Implementation of Geriatric Depression Screening in a Primary Care Setting

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Dedication

This project work is dedicated to my husband, Babu Thomas, who has been a constant source of support and encouragement during my frustrations. This work is also dedicated to my children, who helped me balance the challenges of graduate school and the family to achieve my goal.

Abstract

Depression is characterized by persistently low mood or loss of interest in activities. Depression can cause patients to be unmotivated and have significant functional impairment in their daily lives. According to the World Health Organization (2017), unipolar depression affects about 7% of the general older population. The evidence-based project is aimed to increase the awareness of geriatric depression screening among the health providers and implement geriatric depression screening to improve the standard of geriatric care provided in the primary clinic. A PowerPoint presentation was done on geriatric depression to make the audience aware of the prevalence of geriatric depression and the benefits of geriatric depression screening. A post-presentation survey was done to get feedback from the participants. The PDSA framework was selected for the Quality Improvement project. A data tracking tool was utilized to monitor the progress of data collection over the eight weeks of the implementation period. The post-implementation data showed that 42.9% of geriatric patients with chronic disease conditions were screened for geriatric depression during the implementation period. The project on screening geriatric depression using the GDS-15 screening tool increased patient satisfaction and trust in the quality of geriatric care provided by the primary clinic.

Keywords: Depression, Depression screening, geriatric depression screening, the GDS-15 screening tool.

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Section I. Introduction

Background

Depression is a disease condition that leads to severe complications if left untreated. Depression can cause patients to be unmotivated, causing them to feel unwell and leading to impaired functioning in their daily lives. According to the World Health Organization (2017), unipolar depression affects about 7% of the general older population, and 5.7% out of 7% are older people over 60 years old.

As the geriatric population increases globally, mental and physical health should be considered as important as the well-being of younger generations. Older adults with chronic illness and depression will have impaired functional levels compared to those with chronic diseases who lack the symptoms of depression (World Health Organization, 2017). Geriatric patients with chronic diseases and depression are often under-diagnosed and under-treated in primary care settings (World Health Organization,2017). The reason for under-treating geriatric depression is that health care providers often mistake depression symptoms for age-related changes or reactions to illness in geriatric patients. Depression is a significant risk factor for suicides in older males (Maurer, Raymond &Davis, 2018).

Organizational Needs Statement

The clinical site for the DNP project was a primary care clinic in the southern state of North Carolina. This multicultural private primary clinic provides comprehensive care to all age groups and manages common and complex diseases. Most patients coming to this clinic have Medicaid, Medicare, or are self-paying. The primary languages spoken by the patients of this

clinic include English, Arabic, Spanish, Hindi, and Swahili. In addition, most of the clinic staff, including health care providers, are bilingual.

The clinic staff noticed that geriatric patients visited the clinic more frequently and appeared non-compliant with medications and treatments. Additionally, many geriatric patients with chronic diseases complained of inability to fall asleep with ease, fatigue, decreased interest in activities, and lack of motivation to get well. Health care providers felt that many geriatric patients had symptoms of depression associated with their chronic illness and wanted to identify it. Hence, the primary clinic decided to perform Geriatric Depression Screening for all geriatric patients with chronic diseases at every clinic visit.

According to a study report, 17.3 million adults in the US have a minimum of one major depressive episode representing approximately 7.15% of all adults in the nation. In addition, the reports show that females are more likely to suffer from such episodes than males, with a percentage of 8.7% to 5.3% (National Institutes of Mental Health, 2019). According to the report received by the Substance Abuse and Mental health Service Administration (SAMHSA), from 2013 through 2017, there was an annual prevalence of severe mental illness (SMI) of 5.3% in North Carolina, making up around 400,000 adults aged 18 and above. This indicates that mental illness incidences in North Carolina are higher than the regional average of 4.4% and the national average of 4.2%(Substance Abuse and Mental Health Administration, 2019).

A prioritization matrix, a planning management tool, was used to identify the 2019 community health needs of Wake County in North Carolina. This tool revealed that mental health had a score of 2.37 on the 1 to 3 scale and is ranked 4th in prioritization in Wake County in North Carolina (Wake County 2019 Community Health Needs Assessment, 2019).

The depressive symptoms in the elderly are termed late-life depression (LLD), and once LLD has been diagnosed, treatment options can be considered (Blackburn, Wilkins-Ho, Wiese, 2017). In older adults, depressive symptoms are closely correlated with a poor quality of life due to impaired functional abilities (World Health Organization, 2017). Later-life depressive symptoms can be associated with chronic illness, impaired cognitive and functional capacity, and social isolation (World Health Organization, 2017). The depression that appears later in life is often underdiagnosed and undertreated in primary care. Therefore, there is an essential need for early diagnosis and treatment of later life depression (World Health Organization, 2017).

According to U.S Preventive Services Taskforces (2016), depression screening in older adults with chronic diseases in primary care clinics has identified the presence of geriatric depression and treated it appropriately in the past. Therefore, screening all adults with risk factors and chronic illnesses who have not been screened in the previous visits based on clinical judgment is a practical approach if no data exists in the clinical setting (U.S Preventive Services Taskforces, 2016).

There were no known performance metrics for geriatric screening in the clinic to compare with national, state, and local benchmarks of geriatric depression screening. However, the Geriatric Depression Scale (GDS*)* is an efficient depression screening tool for primary care settings to identify depression in the geriatric population (U.S Preventive Services Taskforces, 2016). So, the site champion of my project agreed to my proposal to screen geriatric patients with chronic diseases using the short form of the geriatric depression scale.

The project of evaluating geriatric depression met the three tenets of the Triple Aim of the US health care system, i.e., improving the experience of care, improving the health of populations, and anticipated decreasing per capita costs of health care (Institute for Health Care

Improvement, 2021). By implementing geriatric depression screening, the geriatric populations were provided with holistic and high-quality health care. In addition, this approach was anticipated to reduce health care costs by keeping elderly patients out of the hospital (Institute for Health Care Improvement,2021).

Problem Statement

Geriatric patients with chronic diseases often presented to the primary clinic with a history of non-medication compliance, sleep deprivation, and lack of motivation to get well. In addition, these patients exhibited signs and symptoms of depression that often go unnoticed and unrecognized. As a result, they often return to the clinic with complications from their chronic diseases.

Purpose Statement

This evidence-based project is aimed to increase the awareness of geriatric depression screening among the health providers and implement geriatric depression screening to improve the standard of geriatric care provided in the primary clinic.

Section II. Evidence

Literature Review

The literature review was done to understand the benefits and the feasibility of implementing annual geriatric depression screening in a primary clinic setting. Research articles with evidence level 1V and above from 2016 to 2021 were retrieved from CINAHL, PubMed, and ProQuest. Additionally, Google search and google scholar were used. The keywords used to advance the search in CINAHL were geriatric depression, geriatric depression screening in the elderly, and geriatric depression screening tool. The inclusion and exclusion criteria were used while searching for the relevant articles from the databases. The inclusion criteria used in CINAHL were abstract, full text, and the English language, and the exclusion criteria used were non-English, and publications before 2016. The search resulted in finding eight articles, and two articles relevant to the topic of the project(n=2) were chosen. The search words used for PubMed were geriatric depression, geriatric depression screening, and geriatric depression scale in the elderly. The limiters were full text, Systemic Review, Meta-Analysis, Randomized controlled trial, and English. The number of articles found in PubMed was101, and six(n=6) relevant articles were selected from PubMed. Google search and google scholar were also searched for geriatric depression screening guidelines and other topic-related articles. See appendix A for an overview of the literature matrix.

