Health and Wellness Coaching for Chronic Disease Management

Heather A. Bateman
St. Catherine University

Follow this and additional works at: https://sophia.stkate.edu/dnp_projects

Recommended Citation

This Doctor of Nursing Practice Project is brought to you for free and open access by the Nursing at SOPHIA. It has been accepted for inclusion in Doctor of Nursing Practice Projects by an authorized administrator of SOPHIA. For more information, please contact sagray@stkate.edu.
Health and Wellness Coaching for Chronic Disease Management

DNP Project
Submitted in Partial Fulfillment
of the Requirements for the
Degree of Doctor of Nursing Practice

St. Catherine University
Saint Paul, Minnesota

Heather Anne Bateman
May 2021
Acknowledgements

I would like to first thank my wonderful supporting husband, my children, and my mom for their continued support during the entirety of my academic degrees. I could not have done this without their continued love and support.

I would like to give a special thanks to my advisor, Lori Winchell DrPh, APRN, CWP for sharing her knowledge and wisdom. Your continued support and vision helped to shape the project and bring it to fruition.

I would also like to thank all the St. Catherine University faculty for helping me to achieve my goals in becoming a nurse practitioner, in shaping how I view the world around me, and strengthening my voice in which to create change.

I would like to thank Eastside Elders for their continued support of this community in keeping with their mission to keep seniors living independently and healthy in the community.

Lastly, I would like to give my appreciation to the participants of the wellness clinic. Your strong sense of community is inspiring. Your contribution to this project was invaluable, and I cannot thank you enough for your willingness to share your time with me. I truly value our time together.
Abstract

The focus of this quality improvement project was to improve the perceived health and wellbeing of Native American elders residing in low-income housing. Guidelines were established to provide health promotion activities that included screening, weekly vital signs, culturally appropriate individualized health coaching and education talk circles within a community-based wellness clinic. Data was collected prior to project implementation and again at three months post-implementation. Findings suggest that health coaching and education improve hypertension control as evidenced by mean a population improvement of 12 mm Hg. There was not a significant difference in the responses from the health survey measuring confidence scores and the perceived health of participants, in fact, there was a slight decline in mean confidence scores for some responses.
Health and Wellness Coaching for Chronic Disease Management

Introduction

Chronic diseases are the most common preventable diseases in the U.S., with two out of three older adults contending with multiple chronic conditions (Delaney & Bark, 2019; Bakas et al., 2018). The American Indian and Alaskan Natives experience the worst health disparities in the U.S. caused by inequalities in the distribution of wealth, power, and resources that have existed since colonization (Carron, 2020). The arrival of Europeans in the 15th century initiated a series of traumatic events for Native Americans, such as warfare, community massacres, genocidal policies, and forced relocation. These traumatic events led to a loss of culture and customs (Carron 2020). As a result of these inequalities, Native Americans in Minnesota experience the worst social and health outcomes of any population with high rates of heart disease, cancer, alcohol-induced illnesses, chronic liver disease, kidney disease, mental illness, depression, and Alzheimer's dementia (Stratus Health, 2020). As a result of changes to their environment and diet, Native Americans also experience high rates of obesity, diabetes, and metabolic syndrome (Carron, 2020). The life expectancy is five years shorter for Native Americans than whites (Carron, 2020; Stratus Health, 2020).

Background

Health professionals can impact the effects that chronic conditions have on the lives of Native Americans by providing individual and group health coaching to assist the members of this population in meeting their own wellness goals. U.S. residents with chronic conditions have room for improvement. According to Lianov and Johnson (2010), only 11% of patients with diabetes follow the recommended dietary changes, such as reducing saturated fat intake. Evidence shows and experienced nurses know that the suffering that chronic diseases produce
can be reduced through education and behavior change; health coaching provides a systematic framework to influence behavior change (Delaney & Bark, 2019). The potential effects of behavior change on morbidity, mortality, and health care costs are enormous and are motivators for the concept of lifestyle medicine or health coaching. (Lianov & Johnson, 2010). Effectively motivating patients to change behavior requires more than just mentioning recommendations for behavior change at the end of the doctor visit. Success requires developing specific healthy lifestyle action plans in partnership with the patients (Lianoz & Johnson, 2010).

The wellness clinic where this project was implemented was developed four years ago and serves a 42-unit independent living facility for low-income Native Americans, ages 55 and older. The clinic is a drop-in clinic that is completely run by health care volunteers and students from a local university. The clinic is part of a non-profit organization that provides support to seniors living in the community. The agency's primary goal is to keep seniors living in the community healthy (East Side Elders, 2020). The organization provides a wellness clinic once per week. Due to the pandemic, guidelines were established which outline the workflow process. Participants are screened for Covid symptoms, temperatures are taken, masks are worn, and social distancing guidelines were followed during all activities of the clinic. The volunteers check vital signs which are recorded, and securely stored in a locked room by the health care volunteers. The clinic allows residents to monitor their own health as well by providing a wallet card to keep track of their own vital signs. The goal is for the residents to bring the card to their appointments with their primary care provider. When health care volunteers are alerted to changes in residents' health and wellbeing, necessary resources and education are provided. The staff and health care volunteers wanted to continue to provide this free community service and improve the health of its members by adding health coaching and health education discussion
groups. For the purpose of this paper, health coaching is defined as partnering with residents to provide support to enhance skills and knowledge of resources to improve their wellbeing. The clinic provided health screening and informal health discussions but benefits from the addition of formalized health promotion services such as health coaching and educational talk circles.

