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# Walden University

College of Health Sciences

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Jeryl Horton

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Walden University 2016



#### Abstract

Improving Self-Management in Patients With Chronic Conditions

by

Jeryl Horton

MSN, Walden University, 2013

BSN, Colorado Technical University, 2011

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

**Doctor of Nursing Practice** 

Walden University

June 2016



#### Abstract

Care Coordination Home Telehealth (CCHT) maintains a positive impact on the delivery of patient care in the primary care clinic at the Department of Veterans Administration Medical Center (VAMC). This quality improvement initiative targets patients with chronic conditions such as diabetes, hypertension, heart failure, and chronic obstructive pulmonary disease. These patient are frequently seen in the emergency room, and are often admitted to the hospital, where they saturate the outpatient clinics' waiting room with multiple walk-ins. CCHT has, to some extent, reduced walk-ins, emergency room visits, and hospitalization while minimizing the strain on access to care at the VAMC. Sustaining self-management skills of veterans with chronic conditions at the VAMC continues to impose challenges. In this project, retrospective data from 95 randomly selected charts reviewed during a 2-year period were used to compare hospitalizations, emergency room visits, and primary care visits. The findings of the study indicate veterans enrolled in Home Telehealth show positive social change. The social change is evidenced by change in behavior patterns, such as maintaining a healthy diet, performing daily physical activity, and compliance with medication administration. Enrolled veterans had better outcomes regarding hospitalization, emergency room visits, and primary care visits. The data highlighted the need for incorporating disease-specific protocols guiding care coordinators at first point of contact with the veteran patient. Following these protocols may enhance communication style that matches the patient's stage of behavioral change with interventions.



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#### Dedication

This project is dedicated in honor of all the Care Coordinators of Home

Telehealth who take the time and effort to coach, educate, and mentor every individual

patient enrolled in Home Telehealth programs. Their willingness to provide countless

hours in managing the care coordination of multiple patients is a reflection of

commitment to improve the outcomes of self-management skills to a vulnerable

population.



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My daughters, friends, and colleagues have provided an enormous amount of support and encouragement. My daughters, Abriana and Charity were relentless in telling me I could do it and motivating me to keep going. My sister, Ruby Cavil helped me to stay focused by telling me the end was near from the beginning. My prayer group was constantly praying for me that I would remain strong and relentless throughout this journey. My colleagues who encouraged me at every opportunity by assuring me how proud they were of me and that I could do it. With your confidence in me, I was able to steer the bus while we all rode down the Doctorate of Nurse Practice highway.

Last, but not least, is my husband who has been my rock through every phase of the journey. Robert has taken a back seat to my many hours of research and writing numerous papers to afford me the opportunity to achieve my goal of becoming a Doctorate of Nurse Practice. I am forever grateful for your love, patience, sacrifice, support, and understanding.



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#### Section 1: Overview of the Evidence-Based Project

#### Introduction

Throughout the United States, enormous efforts have been associated with managing chronic conditions by developing new interventions, conducting studies, and exploring proactive initiatives to minimize the exorbitant effects on chronic conditions. Chronic conditions are among the most common, costly, and preventable in the United States (Centers for Disease Control [CDC], 2014). Chronic diseases continue to present challenges facing the health systems globally now and in the future. Health care agencies have used technology to more effectively identify disease exacerbation early among patients with chronic diseases such as heart failure, diabetes, cancer, and hypertension. The U.S. government continues to focus efforts on improving care for patients with chronic conditions which date back to 2004 (Bentley, 2008). One effort was the introduction of Home Telehealth programs throughout the VAMC, a service allowing clinicians the ability to monitor and measure patient health data and information. When patients with chronic disease are enrolled in Home Telehealth, their physiological outcomes are improved as care coordinators are able to identify the onset of disease exacerbation (Lu, Chi, & Chen, 2013). Despite the recognition of the effects of chronic conditions, a gap often exists between evidence-based treatment protocols and current practice (Nolte & McKee, 2008).

Self-management of chronic conditions is a major component of Home Telehealth (Darkins et al., 2008). Persons with chronic conditions are often failing to engage in positive behavior change, which prevents and manages chronic illness (Bender, 2014).

According to Bender at the VAMC, a dialogue remains on increasing patients' involvement in their healthcare as veterans are failing to engage in both the behaviors that prevent and those that effectively manage chronic conditions. As the treatment gap widens, it is essential for Home Telehealth to enhance its supports and engaging the patient as an active participant. Self-management is individualized and based on the needs of the patients. Baumann and Ngoc-Dang (2012) stated that the treatment of chronic conditions requires coordinated involvement among multiple providers and access to essential medications, and monitoring systems. Baumann and Ngoc-Dang maintained that patient education is necessary even though inspiring sustained behavioral changes necessary for ongoing self-management does not suffice. The application of communication strategies coaching and motivational interviewing provides a partnership based on teaching and information transfer (Shea & Chamoff, 2012). Health coaching empowers the patient to use the knowledge from the clinician to achieve the goal of selfmanagement (Howard & Ceci, 2012). Motivational interviewing supports self-efficacy increasing the patient's belief in one's own ability to change behavior (Mehta, Cameron, & Battistella, 2014). Combining coaching with motivational interviewing may lead to sustainable positive behavior change.

#### **Problem Statement**

Health care continues to be centered on an acute episodic model of care that is unequipped to meet current and future requirements of those with chronic health problems (Nolte & McKee, 2008). The problem is that chronic conditions are prevalent



in the VAMC and the quality of health care for patients has been facing continuous scrutiny throughout the United States. Chronic diseases management has become increasingly important in reducing the treatment gap between health care providers and patients.

#### **Purpose Statement**

The purpose of the project was to improve patient outcomes with chronic conditions by expanding the role of care coordinators in Home Telehealth to include specific communication tools, as well as specific disease protocols for immediate care at the time of telephone contact with the veteran. Currently, the care coordinator's roles at the VAMC are retrieving data via a desktop software system, contacting the veteran to gather additional information, providing health education targeted towards managing disease and relieving symptoms, and relaying data to the provider for further directions. This process is often lengthy and cumbersome to both the patient and coordinator that often contribute to delays in treatment, progressive conditions, emergency room visits, or unnecessary hospitalizations. The absence of specific disease protocols for urgent patient symptoms such as elevated blood glucose or blood pressure, fluid increase, and low oxygen saturation often lead to an emergency department visit. Managing chronic conditions includes the patient receiving immediate care at the correct time to sustain the self-management of chronic conditions. Often there are delays in treatment after contact with a care coordinator for patients enrolled in Home Telehealth who require immediate or quick turnaround in clinical interventions, such as insulin or diuretic medication adjustments. Initiating disease-specific protocols for urgent care to be used by the care

coordinator at the initial point of contact with the patient and using individualized communication strategies when educating the patient have the potential to further reduce walk-ins, emergency room visits, and hospital admissions at the VAMC as all are affected by delay in urgent treatment.

#### **Goals and Objectives**

The quality improvement project focused on further developing Home Telehealth "as a kind of new silo" envisioned by leaders at the Department of Veterans Health Administration (Lindeman, 2010). The goal of this proposed project was to improve quality care that is timely, disease specific, and individualized to the veteran enrolled in Home Telehealth. Currently, care coordinators who are registered nurses use triage skills to gather an assessment of the veterans to forward to the provider.

The first objective of this project was to initiate specific guidelines or protocols for chronic conditions that can assist the care coordinator to better manage the veteran in the home at first point of contact by the registered nurse. Disease specific protocols will reduce gaps in time of treatment, minimizing further exacerbation of illness. Further they will provide registered nurses the liberty to work at their highest levels of expertise. Care coordinators are nurses who are veterans in their profession.

The second objective of this project was to improve communication between the care coordinator and the patient. According to the present process, the communication is focused on the care coordinators initiating conversation and leading the dialogue with the patient. The process frequently determines concerns of the coordinator rather than what is



most important to the patient. The process lacks the ability to determine readiness for change, empower patients, and enhance patient's participation.

#### Significance/Relevance of the Project

Approximately 50% of adults in the United States have one or more chronic illnesses (Jaarsma, Riegel, & Stromberg, 2012). A report by Jaarsma et al. highlighted that with problems to healthcare access in primary care, the increasing older population, and the rise in persons with diabetes, hypertension, heart failure, chronic kidney disease, and chronic obstructive pulmonary disease (COPD) self-care is essential in the management of chronic illnesses. The shift from acute to chronic illness has led policymakers and health care providers globally to revamp how resources are allocated for managing chronic conditions (Jones, Lekhak, & Kaewluang, 2014). The key to improving the overall health of persons with chronic conditions is providing collaborative goal setting and self-efficacy strategies that enable patients to carry out everyday activities and better manage the medical and emotional effects of their illnesses in partnership with health care providers (Liddy, Blazkho, & Mill, 2014). Jones et al. indicated the traditional way of providing health care to chronic conditions no longer exists; rather with self-management the patient assumes the role of provider and the health care professional supports and empowers the patient to take primary responsibility for his or her own health.

