

Gardner-Webb University

## Digital Commons @ Gardner-Webb University

---

Doctor of Nursing Practice Projects

Hunt School of Nursing

---

Spring 2023

### Heart Smart Holidays: Coping with Stress, Staying Active, and Healthy Cooking Strategies for Seniors in Cleveland County

Lauren Ridgeway

Gardner-Webb University, lridgeway@gardner-webb.edu

Follow this and additional works at: <https://digitalcommons.gardner-webb.edu/nursing-dnp>



Part of the [Family Practice Nursing Commons](#), [Geriatric Nursing Commons](#), and the [Public Health and Community Nursing Commons](#)

---

#### Recommended Citation

Ridgeway, Lauren, "Heart Smart Holidays: Coping with Stress, Staying Active, and Healthy Cooking Strategies for Seniors in Cleveland County" (2023). *Doctor of Nursing Practice Projects*. 71.  
<https://digitalcommons.gardner-webb.edu/nursing-dnp/71>

This Project – Full Written is brought to you for free and open access by the Hunt School of Nursing at Digital Commons @ Gardner-Webb University. It has been accepted for inclusion in Doctor of Nursing Practice Projects by an authorized administrator of Digital Commons @ Gardner-Webb University. For more information, please see [Copyright and Publishing Info](#).

**Heart Smart Holidays: Coping with Stress, Staying Active, and Healthy Cooking**  
**Strategies for Seniors in Cleveland County**

by

Lauren Ridgeway

A project submitted to the faculty of  
Gardner-Webb University Hunt School of Nursing  
in partial fulfillment of the requirements for the degree of  
Doctor of Nursing Practice

Boiling Springs, NC

2023

Submitted by:

Approved by:

\_\_\_\_\_  
Lauren Ridgeway

*Tracy Arnold, DNP, RN, CNE*

\_\_\_\_\_  
Tracy Arnold, DNP, RN, CNE

*3-16-23*

*3/16/23*

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

### Abstract

This Doctor of Nursing Practice Project assessed whether attending community group meetings focusing on stress, staying active, and healthy eating during the holidays, could influence cardiovascular disease awareness, mental health awareness, and quality of life of senior citizens in Cleveland County. A convenience sample of 6 participants attended the Coping with Stress and Staying Active event while 10 participants attended the Healthy Cooking Strategies event. The objectives were measured using a pretest posttest design before and after the presentations. There was strong evidence ( $t(9) = -13.597, p < .05$ ) that the group seminar on managing stress and staying active during the holiday season improved the mental health awareness of participants. Data also showed a significant increase in Cardiovascular Disease Awareness from pretest to posttest ( $t(5) = -3.246, p < .05$ ) after the seminar on healthy cooking strategies. The project raised community awareness to the importance of managing stress, staying active, and making small nutritional changes to positively impact the cardiovascular health of Seniors.

*Keywords:* mental health awareness, stress management, cardiovascular disease, healthy eating, staying active, senior citizens

## Table of Contents

Problem Recognition .....	6
Identified Need.....	6
Problem Statement .....	7
Literature Review.....	7
Needs Assessment.....	10
Sponsors and Stakeholders .....	10
Organization Assessment and SWOT Analysis.....	11
Available Resources.....	12
Desired and Expected Outcomes .....	12
Team Selection.....	12
Cost/Benefit Analysis .....	12
Scope of Project .....	14
Goals, Objectives, and Mission Statement .....	14
Goals .....	14
Process Objectives .....	14
Outcome Objectives.....	14
Mission Statement.....	15
Theoretical Underpinnings.....	15
Work Planning .....	17
Project Proposal .....	17
Project Management: Timeline.....	17
Project Management: Budget.....	18

Evaluation Planning .....	19
Implementation .....	20
Threats and Barriers .....	20
Monitoring and Implementation .....	21
Project Closure.....	22
Interpretation of Data .....	23
References.....	25

