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Improving Veteran's Care Outcomes with the Implementation of Care Coordination

Katrina Ann Canady
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College of Nursing

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Katrina Ann Canady

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Walden University

2023

Abstract

Improving Veteran's Care Outcomes with the Implementation of Care Coordination

by

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MS, Walden University, 2012

BSN, Medical College of Georgia, 2009

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

July 2023

Abstract

Astute care coordination is essential to eliminating fragmented care, duplication of services, medication errors, and unnecessary emergency rooms visits. This Doctor of Nursing practice project was a quality improvement (QI) initiative that addressed the gap in practice regarding RN care managers who were not consistently performing care coordination as outlined by the office of community care at the project site. The purpose of the project was to evaluate the effectiveness that an educational intervention had on the RN care managers' abilities to perform care coordination. The care coordination model (CCM) served as the project framework because it provides a systematic approach to coordination and transition of care. Evidence for the project was obtained from the Medline, PsycINFO, Science Direct, Cochrane, and Cumulated Index to Nursing and Allied Health Literature databases. A modified care coordination tool was used to evaluate care coordination activities and outcomes 3 months prior to the educational intervention and 3 months after. The preintervention data revealed lack in care coordination activities and outcomes, such as timely follow up and notification to the patient's primary care team. The postintervention data revealed an increase in timely follow up and notification to the primary care team. Thus, the project showed an increase in the care coordination process as outlined in the CCM. The project contributes to positive social change by implementing the CCM guidelines to increase the RN care managers' abilities to perform care coordination, which will improve health outcomes, enhance patient experience, and decrease health care expenditures.

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Dedication

This educational paper is dedicated to my late husband, four adult children, and my best friend for their support and understanding throughout this journey. They all served as cheerleaders whenever times got tough. Thank you for always encouraging and believing in me and speaking success through your words of affirmation.

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Section 1: Nature of the Project

Introduction

Lack of care coordination can contribute to fragmented care, duplication of services, medication errors, and poor patient outcomes. It can also lead to increased emergency room visits, avoidable hospitalizations, readmissions, and increased medical expenditures (Swan et al., 2019). In 2019, ineffective care coordination resulted in $25 to $45 billion in unnecessary medical expenses (Swan et al., 2019). Veterans diagnosed with moderate and complex health care needs use services provided within the Veterans' Health Administration (VHA) and non-Veteran Affairs (VA) hospitals. These patients rely on RNs or VA care managers to provide care coordination essential to ensuring they receive the care needed, mitigate inconveniences, and avoid unnecessary duplication of services. In addition, effective care coordination reduces missed appointments, medication errors, increased emergency room visits, and unplanned readmissions (Axon et al., 2018; Gellad et al., 2017; Nguyen et al., 2017; Rinne et al., 2017; Stroupe et al., 2017). The local nursing problem was that the project site did not know how effective an educational intervention and workflow revision would be on improving the RN care managers' ability to provide care coordination. The positive social change anticipated to occur due to increased care coordination provided by RN care managers included improved health outcomes for the veteran population, enhanced patient experience, and decreased per capita expenditure on health care. In Section 1, I introduce the issues and

challenges with care coordination and provide the problem statement, purpose of the

project, nature of the doctoral project, and the project's significance.

Problem Statement

Care coordination is essential in the VA because it enables veterans with no or

minor medical issues, chronic medical illness, or complex psychosocial conditions to

access health care services from VA and non-VA health care providers (Cordasco et al.,

2019). At a department of the project site VA facility located in the southeastern United

States, care coordination is provided by an integrated health care team employed at an

offsite service entitled Care in the Community (CITC). The teams are comprised of RN

care managers and advanced medical support assistants (AMSAs). AMSAs must

coordinate the administrative components of care, specifically scheduling, preparing, and

faxing records as well as closing consults. On the other hand, RN care managers must

coordinate clinical aspects of care, including performing follow up with veterans after

their appointment with non-VA providers to coordinate additional clinical care (Cordasco

et al., 2019). The RN care managers at the project site indicated that they understand their

role; however, they were performing administrative tasks that should be completed by the

AMSAs, decreasing their time to achieve care coordination. Project site nurses also

reported that they lack adequate knowledge of effectively using tools to enhance

coordination.

To close this gap in practice, RN care managers and AMSA received training

regarding role clarity, the principles of care coordination and the care coordination model

(CCM) model, and how to utilize HealthShare Referral Manager (HSRM) effectively. In addition to training, the workflow was revised to ensure the RNs completed clinical tasks and AMSAs completed administrative tasks. The local nursing problem was that the project site did not know how effective the educational intervention and workflow revision would be on improving RN care managers' ability to provide care coordination.

Care coordination becomes increasingly crucial when veterans receive care from multiple providers (Cordasco et al., 2019). It is estimated that approximately 50% of veterans are dual users of health care services from VA and non-VA facilities (Huang et al., 2018; Miller et al., 2019). The project facility has approximately 63,000 enrolled veterans eligible to receive care. In 2020, the CITC service line received 53,446 community care consults, with 2,339 triaged as complex and 3,900 triaged as moderate. According to guidance from the Office of Community Care (OCC) at the project site, veterans seen with moderate consults must be contacted within 7 days after their appointment with non-VA care providers. Veterans with complex consults must be contacted within 2 days of a visit with the non-VA provider. To enhance continuity of care, RN care managers must provide a warm handoff to the veteran's primary care team at the end of the episode of care. However, veterans with moderate and complex consults at the project site were not receiving timely follow-up care or was a warm handoff being provided to their primary care team. Although initiatives to assist with care coordination had been implemented, adopting the RN role in care coordination continued to be an issue. Due to the complexity of the care veterans   receive in the community, it is crucial

that the RN care managers can provide care coordination; therefore, it was imperative to determine if the educational intervention enhanced the RN care managers' ability to perform care coordination.

According to Ayele et al. (2020), continuity of care becomes increasingly challenging when veterans receive care in various settings. The lack of continuity further contributes to fragmented care, health care information loss, and cumbersome treatment regimen. Swan et al. (2019) reinforced the need to educate RN care managers in evidence-based care coordination because of their crucial role in helping patients transition across multiple health care settings. Additionally, the enactment of the Affordable Care Act (ACA) of 2010 underpinned the necessity to improve the health care delivery system by providing quality and cost-effective care (Cleveland et al., 2019). ACA encourage nurses to continue to practice innovation, transformational leadership, and care coordination to contain cost, increase quality care, and improve access (Cleveland et al., 2019). The QI project is significant to the nursing practice as it supports care coordination as a significant concept in improving healthcare.

Purpose

According to the RN care managers at the project site, their ability to effectively perform care coordination was limited by their involvement in administrative tasks that AMSAs should have completed. Additionally, RN care managers had limited knowledge of the care coordination tasking functionality in the HSRM, which affects the efficacy of care coordination, causing a significant gap in nursing practice. To mitigate the issues, an

educational initiative was provided to the RN care managers and AMSAs. The educational intervention addressed the distinction between the roles of RN care managers and AMSAs and provided information on effectively using HSRM in the practicum setting. In addition, the workflow was redesigned to ensure RN care managers were able to complete clinical task and AMSAs were able to complete administrative task. In this doctoral project, I discuss how the gap in practice was addressed by assessing the educational intervention to determine its effect on care coordination.

The practice-focused question that guided this project was: What is the effectiveness of the educational intervention that focused on clarifying roles, enhancing knowledge of CCM and HSRM, and redesigning the workflow for improved care coordination performed by RN care managers in the VA setting? The project aimed to determine the efficiency and impact that the educational intervention had on the RN care managers' ability to perform care coordination for consults in an outpatient setting at a VA medical center. I evaluated care coordination with an evidence-based care coordination measurement tool (CCMT). The CCMT was used to measure the care coordination activities to determine if the educational intervention enhanced the RN care managers' knowledge and mitigated the challenges of care coordination, including the inability to fill non-VA prescriptions, transferring medication documentation, and ensuring veterans receive timely follow-up care with internal primary care VA providers.