The purpose of this DNP project was to develop a sustainable framework that includes health screening and health promotion activities through the development of wellness coaching templates using a culturally appropriate patient-centered approach. These templates are compiled into written guidelines in accordance with evidence-based practice. The development of health coaching templates and guidelines provided a sustainable framework that allows healthcare volunteers to provide continuity of care for seniors to meet their wellness goals. The developed framework also allows the wellness clinic to continue to provide further service-learning opportunities for students and future volunteers.

**Needs Assessment**

A health needs assessment is a systematic process to gather health data for patients, clinicians, and health care teams to identify and support beneficial health behaviors and to mutually work towards changes to potentially harmful health behaviors (Agency for Healthcare Research and Quality, 2013). In completing the needs assessment for the wellness clinic, a pre-implementation health survey and topic checklist were conducted. The data collected from these surveys were used to develop individual action plans and educational handouts. The health and wellness surveys were completed using a confidence ruler for participants to gauge their current health and identify areas where they would like to see an improvement. The most common area for improvement identified was to increase or maintain activity level through exercise. The topic checklist surveys were completed pre-implementation. Participants identified nutrition,
exercises, pain, heart health, health screening, depression and stress reduction, safety, managing chronic illnesses such as diabetes, and living-will as topics that participants wanted to have included in the talk circle discussions.

Low health literacy was also identified through interactions with the participants and in collaboration with other health care volunteers. Health literacy is the degree to which people can obtain, process, and understand basic health information, allowing them to make decisions about their health (Health Resources and Services Administration, 2019). Many of the participants had a limited understanding of managing their chronic diseases, especially in understanding the role their medications played in maintaining or improving their health. For example, one participant did not believe that taking his antihypertensive medication lowered his blood pressure, and he often did not take his medications. Another example is that this same participant was asked to bring his blood pressure medications to the nurse to verify current medication doses and clarify instructions. He brought one prescription bottle with three different medications inside. Medications were identified using a mobile PDR app (2021). There were three different blood pressure medications identified in the same bottle, two of which were the same medication at different strengths. According to Lee et al. (2003), persons with lower health literacy may be less knowledgeable about diseases and their early symptoms, understand less about preventative care and need regular primary care visits. Low health literacy has been linked to poorer quality of life, increased emergency service use, higher mortality risk, and poorer health behaviors such as self-management skills (Mackey et al., 2016). In addition, poorer health beliefs can result in poorer adherence to self-management strategies, whereas improving self-efficacy levels can increase confidence in making lifestyle changes (Mackey et al., 2016). Managing chronic
diseases requires individuals to choose healthier behaviors of their own volition, which can be impaired by low literacy levels (Mackey et al., 2016).

The location of this project was at a weekly wellness clinic held for the residents of an independent senior living community. One of the primary strengths identified throughout the entire process is that this is a very supportive community. The residents are very supportive of each other and are often heard checking on each other’s welfare. The residents update each other of the activities available, often providing information to volunteer about new residents who may want to get their vitals checked. Social support has been identified as being helpful to individuals struggling with low health literacy. The support and resources available in social environments are important factors for alleviating the adverse effects of low health literacy on health outcomes (Lee et al., 2003).

**Stakeholders**

The primary stakeholders for this project included Native Americans living within this senior community, volunteer staff of the wellness clinic, the volunteer agency, and the Indian Health Board. The project's goal was to improve the health and wellbeing of Native American Elders living within the community by providing the support needed to meet their individual health needs.

**Problem Statement**

The care of Native Americans with chronic diseases are impacted by poverty level incomes, health illiteracy, lack of transportation, impaired mobility, and social isolation. Although most of the residents have health insurance, high out-of-pocket costs impact their ability to access necessary care. Without support and partnerships with health care providers, the residents will continue to suffer from the effects of their chronic diseases. In a community needs
assessment conducted in Ramsey County (2018), 50% of Native Americans identified culturally specific activities and education as necessary in promoting health. Family and social connections were reported to also promote health and wellbeing by 40% of Native Americans. Research supports the use of culturally tailored group discussion and individualized wellness coaching using motivational interviewing to create desired behavior change to improve self-efficacy in managing chronic diseases (Delaney & Bark, 2019).

**Purpose Statement**

The purpose of this DNP project was to improve the health and wellbeing of Native American elders through the development of a sustainable framework. A framework that included culturally tailored written guidelines and templates using a patient-centered approach to provide individualized coaching and facilitate education discussion groups.

**PICO Question**

In the Native American elder population, does the implementation of culturally appropriate health promotion activities such as health discussion groups and individualized wellness coaching improve self-reported health behaviors of Native Americans in the management of their chronic diseases?

**Project Goals**

1. Improve the health and wellbeing of Native Americans with chronic diseases living in low-income senior housing.
2. Establish a sustainable framework for the wellness Clinic
3. Develop culturally appropriate written tools and strategies for health and wellness to increase residents' self-efficacy in chronic disease management.
Objectives

1. Develop 100% of culturally appropriate written guidelines and tools for health coaching.
2. Develop 100% of culturally appropriate education materials for the discussion groups.
3. Demonstrate improvement to health and wellbeing by 90% of participants of the wellness Clinic

Theoretical Framework

The project’s focus was to help Native American elders reach their health and wellbeing goals by providing holistic health coaching using Prochaska's Transtheoretical Stages of Change Model and Skinners’ Health Belief Model. Holistic nurse coaching is defined as skilled, purposeful, results-oriented, and relationship-centered interactions with clients to promote health and wellbeing (Delaney & Bark, 2019). Characteristics of holistic coaching include a whole person approach to body, mind, and spirit with an integrative perspective that recognizes the biological, psychological, social/cultural, transpersonal, and energetic components of individuals (Delaney & Bark, 2019).