Current State of Knowledge

The advancement in medical science has directly influenced the health care services provided for the elderly population worldwide (Sazlina,2015). Along with longevity, the geriatric population faces the risk of developing chronic non-communicable diseases (CND) such as cancer, diabetes, cardiovascular diseases, and depression. Routine screening in geriatric

population for CND in primary care settings can promote early detection of CND and reduce the mortality rate by preventing complications (Sazlina,2015). The screening in primary care among a specific population can benefit more from proper follow-up on the disease condition than from a group screening process (Sazlina,2015). The US Preventive Service Task Force (USPSTF) recommends an evidence level 1 and a recommendation grade B for depression screening among the older adult population in primary care settings if clinical staff are available to assist the providers in the follow-up care (Sazlina,2015).

There is a gap in the information obtained on depression screening among geriatric patients seen in primary care clinics. Additionally, there is a lack of data collected from large-scale Randomized Controlled Trials conducted in primary care clinics. Therefore, USPSTF recommends (recommendation B) that depression screening and suicide screening be done in adolescents, adults, and older adults in primary care clinics (Siu & US Preventive Services Task Force,2016).). A practical approach for the data collection of depression screening in the absence of previous data includes screening all the adult patients who were not screened previously for depression (Siu & US Preventive Services Task Force,2016). In addition, the screening should be based on clinical judgments such as risk factors, comorbid conditions, and traumatic life events to decide if additional screening for patients with high risk is needed (Siu & US Preventive Services Task Force,2016).

Brinda et al. (2016) conducted a meta-analysis design study on the World Health Organization's Study on Global Ageing and Adult Health Wave 1 data. The World Health Organization used samples from six large low and middle-income countries (LMIC)for the study (Brinda et al.,2016). The study showed that depression among the older population in LMIC could be caused, affected, or prolonged by socioeconomic inequalities. Furthermore, it showed

the need to effectively implement population-based public health interventions to prevent and manage geriatric depression in LMICs (Brinda et al.,2016).

Current Approaches to Solving Population Problem(s)

A meta-analysis of the observational study done by Chang et al. (2017) showed an association between sarcopenia caused by aging and depression in elderly patients. Symptoms of sarcopenia include fatigue, low mood, lack of interest in physical activities, and psychomotor retardation. In addition, depression is considered a significant factor for sarcopenia (Chang et al.,2017). Saysal et al.(2017) conducted a systematic review and meta-analysis to examine the close relationship between geriatric depression and frailty in elderly patients. They found a reciprocal interaction between depression and age-related physical debility.

A systemic review of the meta-analysis conducted by Tsoi et al. (2017) found that the Two-Question depression Screen is brief, straightforward, and appropriate for older adults in diagnosing depression. In addition, the diagnostic performance of the Two-Question depression screening tool is similar to other instruments used for geriatric depression screening. Therefore, it would be appropriate to screen for geriatric depression (Tsoi et al.,2017) in elderly patients.

Pocklington et al. (2016) conducted a systematic review of meta-analysis to find the diagnostic accuracy of the short versions of the GDS. They identified 32 studies related to the topic, found the seven brief versions of GDS, and recommended that all the short GDS versions be composed of standardized items (Pocklington et al.,2016). A systematic review performed by Krishnamoorthy et al. (2020) found that all the versions of GDS are appropriate for assessing depression in geriatric patients. Still, the shorter form of GDS, such as *GDS 15* and GDS 10, is more effective when compared to the GDS 30 version.

Park &Kwak (2021) conducted a systematic review and meta-analysis to investigate and study the validity of the *GDS-15* for screening depression in the geriatric population. They found that older adults without cognitive impairment are more sensitive to the specificity of the GDS-15. Hence, they suggested GDS -15 is more accurate for screening for depression in the geriatric population (Park& Kwak, 2021). Therefore, the GDS-15 was selected to implement the proposed DNP project of geriatric depression screening at the project site.

Evidence to Support the Intervention

A Validity and Reliability Study of the Japanese version of the Geriatric Depression Scale 15 (GDS-15-J) was done by sugishita et al. (2016) to examine and evaluate the precision of the Japanese version of GDS-15 (GDS-15-J). They found that Cronbach's alpha reliability coefficient for the GDS-15-J was .83, which suggested a high degree of internal consistency. Therefore, the GDS-15-J is a clinically effective screening tool for geriatric depression. (Sugishita et al.,2016).

Durmaz et al. (2018) conducted a study to assess the accuracy of GDS-15 by testing its validity and reliability of GDS-15 in the geriatric population of Turkey. As a result, he found that GDS-15 is a valid and reliable screening tool for assessing geriatric depression in Turkish older adults. In addition, GDS-15 is found to be strongly associated with GDS-30 and the Diagnostic and Statistical Manual of Mental Disorders,5th Edition (DSM-5). Hence, it is suitable for prompt and reliable detection of depression in Turkish older adults in busy primary care clinics (Durmaz et al.,2018).

Shah et al. (2018) conducted a randomized controlled trial study to examine the views of older adults regarding geriatric depression screening in primary care clinics. The study showed that most participants felt comfortable completing geriatric depression screening at the primary

clinics. In addition, the researchers received positive responses from the survey participants for utilizing the GDS-15 for geriatric depression screening in primary clinics. (Shah et al.,2018).

Evidence-Based Practice Framework

Identification of the Framework

The operational framework for executing the DNP project of implementing the annual geriatric depression scale in the primary care setting was Plan-do-study-act (PDSA). The PDSA model for improvement is based on the scientific method. Additionally, it provides an ideal framework for implementing changes on a small scale and allows the stakeholders to see the outcomes of the proposed changes (National Health Service, n.d.). The PDSA framework is a four-step cycle of a systematic process. (The W. Edwards Deming Institute,2021). The PDSA framework is used to acquire valuable learning and knowledge to constantly improve a product or process (The W. Edwards Deming Institute,2021). The framework's planning stage identifies the goal and puts a plan into action. The DNP project started a change in the care of the geriatric population by performing geriatric depression screening at every clinic visit.

Ethical Consideration & Protection of Human Subjects

The DNP project executed an evidence-based clinical practice in a primary care setting. The implementation of GDS-15 benefited the geriatric patients, health providers, and other staff who works at the participating organization. The target geriatric population with chronic diseases was not harmed by the DNP project but improved the standard of care given in the primary care clinic. Therefore, there was no ethical consideration for implementing geriatric depression screening in the primary care setting for the DNP project. Furthermore, there was no chance that any targeted geriatric patient population members would be taken advantage of during the project implementation process. The project site did not use the Electronic Health Recording

system, and the patient's files were kept in a secured area. In addition, the patient's privacy was protected by not revealing the gender, ethnicity, nationality of the project participants, or the name of the project site during the dissemination process.

The project leader prepared herself for the formal approval process by the Institutional Review Board (IRB) by completing all the CITI modules through East Carolina University. The CITI module helped her understand the ethical consideration of conducting evidence-based projects in a target population. As the project site had no IRB, the approval for the proposed project needed was obtained from the Institutional Review Board of East Carolina University. The project leader completed the East Carolina University Self-Certification Qualtrics Survey, and the project was submitted to the IRB of East Carolina University for review. The project was exempted from IRB review.