**List of Figures**

Figure 1: SWOT Analysis.....	11
Figure 2: Work Breakdown Structure.....	18

## Problem Recognition

### Identified Need

Cleveland County is ranked among the least healthy counties in North Carolina for health outcomes. Factors such as health behaviors, access to primary health care providers, and poverty levels represent significant factors that impact health outcomes within the county (*County Health Rankings and Roadmaps*, 2022). Data from Cleveland County suggests that obesity, physical inactivity, and access to exercise opportunities rank below the state averages for other counties within North Carolina (*County Health Rankings and Roadmaps*, 2022). In addition, cardiovascular disease deaths remain consistently higher in Cleveland County, than in North Carolina as a whole (North Carolina Department of Health and Human Services [NCDHHS], 2019). Lifestyle behaviors such as smoking, consumption of fast food, and lack of physical activity are significant factors in the prevalence of cardiovascular disease, stroke, cancer, and diabetes among county residents (The Cleveland County Public Health Center, 2019). It is known that poverty affects children and the elderly disproportionately within Cleveland County with the poverty rate for individuals 65 years old being 12.5% compared to North Carolina's rate of 9.4% (The Cleveland County Public Health Center, 2019). Stress is considered one of the most significant health problems of the 21st century. In addition to poverty, Cleveland County has a larger population of adults 65 years and older (19.1%) compared to other counties within the state. Stress among older adults may result from a lack of income, a decline in functional ability, and bereavement of friends and spouses (World Health Organization [WHO], 2017). Improving mental health has a direct impact on physical health. Older adults with chronic health conditions

such as cardiovascular disease have higher rates of depression than those who are healthy (WHO, 2017) .

### **Problem Statement**

In older adults, how does attending community group meetings offered every 2 weeks at the Senior Center focusing on stress, staying active, and healthy eating during the holidays, influence mental health awareness, motivation, and knowledge of preventing cardiovascular disease over 2 weeks?

### **Literature Review**

Cardiovascular disease remains one of the most diagnosed conditions in the United States. Research suggests that there is a high correlation between lifestyle factors such as stress management, a healthy diet, and body weight management (Bonaccio et al., 2019).

According to Zapater-Fajari et al. (2021), stress management in older adults can be linked to resilience. Older adults that exhibit high resilience can perceive a stressful situation as a challenge and act to overcome it. Learning different methods to cope with stress can be helpful to increase resilience. According to the literature, there are different categories of coping skills. One of the methods is task-oriented coping which is characterized by teaching people to reconceptualize and find solutions to the problem causing distress (Smith et al., 2015). This would include activities such as action planning and active problem-solving skills. Another type of coping is considered emotion-oriented. This is characterized by learning to regulate the negative emotions of a perceived stressor by engaging in conscious activities such as seeking social and emotional support from peers (Smith et al., 2015). There can be many different stressors for the elderly,



especially during the holiday season. Financial stress, loneliness, and difficulty navigating large shopping crowds may all be difficult for some seniors (Eldercare Services, 2016). Due to the prevalence of cardiovascular disease and the fact that chronic stress promotes atherosclerosis and cardiac events, it is important that providers consider mental health when looking at cardiovascular risk factors (Rozanski et al., 2005).

There have been numerous research studies linking improved diet and physical activity behaviors to better cardiovascular and mortality outcomes. According to Troutman-Jordan et al. (2020), in 2016, 39% of people aged 65 and older were overweight and 28% were obese. Regular physical activity decreases the risk of chronic conditions such as hypertension, obesity, cardiovascular disease, depression, and Type II diabetes. One study found that behavioral counseling interventions were associated with statistically significant reductions in blood pressure, low-density lipoprotein cholesterol levels, fasting glucose levels, and adiposity (O'Connor et al., 2020). Kim et al. (2022) analyzed the effect of physical activity on mortality in elderly populations with and without cardiovascular disease. They found that “physical activity was associated with a reduced risk of all-cause mortality in older adults with or without CVD, and the benefits of physical activity were greater in patients with CVD than in those without CVD” (Kim et al., 2022, p. 6). Levy et al. (2018) implemented a community-based exercise program for elderly adults called the Feeling Fit Club. This study assessed the effects of exercise on endurance, balance, and independence related to activities of daily living. After participating in the exercise program, the older adults showed significant improvement in upper and lower body strength, mobility, aerobic endurance, and balance of the participants.

