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DEPRESSION KNOWLEDGE IN NURSING HOME LICENSED PRACTICAL NURSES, REGISTERED NURSES, AND CERTIFIED NURSING ASSISTANTS

Jason Heflin
Pittsburg State University, jasonh@gus.pittstate.edu

DEPRESSION KNOWLEDGE IN NURSING HOME LICENSED PRACTICAL NURSES, REGISTERED NURSES AND CERTIFIED NURSING ASSISTANTS

A Scholarly Project Submitted to the Graduate School in Partial Fulfillment of the Requirements for the Degree of Doctor of Nursing Practice

Jason Heflin

Pittsburg State University

Pittsburg, Kansas

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DEPRESSION KNOWLEDGE IN NURSING HOME LICENSED PRACTICAL NURSES, REGISTERED NURSES AND CERTIFIED NURSING ASSISTANTS

An abstract of the Scholarly Project by
Jason Heflin, BSN

The purpose of this project was to ascertain whether providing education to licensed nurses and certified nurse aide staff in nursing homes results in an increased awareness and recognition of depression and depressive symptoms among the nursing home population. A descriptive research design was used to identify knowledge of nursing staff in long-term nursing home facilities before and after depression and depressive symptom education. The study utilized a one-group pre-test/post-test design with nursing home staff that interact with nursing home residents during a normal workday. A total of 26 of the 30 participants (86.6%) achieved a pre-test score of 22 or greater representing satisfactory performance. The mean post-test score was 24.2333 with a standard deviation of 1.95965. An average of 86.5% was achieved by the participants on the pre-test.

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Chapter I

Depression in Nursing Homes

Depression is a disorder that is manifested in the form of sadness, feelings of guilt, sleep disturbances, and lack of concentration (Depression and Older Adults, 2017). A multi-factorial condition, The World Health Organization (WHO) notes that depression is brought about by social, psychological, and biological factors (2018). The disorder is a common problem in nursing homes. In most cases, the elderly suffers from multiple conditions such as dementia and depression, and the management of these problems calls for clinical treatment and management of the conditions. The focus of this project was to foster the recognition of depressive symptoms in nursing home residents by providing targeted education to licensed nursing and nurse aide staff.

People with depression are likely to be dependent on others; consequently, the treatment process is a herculean task for nursing home staff (Kvæl, Bergland, & Telenius, 2017). Depression is associated with multiple conditions including diabetes mellitus, anorexia, and other chronic diseases. In addition, the loss of physical functions often occurs with those in nursing homes and may lead to symptoms of depression for many residents. Nursing home staff can have trouble in the diagnosing, treating, and managing of patients with diverse depressive disorders. Nursing homes utilize various techniques in the identification of depressed patients, including the Pre-Admission Screening and

Annual Resident Review (PASARR) system, which enhances the detection of different depressive conditions (Lantz, 2019). Despite screening interventions, depression in nursing homes continues to be underdiagnosed (Simning & Simons, 2017). Therefore, the widespread incidence of depression in nursing homes calls for proper intervention in terms of training for the identification of symptomology.

Significance

Nursing homes are vital institutions since they cater to the needs and management of the elderly in society. The rise in the number of older adults in the world calls for an increase in care for their physical, social, and psychological needs. Old age is accompanied by conditions such as dementia and the loss of vital skills which affect the quality of life and increase the demand for psychiatric interventions. The incidence of depression and dementia has risen, and an approximate 47.5 million are affected by dementia (Simning & Simons, 2017). The CDC (2014) notes that the nursing home population has an incidence of depression approximately double of other care modalities in the aging population. Additionally, the WHO statistics predict the incidence of people with depression to rise to 76.5 million by 2030. This alarming trend in the increase in depression in the elderly will impact many aspects of healthcare; hence, the need for intervention. Most countries report a high percentage of older adults with cognitive impairment that causes depression. For example, in Brazil, 64.6 % of individuals over 65 years and living in nursing homes have cognitive problems, which contribute to depressive orders (Kvæl et al., 2017). In essence, nursing homes in most regions of the world have older adults who suffer from depression and other associated disorders.

Purpose

Depression in nursing homes is a subject of concern, and the purpose of this study was to improve on the recognition (diagnosis) of its various symptoms. Also, the study sought to develop an educational presentation that will increase licensed nurses and Certified Nursing Aide (CNA) knowledge of depression with the goal of reducing the cases of under treatment and inappropriate management of depression among nursing home residents. The study aimed to enhance the symptom recognition techniques and the appropriate preparation of nursing home staff on the subject of depression.

The upsurge in the incidence of depression in nursing homes calls for an integrative approach to education and training for licensed nurse and CNA staff, which leads to the combating of the risk factors of depressive conditions. Depression in nursing homes calls for the application of positive experiences for the elderly who often suffer from loneliness and other risk factors of the condition. As transitional stages for the elderly, nursing homes should be engaging in terms of positive activities to promote the cognitive and physical health of the elderly. Also, the incorporation of a proper diet and exercise helps reduce depression risk factors and symptoms in nursing homes. The study sought to enhance the role of licensed nursing and CNA staff in the reduction of depression in nursing homes through the application of education and practice.

Theoretical Frameworks

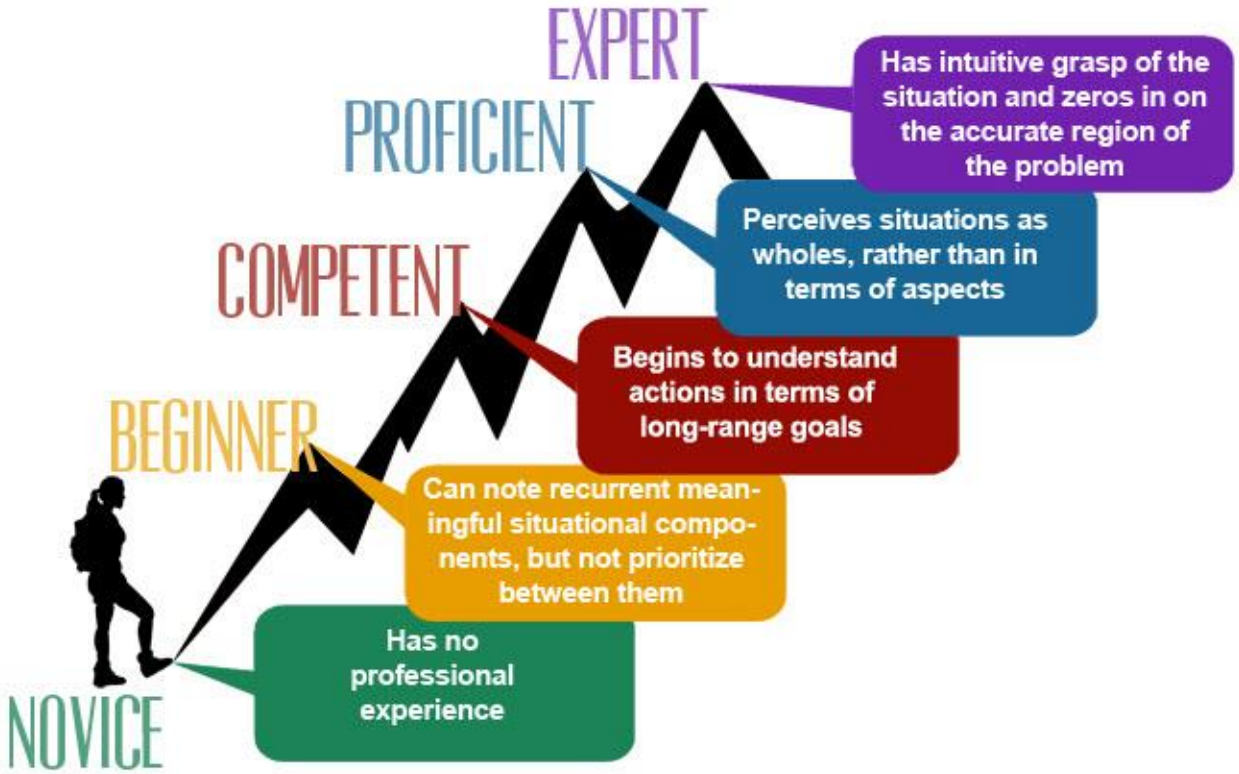
Multiple theories can help explain the manifestation of depression in the aging populace, and they can help direct methods to combat disorders associated with this condition. Theoretical perspectives can help justify non-medical interventions to the multiple depressive disorders of the elderly. Each approach formulates different techniques such as relaxation, behavioral change, and exercise remedies for depression

(Simning & Simons, 2017). The activity theory is reflected in the transitional challenges the elderly face in nursing homes. The theory asserts that individuals must maintain an active role in life to maintain satisfaction in life (Bell, n.d.). Any form of activity contributes to wellbeing as it gives the individual a sense of value. The nursing home environment is limiting to the elderly; this means that they have limited control over activities and dietary choices. Nursing homes polices dictate the nature of physical activity and the amount of time allocated for physical activity. Also, many elderly have limitations concerning the use of their finances and access to social resources and other social points of contact (McCarthy-Zelaya, 2016). Nursing homes are perceived holding facilities for the aging, who, in turn, lose social contacts and many forms of control over their lives; these factors contribute to mental and psychological disorders (Guimarães et. al., 2019).

Another theory that could be applied to the identified problem of depression in nursing homes being undertreated is Dr. Patricia Bennar's Novice to Expert Theory. The theory asserts that all nurses range in experience on any given subject on a five-level spectrum from novice to expert (Petiprin, 2020). A problem that remains unrecognized continues to be a problem. If nursing home staff lack the knowledge required to recognize depressive symptoms, it will likely remain untreated. Current CNA certification requirements vary state by state but primarily focus on activities of daily living and physical modalities of care (Institute of Medicine, 2008). Identification of depression may be improved if the healthcare workers that spend the most time with the nursing home population is better equipped to recognize symptoms and bring attention to the problem.

For this study, the researcher educated three nursing home's licensed nursing and CNA staff in the recognition of depressive symptoms in the nursing home population to reduce depression undertreatment. Application of Bennar's Novice to Expert Theory can help identify shortcomings in staff education and provide training for nursing home staff to be better prepared. Licensed nursing staff will require training as well to ensure their depression knowledge is adequate as they will receive notification from CNA staff regarding symptoms nursing home resident's display.

Figure 1. Bennar's Novice to Expert Theory



Note: This figure shows the five levels of the Benner Novice to Expert Theory. From Discussion on Benner's Theory of Novice to Expert. (2019). https://www.needassignmenthelp.com/blog/discussion-benners-theory-novice-expert/.

Project Questions

Research Questions

1. What knowledge of depression do licensed nurses and CNAs working in nursing homes possess prior to reviewing the educational PowerPoint?
2. Can an educational presentation over depression increase the recognition of depressive symptoms in nursing home residents by nursing home licensed nurses and CNA staff?
3. Does a higher educational level of licensed nurses and CNAs have a positive correlation with increased knowledge of depression?

Sub-Research Question

1. Can nursing home licensed nurses and CNAs identify risk factors of depression?

Definition of Key Terms/Variables

Nursing home – A public or private residential facility providing a high level of long-term personal or nursing care for persons (such as the aged or the chronically ill) who are unable to care for themselves properly (Nursing home, 2021).

Resident – a. living in a place for some length of time b. one who resides in a place (Resident, 2021).

Elderly – a. of, relating to, or characteristic of later life or elderly persons b. individuals over 65 years old (Elderly, 2021).

Depression – A mood disorder marked especially by sadness, inactivity, difficulty in thinking and concentration, a significant increase or decrease in appetite and time spent sleeping, feelings of dejection and hopelessness, and sometimes suicidal tendencies (Depression, 2021).