The doctoral project had the potential to address the gap in practice because an evidence-based tool was used to determine the effectiveness of an educational

intervention. The project is significant to the nursing practice because RN care managers play an integral role in the improving this care modality. Effective care coordination is essential in fostering patients' positive clinical outcomes, decreasing health care expenditure, increasing provider satisfaction, and enhancing the veterans' experience of care (Cordasco et al., 2019; Swan et al., 2019).

Nature of the Doctoral Project

In this QI project, I utilized primary data that was supported by published evidence. The published evidence was derived from peer-reviewed journal articles, such as systematic reviews, quantitative studies, and evidence-based guidelines, retrieved by searching electronic databases accessible through the Walden University library, including Medline, PsycINFO, Science Direct, Cochrane, and Cumulated Index to Nursing and Allied Health Literature from 2017 to 2021. Additional sources of evidence included the OCC field guide regarding care coordination; the VA's OCC website; and data from the Veteran Health Support Service Center, an internal VA data source. The primary data included components of care coordination as outlined by guidance received from OCC, such as evidence of follow-up care in 2 days for complex consults and 7 days for moderate consults, medication prescriptions, medical equipment, medication documentation, and a warm handoff to the veteran's primary care provider. I retrieved the data from the Computerized Patient Record System (CPRS), which is the project site's electronic health record (EHR) documentation system. In addition, the participants' demographic information, including age, sex, and disease morbidities, was collected. Pre-

and postintervention data were also collected from the EHRs and imported into Statistical

Package for the Social Sciences (SPSS), Version 1.0.01406. I evaluated the pre- and

postintervention data using comparative descriptive statistics.

I collected data on care coordination using an evidence-based care coordination

measurement tool (CCMT) created by Boston Children Medical Center (see Antonelli &

Antonelli, 2004). Originally created to determine care coordination for pediatric patients,

the CCMT was modified to assess care coordination for the moderate and complex OCC

consults, including the care coordination components retrieved from the OCC field guide,

such as evidence that a care coordination note was completed, veterans received follow-

up calls within 2 days of attending appointments for complex consults and within 7 days

for moderate consults, coordination with medical equipment, medication, and evidence

that a warm hand off was provided to the primary care team. Fifty moderate and complex

cardiology and pain management consults that were completed before the educational

intervention were evaluated using the CCMT. The same category of care consults

completed after the educational intervention were also evaluated using the same CCMT.

The pre- and postintervention data were compared to determine the impact the CCM and

HSRM educational intervention had on care coordination. I anticipated that the

educational intervention would enhance care coordination amongst veterans at the project

site.

The purpose of this doctoral project was to determine the efficiency and impact

that the educational intervention had on the RN care managers' ability to perform care

coordination for consults in an outpatient setting at a VA medical center. The educational intervention was focused on role clarity for the RN care managers and AMSAs, the CCM, and the use of HSRM. I anticipated that the educational intervention will improve care coordination efficiency at the project site. Enhancement of care coordination will address the gap in practice by ensuring RN care managers have the knowledge and skills to provide care coordination, thus promoting safe care, decreasing health care costs, enhancing provider satisfaction, and improving the clinical outcomes of patients in the project setting (see Cordasco et al., 2019).

Significance

The RN care managers are the first core stakeholders affected by addressing the identified local problem. Although the CCM was implemented at the project site in September 2019, a needs assessment helped identify overlap between the roles of the RN care managers and AMSAs as well as their inadequate knowledge regarding the use of HSRM, resulting in ineffective care coordination. The RN care managers' role is essential in care coordination because they deliver care founded on patients' goals, values, preferences, and needs (Swan et al., 2019). Eliminating the role confusion between RN care managers and AMSAs and increasing their knowledge of the HSRM is anticipated to improve care coordination (Izumi et al., 2018).

The second core stakeholders are the veterans because ineffective care coordination results in adverse health care outcomes. For example, Greenstone et al. (2019) found that veterans who receive care from providers outside the VA encounter

multiple care transitions compared to those who receive services entirely at the VA medical center. The numerous changes increase veterans' risk of missing necessary scheduled appointments and confusion regarding the next steps in care (Greenstone et al., 2019). After non-VA visits, VA providers also lack pertinent health records for follow-up care, resulting in duplication of services that can cause medication errors and unplanned hospital readmissions (Axon et al., 2018; Gellad et al., 2017; Nguyen et al., 2017; Stroupe et al., 2017).

The project has implications for nursing practice because enhanced care coordination supports achieving the quadruple care aim, and specifically, the burden of providing care to patients with multiple comorbidities or multiple chronic conditions (MCCs), which is much higher in the veteran population than among non-veteran individuals (see Swan et al., 2019). Balbale et al. (2016) identified that 30% of the veteran population suffers from MCCs and, subsequently, experience less than favorable health care outcomes, disability, or death. Veterans with MCCs account for two thirds of the VA department's total health care expenditure, and this amount is projected to steadily increase because of the rising aging population and longer life expectancy (Balbale et al., 2016). In addition to the economic impact, MCCs adversely affect the veterans' quality of life (Balbale et al., 2016).

The findings of this project are transferable to other VA CITC settings in the United States, especially those experiencing ineffective care coordination. The Health Services Research and Development Service (HSRD; 2020) completed a publication brief

that identified and evaluated strategies to improve healthcare for veterans that utilized VA providers and providers in the community. HSRD surveyed over 2,000 random veterans over the course of 2017–2018 to determine their perceptions of the hassles with using providers in the community and the VA. The issues they reported included long wait for appointments, poor communication between providers, decreased treatment information, lack of medical advice, and difficulties getting questions answered. The results also revealed that dual users experienced significantly more hassles compared to veterans that received their care entirely from the VA. The study further illuminated the need for care coordination within the VA population (HSRD, 2020).

The current project's findings have the potential to result in positive social change for veterans, nurses, and the VA system. Providing veterans with clinical care coordination can ensure safe and timely care that will optimize the veterans' quality of life. This QI project will assist RN care managers in performing their indispensable care coordination role (see Izumi et al., 2018; Swan et al., 2019). Enhanced coordination of the care provided to veterans can improve care outcomes and reduce the economic burden on the VA and other providers within the community (Balbale et al., 2016).

Summary

The local problem under study involved the RN care managers' lack of knowledge regarding the use of essential tools that enhance care coordination. To mitigate the RN care managers' lack of knowledge, an educational intervention was provided. The purpose of the project was to determine the efficiency and impact that the

intervention had on the RN care managers' ability to perform care coordination for consults in an outpatient setting at a VA medical center. The practice-focused question was: What was the effectiveness of the educational intervention that focused on clarifying roles, enhancing knowledge of CCM and HSRM, and redesigning the workflow on improving care coordination performed by RN care managers in the VA setting? This QI project is significant to nursing practice because it can improve care coordination by assessing the educational intervention aimed to eliminate the overlap in the roles of RN care managers and AMSAs and enhance their knowledge about the HSRM. Improving RN care managers' ability to provide care coordination could decrease health care expenses due to the possible duplication of services and improve the follow-up care between veterans and providers internal and external to the VA. In the second section, I will discuss the background and context of the project and describe the model and concepts used in the project as well as their relevance to nursing practice. The section will also contain an explanation of the role of the DNP student and the project team.

