Participants were also aware that there would be no incentives of any kind for participation. The inclusion criteria for participants were based on their professional role in this organization. Patients who started receiving home care services from this home health agency after the start of the implementation phase would receive the new improved transitional care approach. These patients would transition either from an inpatient facility or from the community.

In this home care agency, patients were referred by a physician who determined that they would benefit from home care services and meet homebound status. Although the referring physicians and other care providers who performed face to face visits were involved with direct patient care, they were not employed by this home health agency. Therefore, they did not meet the criteria for inclusion in this project. Physical therapists, occupational therapists, and medical social workers were excluded from this project because they do not participate in admissions, and they were contracted on an as-needed basis. The medical coders and medical billers were excluded from the implementation of the project.

Stakeholders

The CEO, who is the owner of this homecare agency was also the Chief Operations Officer (COO), and the CFO are the major stakeholders at this homecare agency. Other stakeholders included the registered nurses, the licensed vocational nurse, and the scheduler. These individuals were considered stakeholders because they would be implementing the proposed project plan. The stakeholders were confident in their provision of best quality care to patients and agreed that the transitional care management process needed some improvement to eliminate some of the problems encountered at the time of transition. The project lead planned to meet with the stakeholders at least once a week to inform them about the progress of the project.

Data Collection Tools

Medication reconciliation tool

Adverse drug events can be reduced or prevented by implementing a medication reconciliation process (Canadian Patient Safety Institute, 2020). According to the Canadian Patient Safety Institute (CPSI) (2020), medication reconciliation process includes obtaining an accurate list of each patients' current home medications, including name, dosage, frequency, and route, making use of the medication list during transfers, admissions or discharge, and comparing patients' home medication list to the prescription, and identifying and notifying the changes or discrepancies to the prescriber. The CPSI (2020) has medication reconciliation tools that are designed and are recommended to be used to improve medication management in health organizations. The tools were free to use; permission for use was not required (CPSI, 2020). For this project, the DNP-project lead revised one of the medication reconciliation tools known as the SunnyBrook draft form (See Appendix B). The SunnyBrook draft form had two parts, the preadmission medication list, and the admission medication record. The pre-admission medication section contains medications that were obtained from the different sources, the

pharmacy, discharging facility, patients, or caregivers, while the admission medication part has medication prescribed by a physician at time of admission. For this project, the medication reconciliation tool was used by the admission RN at the time of each patient referral to this home care agency. The revised version of the medication reconciliation tool also had two parts, the preadmission and admission medication records (see Appendix C). The preadmission section included the medication name, dosage, frequency, and route, while the admission section contains medications that were continued or missing. Patients' list of allergies would be noted at the top of the form. A missing medication would indicate that a medication that a patient takes at home but were not found or continued at the time of transition. Therefore, this medication would require physician notification. The bottom section of the form would indicate sources of pre-admission medication records such as patients' medication bottles, caregivers, or pharmacies. The purpose of the medication reconciliation tool was to ensure the accuracy of patients' medications that would be continued for the management of health conditions. The referring physician would be notified of any inconsistency or missing medications at the end of the medication review for accurate medication reconciliation.

Chart Audit Tool

The DNP-project lead developed a table format that was used to obtain the pre-intervention and post-intervention data from patients' electronic health records after the project implementation. The tool was used to record the number of missing medications that were encountered during the admission of patients to this homecare agency before and after the implementation of the project (see Appendix D). The plan was to collect data from a total of sixty electronic charts of patients admitted to this home care agency for both intervention periods, thirty each, but only twenty six patients were admitted during the implementation phase

of this project. The LVN was responsible for obtaining the number of missing medications for patients admitted anytime period before the implementation of this project. The RN obtained the number of missing medications for patients admitted after the project implementation. The chart audit tool included the patients represented as a numeric value, date of admission represented in months and the number of missing medications for each patient. Patients were represented in numeric to minimize easy identification of patients. The purpose of the admission month was to differentiate the pre-intervention period from the post intervention period. The project served to maintain patient confidentiality and privacy. No patient identifier would be used for this project.

Descriptive Statistics

Descriptive statistics are used to show the behavior of a sample and analyzing quantitative data in a simple form (Research Guide, 2019). Variables can be chosen depending on what needs to be measured in the sample. For this project, the DNP-project lead would use a frequency and relative frequency distribution table for data analysis (See Appendix E). A frequency table is used to show the number of times an observation occurred, while the relative frequency describes the rate of occurrence for the studied observation expressed in percentage, to show the significance of the occurrence. (Taylor, 2018). The relative frequency is obtained by dividing the number of frequencies with the total frequency. The purpose of the relative frequency table in this project was to evaluate the outcome of the implemented project; to determine if there was any difference in the number of missing medications before and after the project implementation. In addition, a simple column chart would be used to show a graphical/pictorial representation of the data result. The number of missing medications plotted as a whole number on the y-axis also known as the vertical axis, while the admission dates will be plotted on the x or horizontal axis.

Project Plan

Implementation process

The timeline for the completion of the project took 6 months and included the implementation of the project plan, data collection, and result interpretation (See Appendix F).The implementation plan for the project was set to be completed at 3 months beginning from May 2020. The implementation period included the intervention periods and data collection phase. The improved admission process was conducted over a 2-month period and commenced after it had been approved by the Institutional Review Board (IRB) (See Appendix G). The data collection took 4 weeks to complete.

Process

Eric Coleman's care intervention model (CTI) was used as a guide to facilitate patient care transition into this home care agency. Eric Coleman's CTI model ensures continuity of care and improves patients' self-care management (Nelson & Pulley, 2015). During the development of this project, the home care agency was in the process of hiring and interviewing staff for employment in the homecare agency. A new registered nurse was hired as an intake-coordinator. This newly registered nurse played the role of the admission RN for this project. The DNP-project lead provided copies of the medication reconciliation form that was used for this project. Once the home care agency received a referral order from the physician, the admission nurse was notified immediately about the referral. The admission RN contacted the discharging facility via phone to obtain the patient's medical history including medication records. After obtaining a verbal report via telephone from the discharging facility, the record or report was sent to the home care agency via fax for future retrieval. The admission RN reviewed patients' medical records and confirmed that patients met eligibility for homecare. Next, the admission RN

