

The Impact of a Provider Dementia Education Program on
Dementia Screening, Documentation of Dementia Diagnosis, and Community Referral
In a Rural Primary Care Setting
By Michele McIntosh

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Running head: IMPACT OF A PROVIDER DEMENTIA EDUCATION PROGRAM

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By

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Dedication

To begin, I give all honor and glory to God for opening doors and giving me the strength necessary to complete this journey. This project is dedicated to my family, without their sacrifice, support and prayers this work would not have been possible. To my husband Joshua, my daughter Zoie, my son Zion, my mother Lorene, father Marshall, and brother Marshall Jr., I am so grateful to have you all in my life. This project is especially dedicated to all the individuals with dementia and their loved ones. Know that people are advocating for you and working on your behalf. May this work remind us to cherish every memory we have with our loved ones. “Those with dementia are still people and they still have stories and they still have character and they are all individuals and they are all unique. And they just need to be interacted with on a human level” –

Carey Mulligan

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Abstract

Problem Statement: Problem Statement: Primary care providers' lack of knowledge regarding dementia screening, diagnosis, and treatment can lead to missed or delayed dementia diagnosis, inadequate care planning, and a lack of referral to community resources. **Purpose:** To evaluate the effectiveness of a provider dementia education program in improving early identification of dementia and community service referral for individuals age 65 and older in a rural primary care practice. **Methods:** A two-month pre-intervention chart review of patients presenting for initial or subsequent Annual Wellness Visits (AWV) was conducted. Data on documentation of dementia diagnosis, screening, type of screening tool used, advance care planning discussion, and community service referrals were collected. A one-hour dementia education program was implemented for all providers followed by data collection for two months for evidence of increased screening and identification of those with dementia as well as review of their use of other healthcare services. **Results:** Of the 253 charts reviewed pre-intervention, seven individuals had a documented dementia diagnosis. No newly diagnosed patients were identified. Post-intervention, 10 individuals had a documented dementia diagnosis. One patient had findings of new cognitive impairment based on Mini-Cog testing and was referred for further dementia work-up. There was no documentation of referrals to community resources. **Significance:** Although the educational session raised awareness among providers of the importance of using cognitive screening tools routinely during AWV to improve early identification of dementia, changing practice requires a longer

period of time. However, this project improved interprofessional collaboration between the hospital, primary care office, and Alzheimer's Association.

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Project Overview

Dementia is a broad term that describes a multitude of symptoms associated with a decline in memory or skills that are severe enough to reduce an individual's ability to perform daily activities. Alzheimer's disease accounts for a high percentage of dementia followed by vascular dementia that often occurs after a stroke (Alzheimer's Association, 2018). There are four primary dementia classifications according to clinical and research criteria: 1) Alzheimer's disease; 2) vascular dementias; 3) frontotemporal dementias; and 4) dementia with Lewy bodies/Parkinson's disease dementia (Grand, Caspar, & MacDonald, 2011). With the number of people in the United States who are age 65 and older growing exponentially, it is projected that new cases of Alzheimer's and other dementias will also rise (Alzheimer's Association, 2017). LaMantia, Stump, Messina, Miller and Callahan (2016) noted that individuals with dementia (IWD) visit the emergency department (ED) more frequently, have more hospitalizations, and return to the ED at a higher rate in comparison to patients without dementia. The overutilization of healthcare services by dementia patients is often due to complications in coexisting conditions, lack of care alternatives during a crisis, unmet needs for home and community services, and poor post-discharge care (Bass, Judge, Maslow, Wilson, Morgan, McCarthy, Looman, Snow, & Kunik, 2015). According to the Health Resources and Services Administration (2017), 25% of the hospitalizations of IWD are preventable and could be avoided with appropriate care coordination and assessment. Evidence revealed that individuals with dementia (IWD) often do not understand the diagnosis and

are rarely asked by health professionals about their preferences for advance care planning decisions (Orsulic-Jeras et al., 2016).

Background and Problem Statement

The Tri-County area of Maryland's Eastern Shore consists of individuals in Somerset, Wicomico, and Worcester counties. The three counties combined have an estimated population of over 179,000 people with a 2.4% population growth expected by the year 2020. Individuals age 65 and older make up over 18% of the population in the Tri-County area (Peninsula Regional Medical Center, 2016). Thus, the need for increased awareness of local community support services for dementia was clear. Evidence suggested that families frequently sought services during times of crisis often in the form of emergency department visits (McIntosh & Pusey, Personal Communication, January 2018). This indicated a need for routine incorporation of community service referrals in the primary care setting (Jensen & Inker, 2015).

Primary care providers can play a critical role in the early identification of dementia in the local community. From reviewing the literature, it was apparent that primary care providers faced challenges when dealing with individuals with dementia. Providers often lacked the knowledge and confidence in recognizing symptoms of dementia and were often unsure of how to conduct a thorough cognitive screening (Spenceley, Sedgwick, & Keenan, 2015). The Lower Eastern Shore community has seen an increased number of adults age 65 and older with dementia. These statistics were obtained from a quality improvement pilot study conducted within a local case management department (McIntosh & Pusey, personal communication, February 2018).

The collection of baseline data at the start of the pilot from November to December 2017 revealed a total of 36 patients who presented to the hospital with either a primary complaint or history of dementia. From this group, 19 were from a skilled nursing facility, and only two of the 17 patients who came from home had referrals for home health. Many of the patients in this group had multiple emergency department visits within the last six months. From January 1 to 22, 2018, a total of 19 patients presented to the facility with dementia. In three of the cases, family members expected immediate placement from the emergency department into an extended care facility. The pilot study provided evidence that local families needed education about dementia and how to start long-term care planning before they were faced with a crisis situation. Often individuals experience crisis events like an accident, getting lost while driving, or wandering which causes the family to notice changes and seek help for their family member (Orsulic-Jeras et al., 2016). Early detection of dementia may help to prevent overuse of healthcare resources and allow affected individuals and caregivers time to prepare for future medical, financial, and emotional challenges (Grand, Caspar, & MacDonald, 2011).

Further information gathered from the quality improvement pilot revealed that families often lacked knowledge of resources available for IWD which forced them to seek assistance from the emergency department in a crisis. The patient was either discharged from the emergency department to home or admitted to the hospital with no dementia screening or resources given. The patients were then discharged back into the community with uncertain follow up for dementia in primary care. This was problematic because dementia was not discussed during hospital presentation, the individual and their

family did not receive education on the disease process and did not receive referral to the appropriate community resources (McIntosh & Pusey, personal communication, January 2018).

From reviewing the literature and assessing community needs, the following problem statement was derived: The Lower Eastern Shore community faces a rise in the number of individuals age 65 and older that potentially increases the number of individuals who may be impacted by dementia. Many studies revealed that primary care providers often lacked knowledge regarding dementia screening, diagnosis, and treatment. This lack of knowledge resulted in missed dementia diagnosis, inadequate care planning, and a lack of community support for individuals with dementia and their families (Lathren, Sloane, Hoyle, Zimmerman, & Kaufer, 2013). This topic was important to investigate because evidence revealed that caregivers of individuals with dementia reported receiving a vague diagnosis and limited information about community support services (Jensen & Inker, 2015). The purpose of this project was to evaluate the effectiveness of a provider dementia education program in improving early identification of dementia and community service referral during the Annual Wellness Visit (AWV) of individuals age 65 and older in a rural primary care practice on Maryland's Eastern Shore.

PICOT Question

Most individuals age 65 and older in the Tri-County area visit a primary care provider for routine medical care. Primary care providers may be the first to detect signs and symptoms of dementia in this population and manage the resulting symptoms. It was

evident from the literature that an information and communication gap existed between caregivers and healthcare providers regarding treatment and services available for dementia (Jensen & Inker, 2015). Therefore, a good starting point to closing the gap in services for IWD in the local community is primary care. The PICOT question was helpful when developing the DNP project because it identified the population and narrowed down the focus of the topic under study (Moran, Burson, & Conrad, 2017). The following PICOT question was formulated: In a rural primary care practice that treats patients age 65 and older, does targeted primary care dementia education increase the number of patients who receive a dementia diagnosis, increase dementia screening, and increase referrals to community services compared to standard primary care practices alone over a three-month time period?

Purpose of the Project

According to the Alzheimer's Association (2017), dementia is the term used to describe the symptoms associated with a decline in memory and skills with Alzheimer's representing the largest percentage of dementia. In Maryland, there are approximately 100,000 people with Alzheimer's with the number expected to increase to 130,000 by the year 2025 (Alzheimer's Association, 2017). Given this information, it is necessary for intervention and timely diagnosis to occur early in the disease process to provide better management in the community setting. For one local practice, this project aimed to improve healthcare provider understanding of dementia, increase dementia screening, and referral to available community resources for individuals with dementia and their families.

The rural primary care office chosen for the project delivers healthcare services to many patients within the community age 65 and older. A primary goal of the project was to assist in the formation of a partnership between the healthcare providers within the rural practice group and the local representatives of the Alzheimer's Association (AA). A dementia education program was offered on August 6, 2018 in coordination with the local AA that assisted in providing materials for the project. The providers received an hour-long session on dementia screening and community referrals available for individuals with dementia. The plan was for providers to connect patients and families with community support for those identified with dementia to the AA for appropriate community resources.

Baseline data collection included a documented dementia diagnosis in the electronic medical record, the utilization of a screening tool, the specific tool used during assessment, documentation of an advanced care planning discussion, and documented community service referrals provided to the patient. Since evidence showed that rates of potentially preventable hospitalizations and overall hospitalizations were higher for those with dementia than for those without dementia, post-intervention chart review analyzed subsequent healthcare utilization including hospitalization and emergency department visits (Borson et al., 2013).

This project aligned with DNP Essential VI, interprofessional collaboration for improving patient and population health outcomes through the analysis of practice issues and collaboration with community agencies (Chism, 2013). In addition, this project included elements from DNP Essential VII, clinical prevention and population health for

improving the nation's health by focusing on clinical prevention strategies and risk reduction activities for individuals with dementia (Chism, 2013). The implementation of this project helped meet the two Healthy People 2020 goals for dementia in the local area. The first goal was to increase the number of adults age 65 and older with diagnosed dementia or caregiver that are aware of the diagnosis. The second goal was to reduce the number of preventable hospitalizations in adults age 65 and older with dementia (Office of Disease Prevention and Health Promotion, 2018).

Succinct Synthesis/Analysis of Supporting/Related Literature

Synthesis of the Literature

To assist in finding the proper evidence to support the project, a thorough literature search was completed. Using the PICOT question as a guide, specific criteria were included to determine which articles assisted in answering the question. The articles chosen for review revolved around the central themes of the project including provider dementia education, collaborative dementia care, and the provision of community referrals. This review was limited to studies involving adults age 65 and older in the primary care setting. The PRISMA (Appendix A) method of identifying, screening, and determining eligibility was useful in helping to determine which articles would be used in the study (Moher, Liberati, Tetzlaff, & Altman, 2010).

Variations of the following search terms were used in literature selection: dementia screening in the primary care setting; dementia detection in the primary care setting; provider dementia education; dementia screening advanced practice nurse; and, early detection of dementia in the primary care setting. These search terms were entered in the following databases: ProQuest, CINAHL, PubMed, and Google Scholar. Articles chosen for the PRISMA decision process were less than five years old and were pertinent to the study topic. One seminal study from 2006 and another from 2009 were utilized because they were commonly referenced in other applicable studies. Articles were excluded if they did not pertain to adults age 65 and older, included a diagnosis other than dementia, and occurred in a setting other than primary care.

The topic of providing dementia education in the primary care setting was an important area of study and helped to address the current lack of provider knowledge surrounding dementia screening, diagnosis, and treatment identified in previous research. Nine research articles were obtained that provide a representation of those with the highest strength of the evidence available. The articles were chosen based on similarities in theme, population, primary care setting, and deliver supporting evidence for the study topic. The articles utilized for analysis are visually displayed in the Table of Evidence (Appendix B).