A healthy diet and adequate nutrition can be challenging for aging adults. When assessing the nutritional status of older adults, it is important to consider malnutrition, undernutrition, and overnutrition (Tonet et al., 2021). “Physiological changes, chronic illness, chewing and swallowing difficulties, reduced energy expenditure, and psychosocial problems can make it more difficult to meet nutritional needs” (Nazri et al., 2020, p. 107). Cardiovascular disease diagnoses such as aortic stenosis, coronary artery disease, and heart failure are directly impacted by nutritional health (Tonet et al., 2021). One study examined at-risk cardiology patients and concluded that assessments of nutritional status should be “integrated into the routine clinical practice because it could help choose the best diagnostic and therapeutic pathway for each patient” (Tonet et al., 2021, p. 11). One of the most important risk factors contributing to poor diet quality is socioeconomic status and financial hardship (Nazri et al., 2020). Identifying at-risk communities and connecting people with resources is essential to bridge this gap. Not only is nutrition essential to good cardiovascular health, but it also represents a modifiable risk factor associated with quality of life in older adult populations. An Australian study assessed diet modification through diet diaries and found an improvement in quality of life with better diet choices (Govindaraju et al., 2022). The study lacked data on socioeconomic factors such as living status, lack of cooking skills, and financial constraints however it did address alcohol use. Participants reporting moderate alcohol consumption of 1–2 drinks on all drinking occasions had a better quality of life score compared to those who abstained and those who reported excess alcohol use (Govindaraju et al., 2022). They concluded that this may be related to the

social interaction associated with alcohol use. Overall, there is strong support for educating the aging population on coping with stress, staying active, and eating healthy.

### **Needs Assessment**

Given the data suggesting that cardiovascular disease deaths remain consistently higher for Cleveland County than in other North Carolina counties and that obesity, physical inactivity, and access to healthy food rank below the state averages, there was an identified need for this project within the county. This DNP Project aimed to improve knowledge and quality of life among residents of Cleveland County by providing education about managing stress, setting realistic activity goals, and making affordable and healthy recipe substitutions during the busy holiday season. Holding meetings in a supportive environment at the local Senior Center offered aging adults the opportunity to meet other people within the community who are also learning how to navigate the challenges of managing a healthy lifestyle.

### **Sponsor and Stakeholders**

The Heart Smart Holidays program was held at the Leona Neal Senior Center located in Shelby, North Carolina. Employees of the Senior Center had high influence and possibly low interest in the success of this program. To make patients aware of the program and its benefits, there was a need for employees to explain the benefits of the program and advertise meeting information. Also, to maintain the program in the future, there will need to be someone responsible for this education next year before the holiday season. If the responsibility of the program is incorporated when a staff member was already scheduled to work, then it would not affect the budget as much as adding new hours for additional staff. The individual that had a high interest and high influence over

the project was the Program Director of the facility. If the educational support program was successful, it had the potential to encourage higher attendance at other programs offered at the center including activities such as yoga, line dancing, aerobics, and Zumba. Stakeholders of the program with low influence and low interest were potential volunteers helping with the meetings. Since they are not paid employees, they may not feel invested in the outcomes. The seniors attending the groups may fall into the low-influence and high-interest category as they do not have any control over the development of the program yet they are directly invested in the outcome of improved quality of life and better health.

### **Organizational Assessment and SWOT Analysis**

**Figure 1**

*SWOT Analysis*

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Many seniors utilize the facility</li> <li>• Program Director is highly interested and invested in the outcome</li> <li>• Designated meeting space located at the facility</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Low volunteer staff</li> <li>• Burnout/strain on staff to work extra hours</li> <li>• Cost of educational materials</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Decrease cardiovascular risk factors</li> <li>• Increase physical activity attendance</li> <li>• Increase socialization and quality of life for participants</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Unrecognized need from the community population</li> <li>• Attendance to the meetings due to a busy time of year</li> <li>• Financial ability of patients to make lifestyle changes</li> </ul>

**Available Resources**

One of the benefits of hosting the meetings at the Leona Neal Senior Center was that it was centrally located and had a well-equipped space with a projection screen, tables, and chairs. Funds were allocated for educational materials such as paper for handouts and hands-on instructional materials. Support from the Program Director and other educational staff was also important, as they assisted with advertising the educational seminar series through flyers, posters, and social media.

**Desired and Expected Outcomes**

The goal of the educational program was to improve knowledge among the aging community within Cleveland County regarding the effect of stress, lack of physical activity, and healthy eating on cardiovascular disease. Given that the holiday season often contributes to stress, busy schedules, and indulgent food choices, the program was offered in the Fall to give participants the tools they need to be successful in achieving their health goals.

**Team Selection**

The director of the Leona Neal Senior Center served as the practice partner.