performed an extensive review of all medication by contacting the pharmacy to obtain an up to date lists of patients' medications before reconciliation. The admission RN reconciled medications using the medication reconciliation form provided by the DNP-project lead. According to Ross (2018), there is an increase in medication accuracy and a decrease in medication adverse effects when pharmacists and registered nurses perform reconciliation during transitions. The admission RN faxed a copy of the reconciled medications to the referring physician; in addition, she notified the referring physician of any medication that was not found on the pharmacy medication list via a communication note sent electronically. The medication review and reconciliation were to be completed within 72 hours of home care referral. This process did not interfere with patient admission to the home care agency. Admission assessment was still completed by a registered nurse who was assigned to the patient within 48 hours of discharge from an inpatient facility or community referral to homecare. The admission RN collaborated with the registered nurse that performed the admission assessment and provided an accurate medication list and diagnosis after physician review of the reconciled medications. The admission RN followed up with a phone call to schedule a home visit within one week of patient admission into homecare. During this time, the admission RN reviewed all medications and diagnoses with patients and caregivers, provided education about medication and diagnoses, informed, and assisted patients to schedule physician follow-ups and addressed any patients' and caregivers' concerns. The admission RN followed up with one phone call every week for 3 consecutive weeks to evaluate patients' progress and address any concern. The admission RN communicated patients' status to the RN caring for the patient after each follow-up phone call. This process took approximately nine weeks to complete.

The DNP-project lead was to be on-site at least two days per week to ensure that the new admission process was being followed and addressed problems that arose during the project implementation. The DNP-project lead stepped in and participated in the admission process when the admission nurse was limited in performing her functions. Chart audits did not commence until the completion of the implementation.

Chart Audits

The DNP-project lead planned to meet the RN and LPN that were assigned to perform chart audits. The purpose of the meeting was to educate the RN and LPN about the new developed chart audit tool and how to obtain the data for the project. The DNP-lead educated them about the importance of maintaining patient confidentiality and privacy, by avoiding the use of any identifiable patient information such as name or medical record number. The chart audits took a total of four weeks for both the pre and post-intervention periods. The RN and LVN were required to be at the project site two days per week for four weeks to complete the chart audit. Both the RN and LVN were expected to spend at least 5 hours a day to complete electronic chart audits on at least four patients for the pre and post-intervention period respectively. The RN and LVN could take breaks as needed. The DNP-project lead would be at the project site at least two times per week to monitor the progress of the chart audits and address any concern. At the end of each chart audit, the RN and LVN would be required to keep the chart audit score sheet in a designated and secured folder. This folder would be made accessible to the DNP-project lead at any time during that period. The DNP-project lead would collect the folder after the completion of the electronic charts audit for this project.

The last stage of the implementation was the data analysis. Data analysis occurred after the DNP-project lead had imported the chart audit scores on a relative frequency distribution

chart. The scores would be displayed using a relative frequency histogram to be presented to the organization. The DNP-project lead would meet with the staff of the organization to discuss the result of the project and present both the relative frequency table and histogram for an easy understanding of the project outcome.

Outcome measurement

The objective of this project was to improve the admission process of this organization and reduce some of the problems such as missing medications that occurred during the transition of patients into homecare. The designed medication reconciliation form was used as a strategy to improve patient outcomes by decreasing the number of missing medications, promoting medication management, and decreasing the risk of adverse medication effects. Specific objectives were: a) to increase the organization's compliance in utilizing the medication reconciliation form by 100% for the 2-month period of the project implementation, b) to ensure participant compliance in maintaining patient confidentiality during data collection, and c) to achieve at least a 40% decrease in the number of missing medications that occurred at the time of admission in this home care agency. The expectation is that the process improvement would demonstrate a reduction in the number of missing medications for the post-intervention phase.

Data collection procedure

The chart audits were not carried out until the project implementation had been completed. The plan was to audit a total of sixty electronic charts using the chart audit table developed by the DNP-project lead. Using the chart audit tool developed by the DNP-project lead, the RN and the LVN were required to write down the number of missing medications noted in the electronic charts of patients included in this project. Data about missing medications noted during admission for the pre-intervention period were identified by checking the intake

coordinator's communication notes sent to the physician. The intake-coordinator in this home care agency performed weekly chart audits and notes missing medications which are communicated to the referring physician. The communication notes have medication names that were noted to be missing during reviews and chart audits following patients' admission into this home care agency. The LVN and RN were required to maintain patients' privacy throughout the data collection period. They were instructed not to discuss any patient data outside of the organization or leave patient's charts unattended during auditing. Data were to be collected without using any patient identifiers.

Data Analysis

At the end of the chart audits, the DNP-project lead imported the total number of the missing medications for the pre and post-intervention obtained from chart audits. The scores were copied into a relative frequency distribution table. The data included in the analysis were the number of missing medications for the before and after the project implementation. The purpose of the analysis was to determine if a there was a clinical significance in the number of missing medications before and after the implementation of the project. The DNP-project lead entered the pre and post-intervention chart audit scores in the relative frequency table for easy analysis of the project result. The distribution table showed the occurrence of missing medications before and after the implemented project. The difference in the number of missing medications would likely be the result of the implemented project or the improved admission process. The results of data from the relative frequency table would be plotted on a simple column chart for graphical representation and easy interpretation of the result (FusionCharts, 2020).

Institutional Review Board/Ethical Issues

The DNP-project lead had successfully completed the Collaborative Institutional Training Initiative (CITI) to ensure ethical conduct, protection of patient health information and the protection of participants involved in the implementation of this project. This was a quality improvement project that did not require the physical participation of patients. Although patient data were accessed electronically, it would be difficult to identify the patients using the admission dates represented in months. The admission dates would clearly inform the reader about the two intervention periods for this project. De-identification was essential to ensure that the Health Insurance Portability and Accountability Act (HIPPA) laws and regulations were adhered to throughout the implementation of the project. The purpose of the HIPAA rule was to maintain confidentiality and ensure that sensitive data such as patient electronic health data were secured and protected (De Groot, 2019). The DNP-project lead is an employee of this organization and therefore, a covered entity who had access to patients' electronic health records. The DNP-project lead made certain that patients' data were secured and protected throughout the project implementation. At the completion of the project, the DNP lead would present the result of the project using a histogram without any patient identifiers. The DNP project lead would destroy all the collected and stored data at the completion of this project. Participation in the project did not guarantee the condition for employment, promotion, or risk for dismissal. The project had minimal or no risk to the participants; therefore, it was exempt from the Institutional Review Board (IRD, U.S. Department of Health and Human Services, 2003).