Section 2: Background and Context

Introduction

RN care managers at the practice site identified that they were performing administrative duties and lacked knowledge of how to effectively utilize HSRM. In response to that need, I developed and provided an educational intervention that focused on role clarity, principles of CCM, redesigning the workflow, and use of HSRM. The purpose of the project was to determine the efficiency and impact of the educational intervention on the RN care managers' ability to perform care coordination for consults in an outpatient setting at a VA medical center. In Section 2, I will discuss CCM and its relevance to nursing practice, the local background and context, and the roles of the DNP student and project team before concluding with a summary.

Concepts, Models, and Theories

The CCM contains systematic approaches for fostering care continuity and transition (Duan-Porter et al., 2020). The VA OCC's CCM policies and directives guided this project. The VA OCC's CCM is a model that supports the delivery of patient-centered care and underpins the development of relationships between veterans and their clinical care teams (Duan-Porter et al., 2020; Greenstone et al., 2019). The VA OCC's CCM comprises six concepts: (a) the model supports team-based care that is founded on a structure of practice leadership, partnership, and care team responsibilities; (b) the model supports the need to know and manage patients through data collection, medication reconciliation, and evidence-based decisions; (c) the model supports the need

to provide patients with access to clinical advice and reinforce the significance of continuity of care; (d) the model promotes care management using protocols that proactively identify the patients' needs and promote timely management of conditions; (e) the model supports care coordination and care transitions that ensure clinicians share information promptly and manage referrals, decreasing expenditure, confusion, and inappropriate care; and (f) the model fortifies performance measurement and the facilitation of QI (Duan-Porter et al., 2020; Greenstone et al., 2019).

The VA OCC's CCM aims to improve patient experience and enhance the quality of care delivered. Mohr et al. (2019) posited that improving relational coordination between VA care providers and specialists could enhance the veterans' experience of care. Similarly, Rinne et al. (2019) supported that the CCM helps mitigate the duplicative, missed, or delayed care that negatively affects the veteran's safety. The CCM further supported the DNP project goals because it explains the RN care manager role as a care coordinator in the VA system. According to the model, the RN care manager role includes making referrals, developing the veterans' individualized care plan, and managing the exchange of health information. The CCM concepts support the use of protocols to identify veterans with complex health care issues, thus supporting the need for them to receive care from primary care physicians, nurses, or a range of other specialists (Duan-Porter et al., 2020; Greenstone et al., 2019). Care coordination for veterans with medically complex conditions helps improve the care outcomes (Zulman et al., 2019). The CCM's concepts also assist with the prevention of veterans missing

scheduled appointments and mitigating the confusion in the care transition process

through sharing pertinent medical information (Zulman et al., 2019). Lastly, the use of

the CCM can address the gap in nursing practice identified at the project site by

improving veterans' care outcomes through the enhancement of care coordination.

Figure 1 depicts the stages of the CCM.

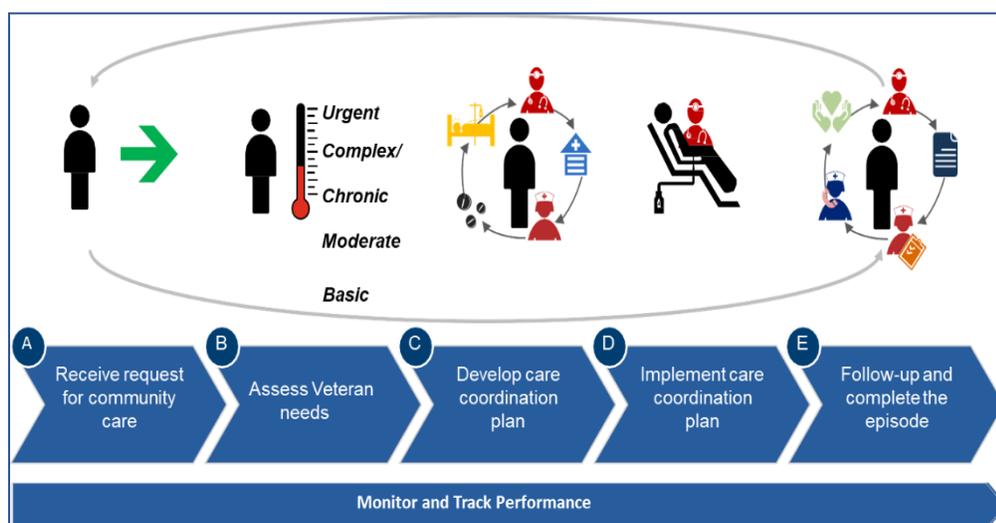**Figure 1**

CCM Stages of Care Coordination

Figure was copied from an intranet source at the project site

Definition of Terms

AMSAs: Professionals who provide expert and specialized administrative patient

support while collaborating with an interdisciplinary team in the care delivery model.

Community care: The service veterans receive through community providers when the VA cannot offer them (U.S. Department of Veterans Affairs, 2021a).

Care coordination: A multidimensional concept that supports effective communication, underpins the safe care transitions, and links health care systems and communities, facilitating the achievement of the patient's goals (De La Pena & Start, 2019).

Care coordination plan (CCP) note: A note created by RN care managers or AMSAs depending on the veteran's level of care. The note maybe used to document navigation and scheduling, education, case and disease management, social services, and follow-up appointment.

CCMT: A tool that health care providers use to collect information on care coordination (Vaz et al., 2018; Zanello et al., 2017).

Complex consult: A consult that requires preventative services, monitoring, and follow-up within 2 days after the first appointment as per OCC guidance.

HSRM: A web-based system used in VA facilities to create and submit referrals and authorizations to providers in the community (U.S. Department of Veterans Affairs, 2021a).

Moderate consult: A consult that requires preventative services, monitoring, and follow-up within 7 days after the first appointment per OCC guidance/

OCC: An office of the VA responsible for administrating health benefits programs for veterans and their families (U.S. Department of Veterans Affairs, 2021a).

OCC Field Guide: A guide created by the VA OCC to assist staff with care coordination and referrals.

Primary care patient care aligned team (PACT): A team-based care model used within the VA to provide care in an ambulatory care setting. The team consist of a provider, RN, licensed practical nurse, and a medical support assistant (Primary Care Analytics Team, 2021).

RN care managers: Employees at VA facilities responsible for clinical care coordination.

Relevance to Nursing Practice

In the United States, the enactment of the ACA of 2010 reinforced the need to improve health care delivery by enhancing access to quality care (Dworsky et al., 2018). Although the enactment of the Choice Act of 2014 and VA Maintaining Internal Systems and Strengthening Integrated Outside Networks (MISSION) Act of 2018 are concordant with the ACA's initiative to increase veterans' access to care, the policies have resulted in fragmentation of treatment, medication errors resulting from drug interactions, pharmacological duplications, and delays in care (Greenstone et al., 2019; Mattocks et al., 2019). In 2016, the VA Community Care and Integrated Case Management was launched to support the collaboration between nursing services and VA Offices of Care Management and Social Work. The purpose of this collaboration was to reinforce the standardization and coordination of care services in VA points of care and facilities (Greenstone et al., 2019).

Care coordination is considered a core responsibility of the RN care managers because it supports the delivery of quality care, specifically among veterans with MCCs (Greenstone et al., 2019; Mohr et al., 2019; Zulman et al., 2019). In their systematic review, Duan-Porter et al. (2020) identified that veterans with MCCs who received care coordination are less lightly to be hospitalized and had fewer visits to the emergency departments. RNs can facilitate care coordination for patients with complex and chronic illness, but barriers, such as lack of role clarity and definition across the care continuum and limited interoperability of EHRs, in the health care system hinder the process (De La Pena & Start, 2019; Swan et al., 2019). Similarly, at the project site, the RN care managers indicated that they spent a significant amount of time performing administrative roles intended for AMSAs. Additionally, the RN care managers indicated that they have limited knowledge of the HSRM. These reported issues were the catalyst for the educational intervention in the project.