**Cost/Benefit Analysis**

Due to the increasing number of people diagnosed with cardiovascular diseases such as hypertension, stroke, and myocardial infarction, improving the health of Cleveland County residents can reduce the strain on the healthcare community. Heart disease and stroke cost the healthcare system \$216 billion per year and account for 1/3 of all deaths (Centers for Disease Control and Prevention [CDC], 2022). In addition to the high cost to the patient, reimbursement to hospitals is also affected by increased

readmissions. “The Hospital Readmissions Reduction Program (HRRP) is a Medicare value-based purchasing program that encourages hospitals to improve communication and care coordination to better engage patients and caregivers in discharge plans and, in turn, reduce avoidable readmissions” (Centers for Medicare & Medicaid Services [CMS], 2021, para. 1). In Cleveland County, Atrium Health Cleveland has incurred readmission penalties from Medicare for the past 8 years, most recently increasing from 0.01 to 0.15 from 2021 to 2022 (Rau, 2022). And while that data is not specific to cardiovascular disease readmissions alone, it can be inferred due to the number of people within the county that have this diagnosis, that cardiovascular disease readmission rates contributed to these penalties. Improving the health of community members could reduce admissions and readmissions to the local hospital.

The cost to implement the Heart Smart Holidays program involved several aspects. First, if the program was offered in the evening after the facility was typically closed, then there would be additional costs incurred to keep that portion of the facility open regarding electricity usage and housekeeping services. Therefore, the decision was made to offer the program at midday during normal operational hours. There were also the costs incurred to create and print advertising materials and educational materials used during the meetings. Using social media and local newspapers to advertise, however, was free of cost. The mission statement of the non-profit Leona Neal Senior Center is “To maintain the Senior Center as a focal point, promoting aging as a natural process, by opening doors that improve the quality of life of older adults in Cleveland County” (Council on Aging of Cleveland County, 2022). A financial benefit from the success of the program could encourage financial donations to the center.

## **Scope of Project**

Rates of cardiovascular disease have continued to increase within Cleveland County compared to other counties within North Carolina. Therefore, Cleveland County would benefit from the addition of an educational support group, located at the Senior Center, intended for aging adults who are at risk for cardiovascular disease. This project sought to provide an educational intervention, focused on heart disease management, activity, diet, and stress during the holiday season to improve the quality of life for community members.

## **Goals, Objectives, and Mission Statement**

### **Goals**

The goal of this DNP Project was to teach participants how to be successful in managing their health by learning stress management, setting activity goals, and creating healthy dietary substitutions during the holiday season thus increasing their knowledge and quality of life.

### **Process Objectives**

1. The Heart Smart Holidays will provide a lecture series to senior citizens of Cleveland County at the Senior Center.
2. Educational programs will teach stress management, activity goal setting, and healthy dietary substitutions during the holiday season.

### **Outcome Objectives**

1. The Heart Smart Holidays program will increase the knowledge base of participants over the course of 2 weeks as evidenced by data collected before and after the program.

2. Participant perception of improved quality of life will be measured by a patient survey at both the beginning and end of the meeting.

### **Mission Statement**

The Heart Smart Holidays program aims to educate and empower residents of Cleveland County so that we continue to improve the health and quality of life of older adults within the community.

### **Theoretical Underpinnings**

People with cardiovascular disease face chronic emotional, physical, and social challenges related to their condition. Dorothy Johnson's Behavioral System Model of Nursing offers a framework to understand the holistic human experience of this diagnosis. Johnson derived her model from Florence Nightingale's notion that nursing should help people prevent or recover from disease (Petiprin, 2020). In her work, the human behavioral system includes eight subsystems that need to be in balance for holistic wellness: restorative, ingestive, eliminative, aggressive/protective, dependency, sexual, affiliative, and achievement (Rahmani et al., 2020). One of the goals of this DNP project was to give patients the tools they need to achieve wellness by making lifestyle modifications. Improvement of energy, sleeping, and comfort fall within the restorative subsystem of Johnson's model. When patients can participate in daily activities without fatigue and they sleep well, they should enjoy a greater quality of life. Next, diet education focusing on sodium and fat aims to improve the ingestive and eliminative system. Understanding daily or weekly weight measurements and the importance of taking medications as prescribed will tie back into the subsystem of allowing the patient to stay well and active. Many patients learning to live with chronic health conditions