Chapter IV: Organizational Assessment and Cost Analysis

Organizational Assessment

Readiness for change

As mentioned earlier, problems such as unreconciled medications were noted during the admissions of patients into this homecare agency. The organization's approval to use the site for this project showed their interest and readiness to rectify the issues that occur in the organization. Their readiness to improve practice, prompted the need for the project plan. Registered nurses who completed weekly medication reconciliation showed a strong desire for the implementation of this project. The interest of all staff, the CEO of the organization, in addition to collaboration towards the implementation of the project, was promising to the successful execution of the project. The homecare agency recruited a registered nurse who played the role of an admission RN and only participated in admissions. The role of the admission RN was to obtain a complete record of patient’s medication(s) from sources like the discharging facility, and the pharmacy during admissions, and educate patients about their medications and diagnoses, and assist patients with scheduling follow-ups.

Barriers

The admission RN may encounter difficulty in carrying out her duties during patient admission into home care. Obtaining patient medical records from the discharge facility or pharmacy can be tasking and time-consuming; obtaining medication information from different sources may take a long time. The implementation of the project would require extra time and dedication of members. The DNP lead planned to meet with staff based on their own schedule which may not be flexible for the DNP project lead. The driving distance to the meeting location would incur its own cost from frequent meetings, long traffics and gas consumption. Due to the Coronavirus disease epidemic (COVID-19) current faced in the United States, there was the possibility of scheduling conflicts and unavailability of team members for meetings; patient

admission into this home care agency may increase or decrease. A decrease in the number of patient admissions may affect the number of patient participant required for the post implementation data. And a decrease I the number of admitted patients might affect the validity of this project outcome. The implementation of Eric Coleman's CTI model would be successful in improving the health outcomes of the patients in this home care agency. However, the CTI model requires the knowledge or training of a transitions coach who will focus on the four pillars of the model: medication self-management, the Personal Health Record, timely primary care/specialty care follow up and knowledge of red flags that indicate a worsening in their (Geriatric Interdisciplinary Teams in Practice, 2007).

Facilitators

The newly hired registered nurse who would serve as the admission nurse, has 13 years of experience in nursing, and has worked as an admission nurse for 5 years in hospital setting. As an experienced admission nurse, assuming the same role in this organization for this project would not be a difficult task. The admission nurse would require minimal training or less guidance on the new admission process. In addition, the care team that would assist in the implementation of this project are employees of the home care agency and would have access to patient data. The participants understood that they would also benefit from the successful completion of the project. They were aware that there would be no incentives for participation.

Interprofessional collaboration

The CEO of this home care agency was willing to assist towards the progress of the DNP project. The CEO's approval to use this site for the project implementation, and the staff's willingness to devote their time in implementing this project, showed effective team collaboration. For this project to be successful, interprofessional collaboration was a huge factor.

Each contribution and participation of each team member would be welcomed and would likely increase collaboration. The DNP lead planned to meet with team members two times every week to foster participation and optimize the goal of the project.

Cost Factors

Budgetary needs

In a study by Dizon and Reinking (2017), a pharmacist and pharmacy technician were involved in the discharge process; they performed medication review and provided discharge instructions to patients prior to discharge, and they completed medication reconciliation. The use of a transitions care pharmacist saved a total of $25 million health care cost for over 2 years (Ni et al., 2018). The homecare agency recently hired an RN intake-coordinator; and recruiting a pharmacist at the time of implementation would exceed the organization's annual budget. Instead of recruiting a pharmacist to assist in the implementation of the project, the newly hired registered nurse would play a major role like that of a pharmacist in performing medication reconciliation. There would be less time spent in training the admission nurse. Also, the cost for the HP printing papers designed for the medication reconciliation tool and chart audit tool was about $4.00 per 500 sheets. This would be enough for the project. HP ink cost would be $20 per 100 sheets. The DNP-project lead would incur auto/gas expenses to and from the project site, an estimated cost of about $100 biweekly. The driving distance was about 90minutes depending on traffic. The DNP-lead would be responsible for all the funding. Although there was no monetary cost or incentive for participation, the RN and LVN who performed the chart audits were willing to cover for their gas costs (see Appendix H).

Chapter V: Results

Outcomes

Analysis of the Implementation Process

The purpose of this project was to establish a transitional care management program by improving the admission process of a home care agency using a medication reconciliation tool. The need for the medication reconciliation tool was to ensure a complete list of patients' medication record. Prior to the project implementation, the DNP-project leader held video conferences to educate the admission nurse on how to use the designed medication reconciliation form. The admission nurse has 13 years of nursing experience with 5 years' experience as an admission nurse. The protocol for obtaining medication records from different sources was quick and easy; it did not require long hours of training because the admission nurse already had the knowledge and competency in medication reconciliation procedures. Although Eric Coleman's transitional care approach was used as a guide for the admission process, the admission nurse was not allowed to meet patients in the hospital or the discharge facility; it was considered patient solicitation. The DNP project lead discussed the activities that would take place at time of patient admission. The activities included medication and disease education, scheduling physician follow ups and addressing patients' concerns. The DNP-project lead provided copies of the designed medication reconciliation form that was used for the admission of patients into this home care agency. Patient admissions started in the first week of June of 2020 and ended and ended on August 6th, 2020. The CEO of the home care agency had to notify the admission nurse within 24 hours of receiving a home care referral order. For all admissions, the admission RN contacted the discharging facility via phone, and obtained patient's medical records which was also faxed to the home care office. The admission nurse made copies of the faxed records and placed them in the patient's folder at the project site. Next, the admission RN reviewed patients' medical records and confirmed that patients met eligibility for homecare. Then she