Section III. Project Design

Project Site and Population

The DNP project site was a busy family practice in Wake County, North Carolina. This family medical clinic provides comprehensive medical services to different age groups of patients from other countries and cultures. Most walk-in patients are geriatric patients with chronic diseases and multiple irrelevant complaints. The geriatric patient population was often noted to have less motivation to get well and is non-compliant with medical treatments for their chronic illnesses. The number and severity of the multiple somatic symptoms have a close association with the severity of the depression experienced by geriatric patients (Jeong et al.,2014). The director of the family practice and other health care staff identified non-compliance with the medication among geriatric patients with chronic diseases. So, the family medical clinic director agreed to the proposed DNP project of implementing geriatric depression screening. Facilitators and barriers that can affect the successful implementation of the project. The facilitators were the motivated project leader, site champion, supportive management, and bilingual office staff. The barriers were the lack of electronic medical record systems, staff shortage, time constraints during patient visits, and the lack of English language communication skills for some patients.

Description of the Setting

The DNP project site setting was a small, private busy primary practice in North Carolina. The primary practice provides comprehensive medical care to children, adults, and older adults. Additionally, it offers allergic testing for food and other seasonal allergies. However, it has limited laboratory facilities for basic tests. The primary clinic is considered

multicultural friendly as most of the patients are from Middle Eastern countries and Asian countries. In addition, the health providers and office staffs are very friendly and bilingual. The family practice clinic accepts medical insurance, Medicare, Medicare, and self-pay. The clinic operates Monday through Friday. The patients are given appointments, but walk-in patients are accepted until noon. Each provider sees an average of 25 patients a day.

Description of the Population

The target population of the DNP project was health providers, registered nurse, certified medical assistants, certified nursing assistants, and office staff. The health providers included a physician who is the director of the family clinic and three advanced practice nurses. The registered nurse coordinates and supervises the nursing care. There were eight medical assistants, one certified nursing assistant to provide nursing care and office manager, and four office staff to assist with appointments and referrals. In addition, three advanced nurse practitioner students were receiving their training at the primary care clinic.

Project Team

The project team consisted of a project leader and a DNP student from East Carolina University. The site champion was the director of the primary care clinic and a faculty from East Carolina University.

Project Goals and Outcome Measures

The proposed DNP project was aimed to increase the awareness of the benefits of geriatric depression screening and implement the geriatric depression screening. The project leader did literature reviews of evidence-based articles to support the use of GDS-15 to screen depression in geriatric patients and found the tool is suitable for the busy primary medical clinic. First, the preliminary data was collected for geriatric depression from chart audits for two weeks.

After collecting the initial data, implementing the proposed DNP project was executed using the PDSA framework. An action plan was developed for the identified problem in the first step(plan) of the PDSA framework. Then, the proposed DNP project was implemented during the second step (Do). During the third step (Study), the outcomes were observed to test the plan's validity, such as the signs of development, success, challenges, and areas for improvement. The fourth step (Act) closed the cycle and incorporated the learning generated by the entire project process. The knowledge obtained from the process can readjust the target, modify methods, redevelop a theory, or widen the understanding (The W. Edwards Deming Institute,2021). Finally, the project outcome was analyzed and evaluated. During the fourth step of the PDSA framework, the cycle was closed, and the result was discussed with stakeholders. The outcome was positive, and the stakeholders were amiable for a policy change to perform depression screening on all geriatric patients with chronic diseases at every clinic visit.

Description of the Methods and Measurement

The effect of the post-educational intervention was evaluated using a post-educational survey. The outcome of the educational session is mentioned in the discussion section. A data tracking tool was created in excel to enter the data collected each week for eight weeks. The collected data over eight weeks was analyzed and evaluated. The outcome of the proposed DNP project is displayed in a bar chart to explain the progress to stakeholders. Appendix B shows the post-educational survey questionnaire.

Discussion of the Data Collection Process

After implementing the project, the project leader counted the copies of GDS-15 placed in all five rooms during implementation once a week. Counting the GDS-15 copies in each room every week helped the project leader check the number of forms used in one week. Then project

leader verified the number of completed GDS-15 by auditing the color-coded geriatric patient's chart stored separately. In addition, the providers and other healthcare staff, including the office staff, were given gentle reminders about the data collection procedures every week during the data collection period. Finally, the data collected for eight weeks was analyzed and evaluated.

Implementation Plan

An education session was conducted before implementing the project to educate the providers and other staff in the primary clinic. The educational intervention was designed to introduce the tool for geriatric depression screen called GDS-15 and to educate providers and staff about the benefits of conducting annual geriatric depression screening. Participation in the education intervention was voluntary, and an anonymous post-educational survey was done to examine the effect of the educational intervention.

The project leader developed an action plan and algorithm for the project implementation during the first step of the PDSA framework. The plan was discussed with the director of the primary medical clinic. During the second step of the PDSA framework, educational intervention on geriatric depression and a post-educational session survey for the target group were conducted. Then, the project leader printed out 100 copies of the GDS-15 from the internet, and 20 copies were placed in each five examination rooms. In addition, an educational poster on the geriatric depression screening on every visit was placed in the staff break-room. During the third step of the PDSA framework, the data was collected and analyzed. The project leader reminded the health care staff and office staff regarding the geriatric depression screening project. The project leader requested the office staff to color-code the geriatric patient's chart and file the completed geriatric depression screening document. The office staff was reminded occasionally

to store the geriatric patient's charts separately. Appendix C shows the algorithm for the project implementation.

Timeline

The preliminary data collection by auditing the chart was done in the first and second week of August 2021. Then, the implementation of the proposed project was done from the third week of August 2021 to the second week of October 2021 for eight weeks. Then, the data collection was done from the third week of August 2021 to the second week of October 2021 for eight weeks. Then, the analysis and evaluation of the collected data were done in the second and third weeks of November 2021. Finally, the process of achieving sustainability and dissemination was done in the first week of April 2022.

Section IV. Results and Findings

Results

Counting the number of geriatric depression screenings done using GDS-15 in the primary clinic for eight weeks provided the project's primary outcome. Before implementing the project, the chart audit revealed that there were no geriatric depression screenings performed in the clinic. However, the post-implementation data collection showed that 42.9% of the geriatric patients who visited the clinic during the project implementation period were screened.

Outcome Data

The data analysis was done following the last step of the PDSA framework. The outcome data included evaluating post-educational survey results and the post-project implementation results.

Twenty participants attended the pre-implementation educational session. The audience consisted of 40% health providers,10% nurses,30% medical assistants,10% nursing assistants, and 10% laboratory technicians. The post-educational survey revealed that the course objectives were met and the increased motivation and confidence in using the GDS-15 screening tool. In addition, 90% of the audience answered the knowledgeable question correctly.

Eight patients visited the primary clinic with various complaints during the first week, and only two were screened for geriatric depression. In the second week, 12 geriatric patients presented to the clinic, and only seven patients were screened. In the third week, ten geriatric patients came, and four patients were screened. Eight geriatric patients presented to the clinic in week four, and only five patients were screened for geriatric depression. In week five, seven geriatric patients came to the clinic, and none of them were screened for geriatric depression. Eight geriatric patients came to the clinic in week six, but only one was screened for depression.

In week seven, five geriatric patients presented to the clinic, and three were screened. Finally,12 patients came to the clinic in week eight, and eight patients were screened. The post-implementation data showed that 42.9 % of the total number of geriatric patients were screened for geriatric depression. In addition, it showed that 66% of compliance in performing geriatric screening was achieved using GDS-15 in the eighth week.