#### **Project Questions**

To obtain quantitative data and develop favorable patient outcomes, I developed and addressed the following questions for this project:



- How does enhancing communication lead to positive behavior change in veterans with chronic conditions enrolled in Home Telehealth?
- Do urgent care disease specific protocols used by the care coordinator improve sustainable positive behavior change in veterans enrolled in Home Telehealth?

#### **Evidence-Based Significance of the Project**

Chronic diseases have been negatively affecting the U.S. health care systems, minimizing health care access, and contributing to rising costs of health care. Chronic diseases are the nation's leading causes of death and disability (CDC, 2014).

Approximately one-half of the United States adults have one chronic disease (Qin et al., 2015). For decades, chronic diseases have been a major cause of premature death around the world. Multiple chronic conditions increased from 21.8% to 25.5% between 2001 and 2012 (Qin et al., 2015). In the United States, more than 75% of health care spending is on persons with chronic conditions (CDC, 2009). When chronic disease is not properly managed it results in the most expensive problem faced by the health care system and patient (Want, Kamas, & Nguyen, 2008).

Behavior-based chronic health conditions reveals a concerning paradox: Although, diagnostic tools and treatments have improved, health behaviors among this population have not (Bender, 2014). The cost of treating chronic illness is enormous and steadily rising. For individuals suffering from chronic illness the high cost of treatment is not new; however, in recent years the public has been made more aware of the financial effect chronic illnesses have on the health care system (Bender, 2014). Statistics show

that 48% of all Americans and 87% of seniors enrolled in Medicare have at least one chronic disease (Trehearne, Fishman, & Lin, 2014). Persons with chronic health conditions most frequently use the health care system. Recent evidence indicates that single and multiple chronic conditions are not only prevalent among the older population, but the working population as well (Greene et al., 2013). According to the U.S. Centers for Medicare and Medicaid Services, approximately 76% of all healthcare expenditures accounts for chronic conditions (Greene et al., 2013).

### **Implications for Social Change**

Health promotion activities include community-based programs that encourage or improve overall health (Fisher & Kridli, 2013). Health status is determined by multiple factors such as income and social status, social support, personal health practices, and coping skills (Weinert, Cudney, & Kinion, 2010). To be effective, community-based programs have to move beyond targeting the immediate problem, such as diabetes or hypertension to health promotion and prevention, by considering the underlying factors in the social environment (Siegel & Lotenberg, 2008). To ensure sustainability, the self-care management program should be examined from the perspective of the patient as well as the provider's prospective.

Significant research regarding chronic conditions has focused on social support and health specific interventions (Siegel & Lotenberg, 2008). These interventions have included teaching psychosocial skills and promoting support groups. Interventions that focus on the social, psychological, and economic conditions that lead to unhealthy behaviors are essential to changing the behaviors, because behavior is a product of the

social conditions and social norms of the community in which an individual resides (Siegel & Lotenberg, 2008). Patients differ in the extent to which they are willing to change their behavior and habits to adhere to medical advice (Sola, Couturier, & Voyer, 2015). Through continuous reinforcement from the coordinator and enhancing patient's engagement in their treatment, health care providers should notice a growth in positive outcomes.

#### **Definitions of Terms**

In guiding this project, I used the following definitions, which were critical to the development, implementation, and evaluation of this project:

*Balanced Scorecard*: The strategic planning and management system used to align financial activities to the vision statement (Beard, 2009).

Care coordinator: A registered nurse equipped with technology functioning to help ensure the patient's needs and preferences are met over time regarding health services and information sharing across multiple disciplines; and, the deliberate organization of patient care activities between several persons including the patient to facilitate the most appropriate delivery of health care services (American Nurses Association [ANA], 2012).

*Chronic Conditions*: These are conditions that last longer than 1 year or refer to uncertain long-term conditions requiring ongoing medical attention while limiting activities of daily living (ANA, 2012).

Coaching: A tool used to support individuals in achieving specific goals related to their disease management (Narayanasamy & Penney, 2014).



Motivational Interviewing: A collaborative approach between the patient and the health care professional to produce behavior change by helping to enhance the patient's commitment towards improvement (Mehta, Cameron, & Battistella, 2014).

*Self-management*: The ability of the individual with the assistance of family, community, and health care professionals to actively manage symptoms, treatments, lifestyle changes, psychosocial, cultural, and spiritual consequences of health conditions (ANA, 2012).

*Telemedicine*: Using telecommunications for medical diagnosis and patient care (Currell, Urquhart, & Wainwright, 2010).

## **Assumptions and Limitations**

Assumptions are the statements that are considered truth even though scientific proof is lacking: assumptions are often embedded in thinking and behavior (Grove, Burns, & Gray, 2013). This project includes three assumptions:

- The project would improve education that is easy for the patient to understand, help patients manage their health problems, and make positive difference in the patients' health.
- The project could lead to further defining the role of Home Telehealth care coordinators.
- There was no direct or indirect biases observed in the research of this project.
   The design of this project was utilitarian in nature and reviewed data to answer



the project questions. During every phase of this project, various professional and political implications were evaluated.

Limitations are the restrictions or problems in a study that have the potential to decrease the generalizability of the findings, which may be theoretical or methodological, that are identified before conducting the study (Grove et al., 2013). This project included the following limitations:

- The improvement plan may not be generalizable to the VAMC health care system.

  This is a national health care system that has multiple layers of organization and system dynamics determining whether it is appropriate for implementation.
- Coworkers, leaders, and managers may refuse the receptiveness of the project, and department chairs related to inexperience in the role of Home Telehealth care coordinator. The program may be too costly to implement, and organization leaders may not believe the change is necessary; further, coworkers may not be receptive.

#### **Summary**

An overview of the evidence-base project displays how improving outcomes of patients enrolled in Home Telehealth by expanding the roles of care coordinators has the potential to improve self-management of chronic conditions among veteran patients. The development of a pilot program for expanding the role of care coordinators that will improve self-management skills of the veteran with chronic conditions enrolled in Home Telehealth will be based on research and grounded in theory. Successful implementation of the pilot may positively contribute to the care coordinator's knowledge base and

creates the possibility of establishing specific disease protocols for urgent conditions.

Creating a quality improvement using a practical implementation process and evaluation plans has the ability to facilitate adoption, expansion, and sustainability of the program.

In Section 2, I review the literature and the theoretical framework supporting improving the Home Telehealth care coordinator's role. I address self-management of chronic conditions followed by the Home Telehealth care coordination, the use of technology, and incorporating the use of coaching skills to promote better outcomes. I will conclude with the application of theoretical frameworks.



#### Section 2: Review of the Scholarly Literature

#### Introduction

The purpose of this project was to improve quality care that is timely, disease specific, and individualized to the veteran enrolled in Home Telehealth. The problem addressed in this study was that chronic conditions are prevalent in the VAMC and the quality of health care for patients has been facing continuous scrutiny throughout the United States. Chronic disease management has become increasingly important in reducing the treatment gap between health care providers and patients. In this study, I evaluated improving self-management of chronic conditions among veteran patients enrolled in Home Telehealth with the expansion of the role of the care coordinator. The systematic literature review for this project allowed me to gather data on the traditional role of care coordinators in Home Telehealth, the expanded role, and protocols successfully integrated throughout the VAMC and other organizations. Using a systematic approach to translate new knowledge into practice under the guidance of a framework will increase sustainability (White & Dudley-Brown, 2012). In the systematic literature review, I use a rigorous and well-defined approach for examining data specifically regarding care coordinators' roles in Home Telehealth (Cronin, Ryan, & Coughlan, 2008).

#### **Literature Search Strategy**

In the systematic literature review, I focused specifically on data regarding care coordinators' roles in Home Telehealth. I conducted the literature search for this project electronically using the following sources: CINAHL Plus with full-text, Medline with

full-text, Ovid Nursing Journal full-text, American Nurses Association, Cochrane Database of Systematic Reviews, ProQuest Nursing and Allied Health Source, and Centers for Disease Control. The search was limited to full-text articles from January 2007 to 2015. Terms or phrases used for the search were care coordination, Home Telehealth care coordinators, Home Telehealth, self-care, self-management, chronic conditions, chronic illness, urgent symptoms, and telemedicine. The search results consisted of approximately 100 articles that I reviewed and resulted with more than one half of the articles included in the literature. I excluded studies from the project if the article did not provide a detailed overview and the argument was weak, or irrelevant to the problem addressed in this study. The findings that I gathered were from qualitative, quantitative and mixed-methods studies, literature reviews, editorials, discussions, reports, and Cochrane reviews. The literature search provided results relating to the need for more than education. The literature search was vital in extenuating patient behavior change with chronic conditions, improving the self-management behavior of patients, and determining the need of expanding the care coordinator's role to maximize patient outcomes.