performed an extensive review of all medication by contacting the pharmacy first to obtain the current lists of all the medications. Depending on how long it took for the admission nurse to obtain medication list from the pharmacy and the patient's caregiver, the admission nurse had up to 72 hours to complete and reconcile all medications. While the admission nurse reviewed the medications, the nurse assigned for the patient had up to 48 hours to complete the admission assessment. Lastly, the referring physician's order was reconciled against the list of all obtained medication records and assessed for discrepancies. A complete list of medications was written out using the agency's 'medication list addendum' and faxed to the physician who reviewed and approved the medication list. The admission nurse followed up with a note that informed the physician of the discrepancies. Medication reconciliation was not considered complete until it was reviewed and approved by the referring physician. The medication review and reconciliation by the physician took 3 to 5 days for completion. After the review and approval, the accurate medication list was returned to the agency via fax. The admission nurse provided a copy of the current medication list to the assigned nurse for the patient. The admission RN followed up with a phone call within one week of patient admission into homecare to educate about medication and disease management. During the phone call, the admission RN educated patients and caregivers about all their medications, assisted patients in setting up follow-up appointment if it was not already scheduled, and addressed patients' or caregivers' concerns. The admission RN followed up again with 1 phone call each week for 3 weeks consecutively to evaluate patients' health condition and address concerns. At the time of the project implementation, there was a high rate of admissions on some days and the admission nurse could not admit all patients at once. The admission nurse did not conduct the medication education in the patient's home because of her risk of exposure to the coronavirus. So, the DNP project-lead and another

registered nurse assisted with patient admissions using the same process as the admission nurse, except that they were able to confirm medications in the patients home and provide a face to face medication education. A total of 26 patients were admitted into the home care using the medication reconciliation tool.

Analysis of the Project Outcome Data

Although there were deviations in the transitional care approach used for this project, the revised medication reconciliation form was used for all admissions that occurred during the implementation period. A 100% compliance with the medication reconciliation tool was achieved**.** Chart auditing for both the pre-intervention and post-intervention period started after the implementation of the project using the designed chart audit tool. Chart auditing occurred from august 21st, 2020 through September 24, 2020, which was 2 weeks after the implementation period ended. Both chart auditing took four weeks to complete. Due to the short time designated for this project, only 26 patients were admitted during the implementation period. Out of the 26 patients admitted, 3 were discharged before the end of the implementation phase. After determining that 23 patients were available for the post-intervention period, a random sampling of 23 charts of patients admitted between January 1st, 2019 and April 1st, 2020 were selected and audited for the pre-intervention phase. Of those 23 patients, a total of 24 missing medications were noted for the pre-intervention phase. Although nurses performed medication reconciliation every week, the missing medications were reported a week following patient admission into the home care. The new medication reconciliation tool was used as part of the admission assessment according to the project plan. The tool was designed to improve medication reconciliation by obtaining medication records from other sources with the goal of reducing the incidence of missing medications during transitioning. The new process for patient admissions started in June

of 2020, the implementation phase ended on August 6th, 2020. A total of 26 patients were admitted into the home care during this time frame. Of these 26 patients, 23 were included in the sample for the post intervention period. The other three were excluded because they were discharged before the end of the project implementation. Of the 23 patient charts that were audited for the post-intervention phase, a total of eight missing medications were noted (See Table 1). The missing medications occurred because four of the patients had more than one pharmacy managing the medications and two patients did not report medications that they had stopped taking. Additionally, two of the patients were being followed by a specialist who had called in medications to the pharmacy after the medication records had been reviewed and approved by the primary physician.

Table 1

Chart Audit Results for the pre and post-intervention period

Patient #	Admission date pre-intervention	# Missing medications	Patient #	Admission date post-intervention	#Missing medications
	Jan 2019-April 2020	pre-intervention		June 2020-August 2020	post-intervention
1	January 2019	2	24	June 2020	1
2	January 2019	1	25	June 2020	1
3	January 2019	3	26	June 2020	1
4	January 2019	0	27	June 2020	0
5	January 2019	0	28	June 2020	1
6	February 2019	1	29	June 2020	0
7	February 2019	0	30	July 2020	0
8	February 2019	2	31	July 2020	0
9	March 2019	3	32	July 2020	0
10	March 2019	2	33	July 2020	0
11	March 2019	0	34	July 2020	0
12	April 2019	1	35	July 2020	1
13	April 2019	1	36	July 2020	0
14	April 2019	0	37	July 2020	0
15	April 2019	1	38	July 2020	0
16	April 2019	0	39	July 2020	1
17	April 2019	2	40	July 2020	0
18	February 2020	0	41	July 2020	0
19	February 2020	0	42	August 2020	1
20	February 2020	0	43	August 2020	0
21	March 2020	2	44	August 2020	0
22	March 2020	3	45	August 2020	0
23	March 2020	0	46	August 2020	1
	Total	24		Total	8

The number of missing medications in the pre-intervention period is much higher than the number of missing medications for the post intervention period (See Figure 3). The previous medication reconciliation process in this organization did not account for other medication sources such as contacting pharmacy for medication records. The failure to obtain records from

other sources may have contributed to the incomplete medication records. The number of missing medications decreased significantly from 75% during the pre-intervention phase to 25% for the post-intervention period (See Table 2). There is a clinically significant association between the new admission process and the number of incomplete medication records.

