

The Nursing Role in Education of Alzheimer's Disease in Dadeville, Alabama

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Alzheimer's disease is a health condition identified as the most common form of dementia, which includes symptoms of memory loss, disorientation, and changes in personality. The symptoms of Alzheimer's disease range from mild to severe. A person living with severe symptoms of Alzheimer's disease may become dependent on caregivers for support due to brain tissue degeneration that results in progressive cognitive decline. The risk factors for Alzheimer's disease include people above the age of 65 and those with a health condition that causes cognitive decline. The Healthy People 2020 objective for Alzheimer's disease strives to increase awareness of the disease and reduce preventable hospitalizations. The goal of this study is to help the city of Dadeville by providing disease education as well as resources to decrease preventable hospitalizations. The study results from phase one include information about Alzheimer's disease, data statistics on Tallapoosa County and the City of Dadeville, and objectives that will help guide the goal of the study. Phase two initiates the data generating process. Community strengths, issues, and health gaps were identified in order to develop three community-nursing diagnoses. As a result of these diagnoses, a community intervention was designed with an overarching goal to decrease caregiver fatigue.

Keywords: Alzheimer's disease, management, treatment, assessment, intervention

Alzheimer's disease (AD) is a health condition that causes a patient to have progressive memory loss (Alzheimer's Association, n.d.c.). The memory loss associated with AD can affect activities of daily living (ADLs), create a change in personality, and inhibit communication with others due to the inability to remember certain words and phrases as cognition declines (Alzheimer's Association, n.d.c.). When the patient begins to experience more severe symptoms such as poor decision-making and difficulty maintaining everyday hygiene, the patient can become dependent on caregivers (Alzheimer's Association, n.d.c.). Unfortunately, there is only treatment for the symptoms of AD, not a cure. In the United States, one in nine people over the age of 65 have AD, and it is the sixth leading cause of death (Alzheimer's Association, n.d.c.). In comparison to the United States, in Tallapoosa County there are 25.0 persons per 100,000 persons who have died from AD (Centers for Disease Control and Prevention [CDCP], 2015). Of the residents living in Tallapoosa County that are above 65 years old, 12.7% are living with AD (CDCP, 2015). There are two Healthy People 2020 objectives for AD. The first objective is to increase awareness of the disease to both the patient living with Alzheimer's as well as the patient's caregivers (U.S. Department of Health and Human Services[USDHHS], 2014). The second objective is to reduce preventable hospitalizations of Alzheimer's patients (USDHHS, 2014).

The city of Dadeville, Alabama is located in Tallapoosa County near Lake Martin. It has a total population of 3,181 people (Data USA, 2015). The median age is 45.9 years old and the percentage of people 65 and older with the AD is 17.9% (Data USA, 2015). The purpose of this paper is to provide information on Alzheimer's, exhibit specific statistics on Dadeville and its resources for AD in order to identify community needs, conduct a thorough community

prominent issues.

Health Condition

Pathophysiology of Alzheimer's Disease

AD is currently the sixth leading cause of death in the United States, and it is an incurable, gradually declining central nervous system disorder (National Institute on Aging [NIA], 2016). The disease may begin with short-term memory loss but the progressive effects inhibit patients from doing everyday tasks such as eating and getting dressed (NIA, 2016). The disorder begins in the hippocampus area of the brain, the part of the brain responsible for memory formation, and eventually destroys neurons, causing the brain tissue to wither (NIA, 2016). The disease can be categorized as mild, moderate, or severe (NIA, 2016).

The cause of AD has not been entirely identified (NIA, 2016). Researchers believe genetics play a large role in acquiring the disease; however, a patient's lifestyle, environmental exposures, and health conditions can increase the probabilities of developing AD (Rose & Lopez, 2012). Ongoing research is used to determine how health conditions such as hypertension and diabetes mellitus correlate with the risk for AD (NIA, 2016). Studies are also being completed to conclude that a well balanced diet, daily exercise, and additional healthy lifestyle choices can improve the likelihood for not acquiring the disease (Rose & Lopez, 2012).

AD's hallmark sign is memory loss (Rose & Lopez, 2012). Memory problems can interrupt everyday tasks and cause the patient to forget significant appointments or occasions, both temporarily and permanently (Alzheimer's Association, n.d.c.). Losing memory also forces a patient to depend on daily reminders such as alarms or notes to remember tasks that need to be completed (Alzheimer's Association, n.d.c.). AD patients might experience vision problems that

Additional signs of the disease include difficulty maintaining conversations due to problems recalling proper words; putting items in wrong places and not being able to retrace the steps to locate the item; making poor decisions regarding money, diet, and hygiene; discontinuing regular social activities or even an occupation; and experiencing negative temperament and behavioral changes with no identified cause (Alzheimer's Association, n.d.c.). Because society oftentimes mistakenly blames many of these signs on normal aging changes rather than AD, patients will go undiagnosed and untreated for an additional length of time (Alzheimer's Association, n.d.c.).