Using the Transtheoretical Model assisted coaches in identifying an individual's readiness for change and motivation through motivational interviewing. Coaches assisted individuals in moving through the stages of change by identifying the level of motivation, the measurement of self-efficacy, and the development of action plans using motivational interviewing and SMART goals (Prochaska et al., 2008). The Health Belief Model was also utilized in identifying barriers to change, benefits and threats to change, and self-efficacy (Jones et al., 2015).

Lowe and Struthers’ Nursing in Native American Culture (20021), was another model used to guide the project. This model has seven dimensions that guide the care of Native Americans. The dimensions include caring, traditions, respect, connection, holism, trust, and
Health and Wellness Coaching

spirituality (Lowe & Struthers, 2001). All dimensions can be witnessed in the act of individual holistic coaching and in health education talk circles. For example, the dimension of caring refers to building partnerships in healing through individual health coaching and talk circles (Lowe & Struthers, 2001). The project includes Native American traditions such as the utilization of the medicine wheel to guide education and coaching services. The education discussion groups are in the format of a talk circle, utilizing a feather passed around and signifying that it is one's time to share. The talk circle is rooted in Native American traditions and allows for integrating Native American culture into health education discussion groups. The Native American medicine wheel will be used throughout education and individual health coaching. The medicine wheel is a universal symbol; it is a symbol of wholeness. The medicine wheel includes all directions and all aspects of self, including mind, body, spirit, and nature (Dapice 2006; Garner et al., 2011).

Literature Review

Data Sources and Search Strategy

Databases were accessed through St Catherine University library for a literature search in the Summer of 2020. CINAHL, Medline, and PubMed were searched using keywords and Boolean phrases as follows: Native American, American Indian, indigenous, native tribes, or native people, (AND) chronic disease, chronic illness, long term conditions, or chronic conditions (AND) wellness coaching, life coaching, or health coaching which yielded minimal results. The search was broadened by removing Native American, American Indian, or indigenous, native tribes, or native people and replacing them with elders, elderly, older people, or seniors, which yielded 1461 articles. To obtain articles relevant to the population, a search was conducted with the keywords and Boolean phrases wellness coaching, life coach, or health coach.
(AND) low-income, poverty, or low socioeconomic yielded another 44 articles for a total of 1505 articles which were reviewed for relevancy.

Of the 1505 articles, 312 titles were reviewed for study objectives; 59 abstracts were reviewed for inclusion criteria. There was no limitation for publication year to gain insights into multiple aspects of providing health and wellness coaching in the self-management of chronic conditions. Articles must be published in English. Articles were selected with the objective of implementing health and wellness coaching to manage chronic conditions, health outcomes as a result of health coaching, and satisfaction rates of health coaching. Figure A1 in Appendix A outlines the methodology of the literature search.

Critical Appraisal

Sixteen articles were appraised using the John Hopkins University Appraisal tool. Only good or high-quality articles were included in the manuscript. Articles were selected that supported implementing health and wellness coaching to help patients manage their chronic conditions. Qualitative research was also included in determining patient’s perceptions of health and wellness coaching. Figure B1 in Appendix B displays the critical appraisal for each article.

Synthesis

The purpose of this review was to determine if implementing health and wellness coaching to Native American elders living with chronic diseases would increase their self-efficacy and help them make health behavior changes that would improve their health and sense of wellbeing. The literature search was conducted to identify different methods of health coaching such as telephone versus in-person, use of motivational interviewing, action plans, confidence scales, and measured outcomes. Thirteen of the sixteen articles, six of which were RCT, demonstrated health coaching has positive effects on lowering blood pressures, increasing
self-efficacy, goal setting, and improved the perceived quality of life. Only one pilot study did not find a significant difference in health care utilization with health and wellness coaching. However, these findings may be attributed to a low number of encounters between the health coach and participants (Lin et al., 2012).

There is a plethora of evidence that supports health and wellness coaching as an effective intervention in the self-management of chronic diseases. There are many benefits to health and wellness coaching that have been identified. Health coaching has positively impacted glycemic control for patients with diabetes (Delaney et al., 2013; Goldman et al., 2015; Thom et al., 2013). Health coaching has been identified to improve inhaler use techniques and medication adherence among patients diagnosed with COPD (Willard-Grace et al., 2020). Patients reported increased satisfaction and improved quality of life due to the interactions with health coaches (Delaney & Bark, 2019; Bakas et al., 2017; Benzo et al., 2017; Dennis et al., 2013; Park et al., 2017).

Project Implementation

Project Design

This project included the wellness clinic volunteer nurses, DNP students, Service Coordinator, St. Catherine University faculty, and the residents. The DNP student developed a sustainable framework for volunteers to provide culturally appropriate education and health coaching services to participants of this quality improvement project. The project focused on partnering with residents to support and enhance their knowledge and skills to improve their wellbeing through culturally appropriate health education discussion groups and individualized health coaching.

Information was gathered from volunteer staff, the Service Coordinator, St Catherine University faculty, DNP students, and the wellness clinic participants. An informal needs
assessment was conducted and provided insights into some desired topics for group discussions and individual coaching. A checklist survey was completed to give more insight into educational needs and desired topics. Vital signs data were collected to help determine health outcomes.

The DNP student developed culturally appropriate written guidelines and templates of coaching tools to be used by volunteers, students, faculty, as well as educational materials for discussion groups. The education materials, resources, and written guidelines are kept in a binder for current and future use by volunteers and students.

