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Center Based Help for Elder Depression and Emotional Reinforcement (CHEER)

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Abstract

Purpose.

The aim of this project was to decrease depression of those socially isolated, and/or homebound seniors, through behavioral activation by using CHEER and emotional support, along with bridging access to programs and the needs of seniors in the community.

Background.

As we age we face functional, medical, and social complexities that frequently become hard to manage. Depression is a problem that is present but often goes unrecognized in society. It is more prevalent in younger adults, however, depression has more acute affect in older persons. Depression can potentially be debilitating and increase adverse events with other health issues such as being an associated factor in frequent readmissions. There is no current existing intervention to intervene and impact the elderly who are homebound, depressed, and/or socially isolated in a rural county in the state of New York. Center Based Help for Elder Depression and Emotional Reinforcement (CHEER) based on the evidence-based practice (EBP) national guideline summary: *Depression in older adults*, the goal was to improve the quality of life for those socially isolated and/or homebound seniors- and bridge access to programs and the needs of seniors in the community

Methods.

This countywide project involved seven participants between the ages of 79-94. Implying the Polenick and Flora's Behavioral Activation for Depression in Older Adults, three weekly home visits were completed, each an hour in length. The activities in each visit varied from playing cards, completing puzzles, or simple conversation. The Geriatric Depression Scale (GDS) was

administered on the first and last visits. Information for access to needed care was provided from the County Office for Aging's Elder Services Guide.

Results/Outcomes.

Four out of the seven participants (57 %) screened positive for depression on the first visit. This was determined using the GDS of a score greater than five. On the final CHEER visit, only one out of seven (14 %) scored positive for depression. The groups mean depression score was 5.28 (SD=0.7) on the first visit, and 4.28 (SD=0.7) on the final visit.

Every participant reported that the CHEER visits were enjoyable and meaningful at the end of the project. Participant's also verbalized that the community resources provided to them were found to be useful.

Discussion/ Implications to Practice.

The CHEER visits were determined to have a beneficial effect on the participants depression scores, and each participant reported positive feedback at the end of the project. This demonstrates that if put into practice there could be a noted improvement in the quality of life of those homebound, depressed, and/or socially isolated seniors. The CHEER program also bridges access to programs and the needs in the community, promote independent behaviors and activity engagement, and improve other chronic health issues by minimizing depression.

Conclusions

Depression consequences include inferior quality of life, social deprivation, loneliness, and increased use of health and home care services. CHEER visits improved depression status, promoted socialization, encouraged participation, and assisted with behavioral activation which leads to reduction in health care use by minimizing negative effects on chronic conditions.

Keywords: Skinnerian, operant conditioning, depression, isolation, elderly, senior depression

Center Based Help for Elder Depression and Emotional Reinforcement (CHEER)

Introduction

As people age they have an increased likelihood of facing functional, medical and social complexities that oftentimes become hard to manage (Fiske, Wetherell, & Gatz, 2009). Without the proper care and support people can be faced with many hardships. Depression is a problem that is present but often goes unrecognized in society (Menchetti, Cevenini, De Ronchi, Quartesan, & Berardi, 2006). Older adults often suffer with depression, which negatively impacts their health (Menchetti et al., 2005). Often, their depression is regarded as a normal part of aging, and the focus gravitates towards their primary medical problems (Menchetti et al., 2005).

Depression can potentially be debilitating and increase adverse events with other health issues. It is an associated factor in frequent readmissions as well as related to age, gender, socioeconomic status, and other psychological factors or physical disease (Menchetti et al., 2005). The results of depression can be loss of function, increase in isolation, and multiple health issues. Adverse events and life issues including insomnia, change in appetite, and suicidal ideation are also results of untreated depression. This points to a major gap in care; which is that many health providers are ignoring possible symptoms of mental health issues. Depression as a comorbidity can lead to readmission, compliance issues, and lack of making or keeping appointments with providers (Menchetti, Cevenini, De Ronchi, Quartesan, & Berardi, 2006). According to Menchetti et al. (2006) physical illness can be complicated by the presence of depression and it has been noted that depressed elderly patients have been shown to have more utilization of health services than their younger counterparts.

Center Based Help for Elder Depression and Emotional Reinforcement (CHEER) acronym was created for this project by this DNP student. It is based on current EBP for nurses

to help treat seniors that are depressed. The National Guideline Clearinghouse *Depression in older adults* (2012), discusses the need for enhancing social support with the use of support person(s) such as family, friends, support groups, and patient visitors (National Guideline Clearinghouse, 2012). The mission for CHEER was to promote health and wellness through lifting the spirits of seniors that are isolated in rural areas; to assist those who are suffering, lonely, or disparaged; and to see a future where all patients receive client centered quality care with the hopes of improving their quality of life by meaningful home social visits.

Background

Depression is a problem that is present but often goes unrecognized in society (Menchetti, Cevenini, De Ronchi, Quartesan, & Berardi, 2006). Older adults often suffer with depression which negatively impacts their health. Often, their depression is regarded as a normal part of aging, and the focus gravitates towards their primary medical problems (Menchetti et al., 2006). Clinical research has shown that almost three-quarters of primary care patients discontinue their depression medication within the first six months of treatment resulting in relapse or exacerbation of other chronic illness (Lin et al., 2003). Morbidity and mortality is a noted association to depression (Yaka, Keskinoglu, Ucku, Gulmen Yener, & Tunca, 2013).