Figure 3

Number of Missing Medication for the Pre and Post-Intervention Periods

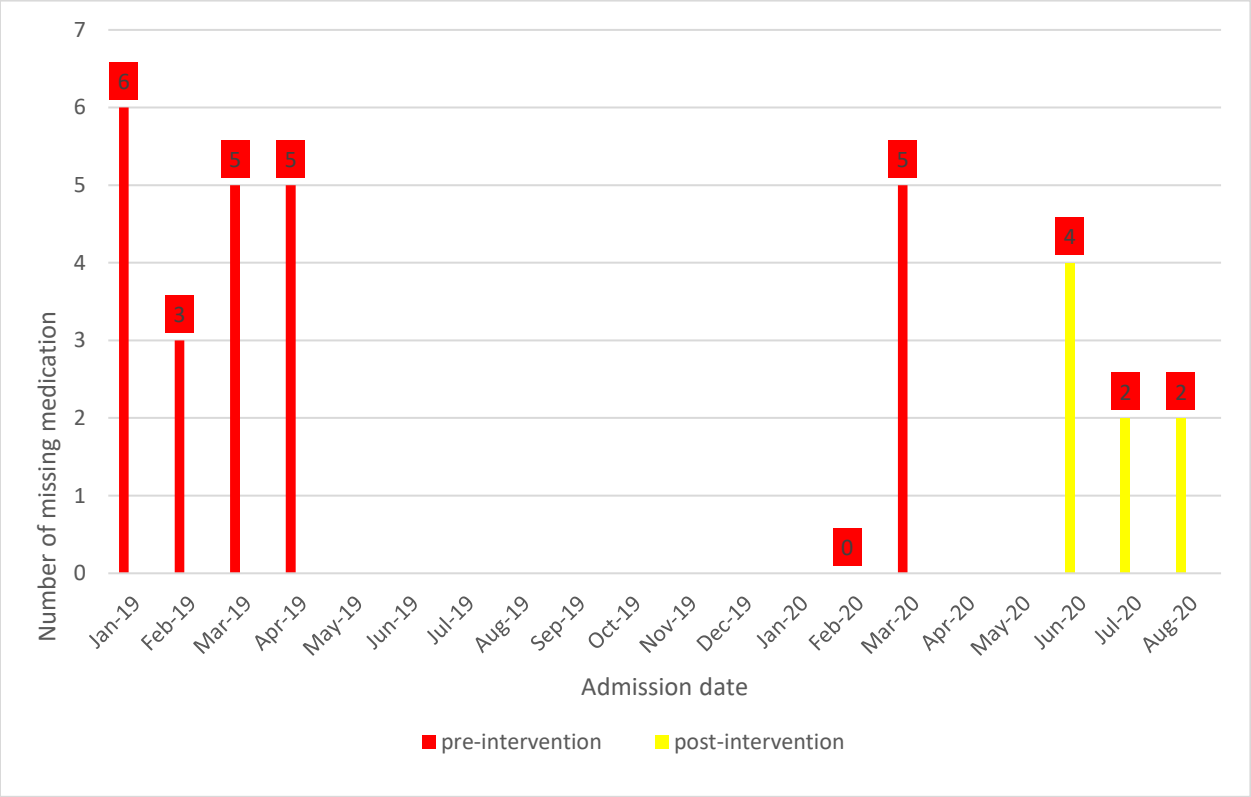


Table 2

Relative Frequency Distribution Table

Total # missing medication	Frequency	Relative frequency (%)	Formula*
Pre-intervention	24	75%	24/32= 0.75 0.75 x 100
Post-intervention	8	25%	8/32 = 0.25 0.25 x 100
Total	32	100%	

*Relative frequency = frequency divided by the total frequency x 100

Chapter VI: Discussion

Findings and Outcome

The aim of the DNP project was to improve the admission process and the medication management of patients transitioning to home care. The goal was to achieve a 40% reduction in the number of missing medications after the project implementation with the use of the new medication reconciliation process. Additionally, it was important to provide education about medication management and assist the patient in scheduling follow-ups post-hospital discharge. Together, these activities assisted in reducing the risk of medication adverse events, decrease the chance of undertreatment of disease conditions, prevent worsening of the disease condition, and reduce the likelihood of readmissions. The result of the project implementation demonstrated a clinically significant relationship between the use of the medication reconciliation tool and the number of missing medications that were noted after patient admission into the home care. The project goal was exceeded; there was a 50% reduction in the number of missing medications for the post-intervention phase. Although there was a decrease in the number of missing

medications, there is still a need for improvement in eliminating medication discrepancy and reduce the likelihood of medication adverse events. The number of missing medications would have been fewer if adequate measures were in place. The missing medications in the post-implementation period occurred because some of the patients had more than one pharmacy managing their medications and others had other physician specialists as part of the treatment team. This identified the need to obtain a comprehensive health history of patients during admissions and obtaining medication updates. A comprehensive health history would inform the provider about the patients' overall health and guide the provider how to adequately care for patients (Grover, 2019). It is important for the home visiting nurse to ask specific questions at each visit. Home visiting nurses should ask patients or caregivers about new medication changes, physician visits, or any health changes.

The implementation of the project faced some challenges that may have affected the outcome of this project. Medication records were obtained from different sources prior to reconciliation. The admission nurse did not fully perform her duty as planned. Due to the coronavirus disease (COVID-19) pandemic, patient visitation in their homes or assisted leaving was limited. The admission nurse had health problems that increased her risk of exposure to the coronavirus. To reduce the risk of exposure to the virus, the admission nurse completed the medication and disease education via telephone. Using this method was challenging to obtain accurate home medication records from caregivers and patients. Some of the patients only gave a list of the medications that were willing to take, but not all that were prescribed. The DNP project lead and another RN had to step in to assist with admissions. Sixteen of the 23 patients were admitted by the DNP project lead and the RN who were able to visit patient homes, obtain medication records, provide medication and disease education, discuss the plan of care, and

assist the patient in scheduling an appointment. The DNP project lead noted that some of the patients had stopped taking a few of the medications prescribed because they were experiencing side effects of the medication that the patients interpreted as an adverse effect; so, they were not reporting them as their current medications. Another barrier to implementing the project was the time it took for physicians to complete medication review and reconciliation. Medication reconciliation was to be completed within 72-hrs of patient admission into home care but some of them took up to one week to complete. In the pre-intervention phase, the medication reconciliation strategy did not incorporate different sources. Prior to this project implementation, medication reconciliation was based on the referring physician orders and that of the patient's caregivers. No other source of medication records was considered. The previous process of medication reconciliation might have contributed to the huge gap in the number of missing medications between the pre and post-intervention period. Those in the pre-intervention phase are more likely to experience medication adverse events and poor medication management compared to the group for the post-implementation period. Based on the result of the post-intervention, there is a clear association between an effective transitional care management and improving medication reconciliation. An effective transitional care management includes support from the administration, transitional planning such the medication reconciliation process, team collaboration, early identification of patients at risk, medication management, patient and caregiver participation in the transition process, and communication of information (Joint Commission, 2015).

Limitations or Deviations from Project Plan

Although the project was a success, there were several limitations. Due to the current COVID-19 pandemic, project implementation faced a lot of challenges. Methodological

limitations included deviation from Eric Coleman's transitional care model, role constraint, the decreased number of participants for the project, and challenges in scheduling staff meetings.

Deviation from Eric Coleman's transitional care model. Eric Coleman's transitional care model utilizes a transitions coach who meets with the patient in a hospital prior to discharge to discuss the transition process (Qualis Health, 2012). The coach sets up a home visit with the patient to address any concerns, provide education on disease and medication management and schedule follow-ups. Implementing a transitional care approach that would imitate Eric Coleman's CTI model would be successful in improving the health outcomes of the patients in this home care agency. It would require the knowledge or training of a transitions coach who would focus on the four pillars of the model: medication self-management, the Personal Health Record, timely primary care/specialty care follow up and knowledge of red flags that indicate a worsening in their (Coleman, 2007). The implementation did not include a transitions coach, rather, an admission nurse. An admission nurse who is experienced in conducting patient admissions in hospitals was recruited to perform admissions, complete medication reconciliation, and educate patient about disease and medication management.