Health coaching tools were developed and included motivational interviewing, use of importance and confidence scales, and patient-centered action plans. Educational groups were facilitated based on the results of the topic checklist survey. Resident participation data was tracked each clinic day. These records are stored in a secured location accessible to the Site Manager and volunteer nurses. Pre and post-surveys were conducted before and after project implementation to determine if there was a self-reported improvement to resident's health and wellbeing. The Chronic Disease Management Survey developed by Dignity Health, St Rose Dominican Hospital, Las Vegas, Nevada, was used to guide the development of the health surveys completed by residents for pre and post-evaluation. Pre-surveys were conducted prior to project implementation, and post-surveys were completed at project completion by residents to determine if there is a self-reported improvement. Health data obtained by screening blood pressure, heart rate, temp, pulse ox, and BMI were also reviewed for improvements of resident’s health status.
Ethical Considerations

Working with a population of Native American elders provided an excellent opportunity to learn about the culture. Respect of the culture and of the individuals was maintained at all times. Participants completed informed consents before implementation of the health and wellness coaching. Any participant who declined to participate in health and wellness coaching was not excluded from participating in the clinic's activities and was given educational materials as well. Vital signs data from all participants were kept within individual folders within a locked file cabinet and behind a secured door. The only persons who had access to the information were clinic volunteers. In collecting blood pressure data, no identifying demographics were used; participants were given a numerical value from 1-12 as identifiers to calculate mean blood pressure data.

Project Evaluation

Methods

This quality improvement project aimed to improve the health and wellbeing of Native Americans with chronic diseases living in low-income senior housing by establishing a sustainable framework. The framework included developing written tools and strategies for health and wellness activities to increase the self-efficacy in the management of chronic diseases. Health and wellness outcomes were measured by calculating mean blood pressures both before and after project implementation, and using confidence scales in the health surveys. It was hypothesized that there would be an improvement to the participant's health and perceived wellbeing due to coaching services.
Blood Pressure

The wellness clinic, held weekly, provided opportunities to develop a trusting nurse-client relationship, allowing for discussions about health to occur, a similar finding to Shellman (2000) at a community blood pressure clinic. According to the American College of Cardiology (2017), uncontrolled blood pressures or hypertension indicated by a reading greater than 140/90 was a common concern noted during the weekly vital sign checks at the wellness clinic. To determine the benefits of the health and wellness coaching on blood pressures, mean blood pressure data was collected for twelve participants before implementation and again after health and wellness coaching was implemented three months later. To calculate the mean systolic and diastolic blood pressures for each participant, blood pressure data was collected from three separate encounters at both the pre and post-implementation. The population means was calculated from all data collected. See Table 1 below, which outlines data collection and findings.

Interpretation. There was a mean population average improvement of 12 mm Hg to the systolic pressures after implementing health and wellness coaching. Individually, there was a more significant improvement noted to most participants, especially those with higher mean blood pressures at the start of the program. Findings are similar to Margolius et al. (2012), who had a mean improvement to systolic pressures of 22 mm Hg with weekly health coaching and blood pressure monitoring for six months. At three months post-implementation, findings from this study are approximately at half of Margolius et al. (2012) findings were at six months.
Table 1

Mean Blood Pressures of Participants of Wellness Clinic

<table>
<thead>
<tr>
<th>Participant</th>
<th>Pre-Program Mean SBP</th>
<th>Pre-program Mean DBP</th>
<th>Post-Program Mean SBP at 3 Months</th>
<th>Post-Program Mean DBP at 3 Months</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>147</td>
<td>71</td>
<td>137</td>
<td>75</td>
<td>+10 mm Hg</td>
</tr>
<tr>
<td>#2</td>
<td>153</td>
<td>68</td>
<td>129</td>
<td>74</td>
<td>+24 mm Hg</td>
</tr>
<tr>
<td>#3</td>
<td>128</td>
<td>72</td>
<td>103</td>
<td>65</td>
<td>+25 mm Hg</td>
</tr>
<tr>
<td>#4</td>
<td>155</td>
<td>76</td>
<td>157</td>
<td>62</td>
<td>-2 mm Hg</td>
</tr>
<tr>
<td>#5</td>
<td>130</td>
<td>58</td>
<td>122</td>
<td>55</td>
<td>+8 mm Hg</td>
</tr>
<tr>
<td>#6</td>
<td>127</td>
<td>85</td>
<td>140</td>
<td>77</td>
<td>-13 mm Hg</td>
</tr>
<tr>
<td>#7</td>
<td>184</td>
<td>74</td>
<td>158</td>
<td>76</td>
<td>+26 mm Hg</td>
</tr>
<tr>
<td>#8</td>
<td>164</td>
<td>77</td>
<td>133</td>
<td>70</td>
<td>+31 mm Hg</td>
</tr>
<tr>
<td>#9</td>
<td>129</td>
<td>70</td>
<td>131</td>
<td>81</td>
<td>-2 mm Hg</td>
</tr>
<tr>
<td>#10</td>
<td>135</td>
<td>72</td>
<td>138</td>
<td>73</td>
<td>-3 mm Hg</td>
</tr>
<tr>
<td>#11</td>
<td>145</td>
<td>81</td>
<td>131</td>
<td>85</td>
<td>+14 mm Hg</td>
</tr>
<tr>
<td>#12</td>
<td>127</td>
<td>63</td>
<td>110</td>
<td>59</td>
<td>+17 mm Hg</td>
</tr>
<tr>
<td>Population Mean</td>
<td>144</td>
<td>72</td>
<td>132</td>
<td>71</td>
<td>12 mm Hg</td>
</tr>
</tbody>
</table>

Note. The mean difference in diastolic blood pressures remains relatively the same; therefore, only systolic pressures were noted in the table.