The population is aging at a fast rate and soon there will be more seniors than children, many being of an extreme old age (Suzman, & Beard, 2011). Historically children have always outnumbered the elderly, however the paradigm is shifting, and the aging senior's population is growing tremendously. The World Health Organization expects within the next five years, adults over the age of 65 will outnumber children under the age of five, and adults over the age of 80 will quadruple (WHO, 2017), and worldwide life expectancy has doubled in the 20th century. In the year 1840, average life expectancy ranged between 45-50 years old, today, people are living

over the age of 80. This is due to the advancing of healthcare and education and is a health care success however, makes the issue of depression in this age group a relevant problem (Singh, & Misra, 2009). Less people are dying from preventable causes as health care has evolved. Causes of death have shifted from infectious diseases to non-communicable diseases. Research has found that depression is associated with significant burden to other health issues (Wiese, 2011). This not only creates an issue with functional decline, but an economic burden on the population as well, making the problem with depression in the elderly an especially important topic (Wiese, 2011).

Problem Statement

Risk of depression among people age 65 and older indicated by loneliness, despair, sadness, helplessness, hopelessness, apathy, and anhedonia, and results not only from social isolation, loss of physical function, and complex health issues that are associated with advanced age but also from a lack of awareness among health care providers and insurers regarding its impact in this population. Older adults have many compromising issues. As people age they face functional, medical and social complexities that oftentimes become hard to manage. Without the proper care and support people can be faced with many hardships. This DNP project established a program that will address this gap.

Organizational “Gap” Analysis of Project Site

There is no current existing process to intervene and impact the elderly who are homebound, and/or socially isolated, and depressed in the rural county in New York State (Edwards, 2013). The desired outcome is to see a more stable emotional well-being and minimizing depression for those aged 65 and over who are homebound and/ or socially isolated living with depression. A significant gap in care was found that many health providers ignore

important mental health issues therefore, depression as a comorbidity can lead to readmission, compliance issues, and lack of making or keeping appointments with providers (Menchetti et al., 2005). The CHEER project is designed by this DNP student to bridge the gap by outreaching those who are isolated and depressed by bringing the visit to their homes.

Review of Literature

A search of the literature was conducted using the University Amherst Libraries UMA WorldCat, O Alster, CIHNAL, Medline, and psycINFO databases. Keyword used included Skinnerian, operant conditioning, depression, isolation, elderly, senior, sadness, and anhedonia. This yielded articles that were related to the topic of senior depression as well as systemic reviews and meta-analysis studies that were relevant to reducing depressive symptoms in the senior population. Articles were chosen in English only. Factors such as frequent readmissions, poor attendance to provider visits, and depression as a comorbidity to chronic health issues that most consistently matched depression and isolation related to poor health outcomes were considered. Articles were excluded if they only focused on medication management of depression. Alternative measures for treating depression were most desirable for the selection process. Levels of Evidence I-IV and grades of recommendations A-D were considered using the recommendations of the National Guideline Clearinghouse practice guideline levels (University of Minnesota, 2017).

The articles all discussed gaps and barriers related to depression and interventions among older adults. Each review was completed with the purpose and focus on improving mental health and quality of life of seniors (Groh & Dumlao, 2016). Focus of policy changes needed, and collaboration between healthcare providers within the healthcare continuum was a consistent theme noted (Bao, Eggman, Richardson, & Bruce, 2014). The Skinnerian theory of operant

conditioning is also reviewed as the theoretical model being considered for this project. Nine articles in total were reviewed.

Review Results

Groh and Dumlao's (2016) systemic review, summary article, unlike the others, reviews existing barriers with depression interventions for seniors. The four areas they focus on are screening, assessment, medication management and patient education. These researchers studied different interventions such as the Depression CAREPATH (Care for Patients at Home) (Groh, & Dumlao, 2016). They discussed risk factors for depression as well as medications that can be associated with depression. Their focus was on how home health care conducts screening, education, and medication management. Groh and Dumlao (2016) conclude that many homebound seniors experience depression, which has an adverse impact on their health. Groh, and Dumlao's review (2016) was very thorough and discussed relevant problems and intervention needs but lacked the analysis of direct study data in their findings. This study gives guidance on how to appropriately assess for depression and can be used with the CHEER program. One point that Groh and Dumlao make is that depression can be difficult to assess. Level IV evidence, and grade D recommendations were presented.

Shao, Peng, Bruce, and Bao (2011) meta-analysis studied the prevalence of depression amongst elderly patients that qualify for Medicare against their demographics, utilization of services, and other key characteristics associated with depression. Their study utilized data from the 2007 National Home and Hospice Care Survey (NHHCS). From the data they selected patients that had one primary and up to 15 secondary diagnosis for home care. Depression had to be either identified by the primary care provider, or by the home care nurse. After selecting the patients, they analyzed the key information such as demographics (age, race, marital status), and

if they lived alone or with caregivers, how their functional level was, and how much they utilized health care. Even though Shao et al.'s study (2011) was level IA evidence, and grade A recommendations, their study was limited because it studied a population that was lower than 64 years of age. Even though it was not specifically about the elderly population, they were able to highlight depression and mainstream treatment. Their results indicated that depressed patients were significantly less likely to have a primary care, there was no association with need for assistance with activities of daily living and lower likelihood to receive medical care. The number of medications the patient took did not have an association with depression and the rate of antidepressant use was more likely with those without depression indicating that usage of the antidepressants alleviated depressive symptoms (Shao et al., 2011). This study was used to formulate educational topics of how medication can alleviate depressive symptoms, that physical mobility may not have any relation to depression or ability to receive medical care, and that depressed person's may not have a primary care. The educational topics allowed the DNP Student to have meaningful conversations with the participants (Shao et al., 2011).