Conner et al. (2020) completed an 18-month nurse led care coordination study involving veterans with Parkinson's disease. They used the evidence-based Care Coordination for Health Promotion and Activities in Parkinson's Disease assessment model to provide care coordination activities to this population of patient. Chart reviews revealed 27 care coordination activities were provided with the most used being counseling and emotional support, medication management, and coaching. Care coordination was measured using three criteria: referrals to providers and services, care managers recommendations, and warm handoff methods. Data were further analyzed

utilizing descriptive statistics. Their analysis revealed the Care Coordination for Health Promotion and Activities in Parkinson's Disease assessment intervention can be adopted in other health conditions, control cost through identifying and addressing risk factors, and provide a dependable care environment for the vulnerable population. Their findings provide additional proof that care coordination is essential in improving quality care and decreasing health care expenditures.

Swan et al. (2019) recommended that RN-led care coordination helps improve the patients' clinical and functional wellness. Strategies recommended to mitigate the issues that hinder care coordination include defining the RNs' roles, improving their knowledge of care coordination, and supporting the effective adoption of the CCM (De La Pena & Start, 2019). The current project is relevant to the gap in nursing practice because it focused on facilitating the effective adoption of the CCM and improving veterans' health outcomes and experiences through the enhancement of care coordination.

Local Background and Context

The VA is an integrated health care system that provides approximately 9 million veterans with access to quality care (Greenstone et al., 2019). An increased prevalence of veterans with complex and MCCs has been associated with access to care and scheduling issues, so in 2014, the U.S. Congress enacted the Veterans Choice Program (VCP) to mitigate these issues (Duan-Porter et al., 2020). The VCP allows veterans to receive care from non-VA clinicians for services not offered within the VA. In 2018, the VA implanted the MISSION ACT that is congruent with the VCP to expand

care for veterans by providing them with access to the quality care offered at the health

care facilities or point of care near them geographically (Greenstone et al., 2019).

Since the adoption of the VCP and MISSION Act, approximately 2 million

veterans, which is approximately 25% of the population enrolled in VA care, have

received care from non-VA providers in the community level (Mattocks et al., 2019). I

conducted the current project at a VA facility in the southeastern United States.

Approximately 50% of the veterans treated at the project site facility received care from

non-VA providers in 2019. More than 59,000 community care consults were received and

processed at the project site in fiscal year 2019. Due to the MISSION ACT, CITC

received over 67,000 consults in fiscal year 2020, and of that amount, 6,217 were triaged

as moderate and 5,499 were triaged as complex. The referrals triaged as moderate, and

complex require clinical care coordination from CITC RNs. There were issues in the

implementation of the CCM at the project site, specifically RNs performing

administrative tasks that should be conducted by AMSAs. When RN care managers

perform administrative tasks, it limited their ability to perform care coordination.

Although the CCM that underpins the use of a clinical triage tool and an automatic

computerized referral system has been adopted at the project site, RN care managers did

not use the HSRM to track and follow up on consults because of their limited knowledge,

which was the catalyst of the educational intervention. The purpose of the current project

was to determine the efficiency and impact of the educational intervention on the RN care

managers' ability to perform care coordination for consults in an outpatient setting at a VA medical center.

Role of the DNP Student

In July 2020, I accepted employment as the chief nurse of the Care in the Community (CITC) department. The role was new to me because most of my experience had been in the Primary Care Division. After serving in the role for a few months, CITC nursing leadership began to discuss the RN care managers' role in relation to care coordination. Upon further review and observation, I noticed that there was a lack of differentiation between the roles of RN care managers and the AMSAs because both roles were completing administrative tasks at the basic, moderate, and complex levels of care. After performing a comprehensive review, I discovered that the OCC Field Guide listed specific guidelines regarding care coordination and differentiated the administrative role of the AMSAs from the RNs' clinical duties. The RNs were not performing their care coordination roles, which supported conducting the needs assessment.

The leadership team and the RN staff at the project site surmised that the issues in care coordination could be associated with the lack of time for RN care managers to perform their clinical roles because of the administrative tasks they were taking on and their limited knowledge about the HSRM. As chief of the CITC department, my span of control includes all clinical and administrative aspects of the care of veterans, including quality improvement. My role in the project was to create awareness about the project itself, apply for Walden University Institutional Review Board approval 07-15-22-

0189161 to conduct the study, collect and analyze data, and disseminate the project findings. My motivation to conduct this project was to mitigate the identified gaps in practice that are adversely affecting veterans' outcomes. Swan et al. (2019) defined the role of the RN care manager in care coordination as being aligned with improving quality, safety, and other health care reform initiatives. Thus, I anticipated that addressing the identified issues would foster adherence to the mandated standards in the OCC Field Guide and ultimately promote effective care coordination.

The data was collected and analyzed in an objective manner. Therefore, the data collection process lacked bias. Realizing that my current position had potential to cause bias, I discussed the project idea and feasibility with my associate director of patient care services (ADPCS) and a mentor who is doctoral prepared, and both supported the projects feasibility. According to the Essential of Doctoral Education for Advanced Nursing Practice Essential II (2006), a Doctoral of Nursing Practice student must be proficient in the qualities of organizational and system leadership to implement and sustain changes at the organizational level. My experience as chief nurse has been an asset in the implementation of the required changes. The change is further supported by the CITC and the facility nursing leadership as both have a vested interest in the project and agree that enhancing the care of the Veterans through effective care coordination is essential.

Role of the Project Team

The project team will be composed of the nursing leadership at the practicum setting. The leadership team includes me, the nurse manager, assistant nurse manager, and the QI nurse. The nursing leaders' roles will be to collaborate with me, the DNP project leader, to assess the comparison and intervention and data. The nurse manager and assistant nurse manager will assist with examining moderate and complex consults prior to and after the educational intervention. Utilizing the CCMT as a guide, they will collect descriptive data on 25 moderate and 25 complex consults each. Consults processed prior to the education will be separated from consults processed after the education. The QI nurse provided the initial educational intervention to the RN care managers and AMSAs. He specializes in the utilization Microsoft Power Business Intelligence software, which will be utilized to display data. Because of his expertise, the QI nurse will assist with gathering and de-identifying consult data and compile it via power BI. All team members will serve as subject manner experts as they have in-depth knowledge on OCC requirements and significance of CCM as it relates to care coordination. Their assessment and feedback will be instrumental in the data collection process. Project team members have a vested interest in improving the quality of care provided to the Veteran population.

Summary

In response to RN care managers completing administrative task in lieu of providing care coordination, the facility QI nurse completed an educational intervention

which focused on role clarity, principles of CCM, workflow revision, and how to use

HSRM. The DNP project was guided utilizing the CCM care model. CCM model fosters

care coordination by promoting patient centered care, developing relationships with care

teams, and managing care via data collection. In addition, the model promotes seeking

clinical advice, the use of protocols, sharing information amongst clinicians, and utilizing

performance metrics to improve quality. The model supports the DNP project goals of

improving care coordination by optimizing the role of the RN care manager. Applying

the VA OCC CCM is anticipated to support the time-based care, effective management of

patients, and enhanced care coordination. The proposed project is relevant to nursing

practice because it focuses on mitigating the issues in care coordination that could

potentially result in adverse outcomes among Veterans. The enactment of the ACA,

Mission Act, and the VCP further enhanced the need to improve healthcare quality

through care coordination. Fifty percent of Veterans enrolled at the practicum receive

care from non-VA providers. The site received over 67,000 consults in Fiscal Year, an

increase from 59,000 from Fiscal Year 2019. My role in the DNP project was to evaluate

the effectiveness of the educational intervention aimed to improve care coordination,

apply for Institutional Review Board approval, and circulate project findings. To mitigate

bias data was viewed objectively and the project was vetted by senior leadership at the

facility and my mentor. The project team consisted of myself, nurse manager, assistant

nurse manager, and the quality nurse. The team was instrumental in data collection and

analysis. Project members are well versed on the significance of care coordination. In

Section 3, the practice focus question, sources of evidence, and the analysis and synthesis will be discussed.