The diagnosis of Alzheimer's disease cannot be definite until an autopsy examiner assesses the brain tissue of the victim; however, health care providers can complete various tests and assessments to inconclusively diagnose the disease (NIA, 2016). Computed tomography, positron emission tomography, and magnetic resonance imaging are examples of cerebral tests completed to determine the cause of symptoms that a patient is experiencing (NIA, 2016). Full health exams are also completed with the patient and family to determine history of medical diseases, current and past medical issues, and discussion of the symptoms the patient is experiencing (NIA, 2016). Health care providers may test a patient's memory, language, and cognitive skills in addition to urine and blood analyses, which is key to diagnosing AD early (Rose & Lopez, 2012). With early detection and an inconclusive diagnosis, patients are able to obtain the therapy and medications needed to help the patient cope with the disease (Rose & Lopez, 2012).

Prevention

There is currently no cure for AD, but there are ways in which patients can decrease the risk of developing AD through some prevention strategies. The biggest risk factor to the

patients ranging from ages 65-85 (Alzheimer's Association, n.d.a.). Other various risk factors such as hypertension, cardiovascular disease, hypercholesterolemia, and smoking can all increase the risk for cognitive decline (Alzheimer's Association, n.d.a.). Approximately 80% of those with AD also suffer from cardiovascular disease due to the development of plaque in the brain inhibiting neural connections (Davis, Hendrix, & Superville, 2011). However, many of these risk factors can be prevented through lifestyle changes in diet and exercise. Exercise directly improves brain cognition by increasing oxygen and blood flow to the brain. It has also been proven that eating more heart healthy foods like fruits, vegetables and whole grains and limiting the intake of foods such as sugar, saturated fats, and carbs decreases the risk of AD (Alzheimer's Association, n.d.a.). Prevention of serious head trauma can also lessen the risk of developing AD (Alzheimer's Association, n.d.a.). The most important ways in which the population can prevent serious head trauma is by always wearing a seatbelt, wearing a helmet when participating in contact sports, and creating a safe environment in the home (Alzheimer's Association, n.d.a.).

There are also certain non-modifiable risk factors such as genetic mutations, female gender, older age, and co-existing medical conditions (Alzheimer's Association n.d.a.). Scientists are currently researching new ways to prevent the onset of the disease through the use of hormones like estrogen and progesterone in postmenopausal women to prevent or delay AD and cognitive decline (Alzheimer's Association n.d.a.). Also, the use of prophylactic vaccines like the pneumonia vaccine has proven effective as a result of its possible effect in reducing the amount of protein and plaque deposits in the brain (Alzheimer's Association n.d.a.). While neither the administration of vaccines or hormones has been proven completely successful, there is hope for the future of medicine in preventing AD

It is fairly difficult for nurses as well as other health care members to manage AD due to the late diagnosis of the majority of cases. Once a patient is diagnosed, it is important for nurses to explain to the family members or caregivers of the patient that it is a progressive disease made up of mild, moderate, and severe stages and symptoms will worsen over time (Rose & Lopez, 2012). In mild stage AD, patients often have trouble with memory loss and small personality changes as well as trouble remembering familiar names and places. As a result of these changes, patients will need some assistance with ADLs (NIH Senior Health, n.d.). In moderate AD, memory loss and confusion are much more obvious and patients may need help doing tasks such as getting dressed and using the restroom (NIH Senior Health, n.d.). Therefore, at this stage, patients will not need to be left alone for long periods of time and may even need a permanent caretaker in the home (Davis et al., 2011). In severe AD, patients usually need help with ADLs and may not be able to walk or sit up without help (Davis et al., 2011). Alzheimer's patients also may not be able to talk or swallow food (Davis et al., 2011). At this point in the disease, patients are often hospitalized or put in a nursing home and are completely dependent on nurses and family members (NIH Senior Health, n.d.).

The chief management goals of a patient with AD include maintaining quality of life, maximizing function in daily activities, enhancing cognition, fostering a safe environment, and promoting social engagement as appropriate (Mayo Clinic, 2016). One of the most important maintenance goals with AD is managing the common behavioral symptoms such as aggression, depression, agitation, and psychosis (Mayo Clinic, 2016). These behavioral symptoms can make daily activities more difficult for both the patient and caregiver. Another important management technique is reducing frustrations of the patient (Mayo Clinic, 2016). This can be done by

plenty of time to complete his or her ADLs, giving frequent breaks, and involving the patient in his or her own care as much as possible (Mayo Clinic, 2016). By implementing these techniques to reduce frustrations, behavioral management can be more readily accomplished. Nurses need to educate families and caregivers to help create a safe environment for the patient by teaching the avoidance of clutter on the floor, providing handrails, and utilizing locks on cabinets and doors (Mayo Clinic, 2016). Overall, an obligation of nursing is to explain to the family members and caregivers that managing this disease requires patience and flexibility while also remembering each individual case is different and requires unique care.