Furthering the study of elderly depression, Bao, Eggman, Richardson, and Bruce's (2014) study presented level IIA evidence, and grade C recommendations from a meta-analysis of data related to how effective a nurse driven home care intervention worked and the relationship between depression and Medicare policies for home care. They chose the intervention Depression CAREPATH as described above with the first study. This was a model that encouraged collaboration between the providers, specialists, home care nurses and patients focusing on medication management, symptom management, education, and goals. They used participants from home health care agencies in five separate states. This qualitative study was based on semi-structured interviews with agency representatives, however, the study only had 20

participants which was a limitation. Bao et al.'s study (2014), only had a small participant group, and many interviews were conducted telephonically which limited the interaction ability. This related to the CHEER program as CHEER being a home-based program with only this DNP completing the visits, the ability to recruit and see a large participant group was a limitation. It would be relevant to determine future sustainability for the program. According to the results they determined several influential Medicare policies and regulations are misaligned with evidenced based practice (EBP) for depression care for home health patients (Bao, et al., 2014). This would mean funding for the CHEER project would need to be accounted for in other ways than Medicare payment.

Review of Skinnerian Model

In consideration of the theoretical framework, Neuringer, and Englert's (2016) systemic review discussed operant conditioning and how it related to an ancient Greek philosopher Epicurus. They talked about similarities that the two by use of positive reinforcement to aid positive outcomes or change. The similarities are that they both have the quest to help people live happy and successful lives (Neuringer, & Englert, 2016). Skinner who developed the theory of operant conditioning believed in friendship and community (Neuringer, & Englert, 2016). This was the basis for the CHEER intervention, to provide positive reinforcement through a cheerful, friendship type process, and providing homebound and/or socially isolated seniors with a friend that who comes to visit and lift their spirits in hopes it has a positive effect on their health. This literature is level IV evidence, and grade D recommendations.

Polenick and Flora (2013) also completed a systematic review the Skinnerian psychological model of behavioral change and developed the theory of behavioral activation for depression in older adults. Their study provided level III evidence, and grade C

recommendations. The study that increased negative behaviors resulted in increased depression. Doing more for a person instead of allowing them the opportunity to complete tasks themselves influenced negative behaviors such as physical dependency. They also found that if persons had an increase in positive reinforcement and encouragement, they would become less dependent and depressed (Polenick & Flora, 2013).

Factors Influencing Depression for Community Residing Older adults

Association of depression with morbidity and mortality has also been determined by study of Yaka et al., (2013). Their purpose was to determine risk factors and the prevalence of depression for community dwelling seniors (Yaka et al., 2013). Their cross-sectional study was conducted with 482 elderly individuals over the age of 65. The study findings demonstrated a link between higher rates of depression and certain diseases that are common for seniors such as chronic obstructive pulmonary disease, cerebrovascular disease, and psychiatric disease, along with demographic factors such as lower income populations. This is especially relevant to this program as the goal of the CHEER program is to alleviate symptoms of depression, therefore reducing morbidity and mortality. This study used level IIA evidence, and grade B recommendations.

Prevalence of depression today is highlighted by Wiese (2011). Wiese study presents level III evidence, and grade C recommendation. The study demonstrated that depression in those ages 65 and older is a growing problem as the populations of seniors is growing and that depression can not only have impact on health, but economic impact on society, and that this is a relevant problem that needs to be addressed. The study highlighted the severity of the problem which helps to support the need for the CHEER program (Wiese, 2011).

Singh and Misra (2009) determined that many seniors live alone and experience depression as a lack of family support and reduced connections with their culture of origin which in turn results in inability to initiate new friendships and networks. This translates into the need for outreach as is the foundation of the CHEER project. This study presents level IIA evidence, and grade B recommendations, and investigates the relationship between social isolation, loneliness, and depression in the senior population. This study concluded that there is a significant correlation between depression and loneliness (Singh, & Misra, 2009). When depression's onset is early in life it is related to genetics and personal life experiences that trigger it, however, later in life there are more psychological effects related to living with illness and debility that cause a direct effect on the brain (Singh, & Misra, 2009). Their study was limited due to restricted sample size, inability to determine gender differences because the samples were not equivalent and use of self-report inventory.

Jones, Leibowitz, Kominski, and Mays (2015), conducted a meta-analysis to examine the qualities of the providers themselves, benefits of the patient-centered medical home (PCMH), and if access to a usual care provider was associated with the likelihood of receiving mental health counseling and services. These researchers used national data from the Medical Expenditure Panel Survey to conduct a lagged cross-sectional study. They used a large sample size of 2,358 adults with age of 16-64. Jones et al. (2015) were unable to effectively measure the quality of the PCMH's and detected bias due to participants self-reporting.