The post-implementation data collection tracking tool monitored the project's progress. The frequent site visits by the project leader, constant follow-up with gentle reminders, encouragement, visual prompts, face-to-face meeting with the site champion, and re-education as needed were the contributing factors to the program's success. Appendix E shows the details of the data collection.

Discussion of Major Findings

The analysis of the data retrieved during eight weeks demonstrated that the project met its primary goal of educating the health care workers by achieving 66% of compliance in performing geriatric depression screening. Furthermore, the post-educational intervention revealed that the participants were knowledgeable, motivated, and confident enough to participate in the project. The completed GDS-15 screening tool was counted for each day and totaled for each week.

Only two geriatric depression screenings were performed during the first week. The available staff was reminded and re-educated as needed when the project leader visited the clinic. There was progress in the second week. During the third week, the number of GDS-15 screenings done went down. The clinic staff and health providers were reminded of the ongoing project, and visual triggers were placed in the staff room and at the front desk. As a result, the number of geriatric screenings done slightly increased in the fourth week. There was no geriatric

depression screening done in the fifth week as a few old staff left the job, and there were new staff and new nurse practitioner students. The project leader had a face-to-face meeting with the site champion and discussed the barriers and the possible solutions. The new staff and nurse practitioner students were re-educated and given the opportunity to ask questions. In addition, to establish further compliance with the project, posters and stickers were kept on the doors of each examination room. The folders with copies of the GDS-15 tool were kept in each room for easy access. As a result, there was progress in the sixth and seventh weeks. Finally, there was 66% compliance in geriatric depression screening in the eighth week. The project leader monitored and tracked the progress using an excel data tracking tool. The project's progress is shown using a bar graph and line graph for easy visualization. Appendix D shows data collection progress.

A research study by Avani Shah, Forrest Scogin, Christina M Pierpaoli, and Amith shah (2017) assessed older adults' attitudes toward depression screening in primary care settings. In addition, this study also explored the impact of an educational pamphlet on geriatric screening. As a result, the researchers found that most elderly patients are receptive to completing a depression screening using the GDS-15 screening tool in primary care settings.

To find the cause for the non-compliance with the geriatric depression screening project in the five-week, the project leader also explored the attitude of the patients regarding the use of the GDS-15 screening tool. The geriatric patients had a positive attitude towards the depression screening, as reported by the clinic staff.

Section V. Interpretation and Implications

Costs and Resource Management

The project involved constant communication between the project leader and the site champion. Furthermore, it involved considerable time, effort, motivation, finance, and staff participation. The project leader spent substantial time reviewing peer-reviewed evidence-based articles to find a suitable screening tool for the busy primary clinic. In addition, the project leader spent eight hours per week in the clinic observing, reminding, encouraging, and re-educating the staff and providers as needed.

The total amount of money spent on this project was $ 1001.04. It included the project supplies, the educational supplies, and other expenses such as rental expenses for the conference room and mileage. See Appendix E for the detailed budget.

Suppose the organization had decided to conduct without the project leader. In that case, the cost could have been much higher as they had to bring an educator from outside. In addition, the re-education of the topic would not have been feasible to continue the quality improvement process. Therefore, although the quality improvement project may not have an immediate impact on the organization, it will benefit by receiving reimbursement from Medicare. Furthermore, the project's sustainability can increase trust in the health providers and patient satisfaction with the service of the primary clinic in the long run.

The project leader used the clinic's resources as much as possible. In addition to the materials provided by the clinic, such as folders and clipboards, an immense amount of time was contributed to the success of the project by providers and other clinic staff.

The project leader had full support and guidance from the site champion. Besides, the site champion was flexible with meeting in -person to discuss the barriers during the implementation and data collection. Other clinic staff members also participated actively by helping organize the education session, implementing the project, and collecting the data throughout the project. In addition, office staff spent approximately 20 minutes at each visit helping the project leader to gather data. Furthermore, the clinic provided two-pocket folders and clipboards to keep the GDS-15 tool in each examination room and at the front desk for easy access. Finally, the site champion assured additional support by allowing the project leader to use the printer at the project site, staff break room, and the patient waiting area. But the project leader did not use the printer as the GDS-15 screening tool was already printed from the internet. Moreover, the staff break area was small to gather 20 people for the educational session as per the Covid-19 restrictions. The patient waiting area was not used as the primary focus of the pre-interventional educational sessions was to educate the clinic's providers and other staff members for the successful implementation of the project.

Implications of the Findings

The implication of the evidence-based quality improvement project findings is anticipated to make a significant difference in how health care is delivered to the primary clinic's elderly population with chronic diseases. In addition, the new practice was integrated into the organization's policy for better and quality geriatric patient care. Furthermore, this project gave an idea to the members of the clinic about the barriers that can arise at any time during the projects and how to resolve it with alternatives. In addition, the providers and the staff members were reminded of the keystones of the success of any quality improvements projects, such as constant follow-ups, effective communication, and timely interventions.

Finally, the efforts and dedication of the project leader succeeded in building a team that was confident and motivated to continue the project to assure sustainability. Furthermore, continuing the new practice can increase the trust and rapport between the clinic staff and the geriatric patients.

Implications for Patients

The evidence-based geriatric depression screening at every visit has a significant role in recognizing geriatric depression and the associated symptoms. In addition, the earlier intervention can prevent self-harming behaviors such as non-compliance with treatments and suicidal attempts. Finally, the early diagnosis and appropriate remedies will improve the quality of life in geriatric patients with multiple comorbidities.

Implications for nursing practice.

Patient safety is always the priority in nursing practices. In every visit, the screening for geriatric depression can facilitate a quality improvement process and safety practices in geriatric care. In addition, it upholds the nursing core values of altruism and human dignity.

Impact for Healthcare System(s)

The elderly population is increasing worldwide. However, the care of the elderly became complex given the comorbidities and caused a lot of strain on the health care system. Primary care, which focuses on preventive and promotive care, can significantly impact the health care system by reducing this additional burden. In addition, geriatric depression screening and early detection of depression in elderly patients with chronic diseases can prevent hospitalization and further economic burden on the health care system.

Sustainability

The site champion was pleased with the project's outcome and desired to continue the process of geriatric depression screening using GDS-15 at every visit. The registered nurse volunteered to be the project champion to sustain the new practice in the organization. She will make sure the printed GDS-15 tools are kept in each examination room in a separate folder, and the completed forms will be kept in the geriatric patient's chart with a green sticker on it. In addition, she plans to audit the chart every three months to make sure staff complies with the new practice. Furthermore, she intends to re-educate the clinic staff as needed, and new batches of nurse practitioner students come for clinical rotations. Extra GDS-15 tool copies and green stickers were given to the clinic staff. The project champion was encouraged to contact the project leader if she had any questions regarding the screening process in the future.

Dissemination Plan

A poster presentation did the first dissemination at the East Carolina University College of Nursing in the first week of April 2022. The project leader is a North Carolina Nurses Association (NCNA) member. So, the second dissemination plan is to present the project at the NCNA national conference in 2022. The third and final dissemination plan is to present the project at the Indian American Nurses Association of North Carolina (IANA-NC) during the 2022 Nurses Week Celebration. The dates for the NCNA conference and IANA-NC nurse's celebrations are yet to be confirmed.