Health Surveys

Health screening surveys were conducted before implementing health and wellness coaching and again three months after implementation to determine participants' perceived health and wellbeing using confidence scales. The mean average scores for each survey question were calculated. See Table 2 below

Interpretation. Participants were confident in their abilities before implementation which was not a predicted outcome of the initial survey. It was originally hypothesized that participants wanted to please the nurse volunteers with their responses to the health survey questions. According to a study conducted by Taylor et al. (2004), American Indian women did
not perceive diminished health until there was a physical feeling of illness; they considered their health to be satisfactory. The women also considered poor health to be directly related to their ability to perform their daily tasks and other activities (Taylor et al., 2004). These findings are similar to the findings in this quality improvement project. As outlined in Table 2, participants were asked, "…. your health will not interfere with your ability to perform household chores?" The mean confidence score was nine. Participants were also asked, "…. you can continue doing activities you enjoy?" The mean confidence score was 10. The findings are suggestive that education needs to be tailored towards the management of chronic disease to minimize risks of declining health and disability, which will allow participants to continue to perceive their health positively.

There was a decline in the mean scores on the post-implementation surveys in reference to questions related to seeing primary care providers regularly, managing pain, and managing shortness of breath. The Covid pandemic resulted in a second lockdown during the implementation phase which could have impacted these findings. The process of completing the post-implementation health survey were conducted differently which also could have impacted the survey responses. The initial surveys were conducted with help from the DNP student. The student read the questions to participants, and the answers were either marked by the student or the participant based on the participant's request. This format was used to preserve the dignity of participants who have low literacy and require assistance in completing forms. During the post-implementation process, participants assisted each other with reading the survey questions. The responses on the post-survey may be more indicative of their genuine responses due to having a peer assist with forms instead of a nurse. Some of the areas where there was a decrease in mean confidence scores were in areas that education topics were not yet discussed in the talk circles.
Education topics that have been discussed during the implementation phase were diabetes, hypertension, and the medicine wheel, which could explain the decline in specific areas such as pain management, and an increase confidence scores in other areas of managing chronic diseases.

**Table 2**

*Health Survey Mean Confidence Scores*

<table>
<thead>
<tr>
<th>Confidence Questions</th>
<th>Pre-program Mean Score</th>
<th>Post-program Mean Score</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>See PCP regularly</td>
<td>9</td>
<td>7</td>
<td>-2</td>
</tr>
<tr>
<td>Ability to talk to PCP about symptoms</td>
<td>8</td>
<td>9</td>
<td>+1</td>
</tr>
<tr>
<td>Chronic disease Management activities</td>
<td>9</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Knowing symptoms that illness has changed</td>
<td>9</td>
<td>10</td>
<td>+1</td>
</tr>
<tr>
<td>Health will not interfere with household chores</td>
<td>9</td>
<td>10</td>
<td>+1</td>
</tr>
<tr>
<td>Continue to participate in activities you enjoy</td>
<td>10</td>
<td>9</td>
<td>-1</td>
</tr>
<tr>
<td>Manage Pain</td>
<td>9</td>
<td>8</td>
<td>-1</td>
</tr>
<tr>
<td>Keep SOB from interfering in ADL’s</td>
<td>10</td>
<td>9</td>
<td>-1</td>
</tr>
<tr>
<td>Take care of self when feeling sad</td>
<td>8</td>
<td>9</td>
<td>+1</td>
</tr>
<tr>
<td>Keep from feeling lonely</td>
<td>10</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Meet health goal</td>
<td>9</td>
<td>10</td>
<td>+1</td>
</tr>
</tbody>
</table>

*Note. Mean scores were collected from pre-implementation and post-implementation surveys.*
**Discussion**

In this quality improvement project, health coaching services provided weekly over a three-month period positively impacted participants' systolic blood pressures. It also provided opportunities for participants to ask questions about their health, clarify lab results, and clarify instructions given to them after encounters with their health care provider. Questions about their health may have gone unanswered if the coaching sessions were not available to them. One encounter a nurse had with an individual with elevated blood pressures that were not well controlled on current interventions found that the participant was confused about what medications she should be taking. The nurse provided aid in contacting the participants’ primary care provider, giving them an update of the elevated blood pressures taken over several weeks, and clarifying the antihypertensive medications for the participant. The nurse also assisted in making a follow-up appointment with the primary care provider.

The wellness clinic had been closed for several months when the DNP student began volunteering for the clinic in July 2020 due to the global pandemic. Initial observations of the workflow processes upon re-opening demonstrated an opportunity to develop a sustainable framework for current and future volunteers to follow to continue to provide services to this community. There was a standard process for collecting, documenting, and storing vital signs data, but group discussions lacked a formalized process. Topics of group discussions were often developed on a whim. One of the project's objectives was to develop an educational binder that would allow any volunteer to hold educational talk circles with participants.

In developing the educational binder, an annual wellness calendar was developed based on responses from the checklist survey conducted. The calendar included topics such as medicine wheel, heart health, nutrition, diabetes, get moving, cancer screening, mental health, infection
control, healthy habits, safety, respiratory, and stress. In keeping with the goal to provide cultural care and include aspects of the medicine wheel into education, monthly activities were added to the calendar, such as smudging. The activities have yet to occur due to current restrictions directly related to the global pandemic. Education material was developed for each week under the topic heading and kept in a binder. This format provides a guideline for volunteers to hold talk circles weekly.

The Covid-19 global pandemic has been a significant catalyst for significant changes in health care. In order to keep participants and volunteers safe during the pandemic, guidelines for the workflow of the clinic were developed to include social distancing, wearing masks, hand washing, and sanitizing of equipment and workspaces. The guideline is also found in the binder for future volunteers to access.

Action plans were developed for health coaching services to partner with participants in meeting their health goals. The health coach met with each participant every week to discuss the previous week's activities, make changes to the action plan as needed, and provide encouragement through motivational interviewing. The templates of action plans and confidence scales are also kept in the binder for future use.