Licensed Nursing Staff – Referring to Registered Nurses (RN) and Licensed Practical Nurses (LPN).

CNAs – Referring to Certified Nurses Assistants.

Conceptual Implications

Conceptual definitions are crucial in research since they help in the development of causal relationships between variables. These constructs will help in the simulation and understanding of various outcomes in the research. The study focused on the role of the nursing home nursing staff and their contribution to detection of elderly depression. This atmosphere is defined from a different perspective, and there are multiple variables, that affect the physiological and psychological outcomes for the elderly and which can be associated with increased or decreased levels of depression. For example, the nursing home environment can be described by social support, which is four-dimensional. The four functions of societal support for nursing homes include emotional appraisal, belonging, self-esteem, and physical support. These forms of support involve nursing staff training on the risk factors of depression. Also, informational support deals with education competencies that influence the ability of nursing home staff to recognize and treat depressive disorders.

Moreover, social interactions and affection contribute to positive outcomes in nursing home experiences. The elderly are faced with the issue of social withdrawal which can contribute to psychological distress. The occurrence of depression and anxiety in the old is considered a nonspecific and negative human state. Based on the structural equation model, which is used in relationship analysis, low levels of social interaction and the complete lack of informational and emotional support are likely to increase the

level and rate of psychological distress among this population. Therefore, nursing home staff should understand the bidirectional nature of the relationship between social support and the incidence of depressions and other forms of psychological distress.

A study by Sawyer & Dykema-Engblade (2016) indicated a causal relationship between the home environment and design and its effect on companionship, social interaction, and independence among the elderly. The disengagement theory asserts that nursing homes lead to social withdrawal, inactivity, lack of functionality, and other actions, which lead to distress (Hollis-Sawyer & Dykema-Engblade, 2016). The improvement of the nursing home setting is significant for depression patients. A relevant variable, in this case, is access to outdoor space, which helps improve depressed individuals' condition (Trueland, 2017). Outdoor spaces account for the unaccompanied visits to gardens and outside regions for nursing home patients. The inability to access outdoor spaces affects mood, and can increase irritability, anxiety, and other depression symptoms (Trueland, 2017).

Logic Model of the Proposed DNP Project

Illustration of the Relationship between Proposed Project Concepts

A logic model is an evaluation tool used by program managers to describe and illustrate the effectiveness of the program (Simning & Simons, 2017). The tool creates logical links between project concepts, resources, output, audience, and the specific outcomes in the project. In this case, the project is the improvement of the elderly's experiences in nursing homes through proper training and education for the staff as well as the improvement of the facility's environment to reduce the occurrence of depression. The utilization of evidence-based practices and methods are significant in the project

since modern healthcare relies on research and evidence in the treatment and management of various conditions.

The logic model relies on several processes, which enhance the performance of the various resources or input towards the project. The first phase in the project was to locate the most reliable evidence to support the proposed study. This phase is achieved through the creation of PICOT which is a clinical question statement focused on identifying the right audience and the expected outcomes of the project. The acronym PICOT is representative of population, intervention, comparison, outcome, and time. For example, the population is the elderly seeking support from nursing home facilities. In this scenario elderly is descriptive of old adults from the age of 65 and above. The population suffers from depression due to the various conditions of the nursing home environment and inadequate training among the staff, which leads to overtreatment and under-treatment of depression patients. The intervention, in this case, was the use of screening methods and patient feedback that is crucial in improving patient outcomes and experiences in the nursing homes. The outcome of the project is the proper treatment and management of depression among the elderly in nursing homes. Depression in a nursing home environment is a health issue that requires an evidence-based approach.

Analysis of evidence is crucial in the appraisal of the project and the use of the proper literature to support the project requirements. Literature and theoretical backing promote reliability and recommendations from the relevant stakeholders. The confirmation that depression is misdiagnosed, undertreated, and over treated in nursing homes calls for a different choice of screening techniques and tools. For example, the use of the Pre-Admission Screening and Annual Resident Review (PASARR) system

increases the reliability and validity of assessing for depression in elderly patients admitted to nursing homes (Lantz, 2019). Also, the Patient Health Questionnaire-9 (PHQ-9) screening tool is appropriate in assessing the level of distress and other forms of impairment in aging and depressed patients (Levis, Benedetti, & Thombs, 2019). In essence, the use of proper tools in the recognition and treatment of depression helps the nursing home staff manage the condition in elderly subjects.

Depression in nursing homes poses new challenges and demands for staff and nursing professionals. The project is meant to change the nursing home environment and the approach to the acknowledgment and handling of depression among the old by enhancing licensed nurses and CNAs ability to recognize symptoms. The use of reliable techniques such as the PHQ-9 screening tool helps recognize the positive symptoms of depressive ailments in the aged (Levis et al., 2019). The proper recognition of symptoms leads to the identification of the appropriate treatment plan. The determination of the treatment strategy relies on the severity of the condition. Nursing home staff influence the psychotherapeutic or the pharmacological approach in the treatment of depressed patients. These amenities are long-term care facilities, and the care settings should be well equipped to deal with a heterogeneous population. This idea means that facilities and treatment plan should adapt to low and high-reliance patients in nursing homes. For example, the creation of high-dependency facilities helps the elderly and staff deal with the increasing need for care and support. In essence, nursing home staff should be equipped with the right personnel and equipment to aid in the recognition of depressive disorders as well as treatment.

Part of the treatment plan involves the educational training of licensed nurses and CNA staff. The nurses in long-term care facilities receive extensive training on the administration and interpretation of PHQ-9 for the patients. The rating scales from this tool are crucial in the adherence to treatment schedules. Nurses are vital to decision making; thus, their contribution to the treatment of depression is an incentive to nursing homes and the healthcare system to provide education opportunities for their nursing staff on depression. Depression is a leading cause of disability and major contributor to disease burden worldwide. Treatment of depression is key to improving the overall wellbeing of afflicted patients (WHO, 2018).

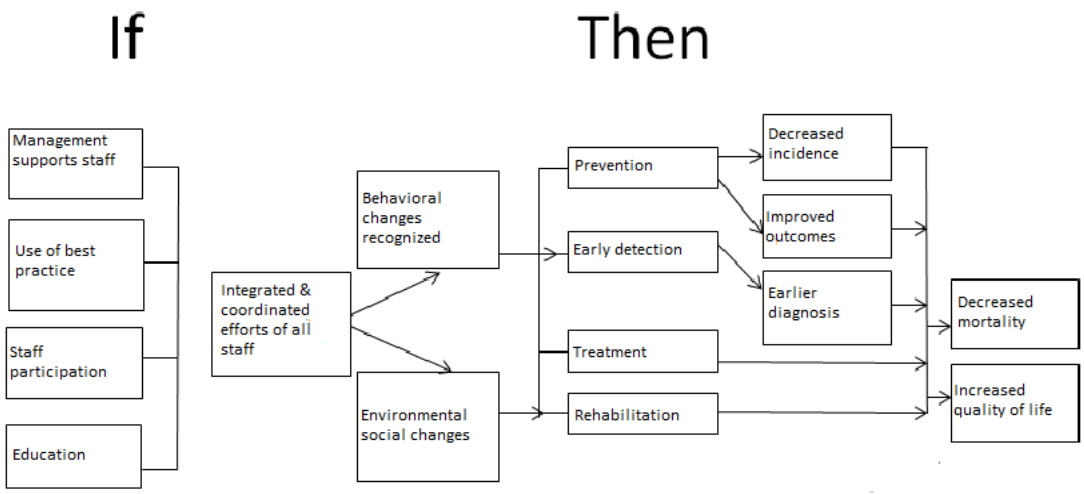
The Agency for Healthcare Research and Quality (2018) asserts that patient care and safety are crucial to nursing homes. Training modules focus on the home conditions and the patient status, which in turn reduces injuries and other adverse outcomes such as patient suicides. Theoretical perspectives assert that the occurrence of depression for the elderly is attributed to social withdrawal and decreased physical activity that hinders the patient's autonomy (AHRQ, 2018). Therefore, different training modules for nursing home staff are centered on professional education and the interaction between the patient and the environment.

The project's focus was on the improvement of patient outcomes in nursing homes. Appreciation and dealing with depression rely on the improvement of preparation and teaching of the nursing home licensed nurses and CNA staff in these facilities. The primary focus of the logic model is an explanation of the integration and maintenance of change in nursing practice. To implement change in nursing, there is a need to communicate the recommendations to the relevant stakeholders. The involvement of the

stakeholders helps in assessing the organization's standards and the alignment of goals. Quality reviews are part of the integration process since they monitor and evaluate the outcomes. For nursing homes, the training of personnel is crucial in the attainment of positive patient outcomes and a reduction in cases of depression.

Figure 2.

Logic Model of Scholarly Project:



Note: This model shows the possible assumed outcomes if management and staff are educated using best evidence-based practice. The perceived end result is decreased mortality and increased quality of life.

Chapter Conclusion

Depression is prevalent in nursing homes. The nurses and staff in nursing homes fail to recognize and treat depressive conditions since elderly patients have different physical, cognitive, and mental needs than younger patients. To improve the living conditions of the elderly in nursing home setting, there is a need to improve the techniques used in the detection, as well as treatment of depression patients. The failure

to recognize and treat depression can lead to devastating effects on the patients. Depression among the elderly is attributed to multiple disorders such as anxiety, cognitive impairment (dementia), and other conditions that subsequently reduce the quality of life. Unattended depressive disorders can increase risk of mortality and other impairments in the patients. The elderly suffers deficits in self-care, and nursing home staff should engage in the practices to avoid a downward spiral in depression symptoms. In essence, depression in nursing homes is a significant health concern that requires nursing intervention in the treatment and management of the condition.

As a mental and psychological condition, depression in nursing homes is often underdiagnosed or over-treated. The application of the logic model helps in the identification of proper techniques and tools to recognize of depression symptoms. The nursing home staff should be able to screen and interpret the scales in depression measures. Besides the treatment, these professionals require education regarding recognition of the symptomology of depression. Nursing education and training is a significant part of transforming nursing homes since it helps in the management of the condition as well as ensuring patient safety and general wellbeing. Therefore, education programs should be encouraged to ensure staff in these facilities are well-informed and properly equipped with the knowledge to attend to the elderly population appropriately. In the process, the elderly will have a platform for managing conditions associated with depression.

Chapter II

Literature Review

Depression has been identified as one of the most notorious illnesses afflicting people of all ages, especially the elderly. In particular, studies in mental health of the elderly demonstrate that the highest rates of depression exist among the elderly living in nursing homes and long-term care facilities (Kaushal et al., 2019). Adding to the challenge of the high prevalence rate of this condition among the elderly is the high rate at which it goes undetected and eventually untreated, causing high mortality and morbidity rates, increased suffering among these people, and the development of suicidal feelings. For that reason, the topic of late-life depression has been extensively researched in the literature. This literature review was broad to gain insights into the nature of depression among adults residing in nursing homes. The literature review will discuss the scope of depression among the elderly in the entire population, the details about the increasing rates of depression among the elderly, and the treatment failures and gender differences as contributors to the late-life depression of these people when taken to nursing homes. The literature review will also investigate the scope of education for nursing home staff focusing on CNAs particularly as licensed nurses are required to pass a national exam that assesses knowledge of essential nursing care.

Search Parameters

The literature review includes information from several databases and websites. The primary search engine utilized is Pittsburg State University's Axe Library Summon. Searches were limited to full text, peer reviewed, and published in the last 5 years. Searched terms include: depression, depression knowledge test, nursing home depression, long term care depression, elderly depression, depression education, depression screening tools, nursing home staff education, CNA education, CNA training, and CNA qualifications.