Section VI. Conclusion

Limitations and Facilitators

Several limitations and barriers were present during the pre-interventional educational session, implementation, and data collection. The main obstacle was the Covid -19 restrictions that prevented conducting the staff room's pre-interventional education session. In addition, renting the space for the educational session increased the project's cost. Another barrier was a shortage of staff, staff turnovers, and a busy clinic with many walk-in patients. In addition, the staff re-education had to be done in multiple batches in the small staff breakroom, which limited the opportunities for the attendees to ask questions and further discuss the subject. Finally, the time constraints affected the data collection for a more accurate outcome. The eight weeks were not enough to get enough data, and it may take months to collect detailed data, which is not possible during the project leaders' program expectations. The project facilitators included the supportive site champion, health providers, the supportive office staff, and other clinic staff members.

Recommendations for Others

The recommendation for future students who want to conduct a similar project would be to pre-plan and prepare more for the educational session. The education and re-education session should be scheduled for at least one hour for more discussions. The data collected over six months will give a more accurate result for the project. In addition, the dissemination of the project findings by presenting at multiple conferences will captivate a large audience.

Recommendations Further Study

Based on the project's recent experience, the project leader recommends more similar projects in different health care settings. For example, the same project can be done with the

inpatients in long-term care for better data collection and outcomes as the staff have a more stable schedule. Another recommended area for implementing the project is the community's geriatric clinics, as they take a more holistic approach to treating the geriatric population.

Final Thoughts

The project's goal was met. The clinic had 66% compliance by the eighth week. But for a more accurate result, the data collection should be more than eight weeks. So, even though there may be no immediate result, the clinic can benefit from this project in the long run by increasing the quality of life in geriatric patients.

References

Blackburn, P., Wilkins-Ho, M., Wiese, B. (2017). Depression in older adults: diagnosis and management. BCMJ,59(3), 171-177. https://bcmj.org/articles/depression-older-adults-

Brinda E.M., Rajkumar, A.P., Attermann, J., Gerdtham, U.G., Enemark .U., Jacob, K.S. (2016). Health, Social, and Economic Variables Associated with Depression Among Older People in Low and Middle Income Countries: World Health Organization Study on Glob AGEing and Adult Health. Am J Geriatr Psychiatry,24(12),1196-1208. doi: 10.1016/j.jagp.2016.07.016diagnosis-and-management

Chang, K.V., Hsu, T.H., Wu, W.T., Huang, K.C., Han, D.S. (2017). Is sarcopenia associated with depression? A systematic review and meta-analysis of observational studies. Age Ageing. 46(5),738-746. doi: 10.1093/ageing/afx094.

Durmaz, B., Soysal, P., Ellidokuz, H., & Isik, A. T. (2018). Validity and reliability of geriatric depression scale-15 (short form) in Turkish older adults. Northern clinics of Istanbul, 5(3), 216–220. doi.org/10.14744/nci.2017.85047

Institute for Health Care Improvement (2021). IHI triple aim initiative. http://www.ihi.org/Engage/Initiatives/TripleAim/Pages/default.aspx

Jeong, H. G., Han, C., Park, M. H., Ryu, S. H., Pae, C. U., Lee, J. Y., Kim, S. H., & Steffens,D.C. (2014). Influence of the number and severity of somatic symptoms on the severity of depression and suicidality in community-dwelling elders. Asia-Pacific psychiatry : official journal of the Pacific Rim College of Psychiatrists, *6*(3), 274–283. https://doi.org/10.1111/appy.12138

Krishnamoorthy, Y., Rajaa, S.& Rehman T. (2020). Diagnostic accuracy of various forms of geriatric depression scale for screening of depression among older adults: Systematic review and meta-analysis. Arch Gerontol Geriatr, 87(104002). doi: 10.1016/j.archger.2019.104002

Maurer D.M., Raymond T.J., Davis, B.N. (2018). Depression: Screening and Diagnosis. Am Fam Physician, 98(8)508-515. https://pubmed.ncbi.nlm.nih.gov/30277728/

National Institute of Mental Health (2019).Major depression https://www.nimh.nih.gov/health/statistics/major-depression.shtml#part_155029

National Health Service (n.d.). Plan, Do, Study, Act (PDSA) cycles and the model for improvement.https://www.england.nhs.uk/wp-content/uploads/2021/03/qsir-plan-do-study-act.pdf

Park, S.H.&Kwak, M.J. (2021). Performance of the Geriatric Depression Scale-15 with Older Adults Aged over 65 Years. Clin Gerontol,44(2),83-96. doi: 10.1080/07317115.2020.1839992

Pocklington, C., Gilbody, S., Manea, L., McMillan, D.(2016). The diagnostic accuracy of brief versions of the Geriatric Depression Scale: a systematic review and meta-analysis. Int J Geriatr Psychiatry,31(8),837-57. doi: 10.1002/gps.4407

Substance Abuse and Mental Health Administration(2019). Adult mental health and service use. Behavioral Health Barometer, (5). https://www.samhsa.gov/data/sites/default/files/cbhsq-reports/North%20Carolina-BH-BarometerVolume5.pdf

Sugishita, K., Sugishita, M., Hemmi, I., Asada, T., Tanigawa, T. (2016). A Validity and Reliability Study of the Japanese version of the Geriatric Depression Scale 15 (GDS-15-J). Clin Gerontol,(4),233-240. doi: 10.1080/07317115.2016.1199452

Shah, A., Scogin, F., Pierpaoli, C.M., Shah, A.(2018). Older adults' attitudes toward depression screening in primary care settings and exploring a brief educational pamphlet. Int J Geriatr Psychiatry,33(1), 40-48. doi: 10.1002/gps.4713

Soysal, P., Veronese, N., Thompson, T., Kahl K.G., Fernandes, B.S., Prina A.M., Solmi, M., Schofield, P., Koyanagi, A., Tseng P.T., Lin, P.Y., Chu, C.S., Cosco, T.D., Cesari, M., Carvalho, A.F., Stubbs, B. (2017). Relationship between depression and frailty in older adults: A systematic review and meta-analysis. Ageing Res Rev.36,78-87. doi: 10.1016/j.arr.2017.03.005

Siu & US Preventive Services Task Force. (2016). Screening for Depression in Adults US Preventive Services Task Force Recommendation Statement. JAMA. 315(4),380-387. doi:10.1001/jama.2015.18392

Sazlina S. G. (2015). Health screening for older people-what are the current recommendations? Malaysian family physician: the official journal of the Academy of Family Physicians of Malaysia, 10(1), 2–10. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4567887/

Tsoi, K.K., Chan, J.Y., Hirai, H.W., Wong, S.Y(2017).Comparison of diagnostic performance of Two-Question Screen and 15 depression screening instruments for older adults: Systematic review and meta-analysis. Br J Psychiatry,210(4),255-260. doi: 10.1192/bjp.bp.116.186932

The W. Edwards Deming Institute. (2021). PDSA cycle. https://deming.org/explore/pdsa/

U.S preventive services task forces (2016). Depression in adults: Screening. https://www.uspreventiveservicestaskforce.org/uspstf/document/RecommendationStatementFinal/depression-in-adults-screening

World Health Organization (2017). Mental health of older adults. https://www.who.int/news-room/fact-sheets/detail/mental-health-of-older-adults#:~:text=Depression%20can%20cause%20great%20suffering,undertreated%20in%20primary%20care%20settings

World Health Organization(2017). Evidence profile: depressive symptoms. https://www.who.int/ageing/health-systems/icope/evidence-centre/ICOPE-evidence-profile-depressive.pdf?ua=1