Important Themes

The predominant theme of the literature was the need for provider dementia training and the use of a collaborative care approach to dementia management in the primary care setting. Specifically, one randomized control study by Callahan et al (2006) was utilized in several studies relevant to the topic of dementia management in the primary care setting. It was considered a seminal study since it was the first of its kind to use a randomized control trial method to evaluate the impact of the collaborative care approach to dementia in the primary care setting. The study found significant improvement post-intervention in the care of dementia patients and in behavioral symptoms without the use of pharmacological methods. Patients and their caregivers in the intervention group received collaborative care management led by their primary care physician and a geriatric nurse practitioner who acted as the care manager. The nurse care manager was trained in dementia education and gave caregivers education on communication skills, coping skills, legal and financial advice, patient exercise

guidelines, and resources provided by a local chapter of the Alzheimer's Association. As a result, intervention patients experienced fewer behavioral symptoms and improvement in caregiver stress. A large percentage (82%) in the intervention group rated the experience as very good or excellent and reported fewer overall primary care visits (Callahan et al., 2006).

Collaborative Care Methods

The studies that follow added supporting evidence to suggest the need for collaborative methods and tailored interventions for individuals with dementia and their families. According to Galvin, Valois, & Zweig (2014), collaborative care models focus on shared decision making between clinicians, patients, caregivers to give information on health promotion and treatment guidelines. Shared decision-making provides a framework for clinicians to present and discuss treatment options, risks and benefits, alternatives to traditional therapeutics, and communicate care options. This study defined a successful collaborative care model as one that provided a clinical evaluation and diagnosis, an assessment of caregiver and patient needs, offered supportive counseling, and made referrals to community resources. This approach decreased inappropriate emergency department visits and hospital admissions, promoted appropriate use of long-term hospice for end-of-life care and provided caregivers with support mechanisms to reduce transitions in care (Galvin et al., 2014). Furthermore, these support mechanisms included nonpharmacological approaches to behavior, referrals to community resources, counseling and a schedule for follow-up.

Educational Intervention in the Primary Care Setting

A study by Iliffe et al. (2012) expanded on a previous trial that explained how educational intervention in a primary care setting can enhance recognition of and response to dementia and achieved a significant improvement in diagnostic rates. The authors sought expert advice on how to tailor an educational intervention to meet the specific identified needs of healthcare practitioners. The final educational intervention focused on implementing a diagnostic process, development of a closer relationship with community service agencies, and improving knowledge of legal issues in dementia (Iliffe et al., 2012). Successful dementia care management was defined as offering referral when the diagnosis was suspected, being supportive of caregivers, maintaining caregiver satisfaction, and four to six-month follow-up for all persons with a diagnosis of dementia.

Addressing Gaps in Current Dementia Care

Another relevant theme from the literature was the need to address the current knowledge and skill gaps in dementia diagnosis, screening, and community referral. The DNP project provided dementia education to a diverse group of primary care providers including nurse practitioners, physicians, and physician assistants. Although the articles either specifically related to advanced practice nurses or physicians in primary care, the studies suggested a need for further provider dementia education in the primary care setting regardless of the provider type. The study by Daniel, Upshaw, Plank and Nunnelee (2014) showed that in a sample of advanced practice nurses, more attention was given to medication management of the disease than other areas. Less than 40% of

the providers assessed activities of daily living, only 20% discussed advanced care planning, and 5% discussed financial planning (Daniel et al., 2014).

Barriers to Dementia Management in the Primary Care Setting

In a study by Reuben et al. (2009) physicians appeared to be more comfortable managing the medical components rather than the counseling and educational aspects of dementia care. Barriers identified included deficit in provider knowledge about community resources and behavioral management in dementia care. Providers also had limited time to offer counseling and support for caregivers (Reuben et al., 2009), yet acknowledged that needs are unmet in caring for those with dementia. Local Alzheimer's Association (AA) chapters can meet many of these needs, yet physicians were often unaware of the services that the chapters can provide. From the study, it was found that before the collaborative care approach, AA and primary care practices operated independently of each other. The article recommended that AA launch an awareness campaign targeting primary care physicians and their staff about which patients should be referred and when (Reuben et al., 2009).

Assessing Provider Knowledge of Community Resources

Studies also revealed post-intervention improvement in dementia diagnosis, the use of screening tests, and significant improvements in provider knowledge of available community resources. For example, the study by Lathren, Soane, Hoyle, Zimmerman and Kaufer (2013), found that provider confidence in dementia care increased along with significant improvement in patient education and provision of community resources. The study was similar to others that found primary care practitioners often lacked knowledge

or skill for appropriate screening, diagnosis and treatment of dementia. These shortcomings often resulted in delayed or overlooked dementia diagnoses, missed opportunities for treatment, care planning, and support for family members (Lathren et al., 2013). In the study, physicians (n = 29) and affiliated staff (n = 24) participated in a one-day training program on dementia screening, diagnosis, and management that included engagement with local support service providers. Outcomes reported were higher overall confidence in dementia competency six months after training compared to pre-training. Participating physicians also reported increased use of dementia clinical screening and assessment tools post-training. The greatest improvements were in the providers' ability to educate patients and caregivers about dementia and making appropriate referrals to community care services. Participants also reported increased use of cognitive screening tools in providing care. Community service providers obtained approximately 160 physician-initiated referrals over a two-year period post-training compared to few beforehand (Lathren et al., 2013).

Community Service Referrals

Lee and Hillier (2014) found a fivefold increase in referrals to AA in the months following the launch of a collaborative partnership. Other impacts included improved care coordination across community and primary care sectors, improved access to information and community supports at the time of diagnosis, and increased healthcare provider awareness of available community services. Alzheimer's Association representatives assisted in the clinic to help provide available resources and address existing gaps (Lee et al., 2014).

Variations in Methods/ Concept Definition or Populations

All of the aforementioned studies shared the same population of adults age 65 and older who received treatment in the primary care setting. The populations in the study varied by location, though most of the studies were strictly applicable to the United States health care system. However, international studies that related specifically to the project topic of dementia management in the primary care setting with a defined population of adults age 65 and older were also included. One Canadian study (Galvin et al., 2014) demonstrated how it linked community support information from AA to the primary care setting. A United Kingdom based randomized control study by Wilcock et al. (2013) offered an innovative approach to care through the suggestion of a tailored dementia educational intervention for primary care providers followed by a collaborative care approach to be most successful.

Another common theme were the barriers associated with dementia care. Jensen and Inker (2015) argued that better awareness of community resources was needed for both family caregivers and health care providers. Additional knowledge and training about the disease were necessary including caregiver training and educational programs for health care providers. Physicians and nurses who participated in the focus groups and completed the survey reported that time to spend with patients, and their families, and awareness of community services were their biggest challenges (Jensen & Inker, 2015). Practitioners in the study emphasized the importance of giving families support, communicating with the family about the disease, providing information about available

resources, being a good listener, providing encouragement, and knowing what to expect (Jensen & Inker, 2015).

The articles reviewed for this DNP project consisted of the following study designs: two randomized control trials (RCTs); two exploratory descriptive studies; one pre/post visit chart review study; one cohort study; two qualitative; and, one mixed method pre/post study. The RCT studies represented the highest strength of evidence and are rated IIA based on consistent results and large sample size. Three of the studies were rated as IIA based on study design, and the final study was rated IIIA based on its qualitative design. Strength of the evidence was determined using the Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) rating scale based on transparency, diligence, verification, self-reflection, participant driven inquiry, and insightful interpretation. The articles were rated based on their ability to seek multiple sources, give a voice to the participants (caregiver or healthcare practitioner), and relevance to the study topic (Newhouse, Dearholt, Poe, Pugh, & White, 2005).

Literature Review Summary

Despite differences in methods and study design, all of the studies were applicable and useful to this DNP project. Limitations of the studies included low provider response rates in some of the provider education studies, and resistance in the primary care setting to the collaborative care model implementation. There was evidence from the literature that educational intervention alone may not be enough to make lasting changes in the primary care setting. Therefore, to ensure project success, it was important to consider a form of community follow up along with the provider dementia

education program. Knowledge related to study limitations was taken into consideration when designing the project. From the review, it was determined that positive patient outcomes in dementia management were obtained from utilizing a non-pharmacological approach. The synthesis of the literature also underscored that significant changes to existing primary care practice would be needed for successful dementia care management.

Conceptual/Theoretical Framework & QI/EBP Model

Overview of the Interaction Model of Client Health Behavior

Since the primary purpose of this DNP project was to implement dementia education in a primary care setting to improve patient outcomes for individuals with dementia and their families in the local community, a relevant theory focused on the provider and client relationship and improving health outcomes was sought. With this criterion in mind, the middle-range theory, the “Interaction Model of Client Health Behavior” (IMCHB) by Cox (1982), was chosen as a framework for the DNP project (Appendix C). The IMCHB theory examines the client-provider relationship and its influence on health behavior (Mathews, Secrest, & Muirhead, 2008). This model was applicable to all practice settings and focused on the client as an individual, obtaining positive health outcomes, interaction between the client and provider, and the development of appropriate patient focused interventions (Mathews et al., 2008).

Key Concepts and Operational Definitions

Patients with dementia frequently rely on family members to act as caregivers, and these family members often accompany the patients to clinical appointments. Addressing the needs of caregivers is important for caregiver well-being and the health of their care recipients (Siemens & Hazelton, 2011). According to Siemens and Hazelton (2011), uncertainty around the diagnosis of dementia can lead to difficulties with communication. It was recommended that when possible and appropriate, communication should not only involve the affected individual, but also their caregivers. For the purpose of this project, the term “client” was used to in reference to individuals

with dementia as well as their caregivers. When patients, their families, other caregivers, and the public are active participants in care, improvements in health, the experience of care, and economic outcomes are end results (Smith, Saunders, & Stuckhardt, 2013). It should not be assumed that patients with dementia are incapable of making decisions. The stage of the illness at the time of diagnosis should be taken into consideration. As dementia progresses, decision-making capacity as well as the ability to understand the diagnosis and its implications are affected. In the later stages of dementia, decision making is severely impacted to the degree that it might not matter to the patient, therefore disclosure would be ineffective (Hegde & Ellajosyula, 2016).

The three main areas of focus in the IMCHB theory were the concepts of client singularity, client-professional interaction, and health outcomes. Client singularity takes into consideration the unique characteristics of the individual including demographics, social influence, previous health experiences, and environmental resources available to the individual. Carter (2003) defined previous health care experience as “the identified chronic conditions, symptoms, and functional status as significant components of the health experience in older adults” (p. 40). These characteristics combined are background variables that have an impact on motivation, cognitive appraisal, and response (Mathews et al., 2008). A qualitative study by Prorok, Horgan and Seitz (2013) explained that caregiver understanding of dementia was influenced by the clarity and consistency of information received from health care professionals. Open communication and empathy contributed to a successful client-professional interaction

and resulted in positive feelings about interactions with the healthcare provider (Prorok, Horgan, & Seitz, 2013).

In the client-professional interaction portion of the theory, knowledge was an important component of the relationship. The provider should be knowledgeable and able to establish healthcare goals to be successful. In client-professional interactions, the professional provides support and health information, displays professional and technical competency, and allows the client/family decisional control. According to Mathews et al. (2008), those with decisional control are more likely to participate in health-related behaviors. In the IMCHB theory, client singularity and the client-professional interaction have an impact on health outcomes. There are five areas of focus in the health outcome category, including the utilization of healthcare services, clinical health status, severity of the healthcare problem, adherence to the care regimen, and satisfaction with care (Mathews et al., 2008). Motivation was defined as “competence and self-determination” and cognitive appraisal refers to the “meaning of health as interpreted by the individual” (Carter, 2003, p. 41). The authors defined healthcare utilization as the “use of health resources as health-promoting behavior” (Mathews et al., 2008, p. 418).

Overall, this model was relevant to the DNP project because it helped to explain the depth of the client-professional relationship and how the sharing of knowledge and support between the client and professional can have an impact on health outcomes. The theory was also simplistic, easy to understand, and provided a relevant framework for the project. The theory covered an appropriate scope for the project and provided concepts

that were applicable to the patient and the provider consistent with the project (Bonell & Smith, 2018).