Scope of Depression Among the Adults

The rates of depression and suicide among the adults living in the United States has been on the upward trend, whereas the age at which major depression occurs is steadily decreasing (Giri et al., 2016). This trend has been in existence for the past few years, even though new, better, and safer-tolerated medications have been discovered. In fact, Gonyea et al. (2018) estimated that a significant proportion of adults in the United States, approximately one in six people, including the elderly will experience a depressive disorder or have depressive symptoms before the year 2020 comes to an end. Existing statistics on lifetime prevalence of depression differed from one study to another. For example, Weinberger et al. (2018) reported that the lifetime prevalence of depression stood at between 2.5 and 5 percent among males while it was between 6 and 11.9 percent among females. At the same time, Weinberger et al. (2018) reported the lifetime prevalence of lifetime depression for an extreme depressive condition was at about 10 percent among both females and males. Also, Weinberger et al. (2018) noted the lifetime prevalence rate for a significant depressive condition alone stood at about 18 percent, thereby translating to approximately between 30 and 33 million adults.

Existing studies indicate that the state of depression among the elderly differs, but most adults are neither severely depressed nor demented. Zalavadiya et al. (2017) carried out a cross-sectional study in Western India to compare the epidemiological factors related to depression among the elderly residing in nursing homes. They discovered that the elderly admitted to nursing homes were more depressed than those in the community health facilities. At the same time, it was established that older age people, especially those with a history of addiction, impaired sleep, lack of prayers, absence of recreational activities, as well as those with weaker family ties, had higher chances of being depressed. More health complaints were found among people who were depressed compared to those who were not. In a different study carried out by Giri et al. (2016), it was established that physically healthy adults have the lowest rates of substance abuse, anxiety, and depression. Nevertheless, Mitchell et al. (2017) differed with these findings and noted that of the over 30 million elderly in the United States, nearly 5 million of them suffer from chronic and frequent depressive conditions despite health-related factors.

Increasing Rates of Depression Among the Elderly

As the global population ages rapidly, so does the rate of depression among elderly people. In a cross-sectional study, Chauhan et al. (2016) attempted to establish the prevalence rates of depression among elderly individuals living in India. By using the semi-structured questionnaire to assess the risk factors and socio-demographic characteristics of depression, the researchers discovered that of the 290 elderly people who responded to the questionnaire, nearly 9.3 percent of them were depressed. At the same time, it was established that depression was significantly correlated with the

physical dependence for daily lives, economic interdependence, co-morbid conditions, and increased age.

In a different study, Kaushal et al. (2019) studied the increasing rates of depression among elderly people staying in nursing homes. According to these researchers, India has witnessed a rising population of the elderly. The statistics they quote reveal the country now has over 104 million people with the elderly population growing from approximately 12 percent in 2015 to an estimated 22 percent by 2050. For this reason, upon carrying out a systematic review, they discovered the prevalence of depression among the elderly population stands at 21 percent because of factors such as financial dependence and illness loneliness which make them more prone to depression in comparison to the total population. Therefore, in order to examine the frequency of depression among the elderly people staying in nursing homes, the researchers randomly chose 3 homes from which 50 elderly people were selected by means of a random sampling technique. The results of this study indicated that more males exhibited high rates of depression compared to their female counterparts who showed mild depression. At the same time, it was reported that those participants who were financially dependent had higher depressive symptoms than those who were independent with higher rates of this condition being reported among residents living in old age homes.

It is apparent that the depression rate is greatest among the elderly population staying in long-term care facilities. Some scholars, such as Erdal et al. (2017) reported that nearly 59 percent of the elderly staying in nursing homes were depressed and other researchers such as Perkkiö et al. (2019) reported a prevalence rate of a significant depressive symptom was at 14.4 percent with the incidence of a minor depression being

16.8 percent. In addition to those elderly people already having depression, studies reported another 15 percent of the geriatric patients living in long-term care facilities show depression symptoms but did not meet the criteria for being identified as having a significant sign of depression. Some scholars have referred to such depressive symptoms as minor depression, which contributes to disability and distress since significant depression is often overlooked by medical practitioners.

Women and Depression

It is evident in the literature that the highest rates of depression are reported among women. Ali et al. (2019) found nearly 50 percent of people residing in nursing homes are women and display depressed symptoms upon being admitted to the nursing homes or long-term care facilities. During the middle-aged span of life, Cornish et al. (2017) acknowledge that women experience depression at twice the rate at which their male counterparts experience it. A study carried out by Kuehner (2017) demonstrated the proportion of women suffering from depression was greater than the proportion of men experiencing depression. The same study revealed the rate of dysthymia among women was greater than that of men. At the same time, studies have found out that women are five times as likely as men to experience depression after being injured. For instance, the study by Kuehner (2017) indicated that women are twice as likely as their male counterparts to be depressed after myocardial infarction. In addition, it is thought that women are at a higher risk of having recurring and long-lasting depression.

Primary Care and Depression

Through the frequency of depression among adults admitted in the primary care facilities, and among the studies that were reviewed in this study, it was established the

incidence of depression was not greater among the elderly than among younger people. As out-patient older adults start aging, it is revealed that they would require admission in long-term care facilities at some point in their lives. It was discovered that among the elderly admitted in primary care facilities, about 10 percent of them meet the criteria for having a significant depression symptom, with another 30 percent demonstrating the presence of significant depressive symptoms that need further diagnosis and treatment (Pramesona & Taneepanichskul, 2018). Other studies have investigated patients admitted to primary care facilities and discovered there was a high percentage of depression among people exposed to primary care facilities (Erdal et al., 2017).

Treatment Failure and Cases of Depression

The subject of chronic depression and treatment-resistant depression has gained momentum in the past few years and has increased the influence of human suffering as most people have been identified as being non-responsive to treatment. As a result, this problem has raised the eyebrows of medical practitioners as those people who become resistant to medication grow old eventually, thereby contributing to the growing number of elderly people being identified as being depressed. Long-lasting types of depression include illnesses, such as recurrent depressive disorder, double depression, dysthymic disorder, and major depressive disorder. Garay et. al (2017) discovered a significant proportion of depressed people fail to respond adequately to medicines even when they are given adequate dosage. Among those who were unable to respond to medication, approximately 26 percent of them were utterly non-responsive.

Elders in Nursing Homes

Research demonstrates the incidence of depression is relatively high among the elderly admitted to nursing homes or long-term care facilities. Studies have shown that among the elders living in nursing homes, up to 78 percent of them have incidences of depression (Levin, et al., 2007). In addition to those elderly people in nursing homes reporting rates of depression, almost 15 percent of them have significant depressive symptoms that demand further studies. In another study, Damian, J. et al. (2017) reported a high percentage of the elderly admitted to the nursing homes showed signs of depressive symptoms.

Contributors to Late-Life Depression

Depression is now regarded as one of the most treatable illnesses, with nearly half of the patients treated for the condition reporting decrease in their depressive symptoms. Discrepancies have been noted between the provision of treatment and the availability of treatment options within disadvantaged populations, a significant causative factor for the rate of under treated depression (Levin, et al., 2007). While there is a high prevalence rate of behavioral and psychiatric problems among elderly people residing in nursing homes, most of these people do not always get adequate mental healthcare services they deserve. The Patient Health Questionaire-9 (PHQ-9) is a contributor to mental healthcare inadequacy in nursing homes (Juman & Figlerski, 2017). The PHQ-9 is an evidence-based tool, but the data is self-reported by the patient, which can lead to misinformed assessments when the tool is administered by staff that can be spread thin due to staffing limitations (Juman & Figlerski, 2017).

The shortage of mental health providers is another factor contributing to under diagnosed and under treated late-life depression. In the United State for example, there

have been different incentives or disincentives that have immensely affected the availability of mental health services to Americans (Ashcroft et al., 2014). Adequate training and financial aspects of mental health care can be both incentives and disincentives for treatment depending on the viewpoint of the stakeholder. Improved training gives the healthcare worker a better understanding of mental health issues, but there is time to educate and the cost of education that also must be factored in (Ashcroft et al., 2014).

Impacts of Depression

If depression goes untreated, it can cause other physical and psychological disorders and can even lead to death. Researchers such as Nelson and Spyker (2017), explained undiagnosed and untreated depression hastens disability and worsens physical symptoms. Additionally, Chauvet-Gelinier and Bonin (2017) stated depression increases the risk of cardiac mortality in victims with or without cardiac illnesses in the first place. Other researchers who studied the same topic discovered the risk for cardiac death was twice as high in significant depressive symptoms just as it is for the minor depressive symptoms. At the same time, studies have demonstrated that elderly people aged over 65 years have higher chances of committing suicide when compared to other age groups. For example, the study by Chatterjee et al. (2017), noted that the highest suicide rate among the elderly occurs mostly among the oldest people in this age group with increased incidence among people aged 85 years and older. Thus, in addition to hastening disability, depression also increases the chance of depressed individuals to commit suicide.

Depression Education for Policy Change in Nursing Homes

The findings from the literature indicate that there is a lack of knowledge among healthcare providers in late-life depression. Continuous educational sessions in this area are warranted for healthcare workers, especially those in nursing homes. In fact, existing evidence indicates that a lot has been done in this area on how depressed patients can use personal support services to reduce the symptoms of depression. Existing studies have concentrated on nurse-led depression education among the elderly in nursing homes as well as collaborative teaching to help depressed individuals manage depression. Notably, Abrams et al. (2016) conducted research on a training program meant to improve understanding of depression in long-term care facilities and nursing homes. The aim of this study was to refine the current training initiative for nurses working in nursing homes and provide evaluative knowledge. In this study, three major training modules offered a summary of the symptoms of depression. Then researchers used paired t-tests and chi-square tests to assess change in knowledge. It was established that those who participated in the study gained increased knowledge in the detection, recognition, treatment practices, and differential diagnosis for those individuals at risk for developing depressive challenges.

In addition to a training program, interventions such as religion can be used as a useful intervention to help depressed elderly people in nursing homes. For example, Pramesona and Taneepanichskul (2018) carried out a study to assess the influence of the spiritual intervention on value of life and depressive symptoms among the elderly residing in nursing homes based in Indonesia. In particular, the researchers prepared a quasi-experiment utilizing repeated measures. The researchers recruited up to 60 elderly people admitted to three nursing homes in Indonesia with a scale of 5 to 11. Notably,

these participants were recruited and the purposely assigned to a religious group for intervention. The main result was depression measured using a questionnaire on a scale of between 5 to 11. Importantly, it was established that there was a significant decrease in depressive scores after the participants were exposed to an intervention plan for approximately 12 weeks. The researchers ended up concluding that religious-based intervention was a helpful tool in plummeting symptoms of depression among elders residing in nursing homes.

Licensed Nurse and CNA Education and Training

Licensed nursing staff must complete an accredited program and pass a national board exam to work as a Licensed Practical Nurse (LPN) or a Registered Nurse (RN). LPN programs can be completed in approximately one year while RN programs can be completed in two years for associate degree or four years for bachelor's degree. LPN or RN educational programs must meet specific criteria to become accredited. An accredited nursing program adheres to national standards. These standards include requirements for psychological content which includes information on depression.

CNA training, while still important, is less rigorous and the variances between states can be very significant. The states board of nursing sets the education requirements for CNA programs. Federal regulation requires a minimum of 75 classroom and clinical hours ("State Nurse Aide Training: Program Information and Data", 2002). Certified Nurse Aide training can vary depending on the organization offering the training due to the vague parameters set forth by the state. The Kansas Department for Aging and Disability Services (2021) CNA instructor manual outline training targeting basic ADL needs with vague psychiatric education concerning "dementia and problem behaviors."