Role constraint. The RN who was designated as the admission RN was limited in executing her duties. She was limited in the number of patients she could admit due to her health conditions and risk of exposure to the coronavirus. Post medication reconciliation, the admission nurse provided medication and disease education via telephone. Her physical contact with patients were limited. Because more than 50% of the patients who were admitted into the home care had disease comorbidities, they were considered high risk for the admission nurse. To reduce the risk of exposure, the DNP project lead and another RN who are employees of the organization took on the role of the admission nurse to facilitate the execution of the project

plan. The inconsistencies with the medication reconciliation process may have affected the validity of the result. It is significant to note that the role of the DNP lead in this organization was to perform a weekly home visits; it was difficult for the DNP project lead to assume her role in this organization and that of an admission nurse. Her duties were assigned to the other two nurses which increased the workload for the nurses.

Staff meetings. This was another challenge encountered during the execution of the project. It was difficult for the DNP project lead to meet with team members face to face and conduct meetings. The DNP project lead was not able to meet with staff at scheduled times due to the limitations placed by the state about social distancing. Team members were not comfortable meeting in persons for risk of contracting the coronavirus. Most of the meetings were held via video conferences.

Decreased number of participants. This was another limitation for the post-intervention phase. A total of twenty-six patients were admitted during the implementation phase, but 3 were discharged before the end of the project implementation. therefore, a total of 23 patients were included in the post intervention phase**.**

Limited time for the project implementation. Patients recruited for the post-intervention period comprised mostly of patients discharged from the hospitals. Because of the Coronavirus disease pandemic (COVID-19) that is currently faced in the United States, the number and frequency of patient referral to home care increased, but it was challenging to handle multiple admissions in one day. The number of patients requiring admission into homecare increased as a precaution to decrease their risk of contracting the coronavirus while in the hospitals. Only the patients whose health were considered critical could stay in the hospital. Due to the short time designated for this project, there was fewer patients available for the post-

intervention phase. Although there was a high rate of hospital discharges and referrals for home care, there was a short time set for the project implementation; a higher number of patients would have been admitted into home care and included in this project if the project time was extended.

Medication reconciliation process. Medication reconciliations were not completed within 72 hours as planned because the physicians took longer time to respond and complete the medication reviews. Obtaining patient medical records from the discharge facility, patient caregivers and pharmacies were very tasking and time-consuming. The admission nurse had difficulty reaching them. Due to the current pandemic with COVID-19, some facilities limited the number of patient visits. Some of the admissions were completed via the phone. The implementation of the project required extra time and collaboration of members.

Implications for Practice Change

Medication reconciliation and patient education about the medications is relevant to nursing and calls for an effective transitional care management. Effective transitional care management has shown to improve patient outcome by preventing adverse medication events, minimizing worsening of disease condition and readmissions. Incorporating medication reconciliation at time of admission could identify missing medications on time and prevent future errors. According to Grover (2019), obtaining a patient's comprehensive health history informs the provider about the patients' overall health and guides the provider on how to adequately care for patients. Gathering data about the medication records or history should be as important as the health history. Medication history and reconciliation should be a part of the patient health management. Therefore, it is important for the home visiting nurse to enquire from the patients or the caregivers about new or changed medication during admissions and at

each visit. Home visiting nurses can ask about new medication changes, physician visits, or any health changes.

Project sustainability. The sustainability of a project focuses on efforts that are made to promote the implementation of a practice that has proven to yield positive results (Davies et al., 2017). According to Wieners, (2020). for a project to be sustainable, three things have to be considered: a) how the community would respond to the practice and their compliance to practice, b) the financial sustainability which looks at the financial needs necessary to maintain the practice and c) the organizational sustainability. Weekly medication reconciliation is an existing practice in this organization but including it in the admission process would delay unforeseen consequences or adverse events. The organization is currently short staffed and must consider factors such as the availability of a new care provider or new equipment to continue the project (Davies et al., 2017). The organization would have to consider recruiting another nurse, if possible, an admission nurse who will only perform admissions, reconcile medications during admissions, provide medication education including scheduling follow-up appointments. But the financial budget of the organization would determine the organization's ability in keeping the admission nurse. Another suggestion for the project sustainability is the use of one pharmacy by patients and physicians to improve medication reconciliation; it will likely decrease medication errors and adverse effects. In addition, using the patient portal such as ‘My Health Record’ where a patient information is reported and can be retrieved by healthcare providers. Example is the My Health Record, an application where healthcare providers can report patient information including their medications (Scahill &Wheeler, 2018). This will be beneficial for patient with multiple providers. It is expected that the use of the patient portal will keep a current and real-time patient information including medications. The use of one pharmacy or patient portal in

maintaining consistency in patient's medication records would require agreement of all parties involved, the patients, physicians and the organization. Sustaining the project would not only improve patient safety and treatment compliance; it would reduce the workload for the home visiting nurses; it will minimize the frequency in reporting missing medication to the physician.

Future Research

Medication reconciliation is a big part of a patient care and it requires a competent and qualified healthcare professional who has advanced knowledge about medications. Although a registered nurse can perform medication reconciliation, an advanced nurse practitioner would be more knowledgeable in recognizing medication interaction that poses a risk of adverse event to the patient. Young et al., (2015) demonstrated improvement in medication management by including an advanced practice nurse in the medication reconciliation team. A nurse practitioner is one with advanced knowledge about medications. The NP can easily spot discrepancies based on the class of medications with higher health impacts. He or she can easily recognize high risk medications such as insulin and warfarin that may need frequent evaluation and monitoring.