**Strengths**

The greatest strength of this quality improvement project is the participants themselves. This is a very strong community, and they are well connected. They provide support to each other in so many ways. One resident will let the nurses know when there is a new resident who has moved in to invite them to participate in the clinic activities. Some of the residents will call other residents to let them know that the nurses have arrived. They provide each other transportation to appointments, pharmacy, and shopping. They do wellness checks on each other
when someone has not been seen for a few days. They celebrate each other’s accomplishments and grieve together the loss of another resident. The residents have welcomed the nurses into their community, and the nurses feel very connected to this community.

**Limitations**

Limitations to the data collection were identified that could have impacted study findings. First, prior to implementing formal health and wellness coaching services, the wellness clinic hours were at 10 am-12 pm. Initial blood pressure data were taken at this time of day, which may not have allowed blood pressure medications to have the full effects on the participant’s blood pressures. The time was changed to the afternoons while implementing the health and wellness program, which could have impacted the post-implementation results. Secondly, the quality improvement project was implemented during a global pandemic which prevented gatherings for several weeks during the implementation phase of this project. The restrictions prevented education talk circles from occurring until the last four weeks of the study. Education initially developed for the talk circles was given during individual coaching sessions instead. The intended benefit of feeling strong connections with the group did not come to fruition, which could have made an impact on the results. Thirdly, selection bias could have been introduced as only participants who were motivated to participate in wellness coaching were asked to complete health screening surveys and participate in formalized health coaching with developed action plans. Lastly, the health survey tools used in the data collection and interpretation have not been checked for validity, which could impact the interpretation of the findings outlined in this paper.

**Social Justice Implications**

Native American’s experience some of the worst health disparities that are further impacted by low-health literacy, poverty, systemic racism, and politics. Systemic policies that
were established hundreds of years ago are still very much impacting the health of the indigenous people today. Approximately 22% of American Indians live on tribal lands established through treaties developed in 1851 that are marked with extreme poverty, unemployment, and inadequate housing (Cayir et al., 2017).

The wellness clinic serves a largely Native American population aged 55 and older, many of whom live with chronic conditions. Native Americans value community support and culturally tailored activities to promote health and wellbeing (Ramsey County, 2018). The clinic's activities provide community support and resources that help fill the gap that has been long established for this population, such as culturally appropriate education and individualized coaching. Through the simple provision of checking vital signs, nurses can engage with residents one to one, have discussions about their wellbeing and provide encouragement, acceptance, and love. Interactions that occur are not one-way. The residents inquire about the well-being of the nurses as well. The dialogue that occurred increased the trust between the nurse and residents, establishing a trusting relationship that was invaluable to this quality improvement project. The project improved the participant's sense of wellbeing by providing a channel for which trust and connectedness were developed.

**Practice Knowledge**

Chronic disease management requires more than an office visit with the primary care provider, and health coaching services can help patients achieve their health goals. Primary care providers are limited in the allotted time of their office visits that impacts their ability to provide the necessary health promotion activities needed to help patients with health behavior changes to self-manage their chronic conditions. Often, patients come to the clinic with illnesses that will consume the already time-constrained appointments, which do not allow for health promotion
discussions. Health and wellness coaching provides an invaluable resource that allows patients to get answers to their questions, clarify provider instructions, and provide health promotion activities such as goal setting and action plans that support patients in managing their health.

**Significance for Interprofessional Collaboration**

The setting in which this quality improvement project was designated is a community volunteer-based clinic held weekly in a senior apartment complex which may limit its generalizability to the greater population. However, primary care practices can benefit from establishing health coaching services to improve the self-management of chronic conditions. Health care providers can establish partnerships with stakeholders, such as local community agencies to provide volunteer-based wellness clinics at other senior apartments as older adults are the largest group living with chronic conditions. Similar to the wellness clinic where this quality improvement project occurred, opportunity exists for nurses to become volunteers at a local community agency providing services to elderly residents living in the broader community. For example, the community agency assisted the wellness clinic with volunteers, the necessary equipment to conduct vital signs, sanitation supplies, and personal protective equipment. This agency partnered with another agency and received grant monies for the residents. It was decided that blood pressure machines, oximeters, and thermometers would be purchased for each resident through collaboration. The nurse provided education to the residents on how to use their new devices. The devices allow residents to monitor their vital signs between weekly clinic visits, giving the residents opportunities to self-manage their chronic conditions. The nurses also provide training to new volunteers and students in the collection of vital signs, general practice guidelines, and workflow processes.
Recommendations

This quality improvement project focused on implementing formalized health and wellness coaching services into the already established weekly wellness clinic through the development of educational materials and activities for the talk circles, guidelines for the safety of residents and volunteers during the Covid-19 pandemic, and the development of culturally appropriate tools such as templates for individual health coaching and education talk circles. To continue to provide these invaluable services to the resident, it is recommended that formal training be provided to volunteers to become health coaches to serve this population. One of the findings of this project was high blood pressure was positively affected by health and wellness coaching. Through interactions with residents, diabetes has also been identified as a common chronic disease through interactions with the residents. Improving hypertension and glycemic control is recommended for future DNP projects. The time constraints between implementation and dissemination impacted the ability to include improvement into glycemic control as a primary focus for interventions outside of the annual wellness calendar month of April which focuses on diabetes.

Conclusion

Native American's suffer from some of the worse health disparities in Minnesota that are further impacted by high rates of poverty, low health literacy, and lack of resources. Health coaching has been identified in the literature as an effective evidence-based practice that can assist individuals in the self-management of their chronic conditions and sense of wellbeing. This quality improvement project further supports the literature. Providing weekly vital sign checks, informal and formal health coaching, and education suggests improvement in hypertension in this population. Further studies would confirm these findings.
Reference


[https://doi.org/10.1370/afm.2461](https://doi.org/10.1370/afm.2461)
Appendix A

Figure A1. Flow Diagram for Study Selection

Records identified through databases searches n=1505
- CINAHL n= 155
- PubMed n=1350

Records removed after duplicates n=1430

Records after duplicates and screening removed= 312

Records excluded on basis of journal type, study participants, location, language, and availability of full texts, and study type
- Peer Review and research articles
- Adult participants
- English language
- Health and wellness coaching implementation
- Study objective to focus on implementing health and wellness coaching to manage chronic conditions.