Trinkoff et al. (2017) notes that training requirements between states influences patient outcomes in nursing home. There is a positive correlation with nursing homes in states with higher education requirements and better health outcomes for the elderly (Trinkoff et al. 2017).

Delivery of Education

Current training methods of nursing home facilities is a factor that needs to be considered, but it is also important to consider the method of education delivery as the primary goal of this project is to develop and administer education to improve the recognition of depressive symptoms with the anticipated effect of improving depression outcomes. The use of a video presentation, PowerPoint presentation, or oral presentation are all viable options of providing education but is one method more effective than another? The method of education delivery can be just as important as the material being presented. If the method of delivery does not resonate with the intended audience, the retention of material can be put into question.

The literature has sparse information relating to the training methods used by facilities to educate their staff on depressive symptoms. Beuscher and Dietrich (2016) performed a pilot study analyzing the aftereffects of staff recognition of depression following a focused training course. Their study found that staff knowledge of depression increased, however, recognition of residents with symptoms of depression did not increase. Bing-Johnson et al. (2016) found that competence with nursing home care has a positive correlation with level of training with RNs being most competent and support staff being least competent. Beuscher and Dietrich (2016) note that staff expressed a

desire for more information relating to depression following their training which could relate to improved recognition of depressive symptoms if provided.

One aspect to consider with education delivery methods is whether the intended audience is familiar with the medium. Moulton, Türkay, and Kosslyn (2017) as well as Alpert and Hodkinson (2019) found that students were more accepting of the learning process when utilizing familiar formats although it did not relate to improved understanding of the subjects presented. Overall, little difference in knowledge acquisition has been found when comparing video presentations and PowerPoint presentation formats. Although a newer education tool, Prezi has been found to be increasingly effective as an education tool and has had more favorable results than other presentation methods (Moulton, Türkay, & Kosslyn, 2017; Safar, 2015). Prezi is an educational tool that allows the presenter to present information in a non-linear format which causes the audience to be more engrossed in the learning process stimulating thought processes (Safar, 2015). However, cost must be a factor when considering presentation methods and Prezi is an expensive option.

Chapter Conclusion

Overall, there is no doubt that depression is one of the most common illnesses inflicting people of all ages, especially the elderly. In fact, studies in this area have demonstrated that the highest rates of depression exist among the elderly living in nursing homes. In addition to the fact that depression is exceedingly prevalent among the elderly in nursing homes, reviewed studied revealed that it goes undetected and eventually untreated, causing high mortality and morbidity rates, increased suffering among these people, and development of suicidal feelings. The literature review offers insights into the

intricate nature of depression among adults residing in nursing homes. The review of the literature provides discussing the scope of depression among the elderly in the entire population, then moved to study the prevalence rates of depression among the elderly and then a discussion on the gender differences as contributors to late-life depression of these people when taken to nursing homes.

It was noted that depression, suicides, and depression among the adult, especially those living in the United States of America have been on the upward trend. Thus, it was apparent that as the global population ages rapidly, so does the rate of depression among elderly people. While depression affects people from all genders and races, it was determined in the literature review that the highest standards of depression are reported among women compared to men. It was also noted that a shortage of mental health providers is a significant factor contributing to late-life depression.

Chapter III

Project Design

The purpose of this project was to ascertain whether providing education to licensed nurses and certified nurse aide staff in nursing homes results in an increased awareness and recognition of depression and depressive symptoms among the nursing home population. A descriptive research design was used to identify knowledge of nursing staff in long-term nursing home facilities before and after depression and depressive symptom education.

Methods

The study utilized a one-group pre-test/post-test design with nursing home staff that interact with nursing home residents during a normal workday. Demographic data was obtained related to gender, age, ethnicity, education, and employment status. The method of data collection selected is chosen to compare pre-test scores and post-test scores following an educational presentation regarding depression and depressive symptoms. Participants were invited to participate in a pre-test depression knowledge test (See Appendix B) constructed and utilized by Gabriel & Violato (2009) that was adopted for this study. A presentation was developed with Microsoft PowerPoint by creation of a voice-over presentation (See Appendix C) and converted to a Youtube video. The pre-test

was administered prior to the depression education intervention and the post-test (See Appendix B) was administered following the depression education.

The pre-test/post-test was administered using Google Forms on the internet. The educational presentation was accessed through a YouTube video embedded into Google Forms. Instructions were provided for all participants to access and complete the pre-test, watch the PowerPoint presentation, and then take the post-test at the appropriate web address. The end goal is for the results of the project to be utilized to improve nursing home staff education throughout multiple facilities. The development of a short educational presentation can be essential to help staff recognize untreated depressive symptoms in nursing home populations. Effective educational material that is cost effective could help reduce medical costs by treating symptoms before they manifest into more serious conditions.

There are many research designs that can be utilized to study phenomena. A descriptive research design, utilizing a survey method, will produce quantifiable data for statistical analysis (Aggarwal & Ranganathan, 2019).

Project Questions

Research Questions

1. What knowledge of depression do licensed nurses and CNAs working in nursing homes possess prior to reviewing the educational PowerPoint?
2. Can an educational presentation over depression increase the recognition of depressive symptoms in nursing home residents by nursing home licensed nurses and CNA staff?

3. Does a higher educational level of licensed nurses and CNAs have a positive correlation with increased knowledge of depression?

Sub-Research Question

1. Can nursing home licensed nurses and CNAs identify risk factors of depression? (See Appendix B survey questions 2,4,5,6,8,9)

Project Site and Population

The study was conducted at three Southeast Kansas nursing home facilities. The pre-test/post-tests were adopted from a tool available through open access research performed by Gabriel and Violato in 2009. Convenience sampling was employed for the staff participating in the project and the number of participants was determined by the available staff at each facility with 30 subjects participating in the study. Licensed nurses and CNA participants were included in the study if they were between the ages of 18-60 and have direct interaction with nursing home residents during their normal workday.

Participation in the study was voluntary and participants received no compensation. It was expected for individuals to complete the pre-test survey, receive education on depression, and then complete the post-test survey during the same day. Participants were advised that they may remove themselves from the study at any time without fear of reprisal.

Data Collection

Measurement Instruments. The pre and post-tests were adopted from the Depression Knowledge Test (DKT) that was developed by Gabriel and Violato in 2009. The DKT was created by Gabriel and Violato (2009) to assess the knowledge level of healthcare workers and patients with depression. The DKT consists of 27 multiple choice

questions in total ranging from general presentation of depressive symptoms to confounding issues in depressed individuals. The DKT was used in its entirety and no changes were made to the tool.

Ethical Considerations/Protection of Human Subjects

Participants had to volunteer to contribute to the study. The benefits and risks of the study were provided to each study participant prior to initiation. Identifiable data was not collected. Study participants were nursing staff of nursing homes that have direct contact with the residents of the facility. The three basic principles of human subject protection (respect for persons, beneficence, and justice) were observed. IRB approval was obtained from the School of Nursing and the Pittsburg State University IRB committee prior to conducting study and interacting with study participants. Written approval to complete the study in the three nursing home facilities was also obtained before implementing the project.

Data Analysis

Reliability and Validity. The educational presentation was developed through a review of the most recent literature regarding the subject. The DKT was found to produce a Cronbach alpha of 0.68 for internal consistency reliability and was determined to have content and convergent validity (Gabriel & Violato, 2009). Cronbach alpha is a measure of internal consistency or reliability of a set of test items (Goforth, 2015). Goforth (2015), from the University of Virginia states, “methodologists recommend a minimum alpha coefficient between 0.65 and 0.8” for a measure to be considered “good” with higher alpha coefficients conferring higher reliability.

Analytical Methods. Demographic data was analyzed using descriptive statistics: number of subjects, educational level, gender, age, and ethnicity. A paired t-test for summative average was performed using SPSS software to compare average scores of survey responses pre- and post-depression education.

Timeline

Data collection began upon approval from the IRB committees and concluded once 30 pre and post-tests had been obtained. Introductory sessions were held at nursing homes in the southeast Kansas area to introduce the author of the study and explain the process of accessing the pre-test, educational presentation, and post-test to volunteer participants. Data analysis was conducted once participants had completed the pre-test, educational presentation, and post-test. No identifying factors were included in the reporting of data. No compensation was provided to participants or participating facilities.

Assumptions

Multiple assumptions are made for this project. It is assumed that licensed nursing and CNA staff working at nursing homes in Southeast Kansas have undergone education and training to be employed in their current position. It is also assumed participants answered test questions honestly and to the best of their ability.

Budget

Time was an expense for introduction of the study to potential participants at participating nursing home facilities. Participants incurred no monetary cost by participating in the study. Participants and nursing home facilities were required to

donate time for introductions, explanation, and completion of the educational presentation and testing of the study.

Strengths and Weaknesses

Strengths of the study are in the use of a pre-test to determine current level of knowledge of participants compared to the post-tests following educational presentation to determine knowledge gained. Another strength of the study is the voluntary nature of participants as they are motivated by their own interests rather than influence of this researcher. Also, internal validity can be undermined by having no control group. Other potential weaknesses are the educational level of the study participants as well as their ethnic/cultural background, all of which can influence a participant's perception of depression.

Chapter IV

Findings

Introduction

The purpose of this project was to help determine whether providing education to licensed nursing and CNA staff in nursing homes results in an increased awareness and recognition of depression and depressive symptoms among the nursing home population. The project was approached by administering an anonymous pretest/posttest survey through Google Forms. Participants were informed that they may stop participating at any time during the survey and no data from incomplete forms was used for the project. The anonymous survey included demographic questions, multiple choice questions, and a short educational PowerPoint.

Demographics

The survey was offered to licensed nursing and CNA staff at three Southeast Kansas nursing homes. Staff at the participating facilities were informed of the study by the researcher. Information regarding the study and with directions of how to participate were posted at the time clocks with facility administration permission. Staff who were present during the site visits were encouraged to inform co-workers of the study to reach the maximum number of potential participants in the facilities. The combined clinical staff population for all three facilities was 212. Site visits were concluded on June 15th,

2021. First data was collected on June 17th, 2021, and the final data collected occurred on June 29th, 2021. Data collection concluded when 30 participants completed the survey. Demographic data collected from participants included their age, education level, gender, ethnicity, and employment status. Demographic data is presented in Table 1.

Table 1.
Demographic Data
(N=30)

Characteristic	*n*	*%*
Gender		
Male	1	3.3
Female	29	96.7
Ethnicity		
Caucasian	26	86.7
Hispanic	4	13.3
Age		
18-24	7	23.3
25-34	9	30
35-44	11	36.7
45-54	2	6.7
55-64	1	3.3
Education		
Some High School	2	6.7
High School Graduate	11	36.7
Vocational Training	10	33.3
Associates Degree	4	13.3
Bachelor's Degree	1	3.3
Other	2	
Employment		
Full Time	27	90
Part Time	2	6.7
PRN	1	3.3

Note. This table illustrates the demographic breakdown of participants within the characteristics of gender, ethnicity, age, education, and employment status. The left column denotes the number of participants in the respective category. The right column denotes the percentage of the sample population for the respective category.

Description of Key Variables

The primary goal of the study was to determine the depression knowledge of licensed nursing staff and CNA's while also measuring if there was an increase in depression knowledge following an educational PowerPoint presentation. Current knowledge was measured with a pre-test. Any increase in knowledge was measured with a post-test following the educational PowerPoint. The dependent variable is the depression knowledge of licensed nursing and CNA staff, and the independent variable is the educational PowerPoint.