Evidence-Based Practice Model

To organize the process of translating evidence from the project to practice, the Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) model was chosen (Appendix D). Evidence-based practice (EBP) is defined by the JHNEBP model as a “problem-solving approach to clinical decision-making within an organization that integrates the best available scientific evidence with the best available experiential evidence, considers internal and external influences on practice, and encourages critical thinking in the application of such evidence to care of the individual patient, patient population, or system” (Melnik & Fineout-Overholt, 2015, p. 303). The main goal of the JHNEBP model was to allow current research findings and best practices to be quickly incorporated into patient care (Johns Hopkins Nursing, 2018). The model consisted of three phases beginning with the practice question, evidence, and translation, also known as the PET process. There are eighteen steps involved in the PET process that began with forming a team and developing the EBP question. A team approach to care was a main focus of the DNP project that involved a collaborative effort between the provider, client, Alzheimer’s Association, and community resources.

Once the team was formed and the scope of the EBP question defined, it was necessary to gather the appropriate evidence, determine its strength and quality, and develop recommendations for practice change (Melnik & Fineout-Overholt, 2015). The translation stage is the final stage of the model and involves creating an action plan,

securing the proper support and resources for project implementation, evaluating the outcomes, and disseminating the findings. After gathering evidence and completion of the synthesis of the literature, there was consistent evidence indicating a need for further investigation of improving care for dementia patients in the primary care setting.

Therefore, the JHNEBP model was beneficial as a framework to translate the evidence found into the primary care practice setting.

Project Design

Methodology

Study Design

This primary care-based quality improvement project utilized a retrospective comparison to evaluate the impact of a tailored provider-based dementia educational program at a rural primary care practice. Additionally, the project included a survey to assist in understanding providers' perceptions of barriers to dementia care and beliefs about components needed for a successful dementia care program. The educational program was designed in collaboration with Alzheimer's Association and a local geriatric psychiatrist. The project also analyzed the impact of education on subsequent emergency department visits and hospitalization of individuals diagnosed with dementia. A final aim was to determine the provision of community service referrals for those diagnosed with dementia post-intervention.

Participants and Setting

The rural practice utilized for the project delivers healthcare services to many patients age 65 and older and is the primary setting of the project. The group consisted of three MDs, two PAs, and one CRNP. A retrospective chart review of patients who presented for either an initial or subsequent Annual Wellness Visit at the primary care practice from June 3, 2018 through July 31, 2018 for pre-intervention data was conducted. Post-intervention data collection involved data extraction from the records of those who presented two months after the intervention from August 13, 2018 through

September 28, 2018. Medical records of those younger than 65 years were excluded from the study along with individuals who resided in a skilled nursing facility.

Confidentiality

To protect confidentiality, data were de-identified on all instruments. The student investigator alone had access to hardcopy data. The electronic database with de-identified patient information was maintained on a password-protected computer. Access to the electronic database was limited to the student investigator for data collection purposes. Protection of patient rights and confidentiality was accomplished using multiple safety measures. Names and identifying information were removed from data sheets and reported in aggregate. All data were collected on an electronic spreadsheet held on a password-protected computer. Files containing the electronic database were closed when computers were left unattended.

Consent forms were hand-delivered to the office representative and were in a secure location in the office (Appendix E). At completion of the project, consents were destroyed. Healthcare provider pre-assessment data were not directly linked to individuals and were reported in aggregate. The name of the office and participants were not disclosed and remained anonymous throughout dissemination of findings. Any hardcopy data or consent forms will be destroyed by shredder when no longer required for the project.

IRB approval

IRB approval was obtained in July 2018 (Appendix F). Letters from collaborating agencies were obtained prior to IRB approval (Appendix G and H). Provider consent was obtained verbally from those in attendance at the educational session on August 6, 2018. Risks to the providers were minimal but included embarrassment about the lack of knowledge about dementia education, treatment, and resources. Benefits of participation included the potential to increase knowledge, provide better patient care, and the opportunity to increase revenue by billing for screening and treatment services. Patients seen by healthcare providers in the project received standard care for dementia. Risks included potential emotional distress or anxiety related to dementia diagnosis. The benefits of participation in the project outweighed potential risks. Early diagnosis of dementia may allow people with dementia and their families to receive timely information, advice and support.

Additionally, early detection of dementia may provide an opportunity for the individual/family to actively participate in advanced care planning. The student investigator maintained strict adherence to HIPAA standards throughout the project. The DNP student received Collaborative Institutional Training Initiative certification in the conduct of research. Adherence to the HIPAA Privacy Rule indicated that it was prohibited to use or disclose protected health information except as authorized by a patient or when specifically permitted by regulation.

Tools and/or Intervention

A data collection tool developed by the student investigator was used to record information including patient age, gender, date of service, residence (home, skilled nursing facility, or assisted living facility), new dementia diagnosis with documentation in the medical record, completion and documentation of dementia screening, the type of screening tool used, documentation of the type of screening tool used, a documented advance care planning discussion, and if community service referrals were given (Appendix I). Post-intervention chart review included documentation of emergency department visits or hospitalization after the provider educational intervention (Appendix J). Other information captured by the data collection tools included if patient had a previously documented diagnosis of dementia, and documentation of a family history of dementia. The results of the Mini-Cog test, including scores on the word recall, clock drawing, and total score were collected. In EPIC, the electronic medical record in use at the primary care practice, a total score of <3 on the Mini-Cog test has been validated for dementia screening.

The clinical question recommended the use of a standardized dementia screening tool by healthcare providers in the primary care setting. The Mini-Cog (Appendix I) was selected for use because it was a simple, free screening tool that was easy to use, and took about three minutes to administer. This tool can be used to detect cognitive impairment quickly during both routine visits and hospitalizations. The Mini-Cog helps to differentiate patients with dementia from those without dementia and may be used and distributed without permission if used for health professionals, hospitals, or clinics (Mini-

Cog, 2018). The sensitivity of the Mini-Cog ranged from 76-99%, and specificity from 89-93% with 95% confidence interval. A chi square test reported 234.4 for Alzheimer's dementia and 118.3 for other dementias ($p < 0.001$) showing that the Mini-Cog detects Alzheimer's more often than other types of dementia. This tool had strong predictive value in multiple clinical settings (Doerflinger, 2013).

Collaboration with the Alzheimer's Association was key to project design and implementation. Educational and referral resources essential to the project were already developed by the Alzheimer's Association, were free to access, and provided support to individuals with dementia and their families. One tool from the Alzheimer's Association used for the project was the explanation of incentives available to providers through the new Medicare billing code, G0505, which took effect Jan. 1, 2017 (Alzheimer's Association, 2017). G0505 (Appendix J) provided reimbursement for a clinical visit that resulted in a comprehensive care plan. G0505 involved different components of care that included cognition, function, safety, evaluation of neuropsychiatric and behavioral symptoms, review of medications, and assessment of the needs of the caregiver (Alzheimer's Association, 2017). Knowledge of this billing code was essential for providers since evidence showed that dementia care was often not profitable, and reimbursement did not adequately cover care, including coordination with community services, education and support of caregivers (Jensen & Inker, 2015). Information regarding the billing code was presented at the educational session and handouts given to the office representative to be distributed to providers as a reminder. Another tool available through AA was the Rapid Referral form (Appendix K). This form allowed

providers to connect patients with community resources. The Rapid Referral was free of charge to the provider, connected individuals to safety services, support groups and coordinated care (Alzheimer's Association, 2015).

Strengths, Weakness, Opportunities, and Threats

The four concepts within the SWOT analysis (Appendix L) strengths, weakness, opportunities, and threats were useful in the development of a project. In performing the SWOT analysis, the researcher was able to identify strengths and areas of improvement (Bonnell & Smith, 2018). Evidence showed that screening is well accepted by patients when endorsed by their health care providers and this is considered a strength of the study (Borson et al., 2013). Evidence also showed that the facilitation of caregiver access to support groups, respite services, and other community services was helpful in promoting the well-being of the caregiver (Geldmacher & Kerwin, 2013). It was also noted that primary care providers may have barriers to the diagnosis of dementia, including the lack of time, perception of the importance of early diagnosis, and poor connection with community services for individuals with dementia. Opportunities included gaining knowledge of available partnerships to reduce gaps in care, improvement in provider-client relationship and patient outcomes.

Strengths of the primary care office included the organization's good standing in the community and the trusted relationship the practice has with its patients. Another strength was the organization's participation as an Accountable Care Organization (ACO) in partnership with a local hospital. An ACO is a group of health care providers who come together to give coordinated high-quality care to Medicare patients with a goal of

improving care coordination and avoiding unnecessary duplication of services (Centers for Medicare & Medicaid Services, 2017). The practice saw a large number of patients in the local community which was a strength and a threat since the providers were usually extremely busy with their patient load. A weakness of the organization which was identified through the pilot program was the high number of individuals with dementia that continued to present to the emergency department.

Project Implementation

This DNP project began with an educational intervention on August 6, 2018, entitled, “Dementia Early Detection and Diagnosis: Why, How, and What To Do Next”, delivered in conjunction with the AA to providers at dinner meeting held at their office. This involved several days of planning in coordination with AA and the rural primary care office. Dr. Allan Anderson, a geriatric psychiatrist, presented the educational session. Only three providers of six, were able to attend the session; they were practice group owners who are both MDs, and one CRNP. The office manager and office supervisor also attended the educational session. Other attendees included a local geriatrician/primary care provider, representatives from AA, individuals from the University, and representatives from the local hospital. The other providers who were unable to attend were given an overview and slides from the presentation.

During this presentation Dr. Anderson discussed several topics including the importance of early detection, recommendations for cognitive testing, and a decisional tool for implementing interventions, treatment, and referral. Means of investigating possible causes of behavior, reviewing medications, ruling out other medical conditions, considering the social needs of the individual, and collaborating to create the appropriate treatment plan (McIntosh, 2018).

One specific area addressed during the presentation was the DICE approach to dementia care. The DICE approach was created to help address behavioral issues in individuals with dementia (Kales, Gitlin, & Lyketsos, 2014). This approach encourages

active participation by the caregiver and collaboration with the provider, and other team members.

The first step in the DICE approach is to “Describe” the behavior. Direct observation from the caregiver is utilized during this step. The caregiver helps the provider understand the social environment, patient perspective, and the degree of distress to the patient and/or caregiver. The second step is to “Investigate” the possible causes of problem behavior and examines medication side effects, pain, medical conditions, comorbidities, sleep habits, boredom, and the severity of the cognitive impairment (Kales et al., 2014). Here the provider gains an understanding of the caregiver effects on the patient and their expectations.

The third step in the process is to “Create”. In this phase the provider, caregiver, and team collaborate to create and implement the agreed upon treatment plan. Some interventions that should be included at the create phase are education and support, enhanced communication with the patient and family, the creation of meaningful activities, ensuring a safe environment, and to increase or decrease environmental stimulation.

The final phase is “Evaluate”, here the provider evaluates if the interventions in the create phase that were implemented by the caregiver are safe and effective. Kales et al. (2014) also explained that there are different behaviors associated with different types of dementia. Depression is more common in vascular dementia, hallucinations are seen more in Lewy body dementia, and individuals with frontotemporal dementia often exhibit

wandering, loss of executive control, apathy and social inappropriateness. The educational session also focused on possible warning signs of Alzheimer's disease, how to effectively work with families throughout all stages of the disease, and the importance of linking families to Alzheimer's organizations for services and support (McIntosh, 2018).

Dr. Anderson spoke on several other topics including dementia screening, diagnosis, assessment, treatment, and community resources. Furthermore, he also reviewed the following topics: the importance of early detection; an overview of the Medicare Annual Wellness Visit (AWV) and ways to include cognitive assessment in the visit; common tools to perform cognitive screening of older adults in primary care; an algorithm for evaluation and management of older adults who screen positive for cognitive impairment in primary care; recommendations for additional cognitive testing, evaluation and referrals, importance of clinical trials; and, services and resources for families impacted by dementia and Alzheimer's disease.