Full texts reviewed for eligibility n=59

Articles included in manuscript n= 16
## Appendix B

### Figure 1A. Evidence Appraisal

<table>
<thead>
<tr>
<th>Article #</th>
<th>Author &amp; Date</th>
<th>Evidence Type</th>
<th>Sample, Size, &amp; Setting</th>
<th>Findings</th>
<th>Limitations</th>
<th>Evidence Level &amp; Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Thom et al., (2015)</td>
<td>RCT</td>
<td>441 people with low-income, age 18-75 with uncontrolled Type II diabetes, HTN, and/or Hyperlipidemia in primary care setting</td>
<td>Health coaching (H.C.) delivered by a trained member of clinic team improves patients reports of overall quality of care and satisfaction. PACIC scores increased by 0.83 for patients receiving H.C. compared to 0.07 for the usual care group.</td>
<td>Study completed on English and Spanish speaking persons living with poverty, the impact of H.C. could be different in other populations. Coached patients were more likely to have outcome information potentially adding bias.</td>
<td>Level I; high quality</td>
</tr>
<tr>
<td>2.</td>
<td>Delaney et al., (2013)</td>
<td>Longitudinal mixed methods cohort study</td>
<td>238 participants; 178 participated in face-to-face education session and telephone H.C.; and 60 participated in telephone only H.C. in Sydney, Australia.</td>
<td>Health coaching for diabetes can improve glycemic control and reduce distress in patients with high levels at baseline.</td>
<td>High attrition rates in questionnaire completion, lack of control group, not randomized; sample may not be representative of the larger population.</td>
<td>Level II; good quality</td>
</tr>
<tr>
<td>3.</td>
<td>Willard-Grace et al., (2020).</td>
<td>RCT</td>
<td>192 age 40 years mean age of 61 and older with diagnosis of COPD</td>
<td>HC provided in person and telephone H.C. and showed to improve inhalers use adherence and technique compared to the control group after 9 months of H.C.</td>
<td>Generalizability limited to population in study, urban low-income residents. Adherence was self-reported</td>
<td>Level I; Good Quality</td>
</tr>
<tr>
<td>4.</td>
<td>Margolius et al., (2012)</td>
<td>RCT</td>
<td>237 participants largely minority population with high blood pressures within a residency clinic</td>
<td>Mean SBP decrease of nearly 22 mm Hg with H.C.; no significant difference between self-titrating vs. without titrating; H.C. is likely to result in improved diets, exercise, medication adherence, and overall engagement.</td>
<td>A usual-care arm could have been used to further substantiate the improvement in SBP; Blood pressures data were collected by medical assistants at clinic which could have introduced random error; H.C. data relied on observational data could reflect confounding variables.</td>
<td>Level I, good quality</td>
</tr>
<tr>
<td>5.</td>
<td>Goldman et al., (2015).</td>
<td>RCT</td>
<td>32 low income participants with controlled diabetes participated in H.C. training to provide coaching to patients</td>
<td>86.5% of participants completed the training; 71% passed the exam, coaches were satisfied with training, Peer coaches were trained and</td>
<td>Small sample size to start. Missing data due to not all trainees participated in observations, post-study survey, and in-</td>
<td>Level I; good quality</td>
</tr>
<tr>
<td></td>
<td>Study Authors</td>
<td>Study Design</td>
<td>Participants</td>
<td>Outcomes</td>
<td>limitations</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---------------</td>
<td>--------------</td>
<td>--------------</td>
<td>----------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Thom et al, (2013)</td>
<td>RCT</td>
<td>23 participants with controlled diabetes completed a 36-hour training on H.C.; Total of 299 randomized participants-148 patients to receive H.C., and 151 usual care in primary clinic in San Francisco.</td>
<td>Significant improvement in lowering HbA1c in patients receiving H.C. delivered by peers compared to usual care.</td>
<td>Study completed in a diverse group of underserved patients with poorly controlled diabetes due which may limit the ability to generalize findings to greater population; study limited to 6 months.</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Delaney &amp; Bark, (2019)</td>
<td>Qualitative phenomenological study</td>
<td>15 patients with varied chronic diseases who receive H.C. in a wellness program</td>
<td>Participants viewed coaching services to be motivating and empowering; increased sense of accountability, experienced enhanced awareness of health behaviors and facilitated goal setting. Another theme identified that was not a measured outcome patient reported an improved quality of life.</td>
<td>The experiences described were biased to represent a population was willing to participate in research; sample was predominantly female Caucasian with high education levels.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Authors</td>
<td>Study Type</td>
<td>Participants</td>
<td>Description</td>
<td>Limitations and Threats to Validity</td>
<td>Quality Level</td>
</tr>
<tr>
<td>---</td>
<td>----------------</td>
<td>--------------</td>
<td>--------------</td>
<td>-------------</td>
<td>-------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>8.</td>
<td>Bakas et al., (2017)</td>
<td>Quasi-experimental design</td>
<td>22 participants ages 60 and older living in independent apartments in the Midwest.</td>
<td>Participants who received H.C. via T-Chat showed medium to large improvements in unhealthy days, depression symptoms, sleep and quality of life compared to those in the who only received a Coaching toolkit.</td>
<td>Small sample size limits study to draw concrete conclusions; Generalizability is limited by Caucasian sample, treatment diffusion is a potential threat to validity</td>
<td>Level II; good quality</td>
</tr>
<tr>
<td>9.</td>
<td>Liddy et al., (2016)</td>
<td>Pilot Study</td>
<td>16 participants health care providers or peers received CDSMP leadership training; patients were invited to attend 2.5 hour six weekly sessions in Ontario, Canada.</td>