Treatment

When treating Alzheimer's, the goal is aimed at cognitive and non-cognitive symptom management as well as providing for the needs of family caregivers (Alzheimer's Association, n.d.e.). This can be implemented through education about the disease, realistic expectations of treatment, and availability of community resources (Alzheimer's Association, n.d.e.). It is important that patients always begin treatment with non-pharmacologic measures first, such as behavioral management techniques (Alzheimer's Association, n.d.e.). However, if non-pharmacologic therapy is insufficient, then pharmacologic measures may be necessary. There are currently five Food and Drug Administration approved Alzheimer's drugs that treat symptoms of AD and slow the progression of cell damage and symptoms (Alzheimer's Association, n.d.b.). These five drugs include donepezil, galantamine, memantine, rivastigmine, and the combination of donepezil and memantine (Alzheimer's Association, n.d.b.). These drugs work in two different mechanisms by slowing down the process that breaks down a key neurotransmitter, and regulating the activity of a substance called glutamate that is involved in learning and memory

mood stabilizers are also used to treat symptoms such as psychosis, depression, apathy, mood syndromes, and aggression (Davis, Hendrix, & Superville, 2011). Other treatments include herbal remedies, dietary supplements including caprylic acid, coconut oil, coenzyme Q10, coral calcium, Gingko balboa, and omega-3 fatty acids (Yang et al., 2014).

Non-pharmacologic approaches also address the behavioral symptoms and can be achieved through various methods. Some of these methods consist of music, aromatherapy, pet therapy, and coping mechanisms (Davis et al., 2011). There are also various brain exercises such as word searches, mind joggers, board games, and card games that can enhance cognitive activity (Choi & Twamley, 2013). Nurses are advocates for AD patients and provide care that is essential for managing the disease in addition to therapies and medications.

Community and Health Promotional Goal

Since 1838, Dadeville, a rural city located in east-central Alabama, has been the governmental center of Tallapoosa County (see Appendix A). The city of Dadeville is approximately 16 square miles with roughly 199 people per square mile (see Appendix A). As of 2014, Dadeville has a total population count of 3,181 people (see Appendix A). Located near a man-made lake, Dadeville is known as the “Heart of Lake Martin” by the local people (see Appendix A). The median age of the people of Dadeville is nearly 46 years (see Appendix A). The population is almost evenly distributed between males and females and 49% of the people are Caucasian (see Appendix A). The city’s mayor, Wayne Smith, recognizes Dadeville for having a unique southern charm (see Appendix A).

Alzheimer’s is not only a leading cause of death in the United States, but it is also a leading cause of mortality in Alabama (see Appendix A). Alabama is tied for nineteenth place in

for Tallapoosa County (see Appendix A). In 2013, 25 people in every 100,000 were diagnosed with Alzheimer's (see Appendix A). The prevalence of AD in Tallapoosa County is highest in white Americans over the age of 65 years (see Appendix A).

The availability of health resources in Dadeville to the population includes acute care and emergency services of Lake Martin Community Hospital, Russell Hospital, and East Alabama Medical Center (see Appendix A). There are currently six services that provide help to Alzheimer's patients in Dadeville. These services are Help at Home LLC, Oxford Healthcare, HomeInstead Senior Care, Dadeville Healthcare Center, Southern Care Hospice Services, and Alacare (see Appendix A). HomeInstead Senior Care consists of specially trained caregivers that are able to meet a variety of care needs for patients with Alzheimer's, dementia, and chronic health conditions (see Appendix A). The goal of HomeInstead Senior Care is to equip caregivers to help seniors cope with conditions while maximizing capabilities (see Appendix A). The Dadeville Healthcare Center provides many different services for Alzheimer's patients and is recognized by locals as one of the best nursing homes in the southeast (see Appendix A). Alacare has a skilled nursing staff specifically trained for situations that provide rehabilitation services including physical, occupational, and speech language therapists (see Appendix A). All of these resources are created and utilized to provide adequate and appropriate care for Alzheimer's patients.

The implementation of quality healthcare and health objectives is constantly adapting in regards to individual, community, and global needs. Healthy People 2020 is an organization that creates ever-evolving health objectives that include: attaining high quality, longer lives free of preventable disease, disability, injury, and premature death; achieving health equity, eliminating

that promote good health for all; and promoting quality of life, healthy development and healthy behavior across all life stages (USDHHS, 2014). More specifically, the Healthy People 2020 objective pertaining to AD is aimed at increasing the proportion of adults above the age of 65 with diagnosed AD and reducing the proportion of preventable hospitalizations in this age group (USDHHS, 2014). Some of the steps created to implement this goal include decreasing the number of undiagnosed people through increased community screenings, reducing the severity of cognitive and behavioral symptoms through medical management, and supporting family caregivers with social, behavioral, and legal resources (USDHHS, 2014). Implementing these objectives by improving education, increasing screening opportunities, and providing daycare opportunities in Tallapoosa County is a resourceful way to improve the quality of life in both men and women living with Alzheimer's disease.