Pre-test and Post-test

Participants of the study were provided a pre-test immediately prior to an educational PowerPoint followed immediately by a post-test. Scores were only collected once all questions in the pre-test and post-test were answered. Participants who did not complete the pre-test and post-test were not included in the study results. Test scores were anonymous with the only identifier being the order in which results were collected. Both pre-test and post-test contained the same 27 multiple-choice questions. One of the multiple-choice questions asked the participants to "select all that apply" this resulted in the highest possible score for both the pre and post-test being 28. The educational PowerPoint presentation was approximately 12 minutes in length.

Research Question Results

Research question one, *What knowledge of depression do licensed nurses and CNAs working in nursing homes possess prior to reviewing the educational PowerPoint*? sought to determine the current knowledge of depression that licensed nurses and CNA's working in a nursing home possessed prior to reviewing the educational PowerPoint. The

testing instrument has an established standard of 78.7% for participant satisfactory performance established by Gabriel and Violato (2009). Pre-test scores ranged from 10-27 correct answers out of a possible 28 correct answers. A total of 16 of the 30 participants (53%) achieved a pre-test score of 22 or greater representing satisfactory performance. The mean pre-test score was 22.4 with a standard deviation of 3.45014. An average of 80% was achieved by the participants on the pre-test.

Research question two, *Can an educational presentation over depression increase the recognition of depressive symptoms in nursing home residents by nursing home licensed nurses and CNA staff?* sought to determine if the educational presentation over depression would increase the recognition of depressive symptoms in nursing home residents by nursing home licensed nurses and CNA staff. A one tailed test design was appropriate for this study to measure the one directional effect of post-test scores following an educational presentation (Birkett, 2020). Post-test scores ranged from 20-27 correct answers out of 28. A total of 26 of the 30 participants (86.6%) achieved a pre-test score of 22 or greater representing satisfactory performance. The mean post-test score was 24.2333 with a standard deviation of 1.95965. An average of 86.5% was achieved by the participants on the pre-test. Tables 2, 3, and 4 illustrate these findings.

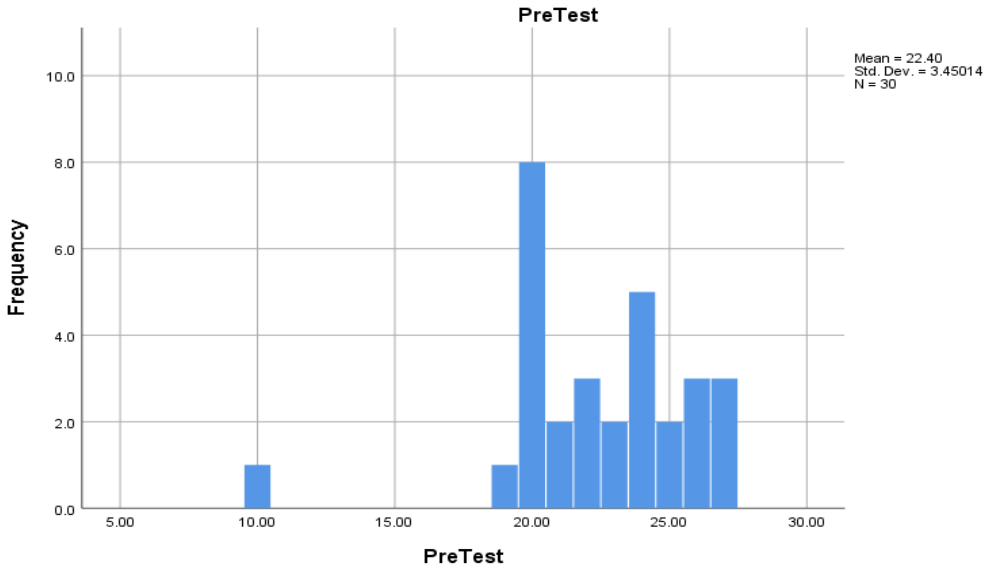
Table 2. Pre and Post-Test Side by Side Comparison

Statistics

		PreTest	PostTest
N	Valid	30	30
	Missing	0	0
Mean		22.4000	24.2333
Median		22.5000	24.0000
Std. Deviation		3.45014	1.95965
Variance		11.903	3.840

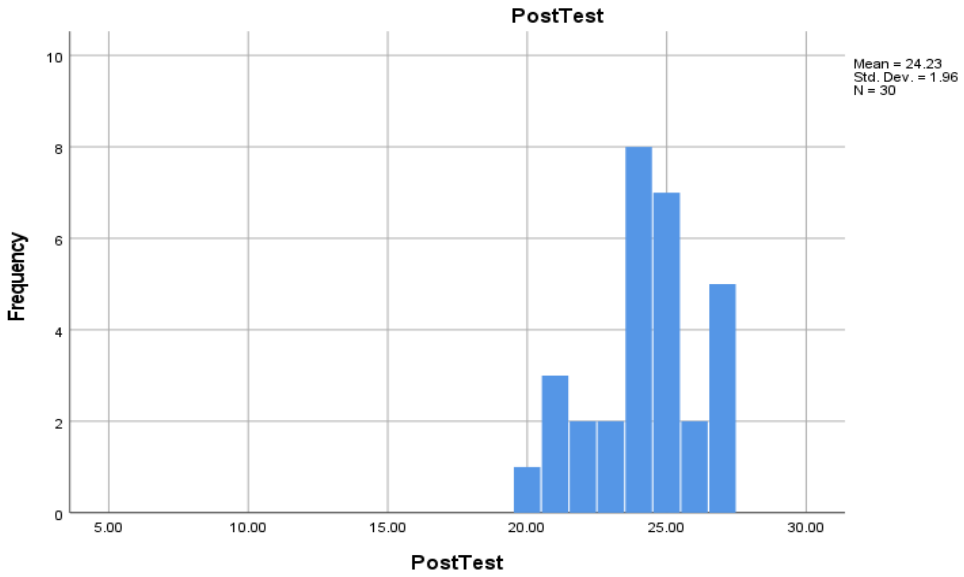
Note. This table displays the mean, median, standard deviation, and variance of the pre and post-test.

Table 3. Pre-test Results Histogram



Note. This table displays pre-test scores and the frequency scores occurred within the sample population.

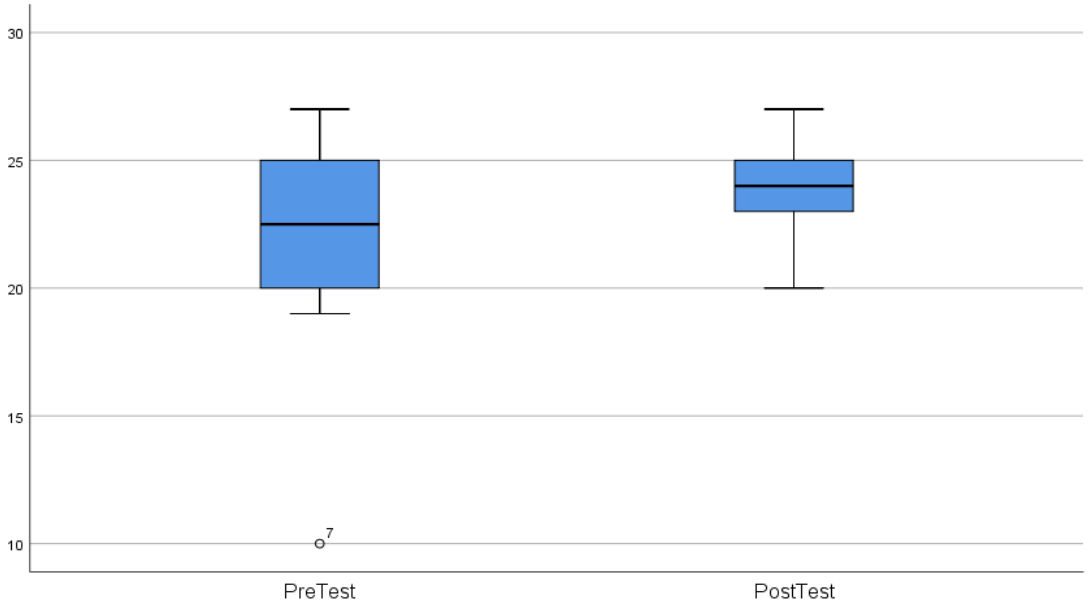
Table 4. Post-test Results Histogram



Note. This table displays post-test scores and the frequency scores occurred within the sample population.

A paired samples t-test is used to compare the means of two measurements taken from the same data source (Kent State University Libraries, 2021). Data requirements must be met for a paired samples test. According to Kent State University Libraries (2021), the dependent variable must be continuous, subjects in both groups must be the same, the data is obtained from a random sample of the population, there is a normal distribution of the difference between the paired values, and there must be no outliers in the difference between the two groups. Determining the presence of outliers in the data must be done to determine if data should be excluded. A boxplot is a standardized way of viewing the distribution of data and can help identify if there are outlier values. An outlier is a value that differs substantially from the rest of the data. A boxplot for pre-test and post-test data is displays in Table 5. The pre-test score of 10 is identified as an outlier in the pre-test data.

Table 5. Boxplot of Pre-test and Post-test.



Note. This table displays the distribution of scores on the pre-test and post-test. The pre-test score of 10 is identified as an outlier.

A paired samples t-test was performed to determine significance of post-test scores following the educational presentation. The participant's data with the outlier score of 10 on the pre-test was omitted for the paired samples test. The critical value for t distribution with 28 degrees of freedom is 1.701. The paired samples test for the pre-test and post-test scores produced a t value of 3.449. The p value of the paired samples test is less than 0.05. The data indicates a statistical significance between pre-test and post-test scores ($t_{28}=3.449$, $p<0.001$). The paired samples t-test is displayed in Table 6. A comparison of pre and post-test scores is displayed in table 7.

Table 6. Paired Samples t-Test

Paired Samples Statistics

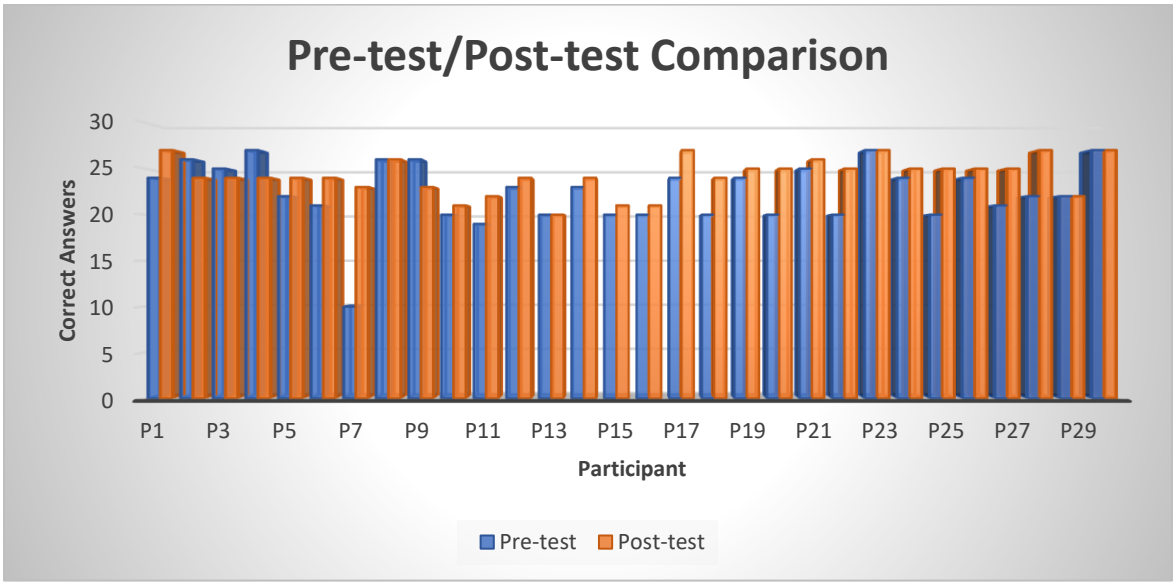
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PostTest	24.2759	29	1.98020	.36771
	PreTest	22.8276	29	2.57833	.47878

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	PostTest - PreTest	1.44828	2.26126	.41991	.58814	2.30841	3.449	28	.002

Note. This table displays the paired samples test results for the pre and post-tests.