<td>Improvement in access to self-management support for people with chronic disease; program has sustained community. And primary care engagement, approximately 4000 patients and 2500 providers have accessed the programs resources.</td>
<td>Pre and post data was limited due to one-third of patients completed baseline data and one-tenth completed post survey. The low response rate restricted patient-level outcomes. No data on provider attitudes, Re-Aim did not effectively address stakeholder engagement.</td>
<td>Level V; good quality</td>
</tr>
<tr>
<td></td>
<td>Author(s)</td>
<td>Study Design</td>
<td>Sample Size</td>
<td>Description</td>
<td>Quality Assessment</td>
<td>Notes</td>
</tr>
<tr>
<td>---</td>
<td>-----------</td>
<td>--------------</td>
<td>-------------</td>
<td>-------------</td>
<td>-------------------</td>
<td>-------</td>
</tr>
<tr>
<td>10.</td>
<td>Shellman, 2000</td>
<td>Quality Improvement</td>
<td>20 Senior participants of a community Senior center</td>
<td>Community-focused blood pressure screenings can provide opportunities for health promotion using the Anderson and McFarlane’s Community-as-a-partner model, fosters a trusting nurse-client relationship fosters sharing of health concerns.</td>
<td>Small sample size limits generalizability.</td>
<td>Level IV; good quality</td>
</tr>
<tr>
<td>11.</td>
<td>Benzo et al., (2017)</td>
<td>Qualitative</td>
<td>24 Participants with COPD, and 3 H.C. from a previous RCT trial.</td>
<td>Participants viewed H.C. H.C. as an effective intervention following hospital discharge encouraging self-management, increase perceived awareness of working on goals, genuine motivation for behavior change, increased perceived quality of life.</td>
<td>Sampling bias was introduced because interviews were conducted on participants who were willing to do the interviews.</td>
<td>Level I, good quality</td>
</tr>
<tr>
<td>12.</td>
<td>Lenzen et al., (2018)</td>
<td>Quality Improvement using Mixed-methods</td>
<td>10 Nurses working in Primary care with patients suffering from diabetes, COPD, asthma, or heart disease; 13</td>
<td>The nurses who were trained in the shared decision approach felt that process supported them in coaching patients; they were able to have more in-depth conversations with Only motivated nurses in learning shared decision methods participated, selection bias may have played a role in the inclusion of patients. Qualitative</td>
<td></td>
<td>Level V; good quality</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>patients with chronic disease</td>
<td>their patients about their health; nurses felt the training was supportive for their learning process; also felt they still struggled to integrate the new skills in their routine care.</td>
<td>data was not coded independently of the researchers. Questionnaire used not tested for validity.</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Dennis et al., (2013)</td>
<td>Systematic review</td>
<td>30 Articles were included based on inclusion and exclusion for review</td>
<td>Telephone coaching can improve health behaviors, self-efficacy, and evidence of improved quality of life. Planned scripted telephone coaching models seem to be more effective.</td>
<td>Timescale and deadlines limited delivery of literature review. Reference lists of selected articles were not investigated for further research, some articles were inevitably were missed.</td>
<td>Level V; good quality</td>
</tr>
<tr>
<td>14.</td>
<td>Park et al., (2017)</td>
<td>Cluster RCT</td>
<td>98 residents living in five long-term care facility</td>
<td>Both group education and individual H.C. improved self-efficacy and GAS score or goal setting, enhanced health status, and quality of life in the H.C. group compared to usual care group.</td>
<td>Results may be generalized to those living in the five nursing homes. Selection bias may have been introduced as participating residents were selected by managers. The study was of short duration due to cognitive deficits of participants. Competency of H.C. was not assessed.</td>
<td>Level I; good quality</td>
</tr>
<tr>
<td>No.</td>
<td>Authors (Year)</td>
<td>Study Design</td>
<td>Intervention</td>
<td>Outcomes</td>
<td>Methodology Notes</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>----------------</td>
<td>--------------</td>
<td>--------------</td>
<td>----------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Dye et al., (2018)</td>
<td>Quasi-experimental</td>
<td>Community health workers were trained to be H.C.; 25 H.C. participated in the 4 year study; 33 patients receiving home health care with one or more chronic conditions</td>
<td>H.C. provided by HHA were able to reduce hospital readmissions and E.D. visits through teaching participants to keep health diary, involving family, developing medication management system, respond to symptoms appropriately, and communication with PCP, teaching access to community resources. Also participants were able to reduce fall risks, make lifestyle changes</td>
<td>Selection bias due to participated may have been more motivated to manage their chronic conditions. Study only tracked readmission/E.D. use to same hospital, it is possible that patients may have sought care elsewhere. Small sample size limits may have affected statistical significance.</td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Lin et al., (2012)</td>
<td>Pilot study</td>
<td>Medicaid participants age 18-64 with qualifying disease with 2 acute health events in prior 1 year.</td>
<td>Third party company provided telephone health coaching did not demonstrate significant effects on healthcare utilization.</td>
<td>Limited effects may have been related to limited contact between H.C. and patients. High prevalence of substance use disorders may pose a challenge for self-management of chronic conditions. Motivation and/or informal support may have influenced results therefore it cannot be ascertained that there is not any bias.</td>
<td></td>
</tr>
</tbody>
</table>