Section 3: Collection and Analysis of Evidence

Introduction

The Agency for Quality and Research contended (2018) that care coordination is one of the six national strategy priorities. Facilities that invest in care coordination practices are equipped to improve care efficiency, access to care, population health, and health equity (Chen et al., 2020). Care coordination among veterans with MCCs is essential because they receive care from both VA and non-VA care providers. The occurrence of adverse care experiences for veterans can be associated with the complexity and fragmentation of health care services. (Izumi et al., 2018; McCreight et al., 2019). The focus in this project was to determine the effectiveness that an educational intervention that focused on role clarity, CCM, and the use of HSRM had on the RN care managers' abilities to provide care coordination at the project site. I anticipated that applying the VA OCC's CCM and collaborating with nurse leaders, AMSAs, and RN care managers at the project site would promote care coordination and ultimately improve veteran outcomes. In Section 3, I present the practice-focused question, sources of evidence, and analysis and synthesis before concluding with a summary.

Practice-Focused Question

At the project site, the CCM supports care coordination and the use of an automatic computerized referral system. Though implemented in 2019, a needs assessment revealed inefficiency in the care coordination process. The first issue identified during the needs assessment was that RN care managers were performing

administrative roles that should have been conducted by AMSAs. Performing administrative roles hinders RN care managers from performing their clinical roles. The second problem identified was the RN care managers were not using the HSRM to track and perform follow up because of their limited knowledge of the system.

The gap in practice at the project site was the lack of a distinction between the roles of the RN care managers and AMSAs and their limited knowledge in the HSRM. The purpose of this project was to determine the effectiveness of an educational intervention that focused on the RN care managers' roles, CCM, and the HSRM on care coordination. Therefore, the practice-focused question guiding the project was: What is the effectiveness of the educational intervention that focused on clarifying roles, enhancing knowledge of CCM and HSRM, and redesigning the workflow on care coordination performed by RN care managers in the VA setting? The key aspects of the project were AMSA, care coordination, CCMT, HSRM, and RN care managers.

Sources of Evidence

The source of evidence used in the project were literature searches in peer-reviewed journals that included systemic reviews, qualitative studies, and evidence-based guidelines. The scholarly databases searched were Medline, PsycINFO, Science Direct, Cochrane Library, Walden University and Cumulated Index to Nursing and Allied Health Literature. The search results were limited to those published between 2014 to 2021. The keyword search terms were *veteran, care coordination, care/case management,* and *community*. The search yielded 356 articles, of which 45 articles were utilized in the

current project. I did not include the remaining articles found because they lacked

information relevant to the purpose of this QI project. Other evidence sources included

the OCC Field Guide regarding care coordination, OCC websites, and the VA databases

and performance metric database entitled Veterans Integrated Support Service Center.

Inclusion criteria included peer-reviewed articles or journals, full-text articles, and only

journals written in English. Exclusion criteria included journal articles that were case

studies, editorials, or were not peer reviewed. I obtained additional information from

informal interviews with leaders within the outpatient setting, frontline staff, the quality

nurse, and the program analyst. The results obtained from the literature and informal

interviews with frontline staff provided me with information about the need for care

coordination and potential adverse health care outcomes for veterans, including a

decrease in care quality, an inability to manage symptoms timely, and an increase in

medication errors (see McDonald et al., 2019). The evidence sources further supported

the need for this QI project and assisted me in addressing the practice-focused question.

The comparative and intervention sources of data in this project were queried and

analyzed utilizing the CCMT and CPRS. The CCMT is an evidence-based tool used to

measure care coordination activities and outcomes. The intervention data included

veterans' demographic information that was retrieved from the CPRS. In addition to

demographic information, I utilized the CPRS to retrieve care coordination information

that included the type of consult, moderate or complex, evidence of care coordination

activities, follow-up care, and a warm hand off to the PACT as outlined in the OCC Field

Guide (see Primary Care Analytics Team, 2021). The CCMT was used to determine the

distinction in role clarification and provide evidence of an increase of CCM knowledge,

use of HSRM, and if redesigning the workflow enhanced the RN care managers' ability

to complete care coordination activities. I anticipated that data collected before the

educational intervention would reveal that both RN care managers and AMSAs were

completing administrative tasks that directly attributed to lack of role clarity. I also

anticipated that there would be evidence that RN care managers were not documenting

care coordination activities as required in the CCP note and outlined in CCMT. In

addition, it was anticipated that the retrospective data would not reveal that a warm hand

off to the primary care team was taking place as outlined the OCC Field Guide. The

evidence that was collected was concordant with the project's purpose because analyzing

the data was anticipated to help mitigate the gap in practice. The DNP team data analyst

assisted with querying data and completing the modified CCMT (see Appendix A).

Similarly, I used a data abstraction tool to capture the veterans' demographic information,

diseases/comorbidities, and consult information retrieved from the CPRS (see Appendix

B).

     I anticipated that comparing the preintervention and postintervention data would

help determine whether improved care coordination would ultimately result in enhanced

outcomes for veterans. I expected that the postintervention data would reveal an increase

in RN care managers completion of the CCP note and use of HSRM. The data

comparison should also demonstrate that RN care managers increased their knowledge of

the CCM after the intervention, which will further enhance care coordination amongst their patient population.

I collected data on care coordination using a modified version of the CCMT. As previously noted, the CCMT tool was used to gather data specific to care coordination needs, activities, and outcomes. In addition, the tool captured data related to duties performed by RN care managers and AMSAs that assisted me in delineating roles between these roles. Data was collected by me, the nurse manager, the assistant nurse manager, and the QI RN employed at the project site. The QI nurse delegates work as appropriate when working in groups and teams. Like the QI nurse, the nurse manager and assistant nurse manager possessed a clear understanding of the practice-focused question and purpose of the project because all had a vested interest in ensuring veterans receive comprehensive care coordination.

The participants were required to complete the modified CCMT using comparison and intervention data. I anticipated that using the CCMT would allow me to collect comparative and intervention data that could be used to determine whether the educational intervention had a significant effect. Antonelli and Antonelli (2004) developed the CCMT to measure care coordination. I selected the CCMT for this project because published literature has shown it as an effective tool for assessing health delivery models (see Vaz et al., 2018; Zanello et al., 2017).

Analysis and Synthesis

I collected data using the VA's EHR system, CPRS, and the OCC authorization system, HSRM. The CPRS was the primary documentation modality for veteran health care because demographics, disease comorbidities, consult type, and category data were collected. The data were recorded on the Data Abstraction Tool (see Appendix B). The CCMT is an evidence-based tool that I modified to collect and compare care coordination activities and outcomes. To ensure the intervention data were easily identified, the data was de-identified and collected utilizing Power Bi software, which tracks the number, name, and type of consult as well as the number of follow-up appointments. This assisted me with analyzing the care coordination outcomes. The comparative and intervention data were analyzed using SPSS, Version 1.0.01406. Using SPSS assisted with the descriptive statistics, frequencies, percentages, means, and standard deviation. I used SPSS to analyze the data to determine a pattern between various data variables (McEwen & Willis, 2019)

The CPRS and HSRM are considered valid because only reliable information is documented in the system. The CPRS data are utilized to make clinical decisions, thus further enhancing its validity. I anticipated that using these systems would assist with retrieving creditable data regarding demographic, medical, and consult information. No personal health information was listed on the abstraction tool to promote patient privacy. All medical records were de-identified and assigned a code that I then listed on the

CCMT and the Abstraction Tool. I used the CCMT and the Abstraction Tool to record comparative and intervention data.