Women age 65 and older with a family history of AD have a greater chance of developing Alzheimer's and should be the main target population for care (Alabama Department of Public Health [ADPH], 2013). Specifically in Tallapoosa County, all deaths from Alzheimer's in 2013 were women (ADPH, 2013). People living with this disease have an increased risk for generalized disability and preventable incidents such as falls (USDHHS, 2014). As Alzheimer's continues to progress, there is an increased need for medical and support services (USDHHS, 2014). Lack of diagnosis of AD can prematurely increase the symptoms and impede with a person's access to valuable information and possible treatment options (USDHHS, 2014). In relation to Alzheimer's toll on caregivers, families, and society, Tallapoosa County lacks adequate resources that can help the people who are not directly suffering from the disease gain an opportunity to become better informed and be given relief from caregiving duties. Collecting

contributing factor to the success of potential community resources in Tallapoosa County.

Healthcare agencies within Tallapoosa County must work together to determine the needs and possible community aid projects to enhance the lives of not only those affected, but also those surrounded by the effects of Alzheimer's. Executing the large-scale Healthy People 2020 objectives developed for those living with Alzheimer's in a smaller scale community like Tallapoosa County is a small but crucial step in improving Alzheimer's care and support globally. Nurses play a crucial role in both identifying community needs and discovering the best evidenced-based community intervention programs to be implemented. Nurses can increase education through the distribution of informational pamphlets related to caregiver fatigue and resources available for caregivers of patients with AD at a local community setting.

Community Assessment

The homes in Dadeville were primarily built from the 1980's to the early 2000's (see Appendix B). The majority of the homes are well-kept regarding yard work and upkeep, and there are few houses in need of wood, roof, or shingle replacement (see Appendix B). The community has open spaces and fields farther away from the center of the town; however, within the city, there is a lack of open space (see Appendix B). The majority of the boundaries within the city are natural, excluding a few parks with fences lining the edges (see Appendix B). Transportation in Dadeville largely consists of personal cars; however, there are no signs of public transportation for people without vehicles (see Appendix B). The community has a local health department located in the center of town available to residents (see Appendix B). Regarding healthcare, the community has the Lake Martin Community Hospital two miles from downtown, the Medical Park Family Care, the Veranda Assisted Living home, and the Lake Martin Home Health to assist community members with health concerns (see Appendix B).

Appendix B).

Healthy People 2020's goal related to AD is to decrease the morbidity and costs related to AD, in addition to enhancing the life of a person diagnosed with AD (USDHHS, 2014). Due to the increased prevalence of AD as age increases, the target population for the Healthy People 2020 goal is directed towards those 65 years and older (USDHHS, 2014). The Healthy People 2020 objectives related to these goals are to increase awareness of the disease for both the patient living with Alzheimer's, as well as the patient's caregivers (USDHHS, 2014). This objective directly impacts the second objective related to reducing preventable hospitalizations of Alzheimer's patients. Statistics show that patients diagnosed with a form of dementia, including AD, are three times more likely to have hospitalizations that could be prevented (USDHHS, 2014). Early diagnosis of the disease is crucial for early intervention and proper care and is essential for preventable hospitalizations related to AD (USDHHS, 2014).

Community Health Issues

In an effort to obtain information on the Dadeville community, a key informant interview (see Appendix C) and a windshield survey (see Appendix B) were conducted. Through reviewing the information gathered in each of these tools, strengths, weaknesses, and health gaps were identified in the community. The strengths of the Dadeville community, recognized by the key informant, were largely focused on the "tight knit" community that Dadeville possesses. Some of the strengths include family members choosing to take care of loved ones rather than placing the patients in long term care, willingness to help other community members, and strong support systems within the churches and schools of the community (see Appendix C). These assets are helpful for patients with AD and families for support throughout the disease process.

the Dadeville community provides a specific unit for the patients with AD. In regards to nutrition and participation in the community, the nutrition center in Dadeville is an excellent resource for the elderly in the community and provides the opportunity to socialize with others and improve cognitive function (see Appendix C).

A major concern stated in the key informant interview is the lack of adequate education among the residents due to the older age of the community members (see Appendix C). The average education level reached by the community members is at the high school level, and the residents are aware that education is an issue (see Appendix C). In addition to the lack of education, a scarcity of resources available for AD patients and families is evident. In regards to violence within the community, the key informant explained that there is an increase in crime rates, illicit substance distribution, and gang violence among the youth population (see Appendix C). Another weakness identified is the lack of education regarding physical activity. This results in a decline in exercise, and therefore, an increase in hypertension, diabetes, and obesity within the Dadeville population (see Appendix C). The key informant explained that the only means for exercise in the community is the track. A park or walking trail would be a beneficial addition to encourage people to be motivated to exercise and become more active. A prominent health gap among the community members is the discrepancy between race and education, resulting in an unequal opportunity to acquire knowledge in the community. Education about the importance of exercise, especially among the African American population, is needed due to the higher rates of hypertension and obesity in this population (see Appendix C).