A lead representative from the Alzheimer's Association was able to give a summary of the community services available for individuals with dementia and their families. The training delivered clinical care guidance to health care providers on Alzheimer's identification and disease management. The program also focused on possible warning signs of Alzheimer's disease, how to effectively work with families throughout all stages of the disease, and the importance of linking families to Alzheimer's organizations for services and support. Evidence for the provider dementia education program was obtained from a study by Lathren et al. (2013) where it was

discovered that the combination of a targeted practice-based educational intervention and community service engagement is associated with improved dementia competency and collaboration with community support service agencies.

Barriers

Evidence revealed that barriers existed in identifying dementia in the primary care setting. Some of the barriers included lack of adequate time, lack of knowledge, fear of misdiagnosis, and lack of resources (Parmar et al., 2014). Originally, the pre-assessment (Appendix M) was planned to be collected at the start of the educational intervention and used to tailor the program to provider needs. Since some providers were unable to attend the original intervention, the survey, which asked about perceived barriers to dementia diagnosis in their practice, was sent to them electronically in Survey Monkey format. They were also asked to list the key components of a successful dementia care management program to help offer a definition of dementia management in the primary care setting.

Although the survey was administered during the intervention, the DNP student did not receive a response from the office providers. The survey was simplified into an online survey format to make it easier for the providers to answer. There was only one response to the online survey. The lack of an adequate response rate prevented the student researcher from planning dementia education that was specific to the needs of the office.

Facilitators

One of the aims of the project was to establish a collaboration between the Alzheimer's Association and primary care. Facilitators included access to the electronic medical record for easier data collection. The DNP student was granted ambulatory care provider access in the EPIC EMR system utilized by the office. The office granted permission for the DNP student to access data relevant to the project. EPIC access was an essential component of project data collection. Other facilitators included the support from community stakeholders. Dr. Anderson took interest in the project over the summer and expressed that he had attempted to reach primary care offices in the past to offer information on dementia and treatment plans. The Alzheimer's Association envisioned a physician engagement program which it had previously been unable to implement in the local community. This project served as a way for AA to get necessary information out to the community. Individuals from the local hospital were interested in the project because it related to its population health initiatives.

Summative Evaluation of the Implementation Process

The process of project implementation, which began in August, involved the development of a provider dementia educational Intervention, collaboration with Alzheimer's Association, and the tedious process of data collection and analysis. Much planning went into the educational session, which was well received by providers, office staff, and other professionals in attendance. Three providers were unable to attend and were given the information in print form. The main providers who completed the Annual Wellness Visits (AWV) were able to attend the educational session. Their attendance

was important since the AWV is an essential component of the project. Unfortunately, due to time constraints and issues in communication with the office, the planned follow-up educational intervention did not occur. In place of the follow-up intervention, the DNP student was able to work with the Alzheimer's Association representative and presented materials to the office that were considered most beneficial. The DNP student was also able to give more education on the Rapid Referral form from AA and to make the office aware of the progress report that is given once referrals are received.

An expected outcome of the project was that the primary care office would utilize the referral form. Unfortunately, the Alzheimer's Association reported that they received no referrals from the primary care office during the implementation time frame. After educating the primary care office staff again on the resources available for individuals with dementia and their families and the referral form, the office staff stated that they would make more of an effort to give information on community resources. A barrier to determining if any community service referrals were given to dementia patients was the inability to retrieve information from the EPIC EMR in the primary care setting about resources given to patients/families. This made it impossible to learn what resources the patients and their families received unless the provider noted the resources given in a free-text box.

At the final meeting with the primary care office representative, it was determined that changes to the EPIC charting system were needed to make it easier for providers to document resources given and to build the referral form in the EMR. As a result of this project, the office will reach out to the Ambulatory Care EMR Team to build in the

Alzheimer's Association referral form in a similar manner to other current ambulatory care referral order sets. If this form can be built into the EPIC system, it would better capture the frequency of usage of the referral form and allow a more streamlined referral process. This area of future exploration will help the primary care office meet requirements for providing resources for patients within the new Maryland Primary Care Program model. This information was forwarded to upper levels of administration at Peninsula Regional Medical Center, and while it is not currently a priority initiative, it is a critical component of dementia care in relation to early identification and support with advanced care planning. Documentation of an advanced care planning discussion was frequently omitted during review of the Annual Wellness Visit (AWV) and is also an area for exploration.

Analysis and Discussion of Findings

Data Analysis

The pre- and post-intervention groups were identified after completion of the retrospective chart review. Data extraction revealed a total of 750 Annual Wellness Visits performed in the office within a six-month time frame. There were 367 records pre-intervention and 383 post-intervention. To adequately review all the data, the chart sample was cut down to two months pre-intervention and two months after the intervention, yielding a smaller sample of 253 pre-intervention and 250 post-intervention. Although there were Annual Wellness Visits performed on adults < 65 years of age, they were excluded from the study. Pre-intervention, there were seven individuals with a dementia diagnosis; none of the dementia diagnosis were new. Pre-intervention, 19 individuals scored <3 on the Mini-Cog test yet cognitive impairment was not addressed for seven individuals during the visit. Post-intervention, there was a total of 10 individuals with a documented dementia diagnosis, with one person having a finding of new cognitive impairment based on Mini-Cog testing who was referred for further dementia work-up. Post-intervention, 13 individuals scored <3 on the Mini-Cog; cognitive impairment was unaddressed in four individuals.

Table 1
Sample Characteristics

	June 2018 Pre- Intervention	July Pre- Intervention	August Post- Intervention	September Post- Intervention
Totals	137	116	117	133
Age mean/standard deviation	77.34 (± 7.30)	77.05 (± 8.01)	76.75 (± 7.61)	75.96 (± 6.88)
Gender				
Male	44	53	43	65
Female	93	63	74	78
Race/Ethnicity				
White	119	101	114	116
Black	16	15	12	14
Latino	0	0	0	2
Asian	1	0	0	1
Indian	0	0	1	0

Table 2
Dementia Diagnosis, Screening, & Community Service Referral

	June 2018 Pre- Intervention	July Pre- Intervention	August Post- Intervention	September Post- Intervention
Documented dementia diagnosis	3	4	4	6
New dementia diagnosis	0	0	0	1
Screening	127	106	111	125
Not completed	10	10	6	8
Compliance	92.7%	91.4%	94.9%	94.0%
Mini-Cog <3	15	4	3	10
Addressed	10	2	2	7
Unaddressed	5	2	1	3
Community Service Referral	0	0	0	0

Discussion of Findings

Pre-intervention, there were seven individuals with a dementia diagnosis; none of the dementia diagnoses were new. Pre-intervention, 19 individuals scored <3 on the Mini-Cog test yet cognitive impairment was not addressed for seven of them during the visit. Post-intervention, there were ten individuals with a documented dementia diagnosis, with one person having a finding of new cognitive impairment based on Mini-Cog testing who was referred for further dementia work-up. Post-intervention, 13 individuals scored <3 on the Mini-Cog and cognitive impairment was not addressed in

four individuals. In the group with Mini-Cog scores <3 that were addressed, providers documented cognitive impairment, but did not document dementia in the medical record. Although a statistical analysis is impossible due to only one new dementia diagnosis, the results are clinically significant since early identification has been shown to lead to better patient outcomes. A total of 50 individuals were identified during the project with either a documented dementia history or cognitive impairment identified by Mini-Cog screening that may have benefitted from a referral to community services.

Retrospective chart review allowed the visualization of pre- and post-intervention data. Originally, data collection included place of residence, advanced care planning discussion, and community service referral. After review, it was discovered that all patients came from home and there were no means of documenting if community service referrals were given in EPIC unless the provider entered it in the “comment” section. Regarding advanced care planning, there was a section in the EMR for documentation, however, there was only one case of this being documented. Post-intervention there were eight subsequent ED visits, however these visits did not coincide with dementia history of Mini-Cog score <3 . Despite attempts to educate the primary care office staff, there were no referrals to the Alzheimer’s Association using the Rapid Referral form during the implementation period.

Incidental findings included documentation of three routine follow up visits in the pre-intervention period that focused on dementia and memory loss, and one visit to schedule home health for memory training. During the three-month post-intervention period, there were seven routine follow up visits for dementia. During the post-

intervention phase, the providers appeared more receptive to family concerns regarding memory loss as evidenced by the scheduled follow up visits. There were also increases in the frequency of a more thorough cognitive screen using the Mini-mental State Examination (MMSE). In the post-intervention period, there were two MMSE visits and one new patient visit to establish dementia care.

Recommendations

Due to the sheer size of the practice (approximately 8700 patients), there were days when the office saw more than 100 patients per day. The number of patients were split between three providers on most days; occasionally there was a fourth person seeing patients. On some days, six AWVs were completed in one hour, leaving ten minutes per patient to gather information for the AWV. The length of AWV varied from 10 to 40 minutes with a provider. Therefore, it was possible that time constraints did not allow enough time to adequately diagnose cognitive function. Screening was another essential component of the project. It was possible that timing constraints also impacted screening, since at times there was no dementia screening documented during the AWV.

Since the providers did not make any referrals to the AA for those with a documented history of dementia or those with cognitive impairment, the office should determine the best way to make community service referrals. This may require an automated referral process or an office champion who is dedicated to connecting individuals with dementia to the AA. The Alzheimer's Association may need to consider having a representative maintain regular contact with primary care offices. At these visits

the representative could give brief dementia education, relay the importance of connection with resources, and collect new referrals.

Recommendations for the Educational Session

There also appears to be a hesitancy among providers to document dementia in the medical record of individuals identified with cognitive impairment. Among those individuals scoring <3 on the Mini-Cog, cognitive impairment, memory changes, memory loss, and memory deficit were documented more frequently than dementia. This may indicate that providers need a better understanding on the importance of early identification and making the diagnosis of dementia. Targeted educational programs should include information on early identification, a discussion on overcoming barriers to dementia diagnosis, how to diagnose dementia, the role of the AWW in identifying dementia, and the importance of the connection between the patient/family and available community resources.

Economic Considerations

Introduced by Medicare in 2011, the Annual Wellness Visit (AWV) was the first yearly visit offered at no cost to Medicare recipients. The AWV uses an evidence-based approach to help address health risk in individuals 65 years and older (Ganguli et al., 2018). Since the introduction of the AWV, there are now more than ten million AWV visits happening across the United States each year. Utilization rates range from 7 to 33% across the nation with Rhode Island possessing the highest rate. The AWV is a revenue generator, in 2016 Medicare spent about \$1.2 billion on the AWV for Medicare beneficiaries (Centers for Medicare and Medicaid Services, 2017). In addition to the

benefits the AWV can offer patients, there are benefits to clinicians. Medicare reimbursements for AWVs are at a higher rate than typical problem-based visits. The AWV is also viewed as a means to actively engage patients in their plan of care and to strengthen the patient-provider relationship. The plans established by clinicians at the initial visit need following up, allowing for the creation of subsequent encounters (Ganguli et al., 2018).