Table 7. Pre-test/Post-test Score Comparison



Note. This table displays pre-test (blue) and post-test (orange) scores per participant. Higher post-test scores can be observed with this graphic.

Research question three, *Does a higher educational level of licensed nurses and CNAs have a positive correlation with increased knowledge of depression?* sought to determine if a higher level of education equated to a higher score on the pre-test. Within the sample population there were two that indicated some high school education, 11 high school graduates, 10 that had received some vocational training, four with an associate degree, one with a bachelor's degree, and two indicating other education. The highest scoring participant and the lowest scoring participant identified as having an associate degree.

To determine the relationship between participant pre-test scores and their educational level, it is important to determine the type of data obtained. The pre-test scores can be identified as ratio data as the difference between two values is meaningful and there is a defined zero point. The participants level of education can be viewed as ordinal data. The perceived order of education would be some high school, high school

graduate, vocational training, associate degree, and bachelor's degree. Participants that identified their educational level as "other" were omitted due to the inability to determine the order of educational level this category presents. A Spearman's rank-order correlation was chosen since the data was ordinal in nature.

A Spearman's rank-order correlation was performed to determine the relationship between participants educational level and pre-test scores. The ratio data of the pre-test scores was correlated with the ordinal data of the educational level of participants. A one tailed test was utilized to due to the one directional effect of educational level on pre-test scores. There was a weak, positive correlation between participants educational level and pre-test scores, which was not statistically significant ($r_s(28) = .295$, $p = .064$). Correlations of pre-test scores and educational level are displayed in table 8. A scatter plot of pre-test scores by educational level is displayed in table 9.

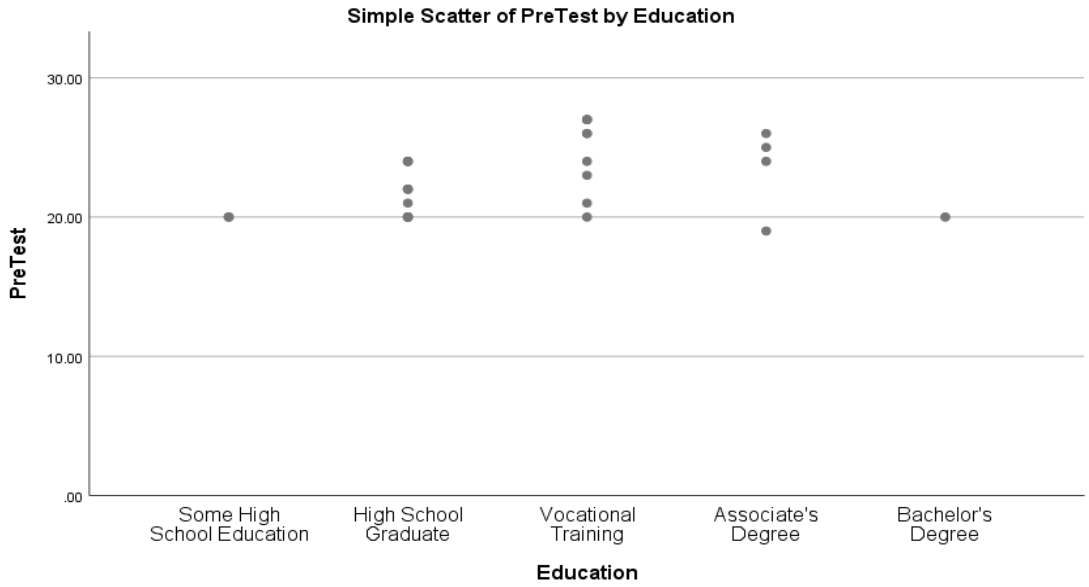
Table 8. Spearman's rho correlations.

Correlations

			PreTest	Education
Spearman's rho	PreTest	Correlation Coefficient	1.000	.295
		Sig. (1-tailed)	.	.064
		N	28	28
	Education	Correlation Coefficient	.295	1.000
		Sig. (1-tailed)	.064	.
		N	28	28

Note. The table displays the correlation between pre-test scores and educational level of participants.

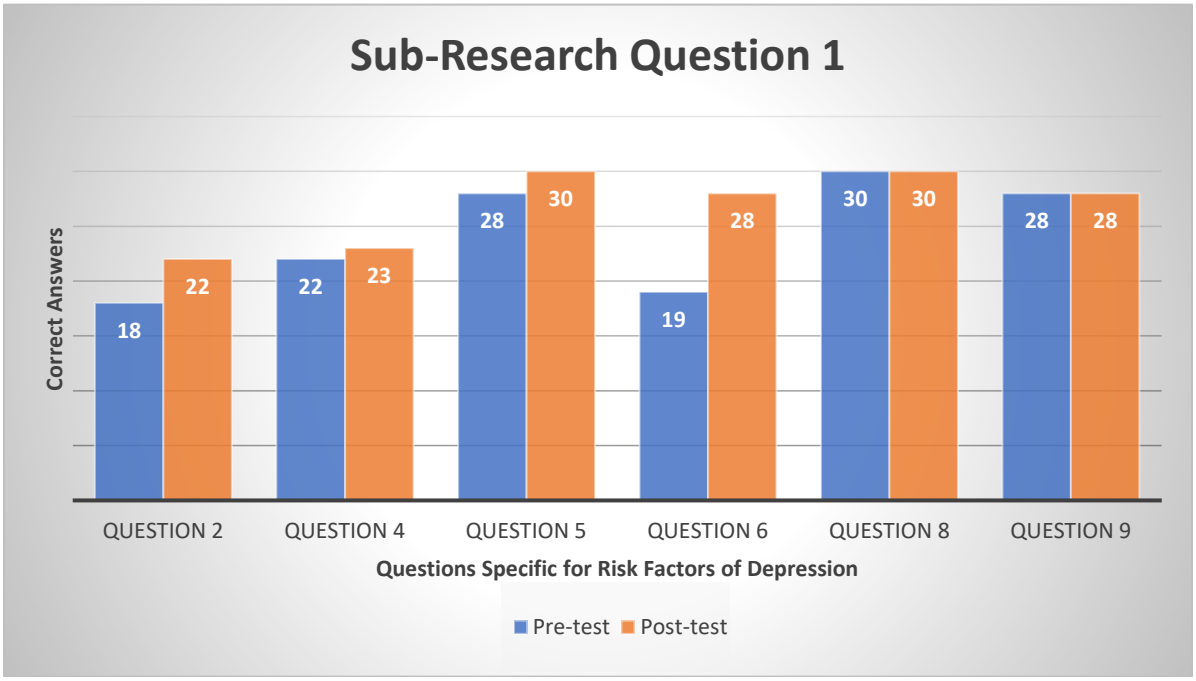
Table 9. Scatterplot of Scores by Level of Education.



Note. This table displays pre-test scores separated by educational level with outlier removed.

Sub research question, *Can nursing home licensed nurses and CNAs identify risk factors of depression?* sought to look specifically at whether risk factors for depression can be identified by correct responses for questions 2, 4, 5, 6, 8, and 9. Eighteen participants answered each question correctly with all participants answering question 8 correctly on the pre-test. Twenty-two participants answered questions correctly for the post-test with all participants answering questions 5 and 8 correctly. The combined average for all six questions on the pre-test was 80.33%. The combined average for all six questions on the post-test was 90.17%. Both pre-test and post-test participant performance were greater than the established standard of 78.7% by Gabriel and Violato (2009). Table 10 illustrates these results.

Table 10. Participant Ability to Identify Risk Factors of Depression.



Note. This table displays the number of participants that correctly answered questions 2, 4, 5, 6, 8, and 9 correctly.

Summary

Data for the study was collected using Google Forms. Thirty participants (N=30) completed the study. Percentages were used to explain the participants demographic information for age, gender, level of education, ethnicity, and employment. Descriptive statistics was used to analyze the data along with a paired sample t-test. A paired samples t-test was performed, excluding the identified outlier, comparing the pre-test scores to the post-test scores with a finding of statistical significance. The findings indicated a significant increase in knowledge of depression (p=.001) after an educational PowerPoint presentation. A scatter plot was created to illustrate pre-test scores sorted by educational level of the participant with a weak, positive correlation which was not statistically significant ($r_s(28) = .295$, $p = .064$). It was determined that participants in the sample population were able to identify risk factors of depression with participants on the pre-

test and post-test scoring greater than the 78.7% established standard for the testing instrument.

Chapter V

Discussion

Introduction

The literature review indicates a deficiency in the recognition and treatment of depression among the nursing home population. A scholarly research project was conducted to measure baseline knowledge of depression amongst licensed nursing and CNA staff working in nursing homes and to determine if an educational PowerPoint viewed by participants produced a measurable increase in their knowledge of depression. The study focused on the following research questions:

1. What knowledge of depression do licensed nurses and CNAs working in nursing homes possess prior to reviewing the educational PowerPoint?
2. Can an educational presentation over depression increase the recognition of depressive symptoms in nursing home residents by nursing home licensed nurses and CNA staff?
3. Does a higher educational level of licensed nurses and CNAs have a positive correlation with increased knowledge of depression?

Sub-Research Question

1. Can nursing home licensed nurses and CNAs identify risk factors of depression? (See Appendix B survey questions 2,4,5,6,8,9)

Data in relation to research question 1 was obtained through completion of the pre-test by participants. The testing instrument had an established standard of 78.7% by Gabriel and Violato (2009) with total of 16 of the 30 participants (53%) achieving a pre-test score of 22 or greater representing satisfactory performance. The average score for licensed staff and CNAs on the pre-test was 80% which suggests the nursing home staff, in the facilities utilized for this study, are adequately educated on depression for long-term care patients. Pre-test scores could also indicate that the pre-test instrument was not specific enough to capture inadequacies of the staff. A larger sample from multiple states would need to be studied to determine if results from this study are generalizable to other states and facilities. In addition, an analysis of multiple state CNA education curriculum would need to be conducted to determine if Kansas requirements are comparable to other states. Education requirements and in-service education within different facilities may also be a contributable factor.

Research question 2 relates to the comparison of the pre-test and post-test scores of participants. A total of 26 of the 30 participants (86.6%) achieved a pre-test score of 22 or greater representing satisfactory performance. There were 10 more participants that achieved satisfactory performance on the post-test when compared to the pre-test. Following the educational PowerPoint, participants scored a combined average of 86.5% for a measurable increase of 6.5%. The paired samples t-test indicates a p value of 0.001 which is statistically significant.

Another potential issue with participant results could be the way in which the pre-test, educational PowerPoint, and post-test was administered. Participants received a link that provided access to the testing sequence on Google Forms. Participants were not

monitored when completing the pre- and post-tests which could have impacted scores if participants utilized outside materials while taking the tests. Participants could have also taken the tests with a partner. Either of these occurrences could be confounding variables effecting the outcomes of the study results (Tulchinsky & Varavikova, 2014).