Regarding AD in the Dadeville community, the key informant explained multiple issues pertaining to education about the disease. Caregivers of AD patients lack knowledge about

importance of caregiver support (see Appendix C). Families may also face financial burdens due to the high cost of assisted living and medications for the patient (see Appendix C). As a result of increasing costs of long-term care and families' desire to care for loved ones, caregiver fatigue is another substantial problem (see Appendix C). The Dadeville community offers home health to AD patients; however, the nurses can only make visits to patients on certain occasions (see Appendix C). Because of the lack of public transportation in the community, patients may not have a way to retrieve medications or attend doctor appointments causing medication compliance issues (see Appendix C).

Nursing Diagnoses

Three community health diagnoses have been identified for the Dadeville community after completion of the windshield survey and key informant interview. The primary diagnosis related to AD is a risk of caregiver fatigue among caretakers of Alzheimer's patients in Dadeville, Alabama related to inadequate education regarding the disease and caregiver roles in addition to lack of support and resources for the patients and families (see Appendix D). These factors are supported by increased rates of depression, anxiety, and stress reported by caregivers (see Appendix D). As AD progresses into the later stages, caregiving can become a full time job. As a result of knowledge deficits on disease processes and how to best care for the patient with AD, caregivers can become mentally and physically exhausted. A nursing diagnosis related to the overall health of the population is a risk of obesity among community members living in Dadeville, Alabama, related to lack of adequate exercise facilities, education, and sidewalks; rural location; and low socioeconomic status (see Appendix D). An increase in obesity rates over the past years supports this concern. By increasing the number of community facilities such as

substantially reduced. Lastly, the diagnosis regarding the youth population is risk of crime among youth members living in Dadeville, Alabama, as related to inadequate education, job positions, and recreational activities (see Appendix D). Increasing drug activity, gang violence, and crime rates demonstrate that this nursing diagnosis is relevant (see Appendix D). In the future, interventions will be needed to address the nursing diagnoses not pertaining to AD in Dadeville.

Community Intervention Plan

After conducting an interview with the key informant, the researchers discovered that the population of focus should be directed towards the caregivers of people living with AD. There is an estimated 30 million people age 65 or older in the United States, and 68% of these people continue to live in the community, either with friends or family members, despite deteriorating health conditions (García-Alberca, Lara, & Berthier, 2011). In addition, approximately 80% of care is provided by family and friends (García-Alberca et al., 2011). It is reported that family caregivers of people living with Alzheimer's experience significantly higher levels of morbidities including stress, anxiety, and depression (García-Alberca et al., 2011). Caregiver fatigue affects caregivers not only physically and mentally, but also financially and socially (García-Alberca et al., 2011). Research shows that caregiver fatigue occurs more frequently among women caregivers, those who live alone, those who have a bad relationship with the care-recipient, and those who consume higher than average doses of antidepressants (García-Alberca et al., 2011). The resulting depression is often due to the lack of social and psychological support. Many of the caregivers work outside the home or have to care for children in addition to providing care for the AD patient, resulting in increased job difficulty (García-Alberca et al.,

Covinsky, 2011). This can lead to an increased prevalence of adverse physical, social, and psychological outcomes (Wider & Covinsky, 2011). Despite these results, studies indicate that the majority of caregivers view turning over care for a loved one to an institution negatively and often continue in the caregiver role until overwhelming feelings occur. When caregivers become fatigued, this can result in not only poor health outcomes on the caregiver, but also poor outcomes for the care-recipient.

There is a gap between available and known support to help caregivers (Charles, Brémault-Phillips, Parmar, Johnson, & Sacrey, 2017). Support is often needed by caregivers, but cannot be achieved due to financial or pre-existing circumstances. This gap can be greatly reduced if both private and public health care systems help prevent caregiver fatigue. This can be achieved by providing family caregivers information about caregiver fatigue including the warning signs and symptoms and comorbidities (Widera & Covinsky, 2011). It has also been shown that if a caregiver is able to master coping and stress management, it will help with the relationship between caregiver and care-recipient as well as the acquired fatigue (Roepke et al, 2009). Mastery of stress management is seen as a protective measure against the stresses of caregiving and can help in alleviating fatigue (Roepke et al, 2009). Counseling and support groups for families and individual caregivers can help improve caregivers' emotional, intellectual, and spiritual coping mechanisms (Charles et al, 2017). In addition, referral to social resources may help caregivers with new roles such as housekeeping, financial managing, or meal prepping (Charles et al, 2017).