become frustrated that they are unable to participate in the activities that they previously did without distress. Helping them create a plan that is reasonable and achievable has the potential to improve both the subsystem of aggression and achievement. Dependency upon family members or friends to help with ADLs or transportation to appointments has the potential to negatively impact the patient's emotional stability. Making lifestyle changes to improve the quality of life and independence should have a positive impact on the patient's emotional well-being. Sexual wellness may be a behavioral subsystem that is often overlooked. However, discussing sexual health with patients is an important part of their emotional health and may have been directly affected by heart disease. Certain medications may affect sexual health and those side effects may discourage people from taking them as prescribed. Lastly, Johnson's theory suggests that patients must have social and affiliative balance. Maintaining social networks, being able to participate in social functions, and attending community events support the social and emotional health of the patient. To achieve this, it is important to control cardiovascular disease symptoms and remain out of the hospital. By addressing the subsystems outlined in Dorothy Johnson's Behavioral Systems Model, the nurse, and the patient should be able to work as a team identifying realistic health goals and developing a plan for the patient to be successful. Ultimately, however, Johnson's theory states "that individuals must make their own choices about the level of functioning and balance that they want to achieve" (Zaccagnini & Pechacek, 2019, p. 17).

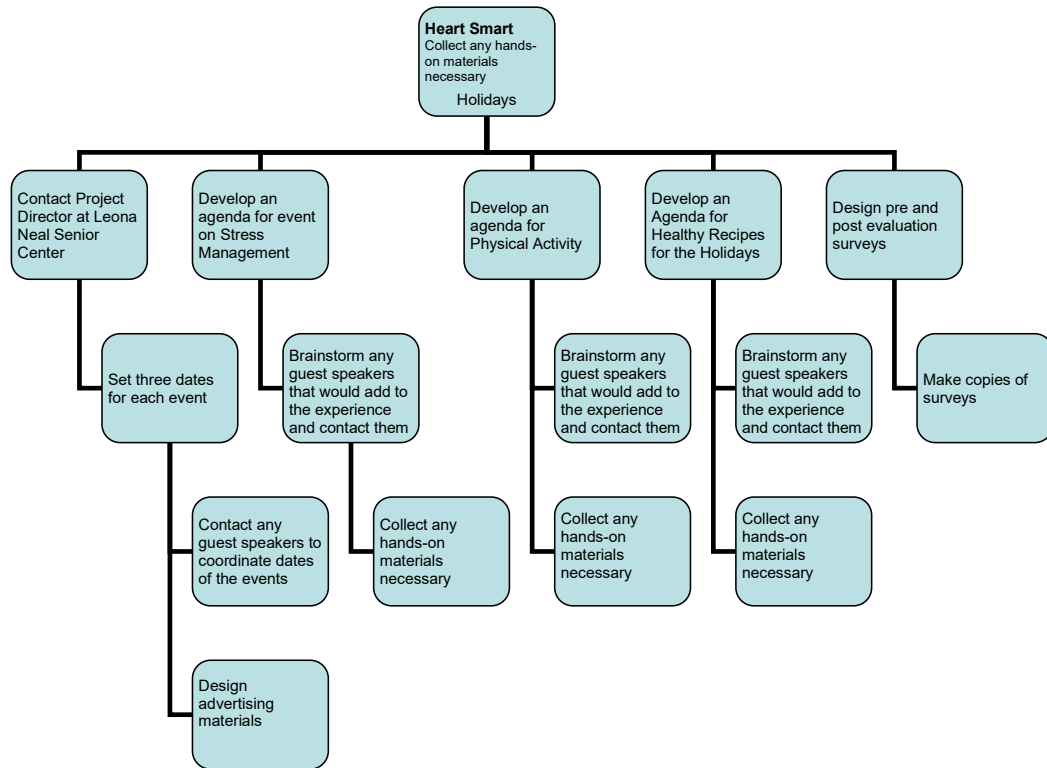
## **Work Planning**

### **Project Proposal**

The education series “Heart Smart Holidays” occurred once a week for 2 weeks in November 2022. Each event was held at the Leona Neal Senior Center at the convenience of their schedule and advertised by their Program Director. The success of the project was determined by evaluating the participant's knowledge of the topic at the beginning of the event and the end of the event using a pre and post Likert Scale survey. The goal of the project was to increase knowledge of cardiovascular disease risk factors and teach participants realistic ways to support their health during the Holiday season.

### **Project Management: Timeline**

A Work Breakdown Structure model was used to assist with project management. The first step of the project was to contact the Program Coordinator at the Senior Center. After obtaining his approval of the project proposal and setting dates for the events, the other steps were created. An agenda was created for each Heart Smart Holiday event. Once the agendas were created, then materials for each event were obtained and organized. The evaluation tool, a pre and post survey reflecting new knowledge and skills learned was developed and approved. Then copies of the agenda and surveys were made for each attendee.