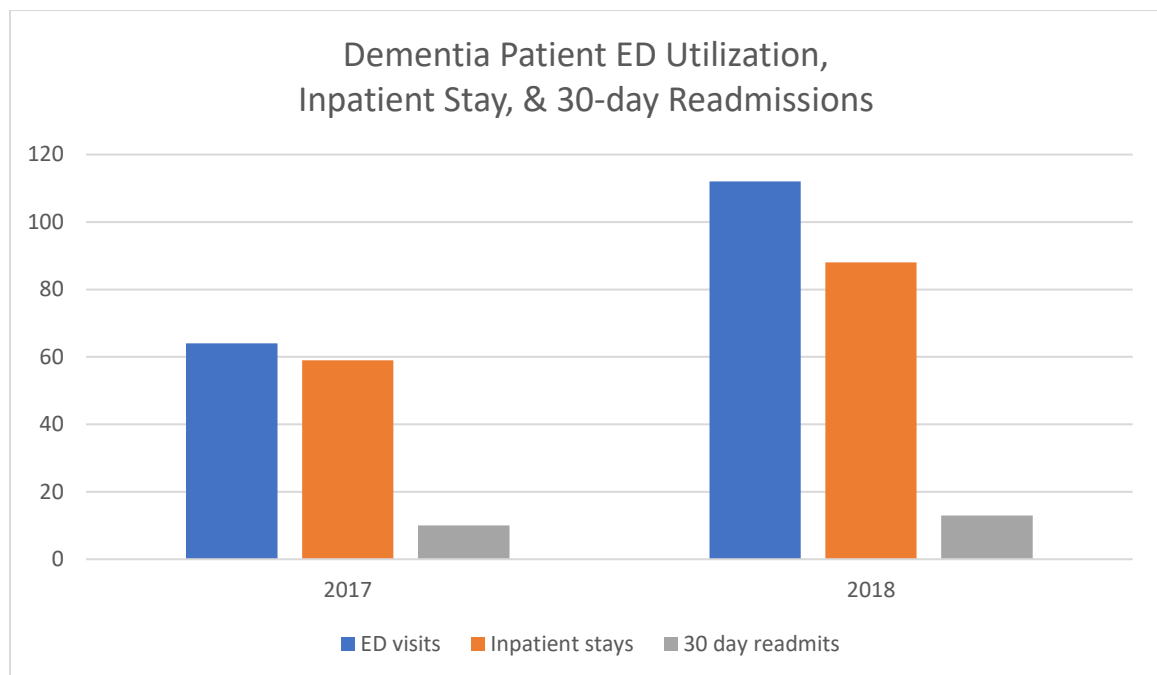
Dementia is one of the most expensive conditions in the United States healthcare system. In 2018, total payments for dementia care was estimated at \$277 billion, with Medicare and Medicaid covering \$186 billion or 67% of total healthcare costs. Among those with dementia, 27% of those with Medicare also have Medicaid coverage. People with Alzheimer's or other dementias also have twice as many hospital stays per year than those without dementia (Alzheimer's Association, 2018). To understand the local economic impact of dementia for patients within the practice, data were extracted from EPIC that included the total number of dementia patients currently managed within the practice, the total number of dementia patients with an Annual Wellness Visit, office billing codes for the AWV, dementia patient emergency department (ED) visits, inpatient visits, and 30-day readmissions. For this primary care practice, dementia patient ED visits and costs billed to Medicare in 2017 totaled \$39,602 and in 2018 totaled \$118,896. In 2017, dementia patient ED visits totaled 64 and inpatient stays totaled 59 with ten 30-day readmissions. In 2018, there were 112 dementia patient ED visits, 88 inpatients stays, and 13 readmissions. Length of stay in 2017 ranged between 4.42 to 10.28 days, and in 2018 ranged from 5.25 to 10.125 days. At about \$1100 per night, this translates to

an estimated cost of \$4400 to \$11,000 per stay. The 30-day readmissions are significant because Medicare does not reimburse these stays, thus it is uncompensated care.

Targeted provider dementia education should also include information on the costs of dementia care and avoiding unnecessary healthcare utilization.

Figure 1

Dementia Patient Emergency Department Utilization, Inpatient Stay, and 30-day Readmissions



DNP Role as Leader/Innovator

The American Association of Colleges of Nursing (2006) explained that the DNP degree prepares nurses to help bridge gaps in the discovery of new knowledge along with the translation of the knowledge obtained. Individuals obtaining a DNP degree must also be able to integrate the knowledge found into practice. According to Chism (2013), the

DNP curriculum “is focused on evidence-based practice, scholarship, leadership, information technology, advocacy, collaboration across disciplines, and advanced nursing practice” (p. 4). The AACN (2006) in conjunction with other advanced nursing practice advisory organizations, has formulated eight specific standards that are central to the DNP degree. These essential competencies are standard for all DNP graduates and include the scientific underpinnings for practice (DNP Essential I); organizational and systems leadership for quality improvement (DNP Essential II); clinical scholarship and methods for evidence based practice (DNP Essential III); information systems/technology (DNP Essential IV); healthcare policy and advocacy (DNP Essential V); interprofessional collaboration (DNP essential VI); prevention and population health (DNP Essential VII) and, advanced nursing practice (DNP Essential VIII).

One of the primary outcomes of the DNP is a culminating scholarly project. Waldrup et al. (2014) clarified that the project should address problems identified in the practice setting and evaluate the process and outcomes. This DNP project met several of the essentials required of the DNP degree, especially in quality improvement, information systems, advocacy, collaboration, and highlighting the need for improvement in population health. This project utilized evidence-based practice to develop a means to help improve current healthcare outcomes for individuals with dementia. This project also conveyed leadership through the formulation of an interprofessional team approach to dementia care that sought to link the provider’s office to community service resources, like the Alzheimer’s Association.

Waldrup et al. (2014) proposed five criteria that are essential for the DNP project in an acronym known as EC as PIE. The DNP project must enhance healthcare outcomes, culminate inquiry to enact change in the practice setting, engage in partnerships, implement and translate evidence into practice, and evaluate the process and outcome measures. This project incorporated the criteria recommended in the EC as PIE method because it sought to enhance outcomes for individuals with dementia within the local community through the linkage of the appropriate community resources. The project also introduced a change in the practice setting through the facilitation of direct collaboration between the provider and a community service agency. The project raised awareness about the importance of early screening for dementia and collaboration between the primary care office and AA, however it is inconclusive that the office embraced the concept of early identification of dementia. Partnership was also demonstrated through the project by the collaborative effort between the student investigator, primary care practice, and Alzheimer's Association.

After a thorough literature review, an evidence-based provider education intervention was designed to improve provider knowledge of dementia treatment, management, and community services. This intervention was implemented in the real world setting and translated using the Johns Hopkins Evidence-Based Practice Model. The final stage in the EC as PIE method is evaluation. This project required a summative evaluation of both the process and outcomes of the project. The summative evaluation required the student to evaluate project objectives and goals, determine ways in which the

project was beneficial, identification of barriers and facilitators, and if encountered, how identified how problems were addressed.

The DNP project has been instrumental in creating the opportunity to serve as leader and innovator in a complex healthcare system. Development of the project required innovative thinking to analyze a multifaceted healthcare issue and actively pursuing a solution. Previous experience as an Admissions Nurse Case Manager at a local hospital helped this DNP to identify the complex issue of the increasing number of individuals with dementia presenting to the emergency department in a crisis. In addition to DNP education, this work experience helped to develop a spirit of inquiry which allowed the student investigator to advocate for individuals with dementia and to promote earlier connection with community resources. The DNP project also fostered intercollaboration and assisted the student investigator in assuming a position of leadership while evaluating not only the health outcomes, but also the impact of cost and quality on elements of health care (Chism, 2013).

Overall, this project has helped in understanding the role of the DNP and aided in meeting essentials and standards of DNP practice. The project specifically focused on the essentials surrounding the elements of quality improvement, information systems, advocacy, collaboration, and the need for improvement in population health. Although further development is necessary, this project helped relay to providers the need for improvements in the current care of individuals with dementia in the primary care setting. This information was important to patients identified with dementia and their families since improved knowledge may improve health outcomes in this community. Connection

with community resources also provided the patient and family another support system for management of their disease process.

Process and Outcome Recommendations

The project was designed to utilize an office compatible with EPIC electronic database capability. This was planned purposefully for several reasons, including the DNP student's previous experience and familiarity using EPIC, and the ability to access the database at a private off-site location where patient data may be reviewed confidentially. This was also a benefit to the office as the location was busy, all rooms in the office were full, and at times, there was standing room only in the patient waiting area. During the DNP project, it was difficult to provide the amount of communication with the office that was required. Due to their work obligations, the office staff were not able to give the project the time and attention necessary. At the beginning of the project, the student investigator was asked to communicate questions regarding the project with the office manager only. Although the office had good intentions, given the complexity of the changes and the size of the practice, it was difficult for them to respond to the student in a timely manner. Since direct communication with the providers about the project and what was being asked of them was limited, they did not receive in-person updates at regular intervals.

Despite the many barriers present in the setting, the office was gracious in allowing electronic access to its daily schedules, including Annual Wellness Visits. A benefit of using a larger office setting to conduct the project was the potential sample size for chart review. A smaller office may have been more receptive to having a student

regularly onsite for data collection and timely updates, but the sample may not have been adequate.

Dissemination Plan

One of the main goals of the DNP project, is to disseminate the findings of to an audience of professors, mentors, students, and the community. A formal presentation was made at the University in April 2019, with a second meeting with the provider's office and Alzheimer's Association representatives arranged shortly thereafter. The project will also be presented to administration within the population health department at the local hospital. A community-based participatory research grant project completed by the student for a previous DNP course was submitted by the AA and approved for \$6,000. The grant funding was awarded for the AA to implement its physician outreach initiative that seeks to improve relationships with physicians and educate them about dementia and increasing referrals to the AA. One of the primary goals of the initiative is to increase early detection of Alzheimer's disease in the primary care setting. The project has served as a catalyst for the AA reaching its goals of physician outreach. Funding was used for physician outreach education at Peninsula Regional Medical Center on April 18, 2019 and Atlantic General Hospital in early May 2019. A short report manuscript of the project has been prepared for submission to the Journal of Aging and Mental Health

Conclusion

Overall, the project achieved only a few of its planned goals. The educational intervention was implemented and well received by the providers who were able to attend. The planned follow-up session was not able to take place, however educational information was provided to the office. An extensive chart review revealed a lack of documentation about resources and advanced care planning discussions with missed opportunities to address memory loss and cognitive impairment. Considering the limitations and barriers presented during the implementation period, the project was successful. Overall benefits included increased awareness among providers of the importance of early screening for dementia and development of improved interprofessional collaboration between the hospital, primary care office, and AA. If the educational intervention were to be replicated, it should be planned for more than one hour and follow-up sessions should be offered. The outcomes of the project did not meet the expectations envisioned by the student researcher. Changing practice is difficult, even under the best circumstances. The concepts underlying this project are important and need to be carried forward. Dementia education is necessary for providers in the local area. Providers must understand the importance of early diagnosis along with knowledge of how to support individuals with dementia and their caregivers outside the walls of the primary care setting. It is possible that continued provider education on dementia may lead to improved outcomes in this vulnerable population.

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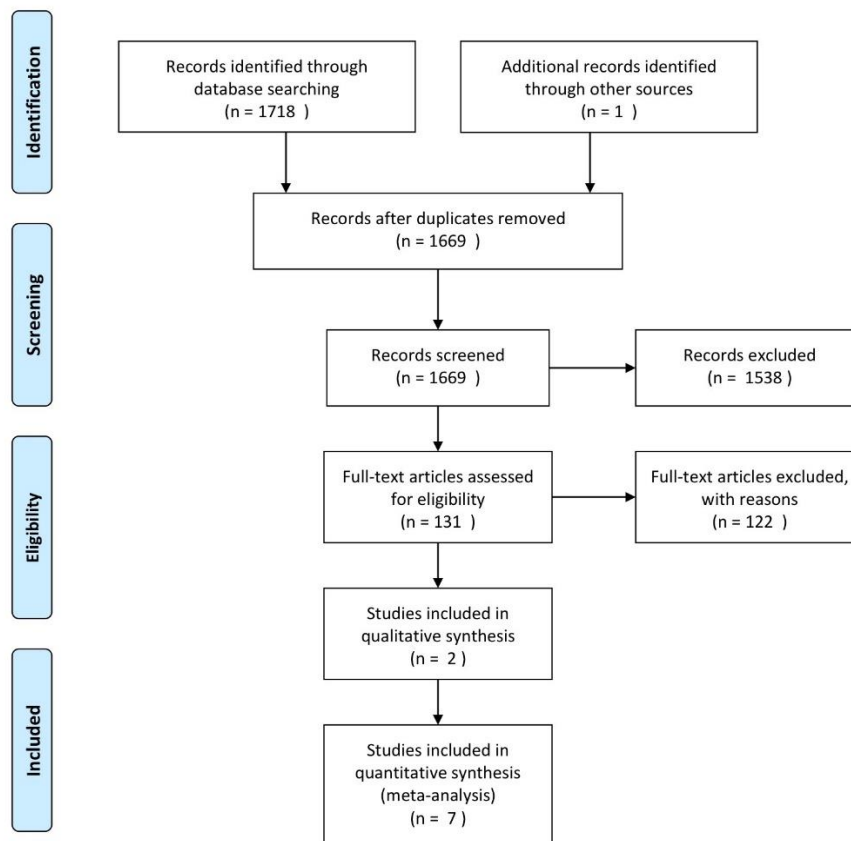
Trials, 14(1), 397. doi:10.1186/1745-6215-14-397.