Summary

The VA's EHR system of the CPRS and the HSRM served as the main data collection sources. I used the CPRS to collect patient demographics, disease comorbidities, consult type, and category of care information. The CCMT (Appendix A) was used to compare and collect care coordination outcomes and activities. To ensure data validity, veterans' information was de-identified and collected using the Power Bi software. SPSS, Version 1.0.01406 was used to analyze the comparative and intervention data. Because the CPRS and HSRM are utilized to make clinical decisions, they are considered valid data sources. I protected veterans' privacy by using de-identified coding for all medical records. To further enhance anonymity, the codes were listed on the CCMT and data abstraction tools in lieu of veterans' personal information. These tools assisted in answering the practice-focused question of determining the degree of effectiveness the educational intervention had on the RN care managers' ability to perform care coordination. In Section 4, I will discuss the finding and implications, recommendations, and strengths and weakness of the project.

Section 4: Findings and Recommendations

Introduction

Effective care coordination is pivotal for improving health care quality and patients' outcomes (Peterson et al., 2019). The role of RNs is crucial to successfully implementing care coordination initiatives. The local problem of this QI project was the lack of delineation between the roles of RN care managers and AMSAs as well as their lack of knowledge on using various modalities to assist with care coordination at a VA facility located in the Southeastern United States. Though the OCC created the CCM model, which lists specific care coordination duties, RN care managers were not completing all tasks, causing a gap in practice. The quality nurse provided an educational intervention to improve care coordination within CITC service line. The intervention included education regarding the importance of care coordination, delineating roles and responsibilities, and using functional tasking in the HSRM. The purpose of this project was to determine the effectiveness of the educational intervention and answer the following practice-focused question: What is the effectiveness of the educational intervention that focused on clarifying roles, enhancing knowledge of CCM and HSRM, and redesigning the workflow on care coordination performed by RN care managers in the VA setting?

The sources of evidence included querying medical records from the CPRS, the EHR system used by the VA, and a departmental electronic workload distribution list that allows querying completed consults from all categories. Using the electronic workload

distribution list, the quality nurse queried pre- and postintervention medical records from the cardiology and pain management categories of care.

Findings and Implications

A QI evaluation was conducted to determine if care coordination increased after an educational intervention was provided to the RN and AMSA staff in November 2021. The assistant nurse manager used a workload distribution report to query 50 consults completed 3 months prior to the educational intervention and 3 months after the intervention. The preintervention data included 25 total charts from cardiology and pain management/podiatry categories of care. I received the de-identified data via paper medical records that records included gender, problem list, and other relevant patient consult information. The data was kept in a locked cabinet in my office, and I was the only person who had access. The data will remain locked in the cabinet for 3 years. After that time, the data will be shredded along with other information that contain participants' personal health information.

Retrospective Data

Retrospective data included consults completed in August, September, and October 2021. Male patients constituted 88% of the preintervention data while female patients accounted for the other 12%. The major disease comorbidities included hypertension, congestive heart failure, coronary artery disease, diabetes mellitus, and chronic obstructive pulmonary disease. Hypertension was the most common disease

comorbidity, constituting 68% of the diseases, while chronic obstructive pulmonary disease was the least common disease.

In addition to gender and disease comorbidities, I analyzed the consult category, consult type, care coordination needs, activities to fulfil needs, outcomes, and staff completing administrative task. Per OCC guidance, a moderate consult requires care coordination and follow up within 7 days after the first appointment occurs. Complex consults require care coordination and follow up within 2 days after the first appointment. Moderate consults constituted 52% of the consults reviewed compared to complex consults which constituted 48%. Cardiology consults category accounted for 60% of the consults reviewed, while the pain/podiatry consult category constituted 40%.

The most common care coordination needs included referral and appointment management, prior authorization, and connection to community/nonmedical resources, with a 100% completion rate. The most common activities to fulfill care coordination needs included communication with internal clinic team, updating clinical charting, reviewing diagnostic test results, adding notes, form processing, and referral management, with a 100% completion rate. As expected, RN care managers were completing most of the administrative tasks, as evidenced by the preintervention data that revealed RNs completed administrative tasks at a rate of 88% compared to the AMSA staff rate of 12%. The outcome occurred data included completion of the CCP note, timely follow up after the veteran attended their first appointment and notification to the PACT, and use of the HSRM . The CCP note was completed on all 25 charts for a rate of

100%. Timely follow up, evidence of notification or a warm hand off to the PACT Team, or use of the HSRM did not occur in any of the retrospective charts.

Prospective Data

The postintervention data include consults completed in the months of December 2021, January 2022, and February 2022. The assistant nurse manager acquired and provided the de-identified data to me via paper medical records. The postintervention data included 25 charts from the cardiology and pain/podiatry categories of care. I assessed the data for gender and disease comorbidities, care coordination needs, activities, outcome occurred, and staff that completed administrative activity. The data will be kept in a locked cabinet in my office along with the preintervention data. I am the only person who had access to the data. After 3 years, the data will be shredded along with other charts that contain patients' personal health information.

Male patients constituted 92% of the chart population, while female patients constituted only 8%. Consult category, consult type, care coordination needs, activities to fulfil needs, outcomes, and staff completing administrative task were also analyzed. Moderate consults constituted 44% of the chart population, and complex consults accounted for 56% of the consult type. The cardiology category of care accounted for 76% of the charts, while the pain/podiatry category of care accounted for 24% of the charts analyzed. Comorbidity data included hypertension, congestive heart failure, coronary artery disease, diabetes, and chronic obstructive pulmonary disease. Hypertension was the most common disease comorbidity, accounting for 68% of the data

sample, while chronic obstructive pulmonary disease accounted for the least comorbidity at a rate of 12%.

The postintervention care coordination needs included referral appointments, prior authorization, and connection to the community at a frequency rate of 100% each. Activities to fill needs included patient education, communication with internal clinics, updating the clinical chart, review of diagnostic test results, development and modification of care plans, and referral management and appointment scheduling occurred at 100% frequency. The data revealed patient education occurred at a rate of 20% while development of care plan occurred at a frequency rate of 24%.

I also assessed and analyzed the CCP note completion, timely follow-up care, notification to the PACT team, use of HSRM, and staff completing administrative task (Table 3). The CCP note was completed at a rate of 100% for all postintervention charts assessed. Timely follow up to the veteran was completed at a rate of 16%, while notification to the PACT team was completed at a rate of 52%. The use of HSRM remained at 0%.

There were several noted similarities and differences between the pre- and postintervention data. The similarities in the data included the male gender constituted most of the population sample with 88% in the preintervention sample and 92% of the postintervention sample. Hypertension accounted for the most common comorbidity with a frequency of 68% in both the pre- and postintervention data. Other similarities encompassed all care coordination needs except for the development of the care plan and

patient education. The CCP note was completed at a rate of 100% in both the pre- and postintervention data.

In contrast to the preintervention data, the postintervention data revealed an increase of 16% in evidence of timely follow up and an increase of 52% in notification and warm hand off to the PACT, indicating an increase in the care coordination process as directed by the OCC.

In addition to improving care coordination, the project aimed to delineate the duties between the RN and AMSA staff and evaluate the usage of the HSRM. The data revealed RNs completed administrative tasks at a rate of 88% during the preintervention period and at a frequency rate of 84% during the postintervention period, showing only a slight decrease in RNs completing administrative tasks. Though the HSRM was used to create authorizations, there was no evidence that the tasking functionality was used in the pre- or postintervention data.