Relevant Health Policy

Medication reconciliation ranked #3 for National Patient Safety Goal (NPSG, Ross, 2018) in the 2018 Hospital Accreditation program of the Joint Commission. According to Ross (2018), the goal of the Joint Commission is to achieve a 100% compliance in performing adequate medication reconciliation. This may not be realistic; the organization may face challenges such as inability of patients to provide accuracy of medication records or the nurse's consistency in conducting adequate medication reconciliation. Every year, an estimated 3.5 million physician office visits and 1 million emergency room visits occur due to medication errors (Joshi, 2018). The Joint Commission encourages healthcare leaders to implement a

medication reconciliation protocols and ensure that team members are carrying out the activities (Ross, 2018). Medication assessment should include clarifying medication information from patients or caregivers by asking the patient to present the medication container, ask the patient about any undesirable effects from medication to clarify the difference between allergy, expected side effects or adverse medication effect. Nurses should question patient about their routine for medication administration and how often they are taken. The organization would need to educate nurses about the importance of medication reconciliation and mandate its use for patient admissions. Staff education can be improved through in-service-training. In-service training is necessary for staffs to independently perform their roles effectively. During in-service training, the staff members learn about the activities necessary to perform their roles, and at the same time, increase the nurses 'competency in carrying out the assigned responsibilities (Maguire, 2019). The project outcome provides an opportunity for the home care agency to explore the applicability of the medication reconciliation process as part of the admission process. Although it will be very tasking and time consuming, it would prevent future harm from medication errors and would be cost efficient.

Chapter VII: Conclusion

Value of the Project

The significant difference in the result of this DNP project provided further support for the use of the medication reconciliation tool, to increase awareness of the potential for medication adverse reactions, non-compliance with treatments, and worsening of a disease condition in the home care patients if medication management is poor. It informs the need for timely admission and medication reconciliation, to delay or eliminate the risk of adverse events. The results of this project demonstrated the importance of improving the medication

reconciliation process and ensuring its compliance during admissions. Although the Covid-19 pandemic created barriers in the implementation of the project, team collaboration was exhibited and contributed to the success of the project. The DNP project lead gained the opportunity to explore other ways to advocate and care for patients by implementing practices that have shown to improve health outcomes. The outcome of the project shows that the DNP project lead can participate in decision making either through research or leadership. The knowledge and application of practices learned from research gives the advanced practice nurse more leverage to employ their clinical expertise and leadership in the improvement of patients' well-being.

DNP Essentials met by the Implementation and Completion of the Project

The DNP program is the highest level of nursing education for nurses that must employ the eight essentials or competencies (Bocchino et al., 2015). These eight essentials build the foundation for effective practice. The DNP essentials prepare and equip the advanced practice nurse with the resources required to deliver quality healthcare to the general population (Bocchino et al., 2015, p. 248).

Scientific underpinning for practice. Medication errors were identified as a problem in the organization. The DNP-project lead designed a medication reconciliation tool that was recommended for use in healthcare facilities to improve medication reconciliation.

Organization and system leadership for quality improvement. The project was determined to be a quality improvement. For this project, the DNP project lead used Donabedian's framework, a quality improvement model that has shown to better health outcomes of patients in the healthcare setting (Agency for Healthcare Research and Quality, AHRQ, 2011).

Clinical scholarship and analytical method for evidence-based practice. This was shown through the use of chart audits for the pre and post-implementation period. The chart auditing revealed the number of missing medications for both intervention period. The relative frequency table showed was used to analyze the outcome of the project and the significant difference the number of missing medications for both intervention period. The DNP project lead would present a power point presentation to the organization and reveal the outcome of the project using a single column chart.

Information systems for the improvement of transformation of healthcare. The is shown in the designed medication reconciliation tool that was used in the admission process. it served to obtain accurate list of patients 'medications.

Health care policy for advocacy in health care. This is shown in the plans for project sustainability. The project outcome has shown the effectiveness in the use of medication reconciliation. This practice can be sustained depending on the home care agency's ability to employ a new nurse who would take the role of an admission nurse and practice compliance.

Interprofessional collaboration. There was collaborative effort of team members in the successful implementation of the project. there was an 80% compliance in the use of the implementation tools. The admission nurse completed admission using the designed medication reconciliation tool but could not physically see the patients due to her health conditions and risk of exposure to coronavirus. The DNP project lead assisted in the admission process, an RN and LPN completed the chart audits. The CEO of the organization permitted the implementation of the project in her organization.

Clinical prevention. The project was implemented at the time the country was facing a disease pandemic, covid-19. Meetings were held meeting to educate participants about

precautions. The agency provided face masks for participants. Patients and clinicians were screened prior to visiting patients. At the completion of the project, no one was exposed to the virus.

Advanced nursing practice. The DNP project lead has gained the opportunity to apply an evidenced based practice in a home care organization through the use of medication reconciliation tool that showed a significant difference in the number of missing medications that occur during admission. Although the project outcome is significant, the DNP-project lead understands that there is need for further research to address medication errors during transitioning.

Plan for Dissemination

The use of the medication reconciliation tool used for this project shows that using the medication reconciliation can be effective in reducing medication errors. The DNP-project lead initially planned to present the outcome of the project to all the shareholders in the home care organization where this project was implemented. However, the organization recently lost the CEO, who is the owner of this home care agency. At this time, burial arrangements are in progress and the office is currently closed. The DNP project lead will present the project outcome in a power point presentation after the home care agency is back in service. With the permission of the Chief Financial Officer who will be taking over the affairs of the organization, the project result will be graphically displayed using a simple column chart, and it would show the effectiveness and value of using a medication reconciliation tool. The DNP-project lead has presented the final presentation of this quality improvement project to the DNP project team chairperson and to others who were present during the presentation. The final project will be submitted to the Doctoral Project Repository with the assistance of the DNP project team

Chairperson. Students and researchers who are academically interested in the project will be able to have access to this project.

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Appendix A

April 7, 2020
Committee on the Use of Human Subjects in Research
Bradley University
1501 W Bradley Avenue Peoria, IL 61625

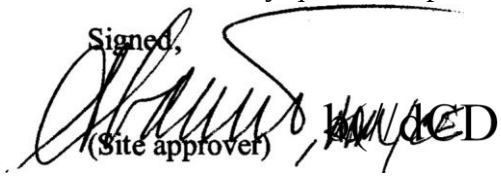
Dear CUHSR Committee Chair,

Please note that Vianney Uzoma, Bradley University graduate student has permission of Home Care Senior Services to conduct or continue quality assurance project activities at our healthcare facility for his/her project. "Improving Transitional Care Management in Home Care Patients"

While the healthcare community is actively fighting against COVID-19, we understand that quality assurance is critical to patient safety and overall improved patient health outcomes. Given that understanding, we will continue to follow the appropriate organizational and CDC guidelines when and if (student name) may have human to human interaction throughout the implementation period of the project. Human interaction will be limited when possible and even replaced in some situations with remote or virtual alternatives.