Summary of Review

The review of the literature furthers the need for continued study and evidence-based practice. Evidence demonstrates that depression in those age 65 and older can lead to compounding problems and possible readmissions (Menchetti et al., 2006). The participants with

a usual provider were significantly more likely than those with no provider to have experienced primary mental health visits and psychiatric medications. They were also significantly more likely to visit a mental health specialist than those with no regular provider. The researchers concluded that access to a usual provider was associated with increased receipt of mental health services. Interventions developed based on EBP can lead to potential health benefits thereby improving the health and wellness of the population and is a goal of the CHEER program. The CHEER program focused on helping bridge the member to community resources and can provide access to care by linkage with the senior center.

Evidence Based Practice: Verification of Chosen Option

Evidenced based practices (EBP) for seniors with depression have been identified to assist with the problem of senior depression and its impact on health that was identified in the review of literatures (Hartford Institute for Geriatric Nursing, 2012). This include, safety precautions for suicide risk, control of etiologic agents such at changing depressogenic medication and metabolic disturbances, enhancing physical function, enhancing social support such as support groups, family, and spiritual resources. Identifying and reinforcing a person's strong / capable characteristics and education and encouragement to promote adherence to treatment regimens is especially important. Many EBP recommendations are for early screening when staff-assisted depression care supports are in place to ensure diagnosing is appropriate, treatment can be instituted, and follow up conducted (U.S. Preventive Services Task Force, 2009). Unlike previous EBP recommendations, the CHEER project proposed in this study aimed at identification, support, and linkage to assistance for those isolated, homebound, and depressed.

Depression in older adults is also addressed on the National Guideline Clearinghouse with the guideline titled *Depression in older adults* (2012) by mapping out recommendations for

how nurses need to treat geriatric patients with depression (National Guideline Clearinghouse, 2012). Specifically, the need for standardization of the depression screening tools and documentation, along with enhancing social support. This was the foundation for the CHEER program.

Theoretical Framework/Evidence Based Practice Model

The theoretical framework fitting to this project is Behavioral Activation for Depression in Older Adults (Polenick & Flora, 2013). Polenick and Flora based their theory on the Skinnerian Psychological Model of Behavioral Change (Skinner, & Epstein, 1982). Skinner believed that to understand behavior you must look at the causes of the behavior and the consequences of actions. Skinner also coined the term “operant conditioning” where behavior is changed using positive reinforcement (Skinner, & Epstein, 1982).

The basis for Behavioral Activation for Depression in Older Adults (Polenick & Flora, 2013) is that decreases in response-contingent positive reinforcement and increases in negative reinforced avoidance behaviors along with age related life events and changes can result in elderly depression and social isolation. For example, a person who ages sees their family and friends die, experiences loss of certain mobility and bodily functions, goes through changes in strength and appearance, and feel they are not as independent as they once were will all result in increased avoidance and isolation behaviors which may lead to depression (Polenick, & Flora, 2013).

The theory of Behavioral Activation for Depression in Older Adults is very applicable to the problem of elderly depression (Polenick, & Flora, 2013). Interventions and programs can be implemented based on Skinner’s theory (Skinner, & Epstein, 1982). Per Polenick and Flora (2013), promoting dependent behaviors in the elderly resulted in negative behaviors and

depression. Promoting independent behaviors and activity engagement such as participating in social groups at senior centers or having social visits in home for those who cannot get out would be beneficial. This was the basis of the CHEER visits.

Methods

Goals, Objectives and Expected Outcomes

The mission of the CHEER program was to lesson depression in those aged 65 and older that are depressed and/or socially isolated by using cheer and emotional support to change and improve depression status. Goals included promotion of health and wellness through lifting the spirits of seniors that are isolated in rural areas; to assist those who are suffering, lonely, or disparaged; and to see a future where all patients receive client centered quality care with the hopes of improving their quality of life. The activities of the project fell into three primary areas: (1) health and wellness service enhancements, (2) social enrichment activities enhancement, and (3) bridging services to those who otherwise may not have known about what there is to offer.

The objective of this project was to lesson depression of those age 65 and older in the rural county in New York State by using the CHEER program which was developed based on the theory of Behavioral Activation for Depression in Older Adults (Polenick & Flora, 2013) and to measure the changes in depression status using the GDS depression screening tool (Greenberg, 2012). The first expected outcome was that the CHEER visit had a positive outcome for minimizing depression by having a decrease in their GDS score from first visit to third visit. The second expected outcome was that the CHEER visits was a 10 % reduction in depression GDS score. Now that the CHEER program was successfully completed, there is data that can be used to educate providers, provide information to support standardization of assessments with GDS screening tool, a plan for coordination of those with depression can be created and shared

throughout the healthcare system, and steps can be made towards public awareness to allow for policy change in the future. Lack of response-contingent positive reinforcement would increase the negative reinforced avoidance behaviors along with age related life events and changes will result in elderly depression and social isolation, the CHEER program was able to provide positive reinforcement and enjoyment, therefore minimizing depression.

Project Design

The CHEER program specifically designed by this DNP student, includes promotion of activities by use of several types of social interactions such as conversation between the participant and this DNP student. The CHEER program was implemented for the study period to help reduce depression and social isolation. The GDS (Greenberg, 2012) was used to evaluate the participants depressed status and measured on the first CHEER visit and then repeated on the last (third) visit. The CHEER program was monitored for successfulness and promoted to be a long-term program in the community.