Wake County 2019 Community Health Needs Assessment (2019). https://www.rexhealth.com/app/files/public/948514ec-e4b0-4522-99d6-3aec27e53e85/pdf-rex-aboutus-2019-wake-county-chna---report-final.pdf

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Appendix A

Literature matrix

No.	Authors	Year of Publication	Article Title	Summary
1	Ke-Vin Chang , Tsai-Hsuan Hsu Wei-Ting Wu , Kuo-Chin Huang , Der-Sheng Han	2017	Is sarcopenia associated with depression? A systematic review and meta-analysis of observational studies	A systematic review and meta-analysis of observational studies were conducted in community and outpatient clinics to explore if sarcopenia is associated with depression. The study showed a close association between sarcopenia and geriatric depression.
2	Busra Durmaz, Pinar Soysal, Hulya Ellidokuz, and Ahmet Turan Isik	2018	Validity and reliability of geriatric depression scale-15 (short form) in Turkish older adults	A study of the reliability and validity of GDS-15 was done on Turkish elderly adults. The study was conducted on patients aged ≥65 years who visited a geriatric outpatient clinic of a university hospital between November 2015 and May 2016 for any reason. The researchers found that GDS-15 is a valid and reliable screening tool for geriatric depression. However, the study's limitations were that the patients from a single clinic were involved, and only the cognitively impaired elderly patients were excluded from the study.
3	Yuvaraj Krishnamoorthy, Sathish Rajaa, Tanveer Rehman	2019	Diagnostic accuracy of various forms of geriatric depression scale for the screening of depression among older	The systematic study was done by searching articles from various databases. A total of 53 studies with 17,018 participants were included in the review. The study concluded that all the forms of GDS are equally helpful for detecting depression

			adults: Systematic review and meta-analysis	in geriatric patients. But the diagnostic performance was much better for shorter forms of GDS such as GDS 15 and GDS 10 compared to GDS 30.
4	Seong-Hi Park , Mi-Jeong Kwak	2021	Performance of the Geriatric Depression Scale-15 with Older Adults Aged over 65 Years: An Updated Review 2000-2019	The systematic review and meta-analysis aimed to examine the predictive validity of the Geriatric Depression Scale. The study found that the GDS-15 is more accurate for screening depression in the geriatric population without cognitive impairment.
5	Claire Pocklington, Simon Gilbody, Laura Manea, Dean McMillan	2016	The diagnostic accuracy of brief versions of the Geriatric Depression Scale: a systematic review and meta-analysis	The study suggested that all brief GDS versions should contain standardized items.
6	Kazuyuki Sugishita, Morihiro Sugishita, Isao Hemmi, Takashi Asada, Takeshi Tanigawa	2016	A Validity and Reliability Study of the Japanese version of the Geriatric Depression Scale 15 (GDS-15-J)	Cronbach's alpha reliability coefficient indicated a high degree of internal consistency. Thus, the study suggests that GDS-15-J is a clinically useful screening instrument for depression in geriatric patients.
7	Avani Shah , Forrest Scogin , Christina M Pierpaoli , Amit Shah	2017	Older adults' attitudes toward depression screening in primary care settings and exploring a brief educational pamphlet	This study aimed to assess older adults' attitudes toward depression screening in primary care settings with a survey. In addition, this study also explored the impact of an educational pamphlet on these attitudes. The researchers found that most elderly patients are receptive to completing a depression screen in primary care settings.

8	Pinar Soysal, Nicola Veronese, Trevor Thompson, Kai G Kahl Brisa S Fernandes A Matthew Prina, Marco Solmi Patricia Schofield, Ai Koyanagi, Ping-Tao Tseng, Pao-Yao Lin, Che-Sheng Chu, Theodore D Cosco, Matteo Cesari, Andre F Carvalho, Brendon Stubbs	2017	Relationship between depression and frailty in older adults: A systematic review and meta-analysis	The systematic review and meta-analysis found a close association between depression and frailty in older adults. Besides, each condition is associated with an increased prevalence and incidence of the other and can be a risk factor for developing the other.
9	Kelvin K F Tsoi, Joyce Y C Chan, Hoyee W Hirai, Samuel YS Wong	2017	Comparison of diagnostic performance of Two-Question Screen and 15 depression screening instruments for older adults: systematic review and meta-analysis	The study aimed to evaluate the diagnostic accuracy of the Two-Question Screen for older adults and compare it with other screening instruments for depression. The Two-Question Screen is a short and effective instrument for depression screening. In addition, its diagnostic performance is comparable with other tools used for depression screening. Therefore, it can be used for depression screening in older adults.
10	Ethel M Brinda , Anto P Rajkumar , Jørn Attermann , Ulf G Gerdtham , Ulrika Enemark , Kuruthukulangara S Jacob	2016	Health, Social, and Economic Variables Associated with Depression Among Older People in Low- and Middle-Income Countries: World Health Organization Study on Global AGEing and Adult Health	A meta-analysis design study was done on the World Health Organization's (WHO) Study on Global Ageing and Adult Health Wave 1 data. The study showed that depression among the older population in low and middle-income countries could be caused, affected, or prolonged by socioeconomic inequalities. Additionally, it showed the need to effectively implement population-based public health interventions and policy changes to prevent and manage geriatric depression in these countries.

11	Albert L. Siu and the US Preventive Services Task Force (USPSTF)	2016	Screening for Depression in AdultsUS Preventive Services Task Force Recommendation Statement	A gap exists in the evidence on depression screening among geriatric patients in the primary care setting. The USPSTF recommends that depression screening and suicide screening be done in adolescents, adults, and older adults in primary care clinics
12	SG Sazlina	2015	Health screening for older people—what are the current recommendations?	The US Preventive Service Task Force (USPSTF) recommends with an evidence level 1 and a recommendation grade B for the depression screening among the older adult population in primary care settings if clinical staff is available to assist the providers in the follow-up care.

Appendix B

Post-educational session survey

Instruction: Please circle your best answer

1. The educational session has met its learning objectives.

    a. Strongly agree
    b. Agree
    c. Neither Agree or Disagree
    d. Disagree
    e. Strongly disagree