#### **Specific Literature**

#### **Chronic Conditions**

Chronic conditions are the leading cause of morbidity and mortality throughout the world, causing 60% of deaths and 43% of disabilities (Richardson et al., 2012). In 2010, the World Health Organization reported that chronic diseases were by far the leading cause of death worldwide and their effects were steadily increasing (Draper,

Draper, & Bresick, 2014). Approximately 80% of older adults in the United States have one chronic condition and approximately 50% have at least two (Lu, Chi, & Chen, 2013). Australia's population of persons with chronic diseases is estimated to be approximately 70%, and year 2020, expected to increase to 80% (Mirzaei et al., 2013). In Mexico chronic conditions account for 78% of deaths, with diabetes mellitus among the top leading causes (Cordova et al., 2014). Approximately one in three Canadian adults has at least one chronic condition, which is approximately 9 million people (Richardson et al., 2012). The research validates ageing is the biggest risk factor for failing health (Kvaal, Halding, & Kvigne, 2014).

In the United States chronic conditions cause 7 in 10 deaths (Holt et al., 2015). According to Whitty et al. (2014), much of the burden that persons with chronic conditions and their caregivers experience is related to the multiple, complex, and often lifelong treatment and monitoring regimens that are required to manage their conditions; the key component of this burden arising from multiple and ongoing treatments is financial. The average Medicare patient who has one chronic condition visits four doctors per year, and those with multiple chronic conditions are monitored by numerous physicians within a year (Bodenheimer, Chen, & Bennett, 2009).

As a result of this trend, the cost of health care will soar in coming years (Lu et al., 2013). Chronic conditions such as heart disease, diabetes, and hypertension share common challenges associated with their management such as dealing with symptoms and disability; monitoring physical indicators; diet; and exercise, although each is unique (Grady & Gough, 2014). Patients with chronic conditions are known to have complex

health care needs that intertwine with issues of cost and quality (Bodenheimer & Berry-Millett, 2009). In 2009, approximately \$2 trillion was spent on chronic conditions in the United States, which was more than 75% of the entire spending on public and private health costs (Alliance Health, 2014).

As people age they are more likely to develop chronic health conditions and comorbidities. According to the World Health Organization, in 2000, persons 60 years and older accounted for 10% of the world's population; however, it is expected to increase to 2 billion by 2050 (Lu et al., 2013). By year 2050, Americans aged 65 years and older are estimated to number nearly 89 million (CDC, 2013). Multiple chronic conditions increase with age, as 62% of Americans age 65 years and older have multiple chronic conditions (Vogeli et al., 2007). This effect is expected to significantly increase hospital discharges from the 37.8% and hospital days from the 44.3% in the coming years within this age population (Wendel et al., 2010).

The nation's health care system has been designed to treat one disease or condition at a time; however, most persons have multiple chronic conditions (CDC, 2013). Persons with chronic disease experience episodic illness along with chronic conditions' symptoms that negatively influences physical functioning (Richardson et al., 2012). Research identifies that 55% of patients with chronic conditions will actually receive the care needed for improving the management of chronic conditions resulting in decrease hemoglobin A1c, decrease blood pressure, and low density lipoprotein (LDL) cholesterol (Bodenheimer et al., 2009).



#### **Telemedicine**

Technology is changing the way health care services are delivered to patients, thus introducing the terms telemedicine and telehealth into the medical professional's lexicon (Dowling, 2015). Technology includes all data and communication technologies that assist in using and integrating elements of provider and user service systems (Srivastava, 2015). Technology enables health care entities to identify and replace poor practices, avoid unnecessary revising of entire processes, reduce costs through better productivity and efficiency, and increase profitability (Cegarra-Navarro & Cepeda-Carrion, 2013). As scientific technologies advance, people's average life expectancy has been greatly increasing (Lu et al., 2013).

The use of telemedicine is not new as research shows it being used in a variety of ways since the 1960s (Currell et al., 2010). In 1924 the development of telemedicine was indicated by Radio News magazine (Chul-Young, 2008). Some of the early projects with telemedicine were initiated with areas of the military and space technology research programs, however, from the beginnings telemedicine has been used in various health care fields (Currell et al., 2010). Telemedicine includes everything from using standard telephone services through high speed, wide band transmission of digitized signals in conjunction with computers, fiber optics, and satellites (Currell et al., 2010).

Telemedicine is a fast and efficient tool that has improved communication and rapport between patients and doctors (Yao, Tung, Zhan, Hua, & Dong, 2013).

Telemedicine has significantly changed the economics of care while offering indirect financial benefits and providing consistency of care (Coffey, 2014). The recent

applications of telemedicine include activities such as remote consultations from dermatology to psychiatry, transmitting electrocardiograms and radiological images, providing accident and emergency expertise to remote fetal monitoring, and education for health professionals (Currell et al., 2010). The interest in telemedicine is sparked by the rapid producing of portable, affordable, desktop systems, and the development of international telecommunication standards (Currell et al., 2010).

In an effort to provide high quality patient care on a low cost budget the use of telehealth in individuals' homes is increasing in the United States (Marineau, 2007). Telehealth involves the use of technology to support activities such as remote medical education, health services research, and some administrative duties (International Journal of Advanced Networking & Applications, 2014). According to Wicklund (2012), a transparent report from the VAMC, Home Telehealth services reduced bed days of care by 59% and hospital admissions by 35% in 2013; reduced health care costs by about \$2,000 per person per year; and store-and forward telehealth saved roughly \$38.81 per consult in travel costs. However, it is difficult to examine Telehealth costs because fixed and variable costs vary greatly among sites (Shore, Brooks, Savin, Manson, & Libby, 2007). Yet, Telehealth has become an effective tool mechanism for delivering health care; with patients continuously voicing their preference to use Telehealth in self-monitoring their chronic conditions (Lu et al., 2013).

Technology in the form of Telehealth has become an important tool in improving health care delivery efficiency (Charness, 2014). Telehealth is being used to better manage health care in the aging population (Lu et al., 2013). Telehealth is seen as cost



effective in reducing readmissions by positively affecting medication management, reducing emergency room visits, and providing real time symptom monitoring (Seifert & Henry, 2015). Telehealth can expand capacity, foster coordinated care, improve quality and efficiency of the health care system, and support a large amount of patient self-management skills by eliminating distance, time, and access (International Journal of Advanced Networking & Applications, 2014). Telehealth care maximizes the opportunity to meet the goals of self-management by improving the patient's disease management process (Lu et al., 2013).

#### **Care Coordination**

Joo and Huber (2013) define care coordination as "the deliberate organization for patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of health care services" (p.15). Improving health of persons with chronic conditions continues to be a key component of government policy that has highlighted the importance of the care coordinator for the care of persons with long term, complex conditions (Bentley, 2014). Care coordination is not a new idea; however, it has been proposed as a solution for many of American health care intractable problems such as high cost, uneven quality, and the often disappointing patient outcomes (ANA, 2012). The origins of care coordination throughout the world arose from the need to combine a range of support, provided from different sources, to achieve a common goal of effective care (Hughes et al., 2011). Excellent care coordination is imperative to providing quality care (Ostrander, 2012).



The care coordinator provides a point of contact, enabling information provision, coordination of multidisciplinary input, timely needs assessment, and ongoing referral as needed (Nutt & Hungerford, 2010). Care coordinators are advanced skill nurses who possess advanced clinical and interpersonal skills to support patient assessment, care planning, education, and coordination of care (Smith, MacKay, & McCulloch, 2013). Often registered nurses are embedded into the primary care setting to manage high risk patients that have been identified by in house tracers (Cheung-Larivee, 2011). Nurses are viewed as the first and last persons to care for patients; and, this is done while facilitating patient's care with other health care providers (Yang & Meiners, 2014). Care coordinators are knowledgeable experts who are trusted by the patients and families (Bass et al., 2013).

#### **Self-Management**

Self-management is behaviors engaged in by the patient with the intention of improving one's health and actively managing disease (Jowsey, Pearce-Brown, Douglas, & Yen, 2011). Weinert, Cudney, and Kinion (2010) found the management of a chronic condition is difficult and produces a set of challenges for the individuals and their family. Improving the patient's self-management regarding chronic conditions has the potential to improve outcomes, such as reduce blood pressure and hemoglobin A1C, optimize quality of care, and reduce health service use (Johnston, Liddy, & Ives, 2011). Self-management is when the patient assumes the role of primary provider and the healthcare professional supports and empowers the patient to take responsibility for their own health (Jones, Lekhak, & Kaewluang, 2014). Self-management is based on the notion of health

care professionals addressing problems important to the patient with chronic conditions (Walker, Marshall, & Polaschek, 2013).