CHEER Program

The CHEER program was developed based on the Behavioral Activation for depression in older adults (McLeod, 2015). Promotion of activities by use of several types of social interactions such as conversation between the participant and this DNP student, providing uplifting conversation, and the visits themselves were driven by the participants wishes. The activities ranged from playing cards, completing puzzles, or simple conversation. This allowed for positive reinforcement to create a positive behavior change therefore minimizing depression. The CHEER program used home visits to bring positive reinforcement to those who were identified with depression or isolation.

Procedure

The CHEER visit is an effective way to outreach those who are isolated and/or depressed (McLeod, 2015). The performance of the CHEER visit was evaluated, and efforts were made to improve upon the visit and how to engage seniors suffering with depression and/or social isolation. Seven participants were recruited for the project through flyers being handed out by the Meals on Wheels drivers, and a flyer was posted on Facebook.

Outreach was senior center based and visits were completed with older adult living with depression, socially isolated and/or homebound to bring them cheer. They were presented with a gift certificate to a free meal by meals on wheels, or one free meal at the senior center as a gift for participating. The hope was that the gift certificate would brighten a person's day and act as a gateway to other services offered by the senior center. The visit purpose was to engage the person in conversation and perhaps can identify causal factors for their isolation, sadness, and depression. This can be a bridge to the person being recognized for other benefits that the senior center may have to offer. Simply, the mission of the CHEER program was to bring the socially isolated, depressed person cheer and allow them to recognize they are not alone therefore enhancing a social connection.

The visits were completed in entirety by this DNP student and a minimum of one hour per week was spent with the participant for a total of three weekly visits. This DNP student has completed an application to become an approved volunteer for the County Office for Aging. The project was approved by the University of Massachusetts Amherst, and the recruitment of participants began in January 2018.

The GDS Scale was used as the standard tool for the program. When tested against diagnostic criteria by Sheikh and Yesavage (1986) the GDS scale was proven a reliable and valid tool with 92 % sensitivity and 89 % specificity (American Psychological Association, 2017). The

tool has also been supported through research and clinical use (American Psychological Association, 2017). Alternatively, if a physical in person visits cannot be completed due to weather or other unforeseen reasons, then telephonic outreach can be completed and would be considered appropriate to help maintain the program.

Sustainability of the program is ensured by linking the program to other agencies such as County Office for Aging, senior centers, Meals on Wheels (MOW's) along with local churches in the area to maintain visits to members who have shown benefit through their GDS scores to continue weekly visits. As an approved volunteer for the Office for Aging, now that the quality improvement project is completed, this DNP student can assist as an approved volunteer in the initiation of the program to make it a center-based run program if the Office for Aging is interested in continuing it. This DNP student will continue to maintain contact with the Nutrition Services Coordinator for the County Office for Aging.

Project Site and Population

The setting for this project was a senior center located in a rural county of New York State. This center services a rural community bringing outreach, meals and activities to those in need. The center was opened in 1974 with a focus of nutrition for local seniors and was the first in the area with a vision for a nutritional program.

Over the past 30 years, this senior center has offered a variety of services and activities focused on enhancing health and wellness for its community. Most activities are completed on site such as driving courses, computer classes and various other fun activities. They also have a volunteer transportation program to doctor's appointments but that is dependent on availability of the volunteers. Resources include but are not limited to collaborators/partners in the rural New York county area included the county health department, the county mental health department,

the local Family and Children's Society, the local Catholic Charities organization, the local hospital and home care agencies, and local primary care offices.

The rural NY county is composed of approximately 198,000 residents. It has 16 towns, seven villages, and one city (Edwards, 2013). The elderly population in this county is higher than the rate in NY State. There are 16.37 % of persons over the age of 65 in as compared to 12.9 % for the state (Edwards, 2013). Of the 12.9 % of seniors living in this county, the prevalence of psychiatric disorders within this population ranges between 15-20 %. The county has a limited number of available programs to serve people in the community with mental health issues, especially for those ages 65 and older. Resources in this county include the county program Community Alternative Systems Agency (CASA), Office for Aging, Mental Health Department, County Health Department, the local hospitals, and home care agencies.

The senior center is within a small village located on the northern aspect of the county. It is a rural farming community that consists of approximately 964 residents on the 2010 U.S. Census (U.S. Census Bureau, 2010). According the census there are 397 households and 244 families residing in the village. Out of the 964 residents 12.8 % of the households has someone over the age of 65 years an older living with them.

Setting facilitators and barriers

The senior center has a director; however, this director must answer to the county Office for Aging. Contact has been made with the Office for Aging, and a meeting was held to discuss the plan of action for the project. The coordination of the project was collaborated with this DNP student, the Office for Aging, and the senior center, however a barrier was identified with time constraints and scheduling conflicts.

Barriers that have been identified by the CDC (2016) regarding elderly depression are shame and stigma related to being diagnosed with mental health illness. Depression may be considered a weakness to some people, ageism, or an inaccurate assessment that depression is somehow normal for seniors (CDC, 2016). Per the CDC, 75 million Americans over the age of 65 experience depression each year (Healthline Media, 2016). This demonstrates the need for program.