2. I feel motivated to perform annual depression screening in elderly patients over 65 years

    a. Strongly agree

    b. Agree

    c. Neither Agree or Disagree

    d. Disagree
    e. Strongly disagree

3. I feel confident to use the GDS-15 depression screening tool

    a. Strongly Agree

    b. Agree

    c. Neither Agree or Disagree

    d. Disagree
    e. Strongly disagree

4. What are the symptoms of depression in geriatric patients with chronic diseases? (Choose all that apply)

    a. Decreased energy, fatigue, and irritability

    b. Insomnia and loss of interest in activities

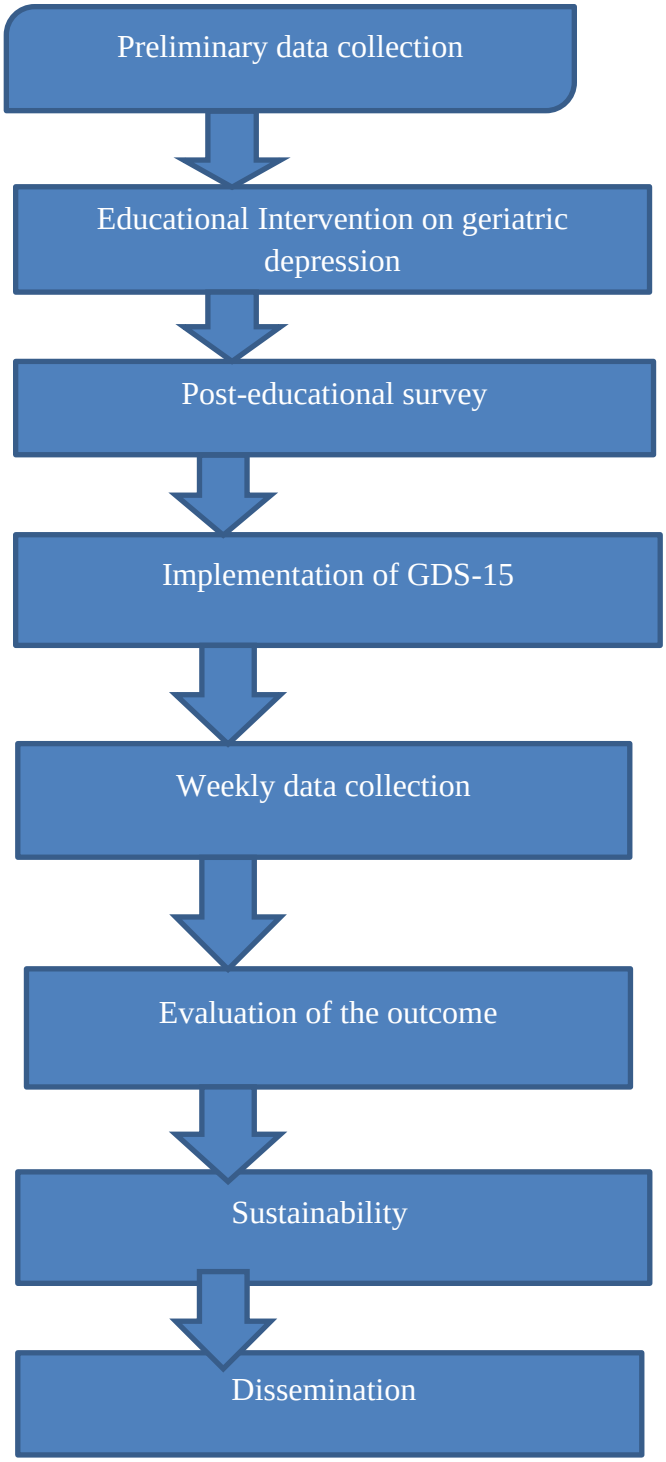
    c. Persistent aches or digestive problems

    d. A feeling of hopelessness and suicidal thoughts

    e. All the above

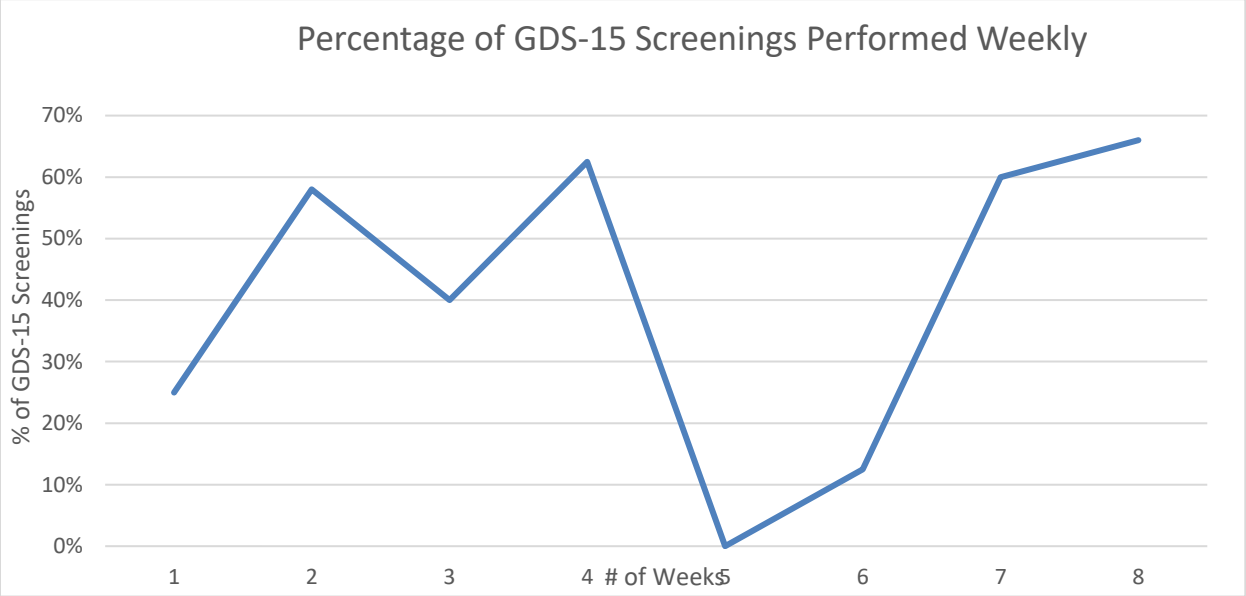
Appendix C

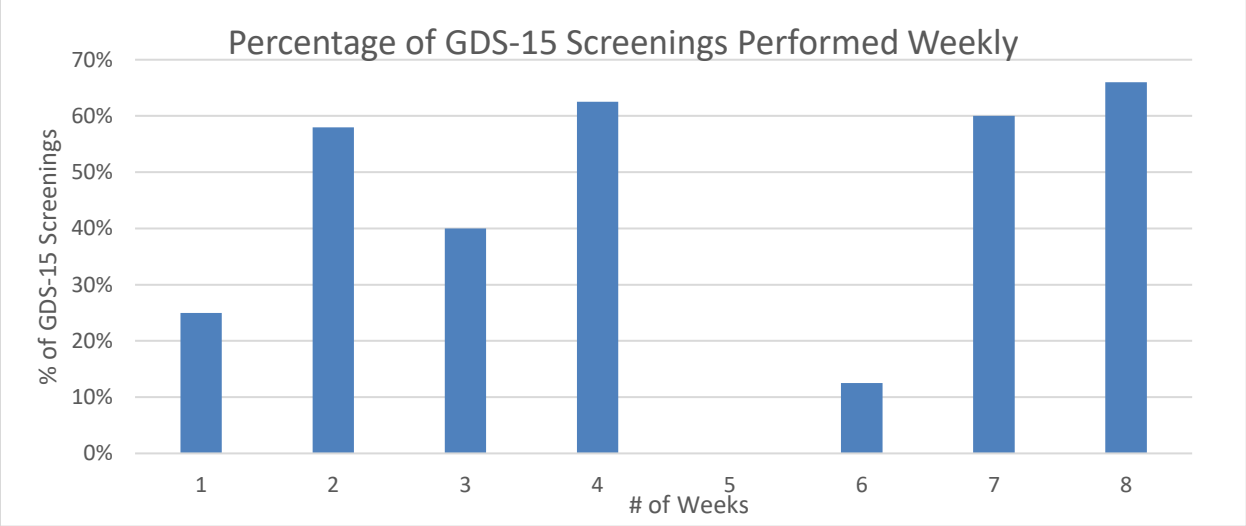
Algorithm of the DNP project implementation