Viewing the patient as a whole person and visualizing the world that affects their self-management through the patient's eyes is essential when establishing therapeutic approach (Liddy, Blazho, & Mill, 2014). There continues to be an increasing effort by health care professionals to understand the patient's experiences related to management of their long-term illnesses; and, the patient's ability to access resources to support their self-management (Johnston et al., 2011). The patient's view of their past experiences, current situation and needs, perception of health, and coping skills shapes how the patient addresses self-management of chronic illnesses (Fowler, Kirschner, VanKuiken, & Bass, 2007). According to Essue et al. (2010) family caregivers are often wives, mothers and daughters who play significant roles and responsibilities such as home helper, lifestyle coach, advocate, and technical care manager in providing support and assistance to patients with chronic conditions in the home, community, and health care settings.

A major driving force regarding the interest in self-management is the potential to make significant contributions to efficient health care delivery, as evidenced by increasing patient engagement in care; improving uptake of preventive activities; and reducing reliance on formal health care services by better managing existing conditions (Panagioti et al., 2014). Research has found providing quality care requires a comprehensive system approach; that includes enhancing health literacy, and fostering productive interactions between the actively, informed patient and the properly, prepared health care worker (Weinert et al., 2010). Redesigning primary care to promote high-

quality, integrated, and continuous services that focus on the patient and the community is required to respond to the challenge of chronic conditions (Kruk, Nigenda, & Knaul, 2015). It is also important for the patient to recognized symptoms early; and, take the appropriate self-care actions to possibly avoid the hospital and/or emergency department (Fowler et al., 2007). "Health reform initiatives have a need for affordable primary care access, improvements in wellness and prevention, and competency in care coordination" (Yang & Meiners, 2014, p.101).

#### **Theoretical Framework Literature**

#### Stages of Change/Transtheoretical Model

Planning for the future requires recognizing that there are various needs for those with chronic conditions. In an article wrote by the CDC (2014) chronic conditions are many times associated with modifiable health risk behaviors such as obesity, lack of physical activity, poor nutrition, and substance use such as cigarettes and alcohol; however, about less than 10% of the United States health care dollars are used toward prevention.

The Transtheoretical Model provides a framework for helping patients who have chronic conditions change their behavior (Andres, Gomez, & Saldana, 2008). The model suggests that patients present at different stages of motivation to change, and interventions should match the particular stage in which the patient presents (McNevin, 2011). Self-management of chronic conditions requires a theory that will focus on why the behavior is exhibited and will describe concepts necessary to put the program into place (Hodges & Videto, 2011). The Transtheoretical Model is a health behavior model

that allow for individualized interventions, integrating principles of biopsychosocial theories to conceptualize the process of intentional behavior change (Dempsey, Johnson, & Westhoff, 2011). Transtheoretical model identifies five progressive stages of behavioral change needed to sustain continuous long-term behavior modifications for patients with chronic conditions (Rizzo et al., 2010). The five stages are precontemplation, contemplation, preparation, action, and maintenance (Andres et al., 2008). The theory will help to formulate interventions that start at the stage where the person has no intention to change, followed by the patient thinking about the possibility of changing, leading to the intention to take action, resulting in behavior modification enough to produce clinically significant change, and ultimately the outcome is new behaviors are maintained (Rizzo et al., 2010). Research suggests that matching the patient's stage with interventions is more effective, because the health care worker can meet the needs of an individual based on their stage of change (Andres et al., 2008).

#### **Summary**

The literature search focused on the effect of chronic conditions on health care, the use of technology, role of care coordination, and factors of self-management. The theoretical framework identified was the Stages of Change/Transtheoretical Model to understand the population behavior; and provide motivational interviewing and coaching that is appropriate. The literature showed the need for using motivational interviewing and coaching with education, and addressing the patient's whole health to improve self-management outcomes.



Possible solutions have been proposed as evidenced by the compiled review of literature. Expanding the role of care coordinators has been considered by nurse leaders and physicians to include the use of disease specific protocols and immediate care of the patient in the home. Health care leaders agree that self-management is the responsibility of the patient; however, more than education is needed to ensure positive outcomes. The project's facilitator currently performs the role of care coordinator witnessing the challenges of self-management and the rising costs to health care that chronic conditions impose. Care coordination integrated with technology has proven to be an effective tool to reducing emergency room visits, hospitalizations, and unnecessary clinic walk-ins.

This project also provided the methodology of the quality improvement initiative for enhancing the role of the care coordinator under the Home Telehealth umbrella. The process, review of evidence, interdisciplinary teams, and development of disease specific protocols for the care coordinator to use for urgent symptoms was presented along with plans for implementation and evaluation.

#### Section 3: Approach

#### Introduction

The purpose of this quality improvement project was to provide a foundation for role expansion of the care coordinator to improve self-management of patients enrolled in Home Telehealth. As a doctor of nursing practice (DNP) student, I assumed a leadership role in this project and directed the activities involved in the process. This section outlines the process of the implementation and evaluation plan that I developed, as shown in Table 1, which was critical in the development of the pilot. I used the following timetable:

- 1. Assemble an interdisciplinary project team of institutional stakeholders.
- 2. Guide the project team in reviewing relevant evidence and literature.
- 3. Institutional review board approval.
- 4. Present program strategies.
- 5. Develop new disease specific protocols.
- 6. Develop implementation plan for pilot project.
- 7. Develop an evaluation plan.

Table 1

2015-2016 Project Timeline

Task name Task start date	
IRB approval	December 1, 2015
Identify Potential Stakeholders	December 15,2015
Stakeholders Questionnaires	December 20, 2015
Review Stakeholders Questionnaires	December 28, 2015
Stakeholders Meeting	January 5, 2016
Identify Data Tracking Tool	January 10, 2016
Present Program Strategies	January 20, 2016
Develop New Protocols	February 20, 2016
Present to Stakeholders	March 20, 2016
Develop Implementation Plan	March 21, 2016
Establish Feedback Method	April 21, 2016

# **Interdisciplinary Project Team**

This project included planning and input from stakeholders across the disciplines, which included organizational leaders, the Home Telehealth department, fellow care coordinators, veterans currently enrolled in Home Telehealth, primary care providers, caregivers, finance department, and voluntary representation from other disciplines. This team of internal and external stakeholders will provide an effective coalition of critical thinkers, expansion of knowledge, and various levels of experience. Chronic care management involves multiple disciplines working together to coordinate care for the veteran enrolled in Home Telehealth. Involving these particular stakeholders in the question development process identifies perspectives that the leader may not be able to visualize (Preskill & Jones, 2009).

Implementation of an evidence-based practice (EBP) change requires using strategies that engage clinicians and promotes adoption of evidence-based care delivery to improve patient outcomes (Cullen & Adams, 2012). The implementation strategies chosen for this project provides clarity to the critical and often undeveloped step(s) in the EBP process (Cullen & Adams, 2012). There are similar phases in these implementation strategies such as identifying the problem, critiquing the evidence, implementing evidence-based recommendations, evaluating the change, and disseminating the results (Cullen & Adams, 2012).

I relied on the five elements of implementation for changing behavior (Gruber, Darragh, Puccia, Kadric, & Bruce, 2010) which are:

- Establish a strong and diverse team with various backgrounds such as nursing, social work, management, finance, and patients with chronic conditions. This team needed persons of highest expertise in their area of study, with the same goal of improving health care for persons with chronic conditions.
- 2. Prepare stakeholders and end users for change will entail those on the project team and fellow care coordinators not associated with the project being informed of the next task the team would perform. It is also imperative to prepare stakeholders and end users to develop and implement a seamless transition plan which eliminate resistance.
- 3. Create a location dedicated to educating and training where distractions would be minimized. The area should also be equipped with the necessary tools,



- technology, and comfortable setting to stimulate creative, innovated thinking, and increasing productivity.
- 4. Frequently and open communication to all stakeholders will be provided via written, oral, and electronic updates on a continuous basis. Providing the team with proposed change rather than post interventions encourages teamwork.
- 5. Be persistent with change, staying focused on the project and continue the implementation process regardless of setbacks. (Gruber et al., 2010)

#### **Review of Evidence**

It is important to align the quality improvement project with the VAMC leaders' vision of Home Telehealth in the future. A major influence on the VAMC's Home Telehealth is Dr. Darkins who has a vision of creating "a kind of new silo" in Home Telehealth (Lindeman, 2010). A detailed summary of the literature and theories was provided to the involved stakeholders. Current protocols that govern the role of Home Telehealth care coordinators are provided to stakeholders. Stakeholders review current statistics on patient satisfaction scores, emergency room visits, hospitalizations, and clinic walk-ins of the past year. The stakeholders review cost of implementation for specific disease protocols, and similar processes used by other VAMCs. The interdisciplinary team evaluated data collectively for the best interventions to be identified and implemented. The stakeholders were assembled at a community based outpatient clinic (CBOC) that is affiliated with the VAMC. The setting for this pilot was at a local CBOC within the organizational structure of the Atlanta VAMC that is part of a larger system.