The CHEER project was facilitated by aligning with and working with the senior center, and this has further enhanced the ability to perform outreach to rural living socially isolated and/or homebound seniors. The barriers identified with the community included lack of more participants, and small community size (Edwards, 2013). This being a rural community with many seniors makes the problem relevant, however, and presented challenges with implementation for the participants to be recruited.

Implementation Plan/Procedures

Participants were recruited for the project by flyers being handed out by the Meals on Wheels (MOW) drivers, and a flyer was posted on Facebook. Each participant received three visits each, once per week. A GDS was used to evaluate changes in depression on the first and the last visits. On the initial visit the participant received the coupon for the free meal either by MOW's or at the senior center. This DNP student called the participants to introduce the program and self and set up a time for the visit to be completed. The DNP student drove to the participants homes and introduced self to the participant upon arrival. On the first visit, the meal voucher was given to the participant, the purpose of the project was explained, and the pre-intervention GDS assessment was conducted. The visit with the participant lasted for 60 minutes minimum and either conversed with the participant about any topic that made them happy or

completed tasks that they preferred such as playing cards, completing puzzles, or simple conversation. This DNP student also provided the participant with information identified during the visit to link them with community programs/ options that are available by the senior center or Office for Aging by referencing the Elder Services Guide provided to this DNP student by the Office for Aging. After the visit was over, all data collected were kept in a lock box by this DNP student to ensure patient information was protected. No personal data or health information were kept, participant forms were numbered 1-7 by the order which the referral was received. The visits were conducted a minimum of once a week for the period of 3 weeks. On the third visit the post-intervention GDS assessment was again be conducted.

Measurement Instruments

The Geriatric Depression Scale (GDS) is a tool designed to measure depression for those ages 65 and older (Greenberg, 2012). It is easy to use as it contains only 15 questions that the person can simply respond either yes or no. The answers are then tallied up to reveal if the person test positive or negative to depression. A score of greater than five indicates depression. The GDS tool has been tested and proven to be a valid and reliable tool to measure depression (Greenberg, 2012). Permission was granted by the Hartford Institute of Geriatric Nursing to use this tool (2017) (Appendix A).

There were no known measurement tools known to this DNP student that were available to measure social isolation, therefore identification of social isolation was gathered through the referral process. Referrals were obtained either through email or telephonically, and for those participants who were identified as socially isolated, descriptive information was obtained that describe the participants situation such as lonely, unable to get out, or homebound. According to Milan et al. (2005), measures for social isolation fall into 3 categories: depressive symptoms,

inter-personal factors such as bereavement or conflict, clinical health status, and demographic factors. Since the project is based in a rural community demographic factors were a major contributor to those identified as isolated.

Data Collection Procedures

Referrals were obtained by family member's contacting this DNP Student directly through email. Data related to social isolation was collected at the time of referral when participants were identified as lonely, isolated, or homebound. Each participant received three home visits. The GDS was administered to the participant on the first and last visits. The second visit was only for the participant to receive positive reinforcement and cheer. This DNP student conducted the GDS assessment and stayed for a period of 60 minutes minimum and completed and activity or conversed with the participant about any topic that made them happy.

Data Analysis

The GDS scores were collected and the data were analyzed descriptively; the mean and standard deviation (SD) of the participants GDS scores from first visit compared to last visit and for the entire participant group's mean and SD to determine if there was a positive outcome for the intervention. This DNP student also collected qualitative data from the participants asking by asking each participant at the end of the last visit if they felt the visits were helpful and enjoyable. These data were summarized, and common themes were extracted.

Results

Quantitative Data

Four (4) out of the seven (7) participants (57 %) were screened positive for depression on the first visit. This was determined using the GDS score greater than five. On the final CHEER visit, only one (1) out of seven (7) (14 %) scored positive for depression. The groups mean

depression score was 5.28 (SD=0.7) on the first visit, and 4.28 (SD=0.7) on the final visit (see Appendix E).

Qualitative Data

All seven participants were determined to be socially isolated during the referral process by their family members. Each participant reported that the CHEER visits were enjoyable and meaningful at the end of the project. Three participants said they “would miss the visits”, all five participants reported that they “really had an enjoyable time visiting”. Five participants stated they “would participate in a project such as this again”. No participant made comments about the visits in a negative way. Each participant also verbalized that the community resources provided to them were found to be useful.

Discussion

The intent of the CHEER program was to use behavioral activation to promote response-contingent positive reinforced behavior (Polenick & Flora, 2013). The CHEER visits demonstrated to have a positive effect on the participants’ depression, and each participant reported positive feedback at the end of the project. The decrease in GDS scores for five of seven participants demonstrates that if put into practice there could possibly be a noted improvement in the quality of life of those homebound, depressed, and/or socially isolated seniors. The CHEER program also allowed for bridging access to other community programs, promoted independent behaviors and activity engagement, and promoted improvement of other chronic health issues by minimizing depression.

The project has several strengths that should be noted. The project obtained full support by the Office for Aging and senior center to assist this DNP student with planning and referral process to ease the ability of this DNP Student to complete the project. The projects weakness

included a small sample size (n=7), which might limit the study validity. The CHEER Visits are resource intense, requiring a large amount of clinician's time and effort. However, the DNP student decided not to have volunteers to assist with the visits because of difficulty in the training volunteers and inability to ensure consistencies in delivering the CHEER program and collecting data. Only this DNP student visited participants and collected data for the purpose of this project, which resulted in a project with a small sample size. This project could be successful in future if it has a large group of volunteers to complete home visits.