Several unanticipated limitations contributed to the lackluster results between the pre- and postintervention data. Several weeks after the initiation of the project, the nurse educator/QI nurse transitioned to a nursing position out of state. The QI nurse served as a champion and assisted with the project by serving as a resource for nurses in need of additional training. The departure of the QI nurse left the nursing staff without an educator or a champion to ensure the success of the project. In addition to the departure of the QI nurse, an AMSA from the pain management/podiatry category of care team accepted a position in another department, leaving the team without administrative

support. Realizing the workload was too extensive for one AMSA, the RN assisted with

the administrative duties until the AMSA position could be filled. The cardiology team

also received over 400 echocardiogram consults due to the departure of an

echocardiogram technician. To assist with the workload, the RNs continued to perform

administrative duties, such as uploading, faxing, and scheduling consults. The increase in

workload negatively impacted the project because it prevented the RNs on the cardiology

and pain/podiatry teams from performing their roles as care coordinators.

Astute care coordination has the potential to have a positive impact on individual

veterans, communities, institutions, and systems. Boersma et al. (2011) reported that the

veteran population over the age of 25 years old have a higher incidence of MCCs when

compared to non-veterans receiving care. Demographics from the current project show

that all veterans were over the age of 25 and most of their problem lists revealed MCCs,

specifically hypertension and congestive heart failure. Veterans with MCCs are at higher

risk for gaps in care while receiving treatment in the community, thus making a smooth

transition back to their primary care provider crucial (Axon et al., 2018). Though not

timely, the postintervention data revealed an increase in the warm handoff back to the

PACT team, which were the veteran's primary care provider. In addition to a warm

handoff, a small increase was indicated in follow-up care provided to the veterans. Axon

et al. (2018) found that chronic heart failure is a common cause of readmission and

hospitalizations amongst the veteran population. Krist et al. (2020) contended that

patients with MCCs account for 75% of the health care costs nationally and 90% of Medicare expenditure.

Veterans with MCCs, specifically heart failure, have a higher rate of dual care usage. Veterans who receive care from both the VA and other health care systems are considered dual care users. Dual care users have higher rates of utilization and less than favorable outcomes due in part to lack of care transitions, which further attributes to the already excessive economic health care expenditure burden Balbale et al. (2016). Timely follow-up care and a warm handoff allow the RN the opportunity to assess the veteran and determine the care coordination needs prior to the end of the episode of care. Brown et al. (2020) stated that health care is steadily transiting from a fee for service to a value system that emphasizes the need for health and disease promotion and prevention. The change in focus furthers solidifies the need for care coordination and transition management.

Recommendations

Greenstone et al. (2019) opined that care coordination was essential to eliminating gaps in care for veterans receiving care from providers outside of the VA; therefore, the CCM was created to provide standardized processes to care coordination employing five key principles of care: developing a personalized care plan, seamless data transitions, developing and maintaining collaborative partnerships, providing a network that support the delivery of high-quality care, and developing clearly defined roles and responsibilities. The CCM served as the theoretical foundation for this QI project and a

source for the material presented in the educational intervention given to the RN care managers and AMSAs.

To ensure sustainment of the intervention, I recommend the creation of a standard operating procedure that lists the care coordination concepts; clearly defined roles for the RN care managers and AMSAs; an explanation of the differences between the roles; an audit tool that will assess role delineation, timely follow up; evidence of a notification to the primary care team; and usage of the HSRM. Additionally, I recommend that the department adopt a standardized onboarding skills assessment form that includes care coordination concepts. Since the completion of the QI project, a new QI RN joined the department. She has been instrumental in providing additional education and creating a care coordination standard operating procedure and quick reference guide. In addition, care coordination concepts have been successfully initiated in nine additional category of care teams.

Strengths and Limitations of the Project

Strengths

The RN and AMSA were eager and willing to practice care coordination concepts as they were confident the benefits would enhance the care provided to the Veterans. The nurse manager and the assistant nurse manager were also willing to provide retrospective and prospective data and monitor the progress of the team's providing redirection when necessary. Prior to his departure, the former QI nurse played an integral role in the success of the project as he provided the initial education to the AMSA and RNs. The

project aimed to determine the effectiveness an educational intervention had on the ability for RNs and AMSA to perform care coordination responsibilities. Resources for the project included education regarding the concepts of care coordination, the use of CCMT, and a data abstraction tool. The project was cost effective as the resources were readily available through the OCC and the approval to modify and utilize the CCMT (Appendix C).

Chen et al., (2020) contended investment in care coordination strategies and innovative delivery models serve as the catalyst for improving care efficiency and access. The education the team received solidified the significance of care coordination and how it can improve the outcomes of Veterans receiving care in the community. The differences in the retrospective and prospective data, specifically the notification to the Veterans PACT was a direct result of the education provided to the RNs prior to the implementation of the QI project.

Limitations

Several unavoidable events created a delay in project team members' abilities to fully perform their care coordination duties. These events included loss of the quality nurse and the pain management AMSA, as well as a changes in workload for the cardiology team. The quality nurse accepted another position at another facility. The QI nurse was instrumental in providing the initial education to RN and AMSA staff. In addition, he was to assist with providing additional education if applicable and preparing a Power Business Intelligence report to display the retrospective and prospective data.

Another unexpected loss was the departure of the AMSA from the pain management team. The AMSA was instrumental in performing administrative duties which included faxing, scheduling, and retrieving medical documentation. The department was experiencing challenges with staffing and lacked the resources to assign another AMSA to the team. To ensure continuity in care, the RN care manager completed the administrative duties. The prospective data was inadvertently skewed by the departure of AMSA's departure as the RN could not perform clinical duties for the pain management/podiatry categories of care. In addition, the workload for the cardiology team increased due to a departure of an echocardiogram technician. To assist with the increasing workload, the RN assisted with completing administrative duties.

Section 5: Dissemination Plan

Introduction

In this QI project, I aimed to evaluate what effect an educational intervention had on RN care managers' ability to complete care coordination in a CITC service line. Prior to the inception of the study, I received concurrence to complete the QI project from the ADPCS. The project was of particular interest to the ADPCS because she is the as the executive leader for the project site CITC. The results of the QI study will be presented to a variety of stakeholders, including the AMSAs, RNs, QI nurse, advanced practice nurses, and the program specialist within the CITC department. In addition to these stakeholders, the results will be presented to leaders within the department, including the deputy program specialist, CITC medical directors, and nursing and administrative supervisors. The results will be provided using visual aids, including a PowerPoint presentation and a Microsoft Excel spreadsheet. The visual aids will contain an explanation of the purpose and aims of the project as well as list the statistical findings of the pre- and postintervention data. Antonelli and Antonelli (2004) contended that the CCMT is valuable in determining care coordination activities and outcomes. The CCMT was instrumental in helping me evaluate the care coordination activities and assisted with determining and delineating the outcome duties between the RN care managers and AMSAs.

Along with the staff internal to the CITC service line at the project, the larger nursing community should be made aware of the findings of the QI project. The

implementation site is a part of a network of organizations, each having its own CITC department. All organizations are a part of a monthly Microsoft Teams meeting to discuss policy changes or other issues affecting the services. Presenting the QI findings to these organizations will be beneficial because they too must adhere to the care coordination mandates of the OCC. The findings could also be presented at the American Academy of Ambulatory Care Nursing and the American Nurses Association ambulatory care nursing conference. This organization plays an integral role in supporting the significance of care coordination within nursing practice America Nurses Association (2020).