**Figure 2***Work Breakdown Structure***Project Management: Budget**

The budget for this project was mainly focused on the direct costs of materials for each event; however, there were also some minor indirect costs. Indirect costs such as space rental and utilities were not included since the Senior Center welcomes events in their facility. There was an indirect cost associated with travel to purchase materials and to and from the event site. Direct costs included copies of the agenda for each participant, plus an educational flyer summarizing the material covered. Recipe cards were needed for the last event so that participants could create cards of their favorite recipes to take home for reference later if needed. Healthy snacks and refreshments were served at each event to encourage attendance and will also need to be accounted for within the budget.

The anticipated cost of the project was \$285, however, the final cost of the project was \$230.

- Food and Refreshments \$60
- Paper Supplies \$15
- Printed Materials \$75
- Recipe Cards \$45
- Travel Expenses \$35

### **Evaluation Planning**

The first objective of this DNP project was to increase the participant's cardiovascular health knowledge base. The second objective was to increase the participant's perception of their quality of life. These two objectives were measured using the pretest-posttest design before and after an educational presentation.

Participants that attended Session 1: Heart Smart Holidays: Managing Stress and Staying Active During the Holidays were asked to complete the Mental Health Awareness Pretest. The DNP Project Leader then presented a PowerPoint presentation entitled Heart Smart Holidays: Managing Stress and Staying Active During the Holidays. Following completion of the presentation, participants were asked to complete the Mental Health Awareness Posttest.

Participants that attended Session 2: Heart Smart Holidays: Healthy Cooking and Eating were asked to complete the Cardiovascular Disease Awareness Pretest. The DNP Project Leader presented a PowerPoint presentation entitled Heart Smart Holidays: Healthy Cooking and Eating. Following completion of the presentation, participants were asked to complete the Cardiovascular Disease Awareness Posttest.

Data were analyzed utilizing a paired-sample *t*-test.

## **Implementation**

### **Threats and Barriers**

Anticipated threats for this project were an unrecognized need from the community population, lack of attendance due to the busy nature of the holiday season, and the financial ability of patients to make lifestyle changes. Many of these anticipated concerns were realized during the implementation of the project. At one of the initial presentation times for the Stress and Staying Active presentation, there were no attendees at the meeting. Luckily, we were able to reschedule another event for a later time in the month. Talking with the participants, their feedback suggested that the presentation was offered at an inconvenient time, and it was not that they were uninterested in the topic. The participants were pleased that a new date and time had been added to the agenda so that they could attend. Unforeseen threats to the project were requests from the project site partner for additions to the presentation after approval from the Quality Improvement (QI) Council. The week before the Healthy Cooking Strategies presentation it was mentioned that the Seniors who had registered for the presentation were expressing interest in a hands-on cooking class. This would be an excellent idea for a future presentation; however, it was not approved by the QI Council, and could not be implemented at that time. It would have been feasible for someone else within the Senior Center to follow up with this presentation with a hands-on cooking class; however, they were unable to find someone on such short notice. A cooking class would be a great addition to their program schedule in the future to continue with the goals of this project.

## **Monitoring and Implementation**

There were two educational programs offered to the general public at the Leona Neal Senior Center in November 2022. The Senior Center advertised the program through its own communications including flyers and an advertisement in the local newspaper. The DNP Project partner at the Senior Center was responsible for registering the participants by way of email or telephone. Each program was scheduled for 1 hour; however, both went over the allotted time. Each presentation utilized PowerPoint, interactive videos, and discussions. The effectiveness of the program's educational content was evaluated using a pretest and posttest survey. Informed consent was provided, and no participant was expected to complete the surveys if they felt uncomfortable. Data collected by way of a pretest survey and posttest survey served to determine if the participants learned new information regarding the effects of food choices and stress on their cardiovascular and mental health. The surveys also sought to determine if the presentations increased participants' motivation to improve their health. No identifiable data was collected from the participants.

Throughout the monitoring and implementation process, one of the biggest issues was continued communication with the Senior Center. Staying proactive for the advertisements and registration for the presentations was key. There was a balance between posting the events early enough so that people could attend versus advertising too early that it wasn't relevant for the holiday season. Using a registration process was a helpful tool so that interest in the presentation sessions could be anticipated. Although there were some last-minute attendees and drop-ins, for the most part, this was helpful to

know ahead of time the number of people who would be present. When one of the sessions had no interest, a new date was scheduled.