The nursing implication was limited by the small sample size, however, since the study yielded positive finding, it indicates that more study is needed to determine if the CHEER visits are truly successful with a larger sample size. If used appropriately with the theory of behavioral activation applied, CHEER could prove to be a useful, non-pharmacological treatment for depression (Polenick & Flora, 2013). Future suggestions would include continuing the CHEER program with continued monitoring of the GDS to determine successfulness of the program.

Since a positive outcome for the CHEER project was achieved, and depression was noted to be lessened in the participant group, the plan is for this DNP student to provide the senior center and Office for Aging instructions on how to sustain the program with volunteer assistance. If the center wants to continue the CHEER visits it will need to be 100 % volunteer with no funds being required. If weather makes the visit unable to be conducted, a telephonic outreach can be substituted.

The positive outcomes of minimizing depression from the CHEER program have the following implications for nursing practice: using the CHEER program to assist in treating the problem of depression in persons over the age of 65, education to nurses regarding the importance of monitoring depression levels and reporting to providers, engaging socially isolated

and homebound seniors to help avoid depression, education of the patients and their families of warning signs of depression and how to use behavioral activation to avoid negative reinforced avoidance behaviors that can lead to depression, education of community agencies on importance of programs such as CHEER that can lead to positive outcomes for depression. With these the importance of identifying and assisting those who are socially isolated, homebound, and/or depressed could make a positive impact on the health and wellness of the public overall.

Cost-Benefit Analysis/Budget

This project was relatively inexpensive. This DNP student funded the entire project (Appendix C). The money was spent printing flyers. The project used meal vouchers purchased through the senior center for a total of \$26.25. The meal vouchers were handed out to the participants as a thank you for their participation. They were able to use the meal vouchers either at the senior center, or for a home delivered meal by Meals on Wheels.

Personnel cost was \$0. This DNP student completed the program in its entirety. Advertising was free using Facebook and the senior center which passed the flyers out with the Meals on Wheels deliveries. The senior center has not accepted any donation for their participation in the project as they are a taxpayer funded program.

Timeline

Once the project was approved by the University of Massachusetts, Amherst, outreach began to seniors in the rural NY county area starting in January 2018. Visits began to seniors in March and were completed with all participants by the 15th of April. The project ran for a total of 4 ½ months total this includes 2 months for recruiting participants, 6 weeks to complete all visits, and 4 weeks to analyze data (Appendix B). Each visit was completed with the participants on a weekly basis if scheduling allowed for weekly visits as directed by the participants schedule. The

first two months of the project was solely dedicated to recruitment of participants. The third and fourth months the participants were visited and assessed using the GDS scale on the first and last visits. The final month all data was analyzed. The plan is to share the results with the county Office for Aging, along with University of Massachusetts Amherst, and the local senior center.

Ethical Considerations/Protection of Human Subjects

Determination of Human Subject Research form has been submitted for review to the Independent Review Board at the University of Massachusetts. It was determined that the project was not human subject research, so IRB was not required (Appendix D). Every participant was protected under Health Insurance Portability and Accountability Act (HIPAA) ensuring that all health information, privacy was protected under the rule of law. No health information was shared. Each participant consented verbally allowing the data to be shared for the purpose only of the study. Any data collected was free of the participant's personal information.

This DNP student has undergone an application process through the participating County Office for Aging and completed a security check to ensure the safety of the participants. Participants who have known dementia or other cognitive issues were excluded from the project to protect this DNP student's safety. The GDS and any documentation associated with the project did not include any personally identifiable information. All data collected were kept in a lock box in this DNP student's office for duration of the program. At completion of the program any protected health information was destroyed by shredding the documents and emails were deleted immediately.

Conclusion

Depression is not a normal sign of aging. Causes can include loss of loved ones, loss of independence, living alone, financial strains, complex health issues, medications, and other big

life changes that may happen (Edwards, 2013). As determined by the County Health Assessment (2013), consequences of depression include inferior quality of life, social deprivation, loneliness, increased use of health and home care services, cognitive decline and impairment of daily living activities, increased suicide and non-suicide mortality. The Office of Mental Health Patient Characteristic Survey Week of 2011, 109 elders over 65 years old were seen for intensive mental health service, 9 of those for emergency crisis intervention and 34 more for in-patient evaluation in the rural county that the project was completed.

With the theory of behavioral activation for depression in older adults applied to the problem of elderly depression, it is indicated that a positive outcome will result from the CHEER visit. Promoting independence and socialization with the CHEER visit can lead to positive outcomes (Polenick & Flora, 2013) Dependent behaviors in the elderly will result in negative behaviors and depression. Promoting socialization and encouraging participation in social groups at senior centers or having social visits in home for those who cannot get out can assist with positive reinforcement behavioral activation. This can lead to not only a reduction in senior depression, but a higher quality of life and an overall higher quality of health and wellness.