For this project the balanced scorecard (BSC) serves as a framework with a "common language" for linking care coordinators together to pursue a common vision (Tsasis & Owen, 2009). The BSC is a multidimensional framework that will provide a measurement and a management system for the project (Steinke, Webster, & Fontaine, 2010). The project uses the four perspectives to develop metrics, collect the data, and analyze it in order to balance the financial perspectives (Behrouzi, Shaharoun, & Ma'aram, 2014). The BSC enables the mission, values, visions, and strategies are translated to the stakeholders (Haworth, 2008). The BSC encourages system thinking rather than the traditional thinking to enhance a more evidence-based decision making culture (Schalm, 2008). Furthermore, the BSC engages all stakeholders and decision makers who will influence the project's strategy (Steinke et al., 2010).

The use of the BSC was not a replacement of everyday performance measurement used at the VAMC. The BSC is a framework that can be used in addition with other methods, frameworks, or standards such as the Strategic Analytics for Improvement and Learning (SAIL) (Steinke et al., 2010). The BSC translates the project's vision and objectives into measures that can help determine if the project is successful or where to focus attention for successful improvement. Often performance measures are focused on the financial aspect of quality improvement, whereas the BSC focuses on the customer satisfaction, internal business process, organizational capacity, as well as financial performance to achieve the goals of the project (Chu, Wang, & Dai, 2009). The BSC strategy map provides a picture of the journey for change; allowing stakeholders to communicate step by step the improvement process which in turn helps stakeholders

understand that it takes time to get the planned results (Johnson, Reckers, & Bartlett, 2014). The BSC motivates the stakeholders to achieve the goals supporting sustainability (Umayal-Karpagam, & Suganthi, 2012).

The use of the BSC allows the team to view the project from four significant areas, develop measures, collect data, and analyze results. The BSC provides a strategy map that all team members can see to recognize where the project started from the project questions, leading to internal process of improving communication and reducing treatment gap between health care providers and patients. The improved communication and reduction in treatment gap will ultimately improve customer satisfaction resulting in an increase in customer service scores at least 10%. It is a proven fact that when patients are satisfied with their care, patient outcomes are better, the patient is more active in managing their condition which results in reducing long-term costs of providing care to patients with chronic conditions, as the percentage of unnecessary hospitalization and emergency room visits decreases.

#### **Ethical Considerations**

For this project, the required documents were submitted to the Walden University Institutional Review Board (IRB). The use of retrospective data was approved for developing the expansion of the care coordinator's role. The data was not manipulated and did not require the approval of the pilot setting as it is public knowledge.



## **Developed Care Coordinator Role Expansion**

#### **Role Expansion**

The problem addressed in this project was how to improve the rates of positive patient self-management of chronic conditions targeting patients enrolled in Home Telehealth at the VAMC. Specific protocols were considered for development to provide emergent instructions at first contact with the patient to minimize gap in time of home instructions. Urgent care criteria would include unique aspects of providing home care education that is individualized.

#### **Communication Style**

The use of motivational interviewing and coaching were the tools used to facilitate a care coordinator to patient relationship. Communication relies on the coordinator actively listening to the patient. Coordinators provide education based on what the patient/caregiver informs the nurse, however, to ensure the right care the coordinator must process what the patient stated without the use of subjective documentation.

## **Quality Improvement Validation**

The role enhancement will be validated by local Veterans Integrated Service Networks (VISN) to ensure quality initiatives are patient centered focused, and meet the criteria for American Nurse Association and the Accounted Care Organizations (ACO). Collaboration will be initiated with the local organization pioneer of care coordination with Home Telehealth. Nurse leaders will validate clinical content.



## **Development of Implementation Plan**

Implementing change in the project's environment will definitely be a challenge; however, it is not impossible. It will require cultivating collaborative relationships with the providers, care coordinators, health technicians, and leaders of primary care such as the nurse manager and nurse executive (Planas, 2008). Although, effective communication entails everyone getting the information, interventions tailored to specific discipline will be collaborated first with discipline as opposed to every detail of the project initially provided to all to ensure efficiency of project (Planas, 2008).

# **Pilot Project**

To ensure effectiveness of the program, the implementation of the pilot program provides useful and qualitative data to direct decisions and program objectives. Baseline data was collected to determine inputs, outputs, outcomes, and effect according to the balanced scorecards. The team outlined and implemented a plan for role enhancement regarding specific disease protocols and minimizing gap in instructions related to urgent care related to chronic conditions.

## **Development of Evaluation Plan**

There are different types of evaluation required at different stages in planning and implementing a program (Lobo, Petrich, & Burns, 2014). Evaluation activities require more than the mere measuring of results before and after interventions (Lobo et al., 2014). According to Lobo et al. effective evaluation occurs throughout the project providing stakeholders with valuable information to better understand the project, the impact on end users, the effect on the department, and how it influences internal and

external factors. Evaluation was based on performance measurements which focus on managing outcomes. The goal of performance measurement was to make sound decisions about actions affecting the process and its output. The next section will outline objectives for the project.

# **Objectives**

I developed specific, measurable, attainable, realistic objectives abled to be accomplished within a reasonable timeline.

- 1. Initiate specific guidelines or protocols for chronic conditions that can facilitate the care coordinator to better assist the veteran in the home at the time of first contact with a health care worker. This objective included performing the following activities: contacting other VAMC which may be presently or considering implementing disease specific protocols for coordinators to use; review effectiveness findings to determine rate of success since implementation; and discuss proposed implementation process for Telehealth program locally. The following performance measures were: increase customer service ratings by 10%; absence of delay in treatment for emergent symptoms; reduction in walk-ins; reduction in emergency room visits related to chronic condition(s).
- 2. Incorporate motivational interviewing and coaching techniques at the center of communicating with veterans. Using these communication strategies will help to identify the stage of readiness the veteran is at, increase veteran's participation, and reduce complaints from veterans regarding how the

- coordinator spoke. The performance measures for this objective were: reduction in patient complaints, patient to care coordinator communication improves, and increase in adherence to patient education.
- 3. Allow registered nurses the opportunity to work at the highest level of expertise. This will include the following activities: Revision to the role of care coordinator, pilot of role expansion in phases to determine the impact, and forming of positive and negative implications related to role responsibilities expansion of nurses. The performance measures for this objective were: increase rating of nurses' satisfaction by 25%; increase customer satisfaction by 10%, a 20% increase in productivity, and improvement in the coordination of care.

# **Summary**

Chronic conditions are prevalent in the VAMC with a steady increase over the past five years. Numerous programs and initiatives have been developed by management to address the needs of veteran patients with chronic conditions, such as hypertension and diabetic emergencies but have provided minimum impact. The problem has widened the gap between the patient and health care provider, access to treatment, unnecessary hospitalizations, and emergency room visits. It is without a doubt that these factors adversely affect medical facilities, staff, costs, and most importantly, the patient.

Improving self-management outcomes for the individual with chronic conditions is a nursing quality improvement measurement that requires addressing the whole person with multiple interventions. Quality improvement initiatives such as care coordinator role



expansion are needed to better manage chronic conditions in the home. This section of the proposal provided an overview on developing the program, implementing the program, and the process for evaluation.

In Section 4, I discuss findings, implications, and recommendations based on retrospective data. I address the importance of the CAN score. I identify the strengths and weaknesses of the project.



## Section 4: Findings, Discussion, and Implications

#### Introduction

This project was supported by theory, stated with a plan for evaluation and sustainability (White & Dudley, 2012). Even with the best thought out plans prior to implementation there remains the possibility of process errors and outcome shortfalls. It is important to discuss these findings, the implications it may have on the practice, and to develop methods for future improvements. The findings are based on retrospective data performed in the VAMC Home Telehealth. This data was assembled from 13 care coordinators' panels with a random sample of 95 veterans. The findings were based on the use of the Care Assessment Need (CAN) score reflecting the estimated probability of hospital admission within a time frame over a 2-year time span. The probability of event was expressed in percentile, ranging from the lowest risk of 0% to the highest at 99% and indicated how the patient compared with other VAMC patients in terms of likelihood for hospitalization. Each CAN score's probability was different. The CAN score was generated with clinical information such as medical conditions, use of VA health care, vital signs, medications, and laboratory tests from VHA administrative data. The data also includes number of diagnosis per patient, care management resources already in use, and utilization, as well as last primary care visit date. It is very important to be mindful that the CAN scores represent probabilities that for small groups of patients may not be as accurate as with large groups of patients.



## **Summary of Findings**

Retrospective data has shown, in the majority of cases, that veterans enrolled in Home Telehealth for chronic conditions compared to non-enrolled veterans visited the emergency room less, had fewer hospitalizations, and were seen by primary care physicians at a minimum to none, outside of scheduled appointments, within a 2-year period (Table 2). The finding shows that the role of the care coordinator may effectively impact self-management behavior of chronic conditions. For CAN scores above 97, the results were not predictable as one would picture. This was observed with emergency room visits for Home Telehealth enrolled veterans with CAN score 99 were twice the veterans not enrolled in the program. The data showed the importance of the care coordinator's role in providing quality patient care. The data showed veterans who had a connection to their health care provider were more willing to make the adjustments needed to improve their health.