Appendices

Appendix A: PRISMA Flow Diagram



PRISMA 2009 Flow Diagram



From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097

For more information, visit www.prisma-statement.org.

Appendix B: Table of Evidence

Year	Author Title Journal	Purpose	Design (descriptive, Systematic review, etc.)	Sample	Result
2006	Callahan, C., Boustani, M., Unverzagt, F., Austrom, M., Damush, T., Perkins, A., Fultz, B., Hui, S., Counsell, S., & Hendrie, H. Effectiveness of collaborative care for older adults with Alzheimer Disease in primary care: A randomized controlled trial. <i>The Journal of the American Medical Association.</i>	A randomized clinical trial demonstrating the benefits of care coordination to improve dementia outcomes and care quality. (Seminal RCT study frequently used in applicable studies)	Randomized clinical trial	153	Primary care collaborative care resulted in significant improvement in the quality of care and behavioral symptoms in individuals with dementia. Improvements were obtained without increasing the use of pharmacologic measures.
2014	Daniel, K., Upshaw, M., Plank, L., & Nunnelee, J. Dementia screening and management practices of advanced practice registered nurses in Texas. <i>The Journal for Nurse Practitioners.</i>	To determine an association between training and the identification and management of dementia in older patients.	Exploratory Descriptive Study	131	Only half of the ARPN's were comfortable and familiar with screening, diagnosing, or managing patients with dementia. This sample explained differences in comfort levels in dementia diagnosis is similar to a previous study

Year	Author Title Journal	Purpose	Design	Sample	Result
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2014	Galvin, J. E., Valois, L., & Zweig, Y. Collaborative transdisciplinary team approach for dementia care. <i>Neurodegenerative Disease Management</i>	To evaluate collaborative care models for dementia in the primary care setting	Pre/Post chart review	135	Utilization of the dementia collaborative care model revealed differences in how patient and family concerns were addressed, overall experience, and shared decision making. Patient satisfaction scores are higher in the collaborative care model.
2012	Iliffe, S., Koch, T., Jain, P., Lefford, F., Wong, G., Warner, A., & Wilcock, J. Developing an educational intervention on dementia diagnosis and management in primary care for the EVIDEM-ED trial. <i>Trials</i> , 13, 142. http://doi.org/10.1186/1745-6215-13-142	development of an educational needs assessment tool to guide tailored educational interventions designed to enhance early diagnosis and management of dementia in primary care	Qual.	8	care pathway to assist practitioners in earlier diagnosis and enhance subsequent clinical management; to identify the practice's learning needs

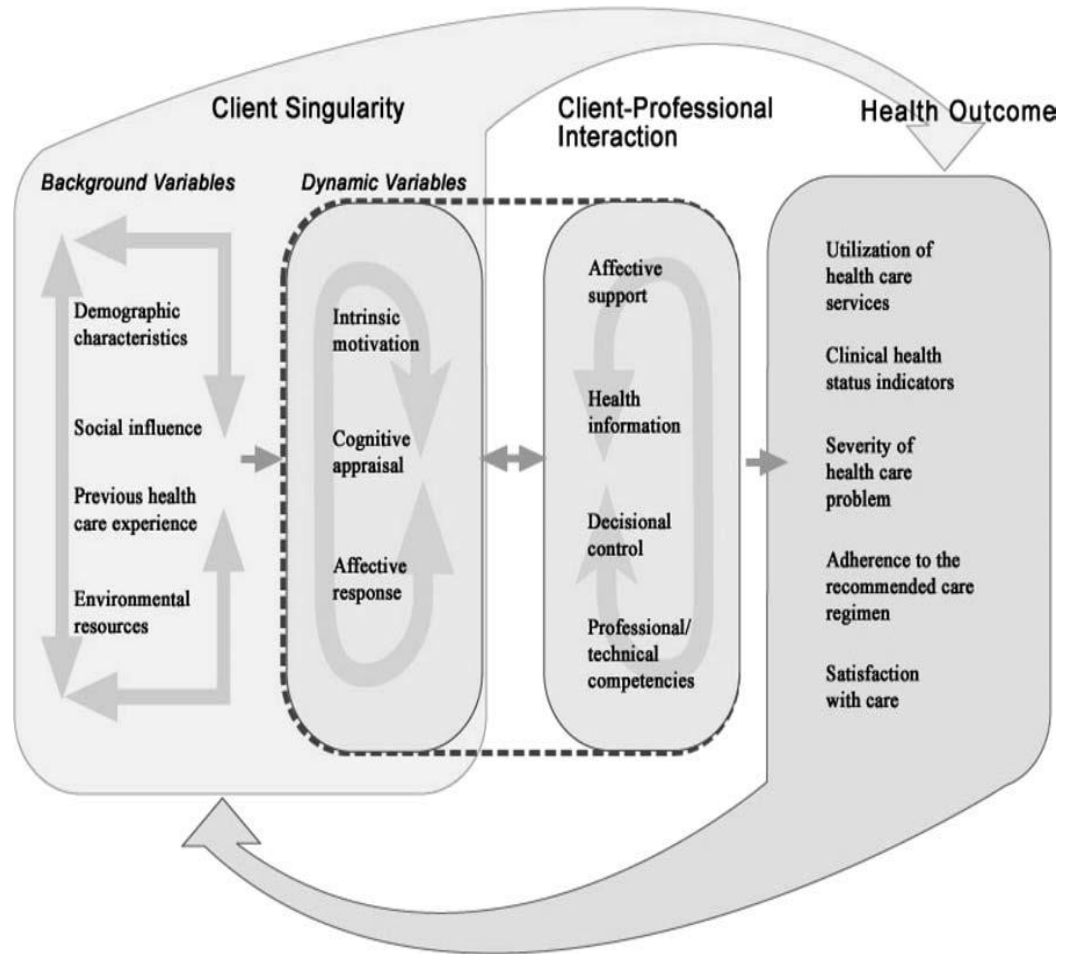
2015	Jensen, C. J., & Inker, J. Strengthening the dementia care triad: Identifying knowledge gaps and linking to resources. <i>American Journal of Alzheimer's Disease & Other Dementias</i> , 30(3), 268-275. doi:10.1177/1533317514545476	identify practical changes that may be incorporated to address the knowledge and communication gaps documented	Expl.	28 caregiver ; 37 HCP	More than two-thirds of the respondents identified screening tools and resources as “very helpful” in delivering care from diagnosis to treatment, including discussion with the patient and/or family
2013	Lathren, C. R., Sloane, P. D., Hoyle, J. D., Zimmerman, S., & Kaufer, D. I. Improving dementia diagnosis and management in primary care: A cohort study of the impact of a training and support program on physician competency, practice patterns, and community linkages. <i>BMC Geriatrics</i>	Evaluation of a community-based pilot dementia training intervention with the goal of: 1) improving clinical competency 2) and increase utilization of local dementia care services	Cohort study	53	Three themes: 1) The provider educational intervention improves dementia care competency in participants 2) improvement in provider cognitive screening and assessment using the Mini-Cog test 3) increases community referrals
Year	Author Title Journal	Purpose	Design	Sample	Result
2014	Lee, L., Hillier, L. M., & Harvey, D. Integrating	To describe the impact of the partnership between the	Mixed method pre/post study design	80	Improvements in care coordination for individuals with dementia and

	community services into primary care: Improving the quality of dementia care. <i>Neurodegenerative Disease Management</i> .	Alzheimer's Society (AS) and primary care-based memory Clinics and to assess the impact on community referrals			their families. Results also revealed a five-fold increase in community referrals and improved provider knowledge of available community services.
2009	Reuben, D., Levin, J., Frank, J., Hirsch, S., McCreath, H., Roth, C., & Wenger, N. Closing the dementia care gap: can referral to Alzheimer's Association chapters help? <i>Alzheimer's & Dementia: The Journal of the Alzheimer's Association</i> , 5(6), 498–502. http://doi.org/10.1016/j.jalz.2009.01.024	To determine if physicians' practices can be redesigned to improve the care of persons with dementia by creating linkages with local Alzheimer's Association chapters,	Qual.	focus groups with a total of 22 physicians from two practices	positive outcomes, including reported improvements in physician knowledge, practices, and attitudes and improved patient and family caregiver satisfaction
2013	Wilcock, J., Iliffe, S., Griffin, M., Jain, P., Thune-Boyle, I., Lefford, F., & Rapp, D. Tailored educational intervention for primary care to improve the management of dementia: the EVIDEM-ED cluster	To determine if a tailored dementia educational program had an impact on the clinical management of individuals with dementia.	RCT	23	The study utilized 23 primary care practices and included a total of 1,072 patients. Evidence suggests that an educational intervention along with collaborative care efforts shows positive effects on patient outcomes for individuals with dementia.

	randomized controlled trial. <i>Trials.</i>				
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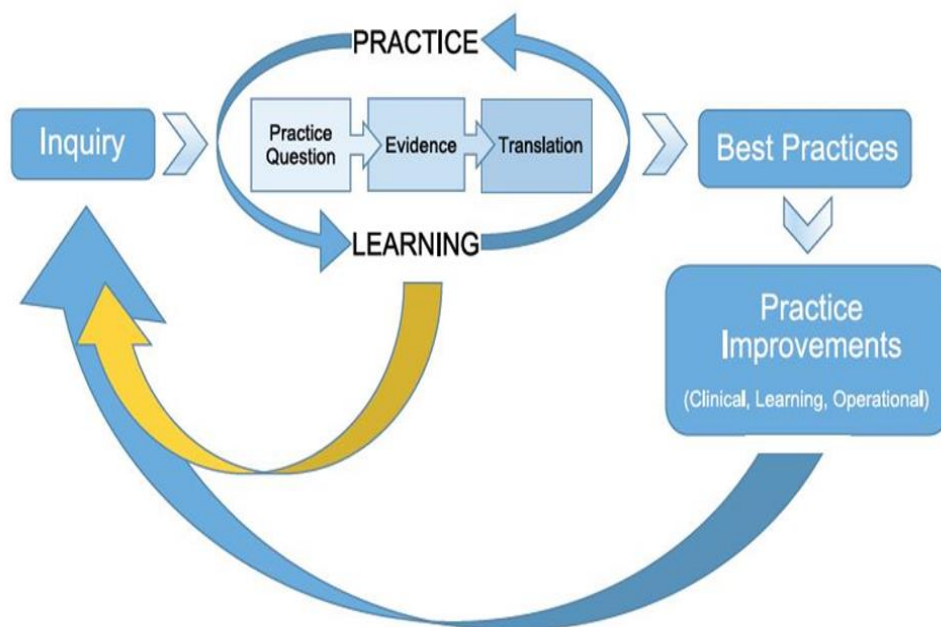
Appendix C: Interaction Model of Client Health Behavior (IMCHB)

by Cheryl Cox, RN, PhD



Mathews, Secrest, & Muirhead, 2008, p. 417.

Appendix D: Johns Hopkins Nursing Evidence-Based Practice Model (JHN)



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Appendix E: Informed Consent and Disclosure Statement

TITLE OF STUDY: The Impact of a Provider Dementia Education Program on Dementia Screening, Documentation of Dementia Diagnosis, and Community Referral in a Rural Primary Care Setting

PRINCIPAL INVESTIGATORS

Research Coordinator/ Co-Investigator: Michele McIntosh, BS, RN, DNP student, Salisbury University Department of Nursing

Faculty Supervisor/Principal Investigator:

Lisa Seldomridge, PhD, RN, Professor and Director Graduate and Second-Degree Nursing Programs, Salisbury University Department of Nursing

Contact Information

Salisbury University, Department of Nursing
1101 Camden Avenue, Salisbury, MD 21801
Email: laseldomridge@salisbury.edu
Phone: 410-543-6413

PURPOSE OF THE PROJECT

You are being asked to take part in a Quality Improvement Project. Before you decide to participate in this project, it is important that you understand why the project is being done and what it will involve. Please read the following information carefully. Please ask the research coordinator if you need more information. The purpose of this project is to improve dementia screening, diagnosis, and the rate of community support services referral. This project is being conducted as a requirement for the completion of a Doctor of Nursing Practice degree. Your participation in the project is appreciated and may help to improve health outcomes for your patients and/or other members of the community.