There are various interventions that were recently conducted at the Veterans Health Department that have demonstrate improvements in caregiver well-being. For example,

multicomponent home and telephone-based intervention that was designed to enhance the caregiver's coping skills and management of dementia-related behaviors (Widera & Covinsky, 2011). Results of REACH II have greatly improved caregivers' quality of life by decreasing depression, frustration, and burden, while promoting healthy self-care behaviors and management of care-recipient behavioral problems (Widera & Covinsky, 2011). REACH II also initiated the system in which caregivers work one hour less per day providing direct care, thus, allowing more rest (Widera & Covinsky, 2011). Another available resource is The Alzheimer's Society, which promotes caregiver success by providing access to coaches, mentors, and telephone support groups (Charles et al, 2017). The success of these resources is dependent on the degree of caregiver involvement, the extent to which programs are individualized, the accessibility of information and coaching, and the impact of the behavior of the care recipient (Charles et al, 2017).

The objective of the Dadeville nursing intervention is to increase knowledge of signs and symptoms of caregiver fatigue for those who are taking care of people with AD (see Appendix E). The intervention will be carried out by distributing educational pamphlets related to signs and symptoms of caregiver fatigue as well as identifying resources the caregivers can utilize in the surrounding area (see Appendix E). The short-term objective is to increase the pamphlet recipient's knowledge about caregiver fatigue signs and symptoms after presenting the educational pamphlet and discussing the importance of support groups (see Appendix E). The intermediate objective is to have an increase in support group attendance within six months (Appendix E). The long-term objective is to decrease the amount of caregiver fatigue among Alzheimer's caregivers in the Dadeville community (see Appendix E).

knowledge of caregiver fatigue signs and symptoms increase”, and “did the recipient’s desire to attend a support group increase after the pamphlet presentation?” (see Appendix F). The short-term objective will be evaluated through assessing effective teach back as well as administering a survey that asks about signs and symptoms of caregiver fatigue and resources the caregivers can utilize to relieve fatigue (see Appendix F). The teach back will be through a discussion, but there will also be a survey at the end of the teach back session assessing what the caregivers have learned. The questions will be based on a scale from strongly agree to strongly disagree. The participants will be asked to agree or disagree regarding the benefits of the pamphlet information and will be asked if there are any additional questions related to the importance of resources for caregivers, as well as how to become involved. The answers to the surveys will then be averaged to determine the effectiveness of the teaching session.

The group will implement this intervention during the spring semester in late January. The decision to execute the intervention at this time was made after discussing with the key informant, who informed the group that Sundays are typically a busy time of the day for members in the community due to the majority that attend church and go grocery shopping on this day. The group will focus on two main locations for the intervention: the local grocery store and the assisted living facility. According to the key informant, the grocery store will be the best place to target in the morning hours due to the larger amount of elderly who shop before church. Also, the grocery store is a popular place for people to eat lunch after church. Then, after lunch, the student group will visit the assisted living facility meet caregivers who are visiting loved ones. The group decided that utilizing two venues for the intervention will be an excellent way to

group to implement the intervention in one day in order to be time efficient.

Summary

AD is a progressive degenerative disease that currently has no cure. The disease involves the breakdown of neural connections due to the accumulation of plaque in the brain. AD is usually diagnosed in the late stage and can be very difficult to manage and treat. Therefore, it is best to recognize signs and symptoms early on for the best outcomes. It is important that the target population of white females above age 65 is educated on the best prevention strategies, such as eating a heart healthy diet and getting adequate physical activity. In addition to prevention, treatment and management resources such as the use of medications and community programs for those already diagnosed are beneficial. Prevention, management, and treatment should be aligned with the goals of Healthy People 2020 to increase the proportion of adults above the age of 65 with diagnosed AD and to reduce the proportion of preventable hospitalizations in this age group. In Phase two of the paper, a windshield survey and key informant interview were conducted to identify community problems and, ultimately, develop an intervention plan to address these issues. Through the identification of target problems in the community, three main diagnoses were identified. The diagnoses include caregiver fatigue related to caring for patient's living with AD, obesity related to inadequate facilities to exercise, and increasing crime rates among the younger population. However, the fundamental focus of phase two is caregiver fatigue and how to decrease this issue by adequately educating caregivers. The nursing intervention, which will be physically implemented in phase three, includes making a pamphlet that identifies signs and symptoms of caregiver fatigue as well as examples of resources to help alleviate caregiver fatigue. The intervention will be executed while going to the

optimum day to implement the intervention on the grounds that this day is when community members are most active. Through the interventions addressed in phase two, the community will have an increased capability to identify signs and symptoms of caregiver fatigue, identify adequate resources, and will demonstrate an increased willingness to participate in support groups.