Appendix D

Data Collection





Appendix E

Budget for the Project

Budget for the project on geriatric depression			
Item	**Quantitiy**	**Unit Cost**	**Total**
Project supplies			
Multipurpose Printing papers	1 Ream	$18.00	$18.00
mechanical pencils	1 pack	$ 7.00	$ 7.00
Compensation for the time	20	$30.00	$600.00
for participants			
(20 participantsx0.5 hourx			
$30.00 average pay)			
Educational Expenses			
Hourly pay for educator	1	$50.00	$50.00
Projector rental	1	$110	$110.00
Poster	5	$4.49	$22.45
Flash drive	1	$8.99	$8.99
Highlighter	2	$1.50	$3.00
Coffee	30	$1.25	$37.50
Donuts	30	$0.70	$38.50
Disposable coffee cups	30	$0.27	$8.10
Disposable napkins	1 pack	$4.00	$4.00
Other Expenses			
Coference room rent	1	$80.00	$80.00
Mileage	25	$0.54	$13.50
Total Expenses			1,001.04

Appendix F

Doctor of Nursing Practice Essentials

	Description	Demonstration of Knowledge
Essential I ***Scientific Underpinning for Practice***	**Competency** – Analyzes and uses information to develop practice **Competency** -Integrates knowledge from humanities and science into context of nursing **Competency** -Translates research to improve practice **Competency** -Integrates research, theory, and practice to develop new approaches toward improved practice and outcomes	During this DNP project, the project leader searched various databases and evidence-based practice guidelines for managing geriatric depression to translate the knowledge and implement the intervention in the busy primary practice setting.
Essential II ***Organizational & Systems Leadership for Quality Improvement & Systems Thinking***	**Competency** –Develops and evaluates practice based on science and integrates policy and humanities **Competency** –Assumes and ensures accountability for quality care and patient safety **Competency** -Demonstrates critical and reflective thinking **Competency** -Advocates for improved quality, access, and cost of health care; monitors costs and budgets **Competency** -Develops and implements innovations incorporating principles of change **Competency** - Effectively communicates practice knowledge in writing and orally to improve quality **Competency** - Develops and evaluates strategies to manage ethical dilemmas in patient care and within health care delivery systems	During the educational- session and implementation period of the DNP project, the project leader developed and demonstrated leadership skills by conducting an academic session and doing a post-educational survey to get the feedback from the audience. In addition, the project leader conducted multiple meetings with stakeholders to ensure their participation in the process of implementation. Furthermore, the project leader ensured the patient's safety and health care quality. The author developed effective communication skills through academic writing and poster presentation to translate the knowledge to the target audience. Reviewing the CITI modules

		IRB regulations increased the awareness of the ethical dilemmas that could happen at any stage of the project implementation.
Essential III ***Clinical Scholarship & Analytical Methods for Evidence-Based Practice***	**Competency** - Critically analyzes literature to determine best practices **Competency** - Implements evaluation processes to measure process and patient outcomes **Competency** - Designs and implements quality improvement strategies to promote safety, efficiency, and equitable quality care for patients **Competency** - Applies knowledge to develop practice guidelines **Competency** - Uses informatics to identify, analyze, and predict best practice and patient outcomes **Competency** - Collaborate in research and disseminate findings	A literature search was done on multiple databases and guidelines from different agencies. The articles were read critically and analyzed for the levels of evidence. Successful implementation was executed using the knowledge gained from the evidence-Based Research articles. These findings were disseminated during the poster presentation at East Carolina University. Additional poster and podium presentations are anticipated to increase the awareness of geriatric depression screening among health care providers and other clinical staff. The current plans for dissemination include poster presentation at the American Nurse Association and podium presentation during Nurses Week celebrations of Indian American Nurses Association.
Essential IV ***Information Systems – Technology & Patient Care Technology for the***	**Competency** - Design/select and utilize software to analyze practice and consumer information systems that can improve the delivery & quality of care **Competency** - Analyze and operationalize patient care technologies **Competency** - Evaluate technology regarding ethics, efficiency, and accuracy **Competency** - Evaluates systems of care using health information technologies	The technologies such as Microsoft Word, EXCEL, Powerpoint, and various health care software Apps such as USPSTF were used to complete the project. In addition, the databases such as CINAHL and PubMed were used to search, plan, prepare, and evaluate the

Improvement & Transformation of Health Care		DNP project. The technology help will continually be used for future dissemination as well. The privacy and confidentiality were maintained adequately using HIPPA guidelines and password protection.
	Description	**Demonstration of Knowledge**
Essential V ***Health Care Policy of Advocacy in Health Care***	**Competency**- Analyzes health policy from the perspective of patients, nursing, and other stakeholders **Competency** – Provides leadership in developing and implementing health policy **Competency** –Influences policymakers, formally and informally, in local and global settings **Competency** – Educates stakeholders regarding policy **Competency** – Advocates for nursing within the policy arena **Competency**- Participates in policy agendas that assist with finance, regulation, and health care delivery **Competency** – Advocates for equitable and ethical health care	The current policy and recommendation for geriatric depression screenings were reviewed and analyzed before introducing them to all stakeholders involved in the DNP project. In addition, the costs, and benefits of the process in terms of finances, health care quality, and safety of the target patient population were discussed before implementing the project. As a result, patient safety and quality were reinforced before the project implementation.
Essential VI ***Interprofessional Collaboration for Improving Patient & Population Health Outcomes***	**Competency**- Uses effective collaboration and communication to develop and implement practice, policy, standards of care, and scholarship **Competency** – Provide leadership to interprofessional care teams **Competency** – Consult intraprofessionally and interprofessionally to develop systems of care in complex settings	The author collaborated with the team members, the site champion, and the staff during this DNP project. The further interprofessional collaboration will be done for the dissemination of the project by contacting the health care leaders and other stakeholders
Essential VII ***Clinical Prevention & Population Health for Improving***	**Competency**- Integrates epidemiology, biostatistics, and data to facilitate individual and population health care delivery **Competency** – Synthesizes information & cultural competency to develop & use health promotion/disease prevention strategies to address gaps in care	During this DNP project, the project leader used the websites of the World Health Organization and the National Institute of Mental websites to obtain information and data regarding the prevalence of geriatric depression and its

the Nation's Health	**Competency** – Evaluates, and implements change strategies of models of health care delivery to improve quality and address diversity	management. This data helped assess the need for intervention to improve population health and determine the target audience's educational needs. Further information was obtained by reviewing the evidence-based research articles. The information was synthesized, translated into practice, and integrated into the primary clinic's policy to ensure better quality care for the geriatric population. Finally, the knowledge acquired using the PDSA model and the results from the project implementation was measured to evaluate the effectiveness of the quality improvement project.
Essential VIII ***Advanced Nursing Practice***	**Competency**- Melds diversity & cultural sensitivity to conduct systematic assessment of health parameters in varied settings **Competency** – Design, implement & evaluate nursing interventions to promote quality **Competency** – Develop & maintain patient relationships **Competency** –Demonstrate advanced clinical judgment and systematic thoughts to improve patient outcomes **Competency** – Mentor and support fellow nurses **Competency**- Provide support for individuals and systems experiencing change and transitions **Competency** –Use systems analysis to evaluate practice efficiency, care delivery, fiscal responsibility, ethical responsibility, and quality outcomes measures	The DNP project was designed and executed using advanced clinical judgment to improve the quality of the health care provided in the primary clinic. The outcomes were measured to ensure the practice change. Through the DNP project intervention, the project leader educated the providers, fellow nurses, and other team members regarding the prevalence of geriatric depression in elderly patients with chronic diseases. The privacy and cultural sensitivity were maintained while implementing and evaluating the project. Equal opportunities were given to all clinical staff to participate in the project.