PROCEDURES

An Alzheimer's Association representative with experience in dementia screening, assessment, diagnosis, treatment, and knowledge of community resources will teach the provider education session. The educational session will be recorded for those who are unable to attend the face-to-face presentation. This training will be offered at no cost and will place emphasis on the importance of linking patients/families to community resources for services and support. This one-hour training also provides clinical care guidance on Alzheimer's identification and disease management. The training will focus on possible warning signs of Alzheimer's disease, how to effectively work with families

throughout all stages of the disease, and the importance of linking families to Alzheimer's organizations for services and support. Participants who diagnosed with dementia during the Medicare Annual Wellness Visit will have their health record flagged for review. This medical record review involves analysis of the Annual Wellness Visit for screening test utilization, type of screening tool, evidence of a documented advance care planning discussion, and the provision of community support services. A pre-assessment will be obtained by the DNP student at the initial educational intervention asking you to identify perceived barriers to dementia diagnosis in the primary care setting. A follow up educational intervention will be scheduled two months after the first session to provide reinforcement of educational goals.

RISKS

Those participating in data collection will adhere to HIPAA standards and provide confidentiality of personal medical information. Adherence to the HIPAA Privacy Rule indicates that it is prohibited to use or disclose protected health information except as authorized by a patient or when specifically permitted by regulation. Risks to you are minimal but may include embarrassment about the lack of knowledge about dementia education, treatment, and resources. Benefits of participation include the potential to increase knowledge, provide better patient care, and the opportunity to increase revenue by billing for screening and treatment services. Patients seen by healthcare providers in the study will still receive standard care for dementia which presents a minimal risk. Risks include potential emotional distress or anxiety related to dementia diagnosis.

BENEFITS

Your participation in this project could lead to changes in primary care practice and policy regarding dementia screening, diagnosis, and community referral, and may help to improve care for other individuals with dementia in the local community. Other benefits of participation include the potential to increase knowledge, provide better patient care, and the opportunity to increase revenue by billing for screening and treatment services.

CONFIDENTIALITY

Those participating in data collection will adhere to HIPAA standards and provide confidentiality of personal medical information. Adherence to the HIPAA Privacy Rule indicates that it is prohibited to use or disclose protected health information except as authorized by a patient or when specifically permitted by regulation. Your name and the name of the office will be kept confidential throughout the study and no names or identifiers will be used in dissemination of the results at the end of the project.

CONTACT INFORMATION

If you would like more information, or have any concerns regarding this project, please contact:

Salisbury University Office of Graduate Studies and Research, Holloway Hall
262, Salisbury University Salisbury, MD 21801, 410-677-0047, Fax: 410-677-
0052 or you may contact the primary investigator Dr. Lisa Seldomridge at 410-
543-6413.

CONSENT

My signature below indicates I have read the Consent Form and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent:

Participant name _____

Signature _____

Date _____

Research Coordinator/Assistant Signature _____

Date _____

Appendix F: IRB Research Approval Notification



A Maryland University of National Distinction

Salisbury University
Institutional Review Board
Committee on Human Research
Phone: (410) 548-3549
Fax: (410) 677-0052
Email: humanresearch@salisbury.edu

IRB Research Protocol Approval Notification

Date: July 12, 2018

To: L. Seldomridge
RE: Protocol #57
Type of Submission: Expedited
Type of IRB Review: Expedited
Protocol is scheduled to begin 6/18 end 5/19

Approval for this project is valid from 7/12/18 to 5/30/19.

CONGRATULATIONS.

This letter serves to notify Dr. Lisa Seldomridge that the Salisbury University (SU) Institutional Review Board (IRB) approved the above referenced protocol entitled, The Impact of a Provider Dementia Education Program on Dementia Screening, documentation of Dementia Diagnosis, and community Referral in a Rural Primary Care Setting on July 12, 2018.

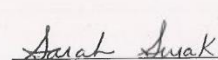
Pursuant to Federal regulations 21 CFR 56.109, the IRB has determined that this protocol qualifies for Expedited review.

Federal regulation 45 CFR 46.103 (b)(4)(iii) requires Primary Investigators (PI), except when a subject is in immediate danger, to assure any change to an approved protocol is not initiated prior to IRB review and approval. Additionally, the PI must also inform the IRB of unanticipated problems involving risks to participants.

These same federal regulations require **continuing review** of research be conducted by the IRB at intervals appropriate to the degree of risk. Your research is scheduled to begin 6/18 and end 5/19. When necessary, the PI will receive a continuing review reminder notice prior to the date protocol approval ends; however, it is the PI's responsibility to submit continuing review reports in a timely manner (at least 3 weeks prior to scheduled end date on the protocol approval).

The SU IRB is organized and operated according to guidelines of the United States Office for Human Research Protections and the United States Code of Federal Regulations and under Federal Wide Assurance No. FWA00020237.

If you have any questions about this review or questions, concerns, and/or suggestions regarding this process, please do not hesitate to contact the Office of Graduate Studies and Research at 410-548-3549 or humanresearch@salisbury.edu.


Chair, IRB Committee on Human Research

Appendix G: Natesan Medical Group Letter of Collaboration



VEL NATESAN, MD
USHA NATESAN, MD
SAMEER SHAIK ABDUL, MD

MELISSA GUNTHER, PA-C
LAWRENCE TAWIAH, PA-C
ASHLEY MCCREADY, CRNP

Committee on Human Subjects
Salisbury University
1101 Camden Avenue
Salisbury, MD 21801

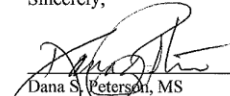
To Whom It May Concern:

As the Clinical and Business Managers of Natesan Medical Group, we grant permission for Michele McIntosh to conduct her DNP quality improvement project, "The Impact of a Provider Dementia Education Program on Dementia Screening, Documentation of Dementia Diagnosis, and Community Referral in a Rural Primary Care Setting" at Natesan Medical Group in Salisbury, Maryland from June 2018 to May 2019. This project will evaluate the effectiveness of a provider dementia education program, in improving early identification of dementia and community service referral during the Annual Wellness Visit (AWV) of individuals 65 years of age and older.

We understand that the project will examine the assessment/screening, diagnosing, and treatment practices of health care providers in our Group before and after participating in a targeted educational session on dementia detection and diagnosis. The project will include an educational session, a follow up educational intervention, and data extraction (cognitive function screening test utilization, type of screening tool, evidence of discussion of advance care planning and community resources) by Ms. McIntosh. We understand that all patient data will be de-identified and reported in aggregate.

We agree to participate in the educational session "Dementia Early Detection and Diagnosis: Why, How, and What To Do Next" conducted in partnership with the local Alzheimer's Association. This training will focus on possible warning signs of Alzheimer's disease, how to effectively work with families throughout all stages of the disease, and the importance of linking families to Alzheimer's organizations for services and support. We look forward to hearing about the outcomes of this quality improvement project.

Sincerely,



Dana S. Peterson, MS
Clinical Manager

Lynnette Miller
Business Office Manager

Appendix H: Alzheimer's Association Letter of Collaboration

www.alz.org/maryland
1.800.272.3900

Central Maryland
1850 York Road, Suite D
Timonium, MD 21093

410.561.9099 p
410.561.3433 f

Western Maryland
108 Byte Drive, Suite 103
Frederick, MD 21702

301.696.0315 p
301.696.9061 f

Eastern Shore
909 Progress Circle, Suite 400
Salisbury, MD 21804

410.543.1163 p
410.742.0525 f

Mailing address
Attn: Eastern Shore
1850 York Road, Suite D
Timonium, MD 21093



April 13, 2018

Salisbury University IRB Committee
Salisbury University Department of Nursing

Dear IRB Committee,

The Alzheimer's Association is very excited to partner with Salisbury University DPN student, Michele McIntosh on her collaborative project titled, "The impact of a provider education program on screening, documentation of dementia diagnosis and community referral in a rural primary care setting." This effort offers a much needed approach to increasing early detection and early diagnosis and, as a result, earlier referral to patient and care giver resources for individuals suffering from Alzheimer's or other dementia. Currently as many of 50% of patients go undiagnosed or unaware of their diagnosis.

I am pleased to serve on her advisory committee. Pursuing this project moves forward several of our goals for the Eastern Shore and we fully support this critical community education endeavor with primary care practitioners.

If I may be of any further assistance to you please feel free to contact me.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Carol Zimmerman", written over a circular stamp that contains the text "Carol Zimmerman" and "Development and community Relations Coordinator".

Carol Zimmerman
Development and community Relations Coordinator

czimmerman@alz.org



THE BRAINS BEHIND SAVING YOURS.™

Appendix I: Mini-Cog

Mini-Cog®

Instructions for Administration & Scoring

ID: _____ Date: _____

Step 1: Three Word Registration

Look directly at person and say, "Please listen carefully. I am going to say three words that I want you to repeat back to me now and try to remember. The words are [select a list of words from the versions below]. Please say them for me now." If the person is unable to repeat the words after three attempts, move on to Step 2 (clock drawing).

The following and other word lists have been used in one or more clinical studies.¹⁻³ For repeated administrations, use of an alternative word list is recommended.

Version 1	Version 2	Version 3	Version 4	Version 5	Version 6
Banana	Leader	Village	River	Captain	Daughter
Sunrise	Season	Kitchen	Nation	Garden	Heaven
Chair	Table	Baby	Finger	Picture	Mountain

Step 2: Clock Drawing

Say: "Next, I want you to draw a clock for me. First, put in all of the numbers where they go." When that is completed, say: "Now, set the hands to 10 past 11."

Use preprinted circle (see next page) for this exercise. Repeat instructions as needed as this is not a memory test. Move to Step 3 if the clock is not complete within three minutes.

Step 3: Three Word Recall

Ask the person to recall the three words you stated in Step 1. Say: "What were the three words I asked you to remember?" Record the word list version number and the person's answers below.

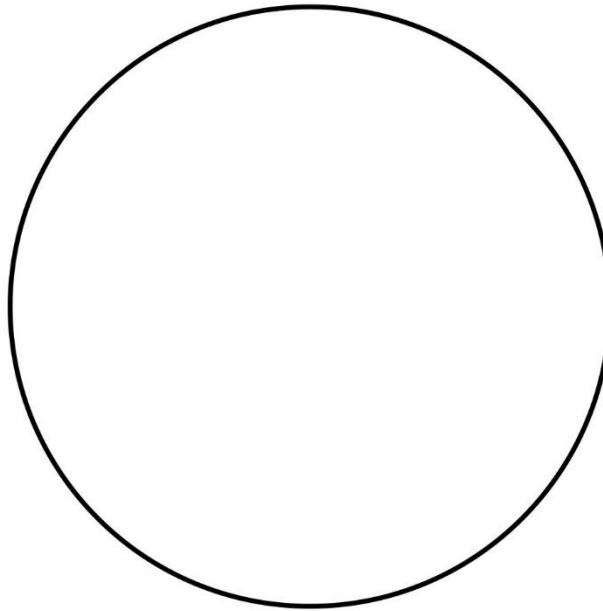
Word List Version: _____ Person's Answers: _____

Scoring

Word Recall: _____ (0-3 points)	1 point for each word spontaneously recalled without cueing.
Clock Draw: _____ (0 or 2 points)	Normal clock = 2 points. A normal clock has all numbers placed in the correct sequence and approximately correct position (e.g., 12, 3, 6 and 9 are in anchor positions) with no missing or duplicate numbers. Hands are pointing to the 11 and 2 (11:10). Hand length is not scored. Inability or refusal to draw a clock (abnormal) = 0 points.
Total Score: _____ (0-5 points)	Total score = Word Recall score + Clock Draw score. A cut point of <3 on the Mini-Cog™ has been validated for dementia screening, but many individuals with clinically meaningful cognitive impairment will score higher. When greater sensitivity is desired, a cut point of <4 is recommended as it may indicate a need for further evaluation of cognitive status.