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Appendix

Appendix A

Notification of use of GDS Scale

Notification of use of GDS Scale has been sent to hartford.ign@nyu.edu as instructed on website: <https://consultgeri.org/try-this/general-assessment/issue-4.pdf>

Copy of email with permission:

Permission is hereby granted to reproduce, post, download, and/or distribute the Try This:® Series material in its entirety for nonprofit educational purposes only, provided that The Hartford Institute for Geriatric Nursing at Rory Myers NYU College of Nursing is cited. (Entirety being the front and back, and should include the title, header, footer and logos.) This material may be downloaded and/or distributed in electronic format, including PDA format. When linking, use the original URL found on www.consultgeri.org.

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According to the following link, the GDS is in the public domain. <http://www.stanford.edu/~yesavage/GDS.html>
You may want to refer to this link re: citation

Regards,

Kim

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Screening Tool: Geriatric Depression Scale (GDS)

1. Are you basically satisfied with your life?	Yes	No (1)
2. Have you dropped many of your activities and interests?	Yes (1)	No
3. Do you feel that your life is empty?	Yes (1)	No
4. Do you often get bored?	Yes (1)	No
5. Are you in good spirits most of the time?	Yes	No (1)
6. Are you afraid that something bad is going to happen to you?	Yes (1)	No
7. Do you feel happy most of the time?	Yes	No (1)
8. Do you often feel helpless?	Yes (1)	No
9. Do you prefer to stay at home, rather than going out and doing new things?	Yes (1)	No
10. Do you feel you have more problems with memory than most?	Yes (1)	No
11. Do you think it is wonderful to be alive now?	Yes	No (1)
12. Do you feel pretty worthless the way you are now?	Yes (1)	No
13. Do you feel full of energy?	Yes	No (1)
14. Do you feel that your situation is hopeless?	Yes (1)	No
15. Do you think that most people are better off than you are?	Yes (1)	No

Sum all bolded answers (worth one point each) for a total score: _____

A score >5 points is suggestive of depression and should warrant follow-up intervention.

A score >10 points is almost always depression.

more information on reverse 

Appendix B

Results

Participant	GDS Score	
	1 st Visit	3 rd Visit
1	6	5
2	3	3
3	6	5
4	2	1
5	7	5
6	8	8
7	5	3
	Mean / SD	Mean / SD
Total	5.29 / 2.14	4.29 / 2.21

Appendix C

CHEER-Budget Justification

Project Month	One	Two	Three
Personnel-Volunteers	\$0	\$0	\$0
Travel	\$0	\$0	\$0
Flyers/ Supplies	\$100	\$0	\$0
Onetime donation to the Center			\$0
Total	\$100	\$0	\$0

1. Personnel \$0

There was no personnel money necessary as this DNP student completed all visits.

2. Travel \$0

This DNP student completed all visits. Travel expenses was absorbed by this student completely.

3. Flyers/ Supplies\$100

Fliers were handed out and placed in visible locations in the Whitney Point NY area and

delivered along with the meals on wheels deliveries. The Flyer was also posted on Facebook to attract people to the program.

5. One-time Donation to Center \$0

The senior center has operational costs therefore, the project had intended to donate \$500 to the center for their willingness to participate- however, the senior center would not accept this as was taxpayer funded.

Appendix D

Goal / Methods / Timeline

Goal	Method	Timeline	Participant Number / who will do it	Objective /Benefit
Develop and implement a senior center based outreach for rural depressed, socially isolated, and homebound persons over the age of 65.	Partner with local senior center.	Development of project 4-5 months, implement in month 5.	7 participants / This DNP student will complete visits.	Improve mental health and wellness of participants measured by decreased score with the GDS depression assessment within 3 visits.
Improve quality of life of socially isolated and homebound depressed people over the age of 65.	Home visit for those identified for the program to bring a form of cheer to them such a gift and a positive visit.	2 months.	7 participants / This DNP student will complete visits.	Reduction of depression related illness as result of increased quality of life measured by decreased score with the GDS depression assessment within 3 visits
Bridge access to programs and needs of seniors in the community.	Home visit will identify needs of seniors that will improve quality of life or needs that can be linked to other services provided by the community.	4 months and ongoing.	7 participants / This DNP student will complete visits.	Increased access to care and social activities that will in turn increased mental wellness measured by participants self-reporting within 6 months of project beginning.

Appendix E

Human Subjects Determination



University of Massachusetts Amherst
Human Research Protection Office
Mass Venture Center
100 Venture Way, Suite 116
Hadley, MA 01035

Office of Research Compliance
voice: (413) 545-3428
fax: (413) 577-1728

MEMORANDUM – Not Human Subject Research Determination

Date: October 19, 2017
To: Jennifer Taylor, Nursing

Project Title: *Center Based Help for Elder Depression and Emotional Reinforcement (CHEER)*

IRB Number: 17-186

The Human Research Protection Office (HRPO) has evaluated the above named project and has made the following determination based on the information provided to our office:

- The proposed project does not involve research that obtains information about living individuals.
- The proposed project does not involve intervention or interaction with individuals OR does not use identifiable private information.
- The proposed project does not meet the definition of human subject research under federal regulations (45 CFR 46)
Submission of an IRB application to University of Massachusetts Amherst is not required.

Note: This determination applies only to the activities described in the submission. If there are changes to the activities described in this submission, please submit a new determination form to the HRPO.

Please do not hesitate to call us at 413-545-3428 or email humansubjects@ora.umass.edu if you have any questions.

A handwritten signature in cursive script that reads 'Iris L. Jenkins'.

Iris L. Jenkins, Assistant Director
Human Research Protection Office