The relation between participant educational level and their obtained scores was interesting. Bing-Johnson et al. (2016) found a positive correlation between levels of education and competence in nursing home care. The data from the study indicates there is no statistical significance in educational level and the achieved scores of participants. This discrepancy in the observed data and the literature may be due to the sample size of the study. A sample size of thirty participants netted two with some high school education, 11 high school graduates, 10 vocational graduates, four associates graduates, one bachelor's graduate, and two that identified as other schooling. In this instance, a larger sample size is needed for generalizable results.

Data relating to sub-research question 1 indicates participants performed very well answering questions targeting depression risk factors. A total of 22 of the 30 participants (73.3%) achieved a pre-test score of 22 or greater representing satisfactory performance. A total of 18 of the 30 participants (60%) answered all the targeted questions correctly on the pre-test with an increase in the number of participants with correct answers on the post-test following an educational PowerPoint presentation.

Another consideration that has a potential impact on the data is the COVID-19 pandemic that was affecting the world at the time of the study. During the pandemic nursing home residents were secluded from outside visitors to reduce transmission of the virus causing the pandemic. The loss of socialization from friends and family members

resulted in an increase in mental health issues for nursing home residents. A result of these events is an increased awareness of the nursing home resident's mental health status by licensed nursing and CNA staff. Participant's performance in the study could be directly related to the increased awareness brought about by the COVID-19 pandemic.

Evaluation of Theoretical Framework

Bennar's Novice to Expert Theory is relevant to this study and served as a guiding framework for the project. While there was no correlation in the data between educational level and the attained scores of participants, although there remains a small improvement from pre-test to post-test. The information provided to participants in the educational PowerPoint was targeting individuals in the novice to beginner stages of the theory. A guiding principle of Bennar's theory is that learning and developing skills is done through education, experience, and through developing skills of involvement with patients and family (Petiprin, 2020). Data obtained on years of experience would have been useful to add context to participant stage of professional development. Accounting for years of experience along with educational level of participants would help more accurately identify clinical stage of competence.

Recommendations for Future Research

The testing process and targeting a more diverse population are factors that need addressed in future research. A testing process that ensures no outside information is utilized will help measure individual participant baseline knowledge with more accuracy. A more condensed testing instrument might have been beneficial in two ways. A smaller instrument could produce more results as participants might not quit before completion of the PowerPoint and testing. Targeting a more diverse population to draw a sample from,

preferably from multiple states, could be beneficial in identifying if there is a measurable difference between state certification requirements have an influence depression knowledge.

Limitations of Study

One limitation is that the pre-test and post-test were only available for two weeks. Three facilities gave consent to allow the testing sequence to be presented to their staff. There were 212 eligible staff among the three facilities with 30 participants in the study for a sample size of 14.15%. A larger sample size would be more representative of the population. With more time, more facilities and more participants could be recruited. Another potential limiting factor was the willingness of participants to sit through a long testing sequence. A shorter testing sequence would help ensure participants finished all parts before opting to remove themselves from the study.

Implications for Practice/Health Policy/Education

Future studies of a similar nature would be needed to verify the findings of this study. However, if the findings of this study are accurate, other avenues of addressing the deficiency of depression recognition and treatment in the nursing home population need to be explored. An evaluation of depression assessment tools would be a logical next step followed by an evaluation of primary care providers assessment and prescribing practices.

Conclusion

Untreated and undiagnosed depression in the nursing home elderly is an issue affecting nursing homes today and will become more prominent as the baby boomer generation reaches that age group. Depression can decrease quality of life and complicate

other chronic diseases. Identifying the disorder is imperative to treating it. The staff working within nursing homes have the most contact with this population and should have knowledge of the disorder. The study was conducted to determine the current depression knowledge of licensed nursing staff and CNA's while also measuring if there was an increase in depression knowledge following an educational PowerPoint. Participants of the study displayed a reasonable knowledge of depression through test scores with a measurable increase gain following an educational PowerPoint.

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APPENDIX

Appendix A

Pre-test and Posttest Instruments

Depression Knowledge Test

1. What is your gender?

Female

Male

2. Which race/ethnicity best describes you? (Please choose only one.)

American Indian or Alaskan Native

Asian / Pacific Islander

Black or African American

Hispanic

White / Caucasian

Multiple ethnicity / Other (please specify)

3. What is your age?

Under 18

18-24

25-34

35-44

45-54

55-64

65+

4. What is the highest level of education you have completed?

Have not completed High School

High School Graduate

LPN

Associates Degree in Nursing

Bachelor’s Degree in nursing

5. Which of the following categories best describes your employment status?

Employed, working full-time

Employed, working part-time

Employed, working PRN

Appendix B

Pre-test and Post-test Survey

1. Which of the following statements about clinical depression is FALSE?

It is a medical disorder.

It is a weakness of character.

It is a common psychiatric disorder.

It affects both males and females.

2. What is the risk of death by suicide among depressed patients?

The risk is very minimal.

The risk is between 15% and 50%.

The risk is below 15%.

The risk is above 50%.

3. What are the lifetime chances of becoming clinically depressed?

One in 1000

One in 50

One in 3

One in 1

4. Which of the following is TRUE about the age of onset of depression?

Depression does not always begin in adolescence.

Depression can start in childhood or adolescence.

Depression can appear for the first time in middle-aged people.

Depression does not usually affect young children.

5. Which of the following, about sex differences in depression is TRUE?

Clinical depression only occurs in women.

Clinical depression is more common in women than men.

Clinical depression is more common in men than women.

Only men get depressed.

6. Which of the following is FALSE about the relapse of clinical depression?

The number of previous episodes of clinical depression increases the chances of subsequent episodes.

After the first episode of clinical depression, there is an increased risk of a second episode.

Maintenance treatment can reduce the chances of relapse.

After recovery, there is zero risk for recurrence.

7. Which of the following behavior is associated with poor outcome?

Taking antidepressant treatments regularly

Being involved in talk therapy (psychotherapy)

Staying sober

Stopping antidepressant medications if feeling well

8. What factors may trigger the onset of clinical depression?

Biological factors, such as genetics

Psychological factors such as having marital problems

Social factors such as losing a job

All of the above

9. Depression may be triggered by all the following EXCEPT:

Prolonged severe grief

Taking antidepressants

Certain medical conditions

The birth of a new baby

10. The following are indications of clinical depression EXCEPT:

Changes in sleep patterns

Poor concentration

Frequent crying for no obvious reasons

Occasional sadness

11. Which is NOT true about the differences between depression and a passing blue mood?

People with depression can "pull themselves together."

Depression can be disabling in day-to-day functioning.

Patients who are clinically depressed look sad.

Without treatment, symptoms of clinical depression can last for weeks, months, or years.

12. All the following are recognized symptoms of clinical depression EXCEPT:

Marked loss of interests.

Excessive sleep

Loss of energy

Good concentration

13. Which of the following is NOT a symptom of clinical depression?

Restlessness

Changes in appetite

Good decision making

Lack of energy

14. All the following are typical of patients suffering from clinical depression EXCEPT:

Negative thinking that can lead to self-defeating or suicidal behavior.

Mental fatigue and the inability to solve complicated problems.

Marked forgetfulness.

Normal memory.

15. Which is NOT a common symptom of clinical depression?

Poor motivation

Normal energy

Feelings of guilt or self-blame

Fatigue

16. Which of the following statements about the speed of response to the treatment with antidepressants is FALSE?

Symptoms improve immediately after treatment is begun.

Many antidepressants may take several weeks to start to work.

It is important to continue taking medication even if symptoms improve.

Not all symptoms respond to antidepressants at the same rate.

17. If medication does not improve depressive symptoms, one should:

Stop taking all medication.

Talk to a health care professional.

Double the pill dosage.

Ask friends about what to do.

18. Which is NOT a recognized treatment for clinical depression?

Medication

Talk therapy

Light therapy (photo-therapy)

Kiekie therapy

19. Which is NOT a common side effect antidepressant drugs?

Upset stomach

Sleep disturbances

Sexual side-effects (e.g. problems with sexual desire or orgasm)

Feelings of depression

20. Which is FALSE about the effectiveness of antidepressant medications?

About 30-40% of patients do not respond to the initial treatment.

Moderate symptom improvement may take few weeks to be achieved in those who will respond.

Using more than one antidepressant may be necessary for some patients.

Recovery of symptom can be achieved in all depressed patients

21. Which is NOT a common occurrence during treatment with antidepressants?

Gaining weight

Severe continuous headaches

Feeling sleepy

Sweating

22. Which is FALSE about the response to treatment with antidepressants?

Up to 80% of people with depression do get better with the right medication.

Most people with depression need to be treated for at least six to nine months to prevent relapse.

For some people, it is necessary to stay on medication for long-term maintenance therapy.

If the acute depressive symptoms are relieved, the patient should stop antidepressants.

23. Psychotherapy can help many people with depression. Which of the following statements about psychotherapy is FALSE?

Both individual and group talk therapy provides an opportunity to express and discuss thoughts and feelings with the therapist.

Therapy may help to resolve life issues that may contribute to depression.

All depressed individuals benefit from psychotherapy.

In psychotherapy, negative, and self-defeating thoughts can be replaced by more positive, realistic thoughts.

24. If one feels better during the course of treatment, one should

Stop taking antidepressant medication.

Discuss the course of antidepressants treatment with doctor.

Reduce the antidepressant dose by half.

Start a course of herbal treatment.

25. What should one do if one's first antidepressant medication fails?

Consult one's doctors.

Take sleeping pills.

Drink more alcohol.

Use magnetic therapy.

26. Which is FALSE about Electric Convulsive Therapy (ECT) for treating clinical depression?

It is proved to be effective.

It is a safe method.

It is no longer used for treating depression.

It is given under general anesthesia.

27. Which is FALSE about selecting the right antidepressant for someone with depression?

There are no available laboratory tests to guide doctors' choices for treating clinical depression.

Different people have different responses to antidepressants.

Doctors can tailor antidepressants to suit the symptoms of individual patients.

Doctors can always tell beforehand how a person is going to respond to the medication they prescribe.

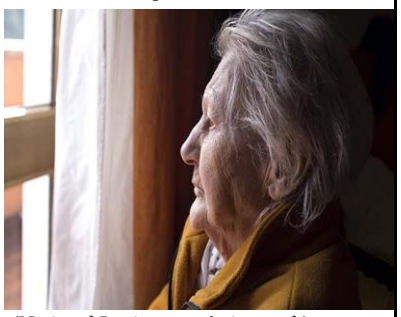
Appendix C

Depression Presentation

Depression in the Elderly

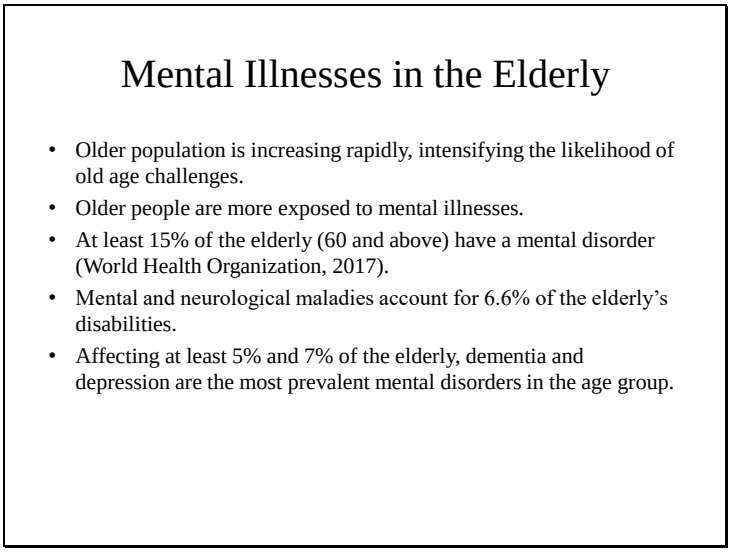
Jason Heflin

Pittsburg State University



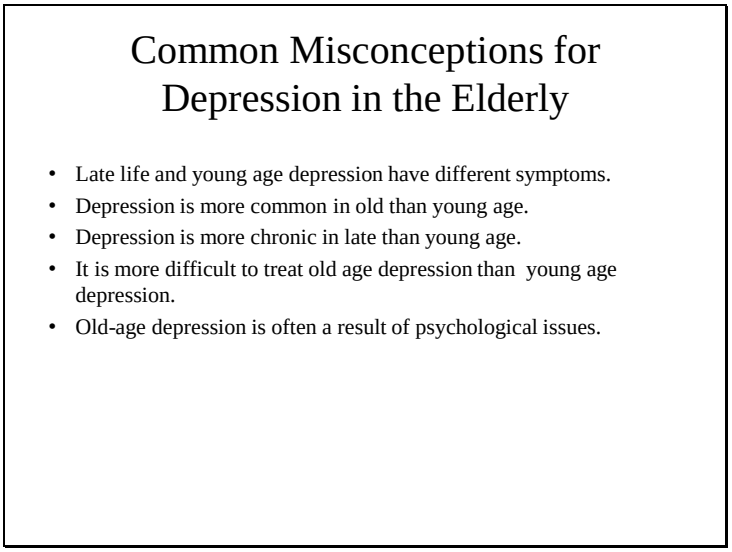
(National Institute on Aging, n.d.)