Table 2

	Number of	ER visits	Admissions	PC visits
	diagnoses		/ discharges	
99 CAN score (HT)	5.44	6.00	2.89	6.78
99 CAN score (non-HT)	5.22	3.86	4.38	7.33
98 CAN score (HT)	5.14	3.00	1.40	5.57
98 CAN score (non-HT)	4.86	2.80	1.33	5.86
97 CAN score (HT)	4.44	1.80	1.80	5.11
97 CAN score (non-HT)	5.11	7.38	2.67	9.22
96 CAN score (HT)	4.50	2.33	1.00	5.75
96 CAN score (non-HT)	5.00	11.00	2.00	6.25
95 CAN score (HT)	5.13	1.00	0.00	4.38
95 CAN score (non-HT)	4.88	4.50	1.40	7.00
90 CAN score (HT)	4.70	1.00	0.00	4.00
90 CAN score (non-HT)	4.70	1.17	1.00	6.40

Abbreviations, ER, emergency room; PC, primary care

# **Implications**

The aim of this project was to improve patient outcomes with chronic conditions by expanding the role of care coordinators in Home Telehealth to include specific communication tools, and specific disease protocols for immediate care at the time of telephone contact with the veteran. The project has shown the need for expanding care coordinator's role with the use of specific disease protocols for immediate care, as the access to individualized telephone contact has the potential to significantly improve patient outcomes.



The data provides support that uses disease specific protocols to address urgent symptoms associated with chronic conditions could further reduce walk-ins, and

emergency room visit, as well as prevent hospitalizations. There is no definitive answer to why veterans are using the emergency room as an urgent care clinic; however, the data shows significant decrease in the emergency room visits with lower CAN scores (see Figure 1). When reviewing the data on hospitalizations, similarly, one could imply that veterans not enrolled in Home Telehealth are more likely to be hospitalized within a 2-year period (see figure 2). This could possibly be in relation to veterans enrolled in Home Telehealth having better control of chronic conditions, easy access to health care representative during business hours. Concerning primary care visits, Home Telehealth veterans are least likely to visit their primary care physician outside of routine scheduled visit (see Figure 3). This

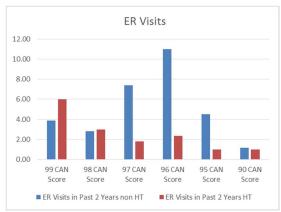


Figure 1. CAN score comparison of ER visit

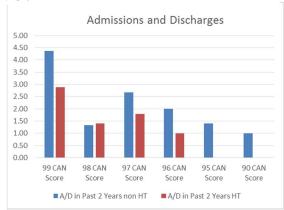


Figure 2. CAN score comparison of hospitalization

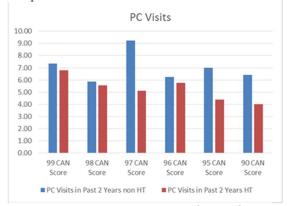


Figure 1. CAN score comparison of PC visits

is related to the involvement of a registered nurse who is knowledgeable in the management of chronic conditions while using effective communication techniques that possess the ability to determine how patients can manage symptoms at home.

The data also supports the idea that improving communication techniques that rely solely on motivational interviewing and coaching will provide consistent ongoing effective communication between coordinator and veteran. It is important the veteran patient feels he or she is part of the dialogue, as this will minimize veterans leaving the conversation feeling as if the care coordinator was giving them orders. Often veterans will say to coordinators "I don't like people telling me what to do, I had enough of that in the military; I don't take orders; we are going to have a problem with you telling me what to do". Consistent communication that is individualized, addressing the whole person allows the veteran to easily trust and freely verbalize symptoms at the onset.

The data has the potential to influence policy making in the future. The data supports that there is significant improvement of veterans enrolled in Home Telehealth compared to those veterans not enrolled. Future implications could lead to every provider being assigned a Home Telehealth care coordinator to work directly with that provider to manage chronically ill veterans. The data could further highlight the role of care coordinators as change agents in the work environment.

## Recommendations

My recommendations would be to mandate Home Telehealth for all veterans, but at the bare minimum all veterans with multiple chronic conditions willing to enroll under the umbrella of primary care. Currently, there is an enormous cost to health care in this



country that stems from chronic conditions. Even with a slight impact the dollars spent on hiring, training, and technology could be less than providing care for veterans with one or more chronic conditions. The other recommendation would be to compare the data amongst specific chronic conditions to better identify where the greatest good is being done and where the greatest need exists. Currently, the amount of data and research is growing on the impact Home Telehealth may have with chronic conditions; however, there is limited data on whether veterans with Diabetes, for example, have better results than veterans with Heart Failure when enrolled in Home Telehealth.

# Strengths and Limitations of the Project

An advantage of the project is that key stakeholders are in agreement that the proposed improvements are needed. Nursing leaders are continuously looking at ways of improving quality patient care, patient satisfaction, and identifying effective and efficient methods of care with this being a Magnet facility. The Home Telehealth department identified a readiness to change and incorporate future SOPs for each specific disease. With chronic conditions negatively impacting patient care involved stakeholders identify the need for better practices which will positively impact self-management skills in veteran patients.

Barriers and limitations have presented themselves throughout this process. A barrier is this is a retrospective study and lacks a real focus group. The generalizability of the data is limited to a single geographic region across the VAMC. Another limitation is the project study patients seem to lack a lot of diversity. A large portion of patients in the



study were older, male veterans who were diagnosed with multiple comorbid conditions; therefore, the findings may not lend themselves applicable to the general population.

#### Section 5: Dissemination Plan

# **Analysis of Self**

As an advance nurse practitioner, I am more knowledgeable on the process of applying evidence-based research to promote improving quality patient care in all areas of nursing. I will be able to initiate and facilitate future projects within my organization as a result of the knowledge gained from this experience. I learned the importance of reviewing data to identify ways in improving patient care. I now understand how research is the basis for change that becomes evidence-based practice nursing. I will advocate others using research to improve patient outcomes in all areas of practice.

My extensive learning experience at Walden University has supported my clinical knowledge in several ways. I am able to apply knowledge gained at the university to my professional practice. As a scholar, I have been able to develop this project under the guidance of my educational development at Walden University. It is my belief that this education will open the gate to peers and leaders seeking me out for future projects. I have been able to analyze data to promote the best practice in the clinical setting by developing this project by including nursing theory and evidence-based practice.



My goal for the future in the clinical area is to motivate other nurses to pursue higher learning. The completion of this project demonstrates my commitment to the profession and continued education in nursing. Healthcare's complex dynamics has the potential to pose challenges; however, increasing doctorate level nurses will advance nursing practice through implementation of research to improve quality and safe patient care. Using my knowledge gained from Walden University I will be able to collaborate with other disciplines to promote successful patient outcomes.

#### Dissemination

The future plan for dissemination will include poster presentation. At this time there is not much to disseminate as the project has not been implemented. The VAMC has an annual evidence-based practice research presentation that is displayed in the facility to bring attention to clinical practice in every area of nursing. Discussions have already begun with the leaders of Home Telehealth for me to present the outcomes via a poster presentation. Additionally, there is much dialogue amongst leadership about implementing SOPs, disease-specific targeting acute symptoms such as increased blood glucose. It would also be appropriate to disseminate outcomes in a journal submission and publishing to contribute to nursing education globally.

#### **Summary**

Self-management skills in patients with chronic conditions are constantly evolving; however, the need for more published literature is needed. Enhancing the role of the care coordinator will better engage the veteran and caregiver in sustaining self-



management skills. Care coordinators need to be fully knowledgeable of the project for successful implementation. It is imperative that research continues in this area.

Clinical strides continue to be made in Home Telehealth with the management of patients with chronic conditions. As persons with chronic conditions continue to increase researchers will need to further look at evidence-based practice to successfully manage these diseases. As the role of the care coordinator is enhanced with the use of specific disease protocols and embedded communication techniques it will be important to identify best practice in educating care coordinators how to effectively use. It is important care coordinators are educated in their additional tasks to minimize feeling unprepared and ineffective without proper education in order to provide the best care to veteran patients in hopes of promoting better patient outcomes with self-management skills.