Implementation of the presentations proceeded without any issues. All the presentations went over the allotted time of 1 hour; however, it was not an issue for the Senior Center since no one else was using the room. The fact that the participants asked questions, offered stories, and even added their own ideas to expand on the presented materials was reassuring that the material was of interest and engagement to the participants.

### **Project Closure**

After all the project sessions were completed, a meeting was scheduled with the practice partner at the Senior Center to discuss the success of the events. All of the data envelopes were returned. The Leona Neal Senior Center expressed that they were pleased with the turnout and engagement from the groups. In addition, the Project Partner felt that the topic was appropriate and that it had been helpful to the attendees. The key challenge was scheduling the first event, Stress and Staying Active, but the new time seemed to work better for community members. Being flexible was the key to the project's success. Given the feedback from participants in the Healthy Cooking Strategies presentation, the project partner felt that the Senior Center would continue offering events on this topic and that he was interested in someone coming to use the kitchen facility and doing a hands-on cooking class with small groups. The Stress and Staying Active presentation also received positive feedback after the event. The Project Partner is hopeful that it will motivate participants to also enroll in some of the physical activities at the Senior Center during the usual lull of the Holidays.

### Interpretation of Data

A paired-sample *t*-test was calculated to compare the mean pretest score on the Mental Health Awareness survey to the posttest score on the Mental Health Awareness survey. The mean on the pretest was 14.8 (*sd* = 2.6), and the mean on the posttest was 24.1 (*sd* = 1.4). A significant increase from the pretest to the posttest was found ( $t(9) = -13.597, p < .05$ ).

A paired-sample *t*-test was calculated to compare the mean pretest score on the Cardiovascular Disease Awareness survey to the posttest score on the Cardiovascular Disease Awareness survey. The mean on the pretest was 18.3 (*sd* = 20.6), and the mean on the posttest was 30 (*sd* = 25.6). A significant increase from the pretest to the posttest was found ( $t(5) = -3.246, p < .05$ ).

Based on the results, this project concluded that these sessions brought awareness to how managing stress, staying active, and making small nutritional changes have the potential to make a large impact on cardiovascular health in seniors within Cleveland County. Many of the participants were unaware of the different types of stress and how stress directly affects not only mental health but physical health as well. Helping participants identify easy and affordable ways to manage stress will allow them to actively take steps to improve their health. The Leona Neal Senior Center offers many activities to support the participants in this endeavor. The session on healthy eating taught the cultural significance of food during the Holidays and offered tools to navigate the challenges that accompany social events and emotional connections to food. It also addressed important nutrients needed for seniors to stay healthy and highlighted ways to navigate healthier substitutions to familiar holiday recipes. After the conclusion of this



project, the Senior Center will be able to build on the information taught and continue heart-healthy education for members of the community through cooking classes and other events to help our seniors stay active and healthy for many years.

## References

- Bonaccio, M., Di Castelnuovo, A., Costanzo, S., De Curtis, A., Persichillo, M., Cerletti, C., Donati, M. B., Gaetano, G., & Iacoviello, L. (2019). Impact of combined healthy lifestyle factors on survival in an adult general population and in high-risk groups: Prospective results from the moli-sani study. *Journal of Internal Medicine*. <https://doi.org/10.1111/joim.12907>
- Center for Disease Control and Prevention (CDC). (2022, June). *Health and economic costs of chronic diseases*. Retrieved June 15, 2022, <https://www.cdc.gov/chronicdisease/about/costs/index.htm>
- Centers for Medicare & Medicaid Services (CMS). (2021, December 1). *Hospital readmissions reduction program (HRRP)*. CMS.gov. <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/Readmissions-Reduction-Program>
- Council on Aging of Cleveland County. (2022). *About the Leona Neal Senior Center*. Retrieved June 15, 2022, <https://www.nealseniorcenter.org/>
- County Health Rankings and Roadmaps. (2022). *Countyhealthrankings.org*. Retrieved February 4, 2022, <https://www.countyhealthrankings.org/app/north-carolina/2021/rankings/cleveland/county/outcomes/overall/snapshot>
- Eldercare Services. (2016, December 26). *Holiday stress for seniors*. Retrieved June 9, 2022, <https://eldercareanswers.com/holiday-stress-seniors/>