If there are any questions, please contact my office.

Signed,



(Site approver)

Appendix B

SunnyBrook Draft Form

SUNNYBROOK AND WOMEN'S COLLEGE
HEALTH SCIENCES CENTRE

DRAFT

PROGRESS NOTES

DATE YY/MM/DD	NOTES TO BE SIGNED BY PHYSICIAN	PATIENT IDENTIFICATION
	Medication Allergies/Intolerances:	

PRE-ADMISSION MEDICATION LIST

PRESCRIPTION MEDICATIONS				On Admission		
Medication Name	Dose	Route	Frequency	Continue	Change	Hold or D/C
NON-PRESCRIPTION MEDICATIONS (e.g., OTC's, herbals, others)						

Source of Medication List (check all used):	Recorded/ Updated by:	Date:
☐ Review of medication vials or patient medication list		
☐ Patient/family recall		
☐ Pharmacy [Name: Tel:]		
☐ Medication Administration Record from another facility		
☐ Other (specify):		

Pharmacist's Clarification of Pre-Admission Medications Required: Yes No
(If Yes, please indicate on admission orders)

8066108 (Rev. 09/03)

Appendix C

A Revised Version of Sunnybrook Draft Form for Medication Reconciliation

Patient Name:	Allergies:

Pre-admission				Admission	
Medication name	Dose	Frequency	Route	Continue	Missing
Sources: Please circle appropriately. Discharge facility. Pharmacy. Med bottle. Caregiver. Other source					

Appendix D

Chart Audit Tool/Table

Patients	Admission Date	#Missing Medication

Appendix E

Relative Frequency Distribution Table for Missing Medications

Total # missing medication	Frequency	Relative frequency (%)
Pre-intervention		
Post-intervention		
Total		

Relative frequency formula = frequency divided by the total frequency x 100

Appendix F. Implementation Timeline

Week 1: 05/19/2020 – 05/22/2020: Video conference with CEO of the organization and the team members for the project. The DNP project lead discussed about meeting schedule that will be convenient for everyone. Discussed possible impact of covid 19 on healthcare. Discussed about the admission process and the use of the medication reconciliation form. Admission nurse discussed possible barriers that might limit her role due to the coronavirus. DNP-Project lead volunteered to assist with admissions if need be.

Week 2: June 06, 2020. First admission. The project lead assisted with 1 admission.

Week 3-4: 06/09/2020 through 06/29/2020: The project implementation period continued during this time. The DNP project lead assisted with admissions and visited the implementation site to monitor admission progress and discussed any concerns.

Week 5: 07/06/2020 – 07/09/2020. DNP-project lead received a message from the admission nurse on 3 newly admitted patients from the hospital. The project-lead visited the project site to assist with medication reconciliation. The project-lead assisted by obtaining medication records from the pharmacy on the 3 newly admitted patients. Transportation hours included. DNP Essential VI

Week 6-7: 07/15/2020-07/30/2020. Patient admissions continued. The DNP project-lead was at the project site to monitor the admission process. Due to the multiple patient admissions, another register nurse was included to assist with admissions. The DNP project lead educated the RN about the admission process and how to use the medication reconciliation form.

Week 8: 08/04/2020-08/07/2020: The DNP-lead was at the project site to monitor progress with the implementation of the new admission process and to ensure that the medication reconciliation forms are secured to maintain patient confidentiality. Patient admissions ended on 08/06/2020.

Week 9: 8/18/2020-08/21/2020: DNP project lead met with the RN who will be completing the chart audits on missing medications for the post-implementation period. Discussed on how the process of data collection, the data to be collected to ensure that patient privacy or confidentiality. 8/21/2020: Met with the LPN who will be completing the chart audits on missing medications for the pre-intervention period. Because it required a random sampling, discussed on the charts to be selected for auditing which was set for admissions that occurred between January 2019 to April 2020.

Week 10-11: 8/26/2020-09/10: Data collection continued. Met with the LPN and RN twice a week at the project site to monitor chart audits, ensure that patient confidentiality is demonstrated, and address any concerns.

Week 12-13: 09/16/2020-09/26/2020: Data collection phase continued. The DNP-project lead was at the project site 2 times a week to monitor the chart audit progress, discussed about keeping the records secured in the designated cabinet at the project site. Data collection ended on 09/26/2020.

Week 14: 09/28/2020. The DNP project lead visited the project site to collect the implementation tools and post project implementation data that would assist with project implementation analysis.

Week 15-week 21: DNP project lead worked on the project result analysis.

Week 22: DNP-project lead completed the final project presentation and submitted a copy of the project to the Doctoral Project Repository.

Week 24: The DNP project lead plans to present the result of the project to the shareholders of the home care agency.

Appendix G

IRB Project Approval

DATE:	19 APR 2020
TO:	Vianney Uzoma, Judith Walloch
FROM:	Bradley University Committee on the Use of Human Subjects in Research
STUDY TITLE:	Improving Transitional Care Management in Home-Care Patients
CUHSR #:	20-018-Q
SUBMISSION TYPE:	Initial Review
ACTION:	Approved
APPROVAL DATE:	19 APR 2020
REVIEW TYPE:	Quality Assurance

Appendix H

Cost Analysis

Items	Estimated Cost
Copy paper x 500 sheets	$4.47
HP 63 Ink cartridge black x 1	$20.89
DNP Project Lead Transportation Expenses:	
Week 2 through week 4	$50.00
Week 5	$65.00
Week 6 to week 7	$35.00
Week 8	$15.00
Week 9	$15.00
Week 10 to week 11	$30.00
Week 12 to week 13	$30.00
Week 14	$15.00
Admission Nurse Transport Expenses:	
Week 2 through week 4	$25
Week 5	$10
Week 6 to week 7	$20
Week 8	$10
RN (Chart Audit Post Intervention Transportation)	
Week 1	$15
Week 2	$15
Week 3	$15
Week 4	$15
LVN (Chart Audit Pre-Intervention Transportation)	
Week 1	$10
Week 2	$10
Week 3	$10
Week 4	$10
Total	**$445.36**