#### References

- Alliance Health. (2014). *19 surprising stats about chronic disease*. Retrieved from https://www.alliancehealth.com/19-surprising-stats-about-chronic-disease/
- American Nurses Association. (2012). The value of nursing care coordination: A white paper of the American nurses association. Retrieved from www.nursingworld.org/carecoordinationwhitepaper.
- Andres, A., Gomez, J., & Saldana, C. (2008). Challenges and applications of the transtheoretical model in patients with diabetes mellitus. *Disease Management and Health Outcomes*, 16(1), 31-46.
- Bass, D. M., Judge, K. S., Snow, A. L., Wilson, N. L., Morgan, R., Looman, W. J.,
  ... & Kunik, M. E. (2013). Caregiver outcomes of partners in dementia care:
  Effect of a care coordination program for veterans with dementia and their family
  members and friends. *Journal of American Geriatrics Society*, 61(8), 1377-1386.
- Baumann, L. C., & Ngoc-Dang, T. T. (2012). Helping patients with chronic conditions overcome barriers to self-care. *Lippincott Nursing Center*, 37(3), 32-38.
- Beard, D. F. (2009). Successful applications of the balanced scorecard in higher education. *Journal of Education for Business*, 84(5), 275-282.
- Behrouzi, F., Shaharoun, A. M., & Ma'aram, A. (2014). Applications of the balanced scorecard for strategic management and performance measurement in the health sector. *Australian Health Review*, 38(2), 208-217.
- Bender, B. G. (2014). Can health care organizations improve health behavior and treatment adherence? *Population Health Management*, 17(2), 71-78.



- Bentley, A. (2014). Case management and long-term conditions: the evolution of community matrons. *British Journal of Community Nursing*, 19(7), 340-345.
- Bodenheimer, T., & Berry-Millett, R. (2009). Care management of patients with complex health care needs. Retrieved from www.rwjf.org/content/dam/farm/reports/issue\_briefs/2009/rwjf49853/subassets/rwjf49853\_1
- Bodenheimer, T., Chen, E., & Bennett, H. D. (2009). Confronting the growth of chronic disease: Can the U.S. health care workforce do the job? *Health Affairs*, 28(1), 64-74.
- Cegarra-Navarro, J., & Cepeda-Carrion, G. (2013). Implementing telemedicine technologies through an unlearning context in a homecare setting. *Behavior & Information Technology*, 32(1), 80-90.
- Centers for Disease Control. (2009). *The power of prevention: Chronic disease...the*public health challenge of the 21<sup>st</sup> century. Retrieved from

  http://www.cdc.gov/chronicdisease/Pdf/2009-power-of-prevention.pdf
- Centers for Disease Control. (2013). *The state of aging and health in America*. Retrieved from http://www.cdc.gov/agingdata/
- Centers for Disease Control. (2014). *Chronic disease prevention & health promotion*.

  Retrieved from http://www.cdc.gov/chronicdisease/overview/index.htm
- Charness, N. (2014). Utilizing technology to improve older adult health. *Occupational Therapy In Health Care*, 28(1), 21-30.
- Cheung-Larivee, K. (2011). The care coordinator role at Darthmouth-Hitchcock,



- Cigna's accountable care model. Retrieved from www.fiercehealthcare.com/story/care-coordinator-role-dartmouth-hitchcock-cignas-accountable-care-model/2011-08-31
- Chu, H-L., Wang, C-C., & Dai, Y-T. (2009). A study of a nursing department performance measurement system: Using the balanced scorecard and the analytic hierarchy process. *Nursing Economics*, 27(6), 401-407.
- Chul-Young, R. (2008). Telemedicine: What it is, where it came from, and where it will go. *Comparative Technology Transfer and Society*, 6(1), 35-37.
- Coffey, B. (2014). Telemedicine in small-town America. *Health Management Technology*, 35(11), 24.
- Cordova, I. P., Barrios, F. F., Gutierrez-Gomes, T., Pinonez-Martinez, M. S., Quintero-Valle, L. M., & Castaneda-Hidalgo, H. (2014). Self-management in chronic Conditions: partners in health scale instrument validation. *Nursing Management*, 20(10), 32-37.
- Cronin, P., Ryan, F., & Coughlan, M. (2008). Undertaking a literature review: A step by step approach. *British Journal of Nursing*, 17(1), 38-43.
- Cullen, L., & Adams, S. L. (2012). Planning for implementation of evidence-based practice. *Journal of Nursing Administration*, 42(4), 222-230.
- Currell, R., Urquhart, C., & Wainwright, P., & Lewis, R. (2010). Telemedicine versus face to face patient care: Effects on professional practice and health care outcomes (review). *Cochrane Database of Systematic Reviews*.



- Darkins, A., Ryan, P., Kobb, R., Foster, L., Edmonson, E., Wakefield, B., & Lancaster, A.
  E. (2008). Care coordination/home Telehealth: The systematic implementation of health informatics, home Telehealth, and disease management to support the care of veteran patients with chronic conditions. *TELEMEDICINE and e-HEALTH*, 14(10), 1118-1126.
- Dempsey, A. R., Johnson, S. S., & Westhoff, C. L. (2011). Predicting oral contraceptive continuation using the Transtheoretical model of health behavior change.

  \*Perspectives on Sexual and Reproductive Health, 43(1), 23-29.
- Dowling, R. A. (2015). Telemedicine: Are we reaching a tipping point? *Urology Times*, 43(2), 27-30.
- Draper, C. A., Draper, C. E., & Bresick, G. F. (2014). Alignment between chronic disease policy and practice: Case study at a primary care facility. *PLOS One*, 9(8), 1-8.
- Essue, B. M., Jowsey, T., Jeon, Y., Mirzael, M., Pearce-Brown, C., Aspin, C., & Usherwood, T. P. (2010). Informal care and the self-management partnership: Implications for Australian health policy and practice. *Australian Health Review*, 34(4), 414-422.
- Fisher, K., & Kridli, S. A-O. (2014). The role of motivation and self-efficacy on the practice of health promotion behaviors in the overweight and obese middle-aged American women. *International Journal of Nursing Practice*, 20, 327-335.



- Fowler, C., Kirschner, M., VanKuiken, D., & Baas, L. (2007). Promoting self-care through symptoms management: A theory-based approach for nurse practitioner. *Journal of the American Academy of Nurse Practitioner*, 19(5), 221-227.
- Grady, P. A., & Gough, L. L. (2014). Self-management: A comprehensive approach to Management of chronic conditions. *American Journal of Public Health*, 104(8), 25-31.
- Greene, R., Dasso, E., Ho, S., Frank, J., Scandrett, G., & Genaidy, A. (2013). Patterns and expenditures of multi-morbidity in an insured working population in the United States: Insights for a sustainable health care system and building healthier lives. *Population Health Management*, 16(6), 381-389.
- Grove, S. K., Burns, N., & Gray, J. R. (2013). *The practice of nursing research:*Appraisal, synthesis, and generation of evidence (7<sup>th</sup> ed.). St. Louis, MO: Elsevier Saunders.
- Gruber, N., Darragh, J., Puccia, P. H., Kadric, D. S., & Bruce, S. (2010). Embracing change to improve performance. *Long-Term Living: For the Continuing Care Professional*, 59(1), 28-31.
- Haworth, J. (2008). Measuring performance. Nursing Management-UK, 15(3), 22-28.
- Hodges, B. C., & Videto, D. M. (2011). Assessment and planning in health programs (2<sup>nd</sup> ed.). Sudbury, MA: Jones & Bartlett Learning.
- Holt, J. B., Huston, S. L., Heidari, K., Schwartz, R., Gollmar, C. W., Tran, A., ... & Croft, J. B. (2015). Indicators for chronic disease surveillance- United States, 2013. MMWR Morbidity and Mortality Weekly Report: Recommendations and

- Reports/Centers for Disease Control, 64(11), 246.
- Howard, L. M., & Ceci, C. (2012). Problematizing health coaching for chronic illness self-management. *Nursing Inquiry*, 20(3), 223-231.
- Hughes, J., Reilly, S., Berzins, K., Abell, J., Stewart, K., & Challis, D. (2011). Emergent approaches to care coordination in England: Exploring the evidence from two national organizations. *Care Management Journals*, 12(4), 194-201.
- Implementation of remote health monitoring in medical rural clinics for web telemedicine system. (2014). *International Journal of Advanced Networking & Applications*, 6(3), 2300-2307.
- Jaarsma, T., Riegel, B., & Stromberg, A. (2012). A middle-range theory of self-care of chronic illness. *Lippincott Nursing Center*, 35(3), 194-204.
- Johnson, E. N., Reckers, P. M. J., & Bartlett, G. D. (2014). Influence of timeline and perceived strategy effectiveness on balanced scorecard performance evaluation judgments. *Journal of Management Accounting Research*, 26(1), 165-184.
- Johnston, S. E., Liddy, C. E., & Ives, S. M. (2011). Self-management support: A new approach still anchored in an old model of health care. *Canadian Journal of Public Health*, 102(1), 68-72.
- Jones, K. R., Lekhak, N., & Kaewluang, N. (2014). Using mobile phones and short message service to deliver self-management interventions for chronic conditions:
  A meta-review. Worldviews on Evidence-Based Nursing, 11(2), 81-88.
- Joo, J. Y., & Huber, D. L. (2013). An integrative review of nurse-led community-based case management effectiveness. *International Nursing Review*, 61, 14-24.