Clock Drawing

ID: _____ Date: _____

**References**

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Appendix J: G0505 Explanatory Guide for Clinicians

FACTSHEET

alzheimer's association

MAY 2017

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G0505 Explanatory Guide for Clinicians

Under the 2017 Medicare Physician Fee Schedule issued by the Centers for Medicare & Medicaid Services (CMS), Medicare now pays for care planning services for individuals who are cognitively impaired.

What is the Medicare billing code, G0505?

Effective January 1, 2017, Medicare provides reimbursement to clinicians for care planning services provided to individuals with cognitive impairment, including Alzheimer's disease.

What clinicians can be reimbursed under this new code?

Physicians, physician assistants, nurse practitioners, clinical nurse specialists, and certified nurse midwives can currently bill under this code.

Who is eligible to receive the services?

All Medicare beneficiaries who are cognitively impaired are eligible to receive the services under the new code. This includes those who have been diagnosed with Alzheimer's, other dementias, or mild cognitive impairment. But, it also includes those individuals without a clinical diagnosis who, in the judgment of the clinician, are cognitively impaired.

Service elements of billing code G0505

Cognition-focused evaluation, including a pertinent history and examination of the patient

Medical decision making of moderate or high complexity (defined by the E/M guidelines)

Functional assessment (for example, Basic and Instrumental Activities of Daily Living), including decision-making capacity

Use of standardized instruments to stage dementia

Medication reconciliation and review for high-risk medications, if applicable

Evaluation for neuropsychiatric and behavioral symptoms, including depression and including use of standardized instruments

Evaluation of safety (for example, home safety), including motor vehicle operation, if applicable

Identification of caregiver(s), caregiver knowledge, caregiver needs, social supports, and the willingness of caregiver to take on caregiving tasks

Advance care planning and addressing palliative care needs, if applicable and consistent with beneficiary preference

Creation of a care plan, including initial plans to address any neuropsychiatric symptoms and referral to community resources as needed (for example, adult day programs and support groups); the care plan must be shared with the patient and/or caregiver along at the time of initial education and support

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How are caregivers included in the new care planning billing code?

G0505 includes specific identification of a caregiver as well as an assessment of that caregiver's knowledge, needs and ability to provide care. Caregivers may also be included throughout each of the required service elements of G0505, including the creation of a detailed care plan for the person with cognitive impairment.

Can the care planning be provided over the phone?

No. Services under G0505 must be provided face-to-face with the beneficiary in a physician's office, outpatient setting, home, domiciliary, or rest home.

How often can care planning be provided?

The code has no restrictions on how often clinicians can provide and bill for care planning services under G0505. Experts have noted that care planning for individuals with dementia is an ongoing process and that a formal update to a care plan should occur at least once per year. However, clinicians should review their local Medicare coverage policies with respect to this new code for any billing limitations.

Are there other ways to bill for updating a care plan?

Yes. In revising a care plan, clinicians could utilize one of the E/M codes, such as for chronic care management. Also, Medicare now has an E/M code specifically for non-face-to-face consultations, which means updating a care plan could be done over the phone or internet.

Are there any restrictions in using other billing codes at the same time as G0505?

Some of the service elements under G0505 overlap with services under some E/M codes, advance care planning services, and certain psychological or psychiatric service codes. As a result, G0505 cannot be used along with the following codes: 90785, 90791, 90792, 92610, 96103, 96120, 96127, 99201-99215, 99324-99337, 99341-99350, 99366-99368, 99497, 99498, 99374, G0181, G0182, and GPPP7.

How much will clinicians be reimbursed under the new code?

Medicare reimbursement rates can vary slightly based on the setting in which the service is provided and geographic location. Given those caveats, it has been estimated that the reimbursement rate for G0505 billed by a physician in a non-facility setting would be about \$238.

What happens next?

As of January 1, 2017, clinicians can provide and bill for care planning services for cognitively impaired individuals using new billing code G0505. It is anticipated that CMS will be providing specific instruction on the use of G0505, and clinicians should watch for policy determinations issued by their local Medicare carrier.

In addition, the Alzheimer's Association, in consultation with an expert Taskforce, developed a toolkit to educate providers about using this new billing code with their patients. The tool kit includes best practices on conducting a visit under G0505. Learn more at alz.org/careplanning.

Appendix K: Rapid Referral Form



THE BRAINS BEHIND SAVING YOURS.™

Rapid Referral

Partnering with healthcare providers to improve care
and support Alzheimer's patients and families

Healthcare providers offer **optimal support**, improve **coordinated care**, complement **patient service delivery** and ensure the **psycho-social needs** of those living with Alzheimer's and related dementias and their family members through **direct referral** to the **Alzheimer's Association Greater Maryland Chapter**.

Rapid Referral provides, **free of cost**, for those living with Alzheimer's and their families:

- **Education** including dementia symptoms, stages of the disease and other information
- Connections to numerous community **resources**
- Access to **trained clinicians** who can help families navigate through the disease
- **Support groups** and **social engagement programs** that provide meaningful interactions
- The ability to remain at home as long as possible through **safety services**
- **Support** so that families can more effectively plan ahead, cope and manage



Rapid Referral does not fulfill mandatory legal reporting requirements of healthcare professionals. The Alzheimer's Association Greater Maryland Chapter maintains high professional and ethical standards for care and safety and reports elder and child abuse.

For additional questions, contact:

Alzheimer's Association Greater Maryland Chapter
Shelley Jennings, southern@alz.org
1850 York Road, Suite D
Timonium, MD 21093
410.561.9099 ext.212



alzheimer's association® | alz.org/maryland | 800.272.3900

Updated on 2/2015

Rapid Referral Form

Fax number: 410.561.3433 | Email: info.maryland@alz.org

Date: _____

Person with dementia name: _____ DOB: _____

Address: _____ City: _____ Zip: _____

Phone: _____ Email: _____

Family member or Personal representative name: _____

Address: _____ City: _____ Zip: _____

Phone: _____ Email: _____

Please contact ☐ Person with dementia, or ☐ Family member/personal representativePrimary Language: ☐ English ☐ Spanish ☐ Other (specify) _____

Additional instructions for the Alzheimer's Association in case staff are unable to contact you:

- ☐ The Alzheimer's Association may leave their organization name and contact name on my voicemail
☐ Do **not** leave a voicemail
☐ The Alzheimer's Association may contact me via email
☐ Other instructions _____

I give permission to the healthcare provider below to forward the information on this sheet to the Alzheimer's Association Greater Maryland Chapter and I understand that a representative from the Alzheimer's Association will contact me.

Signature: _____ Date: _____

(person with dementia or personal representative)

TO BE COMPLETED BY REFERRING PROVIDER

Diagnosis: _____ Diagnosis date (if available): _____

Name of provider: _____ Title: _____

Provider organization: _____ Phone: _____

Fax: _____ Email: _____

How would you like to receive follow up? ☐ Fax ☐ Email

Reason for referral (check all that apply):

- | | |
|---|---|
| <input type="checkbox"/> Caregiver education | <input type="checkbox"/> Psycho-social consultation |
| <input type="checkbox"/> Clinical trial enrollment | <input type="checkbox"/> Safety issues and wandering |
| <input type="checkbox"/> Healthcare directives | <input type="checkbox"/> Support groups (early stage/caregiver) |
| <input type="checkbox"/> Information and referrals | <input type="checkbox"/> Other (specify) _____ |
| <input type="checkbox"/> Legal and financial considerations | |

Additional relevant information: _____

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Appendix L: SWOT Analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> • Data indicates that screening is well accepted by patients when endorsed by their health care providers. • ACO provider with EPIC support system. Capability to review information based on diagnosis, screening, and documentation of resources. • Collaborative approach to dementia care between the Alzheimer's Association and a local primary care office. • Increased access to care and services to improve outcomes for those affected and their families. 	<ul style="list-style-type: none"> • Providers may choose one screening tool over the other, leading to variation between providers. • Even when dementia is detected and documented in medical charts, PCP seem to withhold the diagnosis in a significant number of cases • Failure to follow up with the patient • Provider confidence in dementia diagnosis • Including lack of time • Difficulty managing behavior and other problems in dementia • Poor connections with community social service agencies
Opportunities	Threats
<ul style="list-style-type: none"> • Facilitating caregiver access to support valuable in promoting the well-being of the caregiver • Educate providers about incentives to improve care • Opportunity to improve care for IWD 	<ul style="list-style-type: none"> • Screening by itself does not automatically lead to better clinical care • Missed opportunities to prevent avoidable emergency department visits and hospitalizations

Appendix M: Healthcare Provider Dementia Pre-Assessment

1. What needs do you believe that patients with dementia possess?
2. How effective do you believe that you are in managing dementia the needs of patients with dementia?
 - 0- Not effective
 - 1- Somewhat effective
 - 2- Effective
 - 3- Very effective
 - 4- Extremely effective
3. What are some of the barriers that you believe exist in dementia diagnosis in primary care?
4. Please list the key components of what you believe to be a successful dementia care program.

Appendix N: Implementation Timeline

Activity	Time Frame
Project Committee Designation	December 2017
Alzheimer's Association Letter of Collaboration	April 2018
Primary Care Office Letter of Collaboration	May 2018
IRB Approval	July 2018
Provider Dementia Educational Session	August 6, 2018
Project Implementation	August through November 2018
Pre-/Post-intervention Data Collection	November 2018
Dissemination of Results	May 2019

Appendix O: Completion/Defense Submission Form



Office of Graduate Studies
Holloway Hall, Room 262
1101 Camden Avenue Salisbury, MD 21801
www.salisbury.edu/gsr/gradstudies

COMPLETION/DEFENSE SUBMISSION FORM

Where a degree program includes a thesis, dissertation, or exit project, a committee will be appointed by the department or school. When the thesis, dissertation, or project has been completed, this form will be submitted to the Office of Graduate Studies.

Student Name: Michele McIntosh Email: _____ SU ID: 1483171

Address: _____ Phone: _____
This is to certify that on (Date): _____, (Student Name): _____

qualified for graduation from the Degree Program: Doctor of Nursing Practice based on successful completion and/or defense of (Thesis, Dissertation or Project Title): *The Impact of a Provider Dementia Education Program on Dementia Screening, Documentation of Dementia Diagnosis, and Community Referral In a Rural Primary Care Setting*

NAME OF CHAIR/CO-CHAIR/FACULTY ADVISOR(S):

SIGNATURE:

Lisa A. Seldomridge

Lisa A. Seldomridge

NAME OF COMMITTEE MEMBERS:

SIGNATURE:

Mary D. Bartolo
Carol Zimmerman

Mary D. Bartolo
Carol Zimmerman

Dorothea M. Winter
Graduate Program Director

Dorothea M. Winter

April 26, 2019
Date

OFFICE OF GRADUATE STUDIES

The Office of Graduate Studies (OGS) will be the official clearinghouse for graduate manuscripts. Once technical review is completed, OGS will submit all copies to the SU Libraries for binding.

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Submitted to ProQuest (based on program): ☐ Yes ☐ No Date: _____

Library copy submitted (required): _____ Departmental Copies: _____ Personal Copies: _____
(Note: Binding library copies is free to students. OGS (#350000) will cover binding costs for up to (4) departmental and/or personal copies. Departments may opt to pay for additional copies for students (\$15 per copy). Please indicate the number of additional copies and account code to be charged: _____)

Dean of Graduate Studies

Date

LIBRARY USE

Submitted to SOAR@SU: ☐ Yes ☐ No Scholarly Communications Librarian _____ Date: _____

Date Sent to Bindery: _____ Date Returned from Bindery: _____ Scholarly Work Number: _____

IMPACT OF A PROVIDER DEMENTIA EDUCATION PROGRAM 83

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