Analysis of Self

Practitioner

In the *Essentials of Doctoral Education for Advanced Nursing Practice*, the American Association of Colleges of Nursing (2006) noted that nurses who are completing a doctoral study should be afforded the ability to design, implement, and evaluate interventions based on nursing science. I have experienced this opportunity while completing my DNP QI project. This QI project is essential to nursing practice within the CITC service and nursing because it highlights the need to incorporate care coordination into practice. The DNP project improved my abilities to think critically to identify gaps in practice, design a process to assess the gap, and modify a tool to evaluate the effectiveness of an intervention. In addition, completing the project will assist me in accomplishing my professional goal of accepting a position as an ADPCS.

Scholar

Leite (2019) contended that literature reviews are essential components of a thesis or dissertation. One major scholarly activity I experienced was completing a literature review prior to the inception of the project. A literature review serves to enhance knowledge on a particular subject, refute or verify what is already known to enable the writer to support the project findings, and provide evidence that supports conclusions (Leite et al., 2019). As a scholar, I found completing a comprehensive literature review served as a compass for various elements of my DNP project, including identifying a topic, the nature of the problem, and gaps in practice. In addition, it assisted me with identifying an appropriate guiding concept and developing a link between theory and practice. Completing the DNP project has expanded my knowledge as a nurse leader, educator, agent of change, and scholar.

Project Manager

Hande and Phillippi (2018) contended the DNP degree equips nursing students to employ project management skills to "implement evidence into practice" (p. 115). As a project manager, I was able to plan, design, and execute a QI project aimed to assess care coordination activities in a clinical setting. My responsibilities included identifying the gap in practice; evaluating the effectiveness of an educational intervention utilizing a modified CCMT; synthesizing, analyzing, and comparing the pre- and postintervention data; and creating a dissemination plan to ensure stakeholders are informed of the project findings. Developing the DNP project afforded me the ability to critically examine and

evaluate a gap in practice and offer solutions to eliminate the gap. In addition, developing the project provided me with the opportunity to collaborate with stakeholders both internal and external to my department. The collaboration further enhanced my professional and interpersonal skills.

Completion of the Project

To ensure DNP projects are completed timely, students should set and adhere to goals (Hande & Phillippi, 2018). Completing the DNP project has been challenging yet rewarding both professionally and personally. Professionally, I have obtained valuable skills and insight in QI design, including data collection, and mining techniques, completing a literature review, and synthesizing and analyzing data results. I used my leadership skills to improvise and keep the project on track when key stakeholders accepted positions at other organizations. Throughout the project, I reached out to other members of the team to devise a plan to assist with data collection and other project-related needs. The skills I obtained during the development and completion of the project will serve in future endeavors as I plan to apply for a research fellow program within my organization.

Personally, completing the project has given me an overwhelming sense of pride. I am proud that despite the difficulties, I was able to persevere and complete the project. Throughout this journey, I have gained several personal insights from the project, including learning how to continue to move forward, to not be afraid to ask for what I need, and to be persistent and assertive.

Summary

The aim of this QI project was to evaluate the effectiveness that an educational intervention had on RN care managers' ability to complete care coordination in a VA setting. The project has improved the RN care managers' ability to complete care coordination through following up with veterans after the episode of care received in the community and providing a notification or warm hand off to the veterans' internal primary or PACT. Both practices will improve transitions of care and, ultimately, veteran's outcomes.

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Appendix A: Care Coordination Needs

Care Coordination Needs	Activity to Fulfill Needs	Outcomes Occurred	Staff	Code Number
1a- Referral and Appointment Management **1b**- Educational **1c**- Prior Authorization **1d**- Social Services- Housing Transportation/food **1e**- Connection to the Community/Non- Medical Resources **1f**- Clinical Medical management including education regarding medical/behavioral condition	**2a**- Pre-visit review-RNs review notes attached to secondary authorization request and alert APPs on request. APP's review notes and submit new authorization if medically approve **2b**- Patient education/anticipatory guidance- RNs educate patients on consult and answer any follow up questions. For all new consults, referral letter sent to veteran via mail explaining approved care. Call center tracker- RNs make follow up calls regarding patient concerns **2c**- Communication with family- RNs contact veterans and/or family member for each consult and any follow up related to care or additional services. **Only if there are issues, concerns, or recommendations from CCP.** **2d-** Communication with an internal clinic team member (via telephone/email/in person)-RNs collaborate daily with VA providers, RNs, pharmacy, social work, etc. to	**3a**- CCP Note completed **3b**- Evidence of timely follow up care (2 days Complex, 7 days Moderate Consult) **3c**- Evidence of warm hand off with PACT Team **3d-** Evidence that HSRM was utilized	**4a**- Registered Nurse **4b**- Administrative Medical Support Assistant AMSA	

	coordinate care for veterans via email, CPRS, Microsoft teams. **As needed and depending on if additional services are needed/required** **2e-** Update of clinical chart (electronic medical record system)-RNs document on consult and care coordination notes in CPRS **2f**- Reviewed labs, diagnostic test, notes- RNs review notes prior to referral of care (create Refdoc) as well as after care is delivered-send notes to HIMS to be placed in CPRS, notify providers about critical values and/ or request for additional services **2g**- Form processing- create and fax/secure email VA Offline Referral Form through HSRM and send to non-VA approved providers **2h-** Research of clinical/medical question- RNs serve as source to patients about medical questions. CITC providers are also used as a reference for medical questions **2i**- Research of non-medical question/service- RNs collaborate with vendor relations team, administrative			

	officer, social worker, etc. regarding questions such as billing, transportation needs, providers requesting to become Optum providers **2j-** Development/modification of care plan- RNs collaborate with patient, VA providers and non-VA providers regarding plan of care. Care of plan revised based on patient's needs. **2k-** Referral management or appointment scheduling-RNs follow up with provider to ensure appointments are scheduled once consult is reviewed by provider **2l-** Prescription/Supplies order placement-RNs fax prescriptions and/or request for durable medical equipment.			

Appendix B: Data Abstraction Tool

Comparison Chart Extraction

Code Number	Age	Sex	Disease/Comorbidities	Consult Type	Consult Category	Outcome	Comment

Comparison Chart Extraction

Code Number	Age	Sex	Disease/Comorbidities	Consult Type	Consult Category	Outcome	Comment

Appendix C: Approval to Use and Modify the CCMT Tool

Hi Trina, Thanks for reaching out. Please proceed with utilization of the CCMT for this interesting—and really important— project.

Increasingly, we are seeing CCMT implemented in adult populations, and for care coordination that is not solely focused on medical care needs.

Please let us know if you have questions about the tool. We would appreciate an update on your progress.

I have cc'ed Jessica Beliveau, MPH, who is the Manager of the HRSA funded National Center for Care Coordination Technical Assistance.

XXXXX

XXXXXXXX

Medical Director of Integrated Care, Dept. of Accountable Care and Clinical Integration

Medical Director, National Center for Care Coordination Technical Assistance

Medical Director, National Care Coordination Academy

 XXXXXXX XXXXXXXXXXXXXX*Executive Assistant*

XXXXXXX**XXXXXXXXXXXXXX**XXXXXXX**SUPPORT HEALTH EQUITY** **END RACISM**

Boston Children's

Where the world comes for answers

From: Canady, Katrina A. XXXXXXX
Sent: Friday, July 16, 2021 2:34 PM
To: XXXXXXXX
Subject: Permission [EXTERNAL]

Good afternoon Dr. XXXXXX,

I am a DNP candidate at Walden University. I am completing a project on Care Coordination amongst Registered Nurses within the Care in the Community service line at a Department of Veterans Affairs. I am writing to request permission to utilize and revise your Care Coordination Measurement Tool (CCMT). Please contact me at your earliest convenience.

Thank you

Trina

    Katrina Canady, MSN-ed, NE-BC
    Associate Chief Nurse Care in the Community
XXXXXXX XXXXXXX XXXXXXX XXXXXXX XXXXXXX