- Jowsey, T., Peace-Brown, C., Douglas, K. A., & Yen, L. (2011). What motivate Australian health service users with chronic illness to engage in self-management behavior? *Health Expectations*, 17, 267-277.
- Kruk, M. E., Nigenda, G., & Knaul, F. M. (2015). Redesigning primary care to tackle the global epidemic of noncommunicable disease. *American Journal of Public Health*, 105(3), 431-437.
- Kvaal, K., Halding, A. G., & Kvigne, K. (2014). Social provision and loneliness among older people suffering from chronic physical illness. A mixed-method approach. *Scandinavian Journal of Caring Science*, 28, 104-111.
- Liddy, C., Blazkho, V., & Mill, K. (2014). Challenges of self-management when living with multiple chronic conditions. *Canadian Family Physician*, 60(12), 1123-1133.
- Lindeman, D. (2010). Interview: Lessons from a leader in Telehealth diffusion: A conversation with Adam Darkins of the Veterans Health Administration. Retrieved from www.techandaging.org/AgeingInternation DarkinsInterview.pdf
- Lobo, R., Petrich, M., & Burns, S. K. (2014). Supporting health promotion practitioners to undertake evaluation for program development. *BioMed Central Public Health*, 5(1315), 1-8.
- Lu, J. F., Chi, M. J., & Chen, C. M. (2013). Advocacy of home telehealth care among consumers with chronic conditions. *Journal of Clinical Nursing*, 23, 811-819.
- Marineau, M. L. (2007). Special populations: Telehealth advance practice nursing: The lived experiences of individuals with acute infections transitioning in the home. *Nursing Forum*, 42(4), 196-208.

- McNevin, E. (2011). Stages of change theory in family therapy for sibling sexual assault.

  \*Australian and New Zealand Journal of Family Therapy, 32(4), 343-356.
- Mehta, S., Cameron, K., & Battistella, M. (2014). Motivational interviewing:

  Application to end stage renal disease patients. *Canadian Association of Nephrology Nurses and Technologists*, 24(4), 19-22.
- Mirzaei, M., Aspin, C., Essue, B., Jeon, Y., Dugdale, P., Usherwood, T., & Leeder, S. (2013). A patient-centered approach to health service delivery: Improving health outcomes for people with chronic illness. *BMC Health Services Research*, 13 (251), 1-11.
- Narayanasamy, A., & Penney, V. (2014). Coaching to promote professional development in nursing practice. *British Journal of Nursing*, 23(11), 568-573.
- Nolte, E., & McKee, M. (2008). Caring for people with chronic conditions: A health system perspective. Retrieved from www.euro.who.int/\_data/assets/pdf\_file/0006/96468/E91878.pdf
- Nutt, M., & Hungerford, C. (2010). Nurse care coordinators: Definitions and scope of practice. *Contemporary Nurse*, 36(1-2), 71-81.
- Ostrander, R. J. (2012). Care coordination, basic principles and practical pointers. *Journal* of the New York State Academy of Family Physicians, 1(1), 15-19.
- Pangioti, M., Richardson, G., Small, N., Murray, E., Rogers, A., Kennedy, A., ... & Bower, P. (2014). Self-management support interventions to reduce health care utilisation without compromising outcomes: A systematic review and meta-analysis. *BMC Health Services Research*, 14(256), 1-14.

- Planas, L. G. (2008). Intervention design, implementation, and evaluation. *American Journal of Health System Pharmacy*, 65(19), 1854-1863.
- Preskill, H., & Jones, N. (2009). A practical guide for engaging stakeholders in developing evaluation questions. Robert Wood Foundation. Retrieved from www.rwjf.org/content/dam/web-assets/2009/01/a-practical-guide-for-engaging-stakeholders-in-developing-evalua
- Qin, J., Theis, K. A., Barbour, K. E., Helmick, C. G., Baker, N. A., & Brady, T. J. (2015). Impact of arthritis and multiple chronic conditions on selected life domains- United States, 2013. *Morbidity and Mortality Weekly Report*, 64(21), 578-582.
- Richardson, J., Letts, L., Chan, D., Officer, A., Wojkowski, S., Oliver, D., ... & Kinzie, S. (2012). Monitoring physical functioning as a sixth vital sign: Evaluating patient and practice engagement in chronic illness care in a primary care setting-aquasi-experimental design. *BMC Family Practice*, 13(29), 1-13.
- Rizzio, V. M., Engelhardt, J., Tobin, D., Della-Penna, R., Feigenbaum, P., Sisselman, A., . . . & Lombardo, F. (2010). Uses of the stages of change transtheoretical model in end-of-life planning conversations. *Journal of Palliative Medicine*, 13(3), 267-271.
- Schalm, C. (2008). Implementing a balanced scorecard as a strategic management tool in a long-term care organization. *Journal of Health Services Research & Policy*, 13(1), 8-14.
- Seifert, A. B., & Henry, R. (2015). Using telemedicine to reduce home health care risks.

  \*Rough Notes\*, 158(2), 94, 98.



- Shea, K., & Chamoff, B. (2012). Telehomecare communication and self-care in chronic conditions: Moving toward a shared understanding. *Sigma theta Tau International*, 9(2), 109-116.
- Siegel, M., & Lotenberg, L. D. (2008). Marketing public health: Strategies to promote

  Social change. *Jones & Bartlett Publishers*. Retrieved from https://books.google.com/books?id=oHLCPLTRFgAC&pg=PT47&1pg=PT47&d q=some+implications+for+social+change+for+chronic+conditions&source=bl&o ts=\_n9
- Shore, J. H., Brooks, E., Savin, D. M., Manson, S. M., & Libby, A. M. (2007). An economic evaluation of Telehealth data collection with rural populations. *Psychiatric Services*, 58(6), 830-835.
- Smith, A., MacKay, S., & McCulloch, K. (2013). Case management: developing practice through action research. *British Journal of Community Nursing*, 18(9), 452-458.
- Sola, D., Couturier, J., & Voyer, B. G. (2015). Unlocking patient activation in chronic disease care. *British Journal of Healthcare Management*, 21(5), 220-225.
- Srivastava, S. C. (2015). Bridging the service divide through digitally enabled service innovations: Evidence from Indian healthcare service providers. *MIS Quarterly*, 39(1), 245-A19.
- Steinke, C., Webster, L., & Fontaine, M. (2010). Evaluating building performance in healthcare facilities: an organizational perspective. *Health Environments Research & Design Journal*, 3(2), 63-83.



- Trehearne, B., Fishman, P., & Lin, E. H. B. (2014). Role of the nurse in chronic illness management: Making the medical home more effective. *Nursing Economics*, 32(4), 178-184.
- Tsasis, P., & Owen, S. M. (2009). Using the balanced scorecard in the development of community partnerships. *Health Services Management Research*, 22(1), 33-38.
- Umayal-Karpagam, P. L., & Suganthi, L. (2012). A strategy map of balanced scorecard in academic institutions for performance improvement. *The IUP Journal of Business Strategy*, 9(3), 7-16.
- Vogeli, C., Shields, A. E., Lee, T. A., Gibson, T. B., Marder, W. D., Weiss, K. B., & Blumenthal, D. (2007). Multiple chronic conditions: Prevalence, health consequences, and implications for quality, care management, and costs. *Journal of General Internal Medicine Supplement*, 22, 391-395.
- Walker, R., Marshall, M. R., & Polaschek, N. (2013). Improving self-management in chronic kidney disease: a pilot study. *Renal Society of Australasia Journal*, 9(3), 116-125.
- Want, J., Kamas, G., & Nguyen, T. N. (2008). Disease management in the frail and elderly population: Integration of physicians in the intervention. *Disease*Management, 11(1), 23-28.
- Weinert, C., Cudney, S., & Kinion, E. (2010). Development of My Health Companion to enhance self-care management of chronic health conditions in rural dwellers. *Public Health Nursing*, 27(3), 263-269.



- Wendel, V. I., Durso, S. C., Cayea, D., Arbaje, A. I., & Tanner, E. (2010). Implementing staff nurse geriatric education in the acute hospital setting. *Medsurg Nursing*, 19(5), 274-280.
- White, K. M., & Dudley-Brown, S. (2012). *Translation of evidence into nursing and health care practice*. New York, NY: Springer Publishing Company, LLC.
- Whitty, J. A., Sav, A., Kelly, F., King, M. A., McMillan, S. S., Kendall, E., & Wheeler, A. J. (2014). Chronic conditions, financial burden and pharmaceutical pricing: Insights from Australia. *Australian Health Review*, 38, 589-595.
- Wicklund, E. (2012). VA Telehealth program to grow at brisk clip. *Healthcare IT News*.

  Retrieved from www.healthcareitnews.com/news/va-telehealth-program-grow-brisk-clip
- Yang, Y. T., & Meiners, M. R. (2014). Care coordination and the expansion of nursing scopes of practice. *Journal of Law, Medicine & Ethics*, 42(1), 93-103.
- Yao, P., Tung, S., Zhan, Z., Hua, J., & Dong, Z. (2013). Development of microfluidic -based telemedicine for diabetes care and screening. *Transactions of the Institute* of Measurement & Control, 35(7), 893-900.