- Govindaraju, T., McCaffrey, T. A., McNeil, J. J., Reid, C. M., Smith, B. J., Campbell, D. J., Liew, D., & Owen, A. J. (2022). Quality of life and associations with health-related behaviours among older adults with increased cardiovascular risk. *Nutrition, Metabolism and Cardiovascular Diseases*, 32(5), 1146–1153. <https://doi.org/10.1016/j.numecd.2022.01.025>
- Kim, M. H., Sung, J. H., Jin, M. N., Jang, E., Yu, H., Kim, T. H., Pak, H. N., Lee, M. H., Lip, G. H., Yang, P. S., & Joung, B. (2022). Impact of physical activity on all-cause mortality according to specific cardiovascular disease. *Frontiers in Cardiovascular Medicine*, 9. <https://doi.org/10.3389/fcvm.2022.811058>
- Levy, S. S., Thralls, K. J., Goble, D. J., & Krippes, T. B. (2018). Effects of a community-based exercise program on older adults' physical function, activities of daily living, and exercise self-efficacy: Feeling fit club. *Journal of Applied Gerontology*, 39(1), 40–49. <https://doi.org/10.1177/0733464818760237>
- Nazri, N. S., Vanoh, D., & Leng, S. K. (2020). Malnutrition, low diet quality and its risk factors among older adults with low socio-economic status: A scoping review. *Nutrition Research Reviews*, 34(1), 107–116. <https://doi.org/10.1017/s0954422420000189>
- North Carolina Department of Health and Human Services. (2019). *North Carolina statewide and county trends in key health indicators: Cleveland County* [Data set].

- O'Connor, E. A., Evans, C. V., Rushkin, M. C., Redmond, N., & Lin, J. S. (2020). Behavioral counseling to promote a healthy diet and physical activity for cardiovascular disease prevention in adults with cardiovascular risk factors. *JAMA*, 324(20), 2076. <https://doi.org/10.1001/jama.2020.17108>
- Petiprin, A. (2020). *Health behavior theory*. Nursing Theory. <https://nursing-theory.org/theories-and-models/johnson-behavior-system-model.php>
- Rahmani, B., Aghebati, N., Esmaily, H., & Florczak, K. L. (2020). Nurse-led care program with patients with heart failure using Johnson's behavioral system model: A randomized controlled trial. *Nursing Science Quarterly*, 33(3), 204–214. <https://doi.org/10.1177/0894318420932102>
- Rau, J. (2022, February 3). *Look up your hospital: Is it being penalized by Medicare?* Kaiser Family Foundation. <https://khn.org/news/hospital-penalties/>
- Rozanski, A., Blumenthal, J. A., Davidson, K. W., Saab, P. G., & Kubzansky, L. (2005). The epidemiology, pathophysiology, and management of psychosocial risk factors in cardiac practice. *Journal of the American College of Cardiology*, 45(5), 637–651. <https://doi.org/10.1016/j.jacc.2004.12.005>
- Smith, M. M., Saklofske, D. H., Keefer, K. V., & Tremblay, P. F. (2015). Coping strategies and psychological outcomes: The moderating effects of personal resiliency. *The Journal of Psychology*, 150(3), 318–332. <https://doi.org/10.1080/00223980.2015.1036828>
- The Cleveland County Public Health Center. (2019). *2019 Cleveland county community health assessment*.

- Tonet, E., Campana, R., Caglioni, S., Gibiino, F., Fiorio, A., Chiaranda, G., Zagnoni, S., Casella, G., & Campo, G. (2021). Tools for the assessment of the malnutrition status and possible interventions in elderly with cardiovascular diseases. *Journal of Clinical Medicine*, *10*(7), 1508. <https://doi.org/10.3390/jcm10071508>
- Troutman-Jordan, M., O'Brien, T., Blair, C., & Pena, T. (2020). Physical activity, cardiovascular health and mood state in older adults. *Geriatric Nursing*, *41*(6), 846–851. <https://doi.org/10.1016/j.gerinurse.2020.05.010>
- World Health Organization (WHO). (2017, December 12). *Mental health of older adults*. Retrieved June 9, 2022, <https://www.who.int/news-room/factsheets/detail/mental-health-of-older-adults>
- Zaccagnini, M., & Pechacek, J. M. (2019). *The doctor of nursing practice essentials: A new model for advanced practice nursing* (4th ed.). Jones & Bartlett Learning.
- Zapater-Fajari, M., Crespo-Sanmiguel, I., Pulopulos, M. M., Hidalgo, V., & Salvador, A. (2021). Resilience and psychobiological response to stress in older people: The mediating role of coping strategies. *Frontiers in Aging Neuroscience*, *13*. <https://doi.org/10.3389/fnagi.2021.632141>