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Appendix A

Category	Description of Community Characteristics	Resources
Overview of Community	<ul style="list-style-type: none"> History, type (urban, suburban, rural) <ul style="list-style-type: none"> Since 1838 Dadeville, has been the governmental center of Tallapoosa County Rural Description <ul style="list-style-type: none"> Elevation: 726 feet; land area: 16.0 square miles; 199 people per square mile; Latitude: 32.83 N, Longitude: 85.76 W Leading Industries <ul style="list-style-type: none"> Educational services (28%) Construction (15%) Manufacturing (11%) Accommodation and food services (10%) Retail trade (10%) Arts, entertainment, and recreation (4%) Utilities (4%) Leading Occupations <ul style="list-style-type: none"> Education, training, and library occupations (19%) Construction and extraction 	<p>http://www.city-data.com/city/Dadeville-Alabama.html</p> <p>http://cityofdadevilleal.org/index.php/citycouncil</p>

	<ul style="list-style-type: none"> ○ Sales and related occupations (11%) ○ Food preparation and serving related occupations (10%) ○ Installation, maintenance, and repair occupations (6%) • Governmental Structure <ul style="list-style-type: none"> ○ Mayor/city council governmental structure ○ City council meets on the 2nd and 4th Tuesday of each month in City Hall ○ Mayor – Wayne Smith 	
Population Profile	<p>Total population: (2014) 3,181</p> <ul style="list-style-type: none"> • Age distribution, median age: (2015) 45.9 <ul style="list-style-type: none"> ○ < 5: 167 (5.2%) ○ 5-17: 402 (12.6%) ○ 18-24: 291 (9.1%) ○ 25-34: 299 (9.4%) ○ 35-44: 367 (11.5%) ○ 45- 54: 586 (18.4%) ○ 55-59: 328 (10.3%) ○ 60-61: 68(2.1%) ○ 62-64: 101 (3.2%) ○ 65-74: 318 (10%) ○ 75+: 251 (7.9%) • Sex distribution (2014) <ul style="list-style-type: none"> ○ Males: 1,571 (49.4%) ○ Females: 1,613 (50.6%) • Race/Ethnic composition (2010) <ul style="list-style-type: none"> ○ White: 1,608 (49.8%) ○ Black: 1,531 (47.4%) ○ 2 or more: 31 (1.0%) ○ Hispanic: 29 (0.9%) ○ Asian: 20 (0.6%) ○ American Indian: 10 (0.3%) ○ Other: 1 (0.03%) • Income (2015) <ul style="list-style-type: none"> ○ Median Household Income: \$29,368 ○ Average Male Salary: \$43,730 ○ Average Female Salary: \$35,495 ○ Per capita income: \$19,021 • Educational level (2015) <ul style="list-style-type: none"> ○ < High School: 25.3% ○ High School or equivalent: 40.5% ○ Less than 1 year of college: 2.8 % ○ 1 or more years of college 10.2% ○ Associates degree: 5.6% ○ Bachelor's degree: 8.8% 	<p>https://datausa.io/profile/geo/dadeville-al/</p> <p>http://www.city-data.com/city/Dadeville-Alabama.html</p>

Health Indicators	<ul style="list-style-type: none"> • Leading cause of death <ul style="list-style-type: none"> ○ United States <ul style="list-style-type: none"> ▪ 1. Heart Disease ▪ 2. Cancer ▪ 3. Chronic Lower Respiratory Disease ▪ 6. Alzheimer's Disease ○ Alabama <ul style="list-style-type: none"> ▪ 1. Heart Disease ▪ 2. Cancer ▪ 3. Lung Disease ▪ 6. Alzheimer's Disease ▪ Alabama is tied for 19th place in state rank of deaths from Alzheimer's ○ Tallapoosa <ul style="list-style-type: none"> ▪ 1. Heart Disease ▪ 2. Cancer ▪ 3. Chronic Lower Respiratory Disease ▪ 8. Alzheimer's Disease (all female in 2013) (25 persons in every 100,000 diagnosed) ▪ There are less people dying of Alzheimer's compared to other counties • Leading Cause of morbidity <ul style="list-style-type: none"> ○ United States <ul style="list-style-type: none"> ▪ 1 in 9 people 65+ have Alzheimer's ▪ 5.4 million Americans with Alzheimer's ▪ An estimated 5.2 million people are age 65 and older, ▪ Approximately 200,000 individuals are under age 65 ○ Alabama <ul style="list-style-type: none"> ▪ Heart Disease: hypertension, CAD, heart attack, high cholesterol, smoking ▪ (more than 800,000 a year die from Heart Disease) ▪ Stroke (leading cause of long term disability) 	https://www.cdc.gov/nchs/presroom/states/al_2014.pdf https://www.healthypeople.gov/2020/topics-objectives/topic/dementias-including-alzheimers-disease/objectives http://www.adph.org/cvh/assets/Overview_Chronic_Diseases_in_Alabama_Dr_McIntyre.pdf http://www.adph.org/healthstats/assets/CTAL_LAPOOSA_13.pdf https://www.nationalcdc.gov/CommunityHealth/profile/currentprofile/AL/Tallapoosa/50015 http://www.alz.org/documents_custom/factsheet_2016/statesheet_alabama.pdf http://www.alz.org/facts/ http://www.alz.org
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	<ul style="list-style-type: none"> <ul style="list-style-type: none"> in people ages 75-84 <ul style="list-style-type: none"> ▪ Predominantly in Caucasian women ○ Tallapoosa <ul style="list-style-type: none"> ▪ Alzheimer's prevalence is highest in white Americans 65+ ▪ 129 per 1000 people passed from Heart Disease ▪ 114 per 1000 people passed from Cancer ▪ 36 per 1000 passed from Lower Lung Disease ▪ 8 per 1000 people passed from Alzheimer's ▪ There are more people diagnosed with Alzheimer's compared to other counties • Healthy People 2020 objective – <i>is there information to compare your community to the goal?</i> <ul style="list-style-type: none"> ○ Increase the proportion of adults aged 65 years and older with diagnosed Alzheimer's disease and other dementias, or their caregiver, who are aware of the diagnosis ○ Reduce the proportion of preventable hospitalizations in adults aged 65 years and older with diagnosed Alzheimer's disease and other dementias 	
Community Health Facilities & Resources	<ul style="list-style-type: none"> • Health systems-acute care and emergency services <ul style="list-style-type: none"> ○ Lake Martin Community Hospital -- 24/7 ER, Pediatrics, lab testing, pain management, sleep disorder testing, Physical therapy, Weight loss clinic, Orthopedics, podiatry, radiology, outpatient services, case management ○ Russell Hospital ○ EAMC • Tallapoosa County Health Department in Dadeville 	<p>https://ivycreekhealth.com/hospital/lake-martin-community-hospital/services/ -- (256) 825-7821</p> <p>http://www.epodunk.com/cgi-bin/healthInfo.php?locIndex=11885</p> <p>http://adph.org/</p>

decrease falls in elderly	s/2015/AnnualReport_Tallapoosa.pdf
<ul style="list-style-type: none"> • Tallapoosa Public Health Services <ul style="list-style-type: none"> ○ Nursing Services ○ Home Health Aide ○ Occupational Therapy ○ Speech and Language Pathology ○ Physical Therapy ○ Medical Social Services ○ Fall Prevention Goals set • Home Health, long-term, rehabilitation, hospice, mental health, etc (All services help Alzheimer's Patients in Dadeville) <ul style="list-style-type: none"> ○ Help at Home, LLC ○ Oxford Healthcare <ul style="list-style-type: none"> ▪ Home care agency ▪ Provides homemaker services ▪ Alternative to living in nursing home or long-term facility ○ HomeInstead Senior Care <ul style="list-style-type: none"> ▪ Specially trained caregivers treat the patient's ▪ Meet variety of care needs to Alzheimer's, dementia and chronic health conditions ▪ Goal is to equip HomeInstead caregivers to help seniors cope with condition while maximizing capabilities ○ Dadeville Healthcare Center <ul style="list-style-type: none"> ▪ Occupational Therapy, Speech, and physical therapy ▪ 24 hour/day nursing services ▪ short term and long term rehab ▪ Hospice/respite care ▪ Social services ▪ Source stated -- "One of the best nursing homes in Southeast" ○ Southern Care Hospice Services <ul style="list-style-type: none"> ▪ Pain management, emotional support, spiritual counseling. 	http://adph.org/tallapoosa/Default.asp?id=4737 http://www.dadevillehealthcare.net/services.html -- (256) 825-9244 http://southerncarehospice.com/services/about-southerncare - (256) 234-1134 http://www.alacare.com/home-health-services -- 800-852-4724 http://www.helppathome.com/oxford/ https://www.homeinstead.com/home-care-jobs -- 334-321-1050 http://www.adph.org/injuryprevention/assets/FallsinElderly.pdf

	<p>trained for situation, that provided rehabilitation services including physical, occupational and speech language therapist</p> <ul style="list-style-type: none"> ▪ Patient and family caregiver education as well as medication management and education 	
<p>Other information related to your target population and HP 2020 objective?</p> <ul style="list-style-type: none"> ○ After speaking with several home health service in or near Tallapoosa county, the biggest issue is transportation for Alzheimer's patients to utilize ○ Tallapoosa County Health Department doesn't help with home care for Alzheimer's patients, only knew of Alacare – families need to find their own services ○ Lake Martin Community Hospital doesn't offer Alzheimer specific services except modules ○ Alabama Nursing Home information <ul style="list-style-type: none"> ○ 227 nursing homes in Alabama ○ 26,506 beds available ○ http://anha.org/facts/ 		