Slide 2



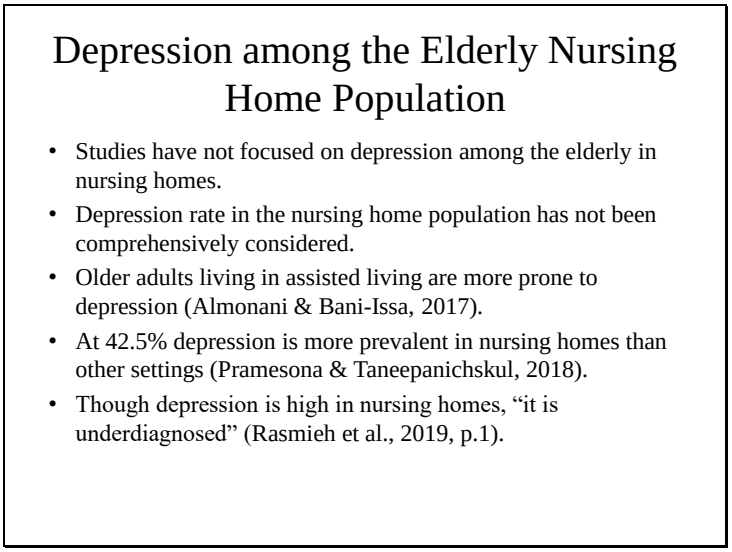
The older population is increasing rapidly, intensifying the likelihood of old age challenges for many. The World Health Organization (WHO) provides worrying statistics about the nature of mental health in the elderly population. Older people are more exposed to mental illnesses. WHO (2017) reports that at least 15% of the older people (60 and above) have a mental disorder. With disabilities being common among this elderly population, 6.6% of total disability results from mental and neurological ailments. Of these cognitive and neurological disorders, dementia and depression affect the most older adults, with 5% and 7%, respectively, suffering from the two conditions.

Slide 3



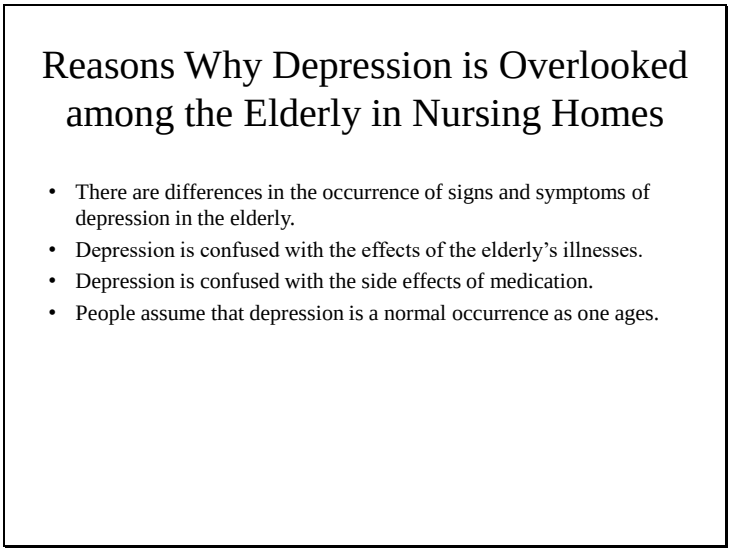
Haigh et al. (2018) provide five common myths and misconceptions about depression in the elderly and uses evidence to counter and provide factual truths. The first myth and misconception relate to symptoms of depression in old and young ages. While people think that the two are symptomatically different, Haigh et al. (2018) explain that depression symptoms are the same across adulthood and that observed symptomatic differences could be due to unaccounted for methodological issues such as onset age and the chronic nature of depression. Other myths that the study discredits are depression is more common, chronic, and difficult to treat in old than young age, and old-age depression is often a result of psychological issues.

Slide 4



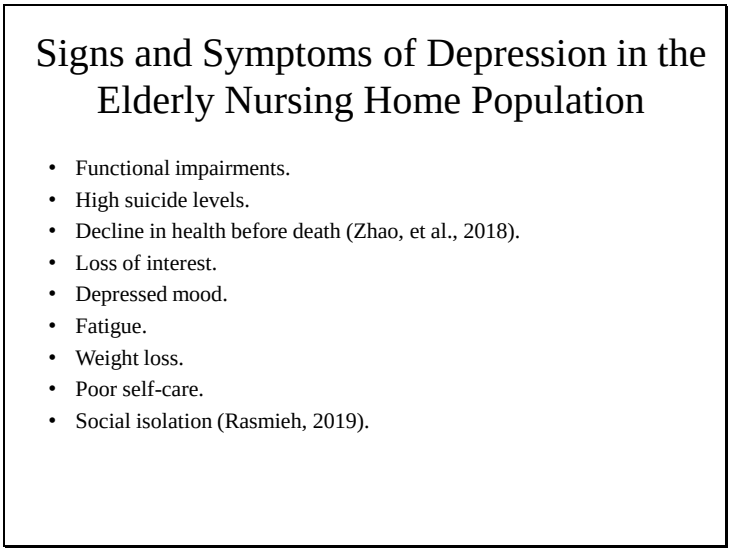
Most studies conducted have focused on other settings ignoring the elderly in the nursing homes. As a result, the depressed adults in nursing homes and the depression rate among the population are unconsidered. According to Almomani and Bani-Issa (2017), older adults living in assisted living are more prone to depression. Focusing on studying the prevalence and risk factors of depression in nursing homes, Pramesona and Taneepanichskul (2018) found that 42.5% of the older adults in nursing homes are depressed. At that rate, they explain that depression is more prevalent among the elderly in nursing homes than in other settings, as previous research has shown a significantly lower percentage. Therefore, though depression is high in nursing homes, "it is underdiagnosed" (Rasmieh et al., 2019, p.1).

Slide 5



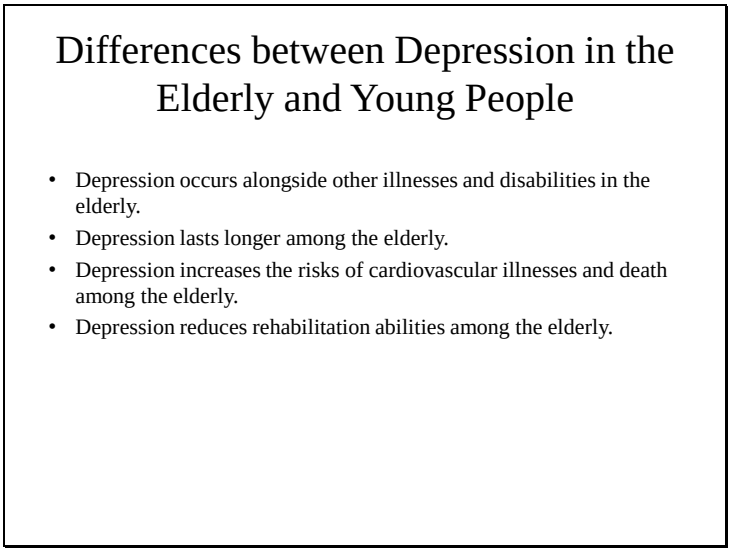
Depression is highly underdiagnosed among older adults in nursing homes mainly because its symptoms are ignored or overlooked. Several factors contribute to depressive symptoms being overlooked in this population. One major reason is the differences in the signs and symptoms of depression across different older people. In essence, there are various causes and risk factors of depression in the elderly, resulting in symptoms being displayed differently. Another reason is the confusion of the depressive symptoms with the effects of the elderly's illnesses and their medication. Also, the assumption that depression is normal as one ages leads to the under-diagnosis and under-treatment of depression in assisted living facilities.

Slide 6



According to Zhao et al. (2018), the common depressive symptoms among older people in nursing homes are functional impairments, high suicide levels, and health decline before their death. Depressive disorders in the more senior nursing home population affect their willingness to live. Therefore, other symptoms observed include loss of interest or dejected mood, fatigue, weight loss due to reduced appetite, poor-self hygiene to inadequate self-care, and social isolation (Rasmieh, 2019). These symptoms may be characteristic of one or several depressive disorders common in the elderly. For instance, dementia and depression have been said to occur concurrently.

Slide 7



There are significant differences between depression in the elderly and young people. One of the leading dissimilarities is the occurrence of depression alongside other illnesses and disabilities in the elderly population, making it easy to miss the signs and symptoms of geriatric depression. Also, while depression in young people can last for a short time, mainly if appropriate treatment is provided, it tends to last longer among the elderly. Moreover, depression in the elderly increases the risks of chronic and cardiovascular illnesses and death. Liguori et al. (2018) found a striking relationship between heart attack and depression in the elderly population. Another difference between depression in the elderly and young people is that it decreases rehabilitation abilities for the elderly.

Slide 8

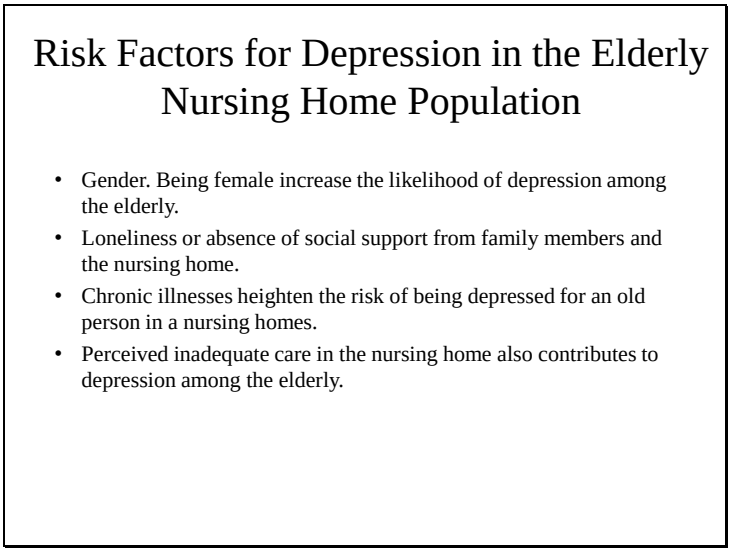
Causes of Depression in the Elderly Nursing Home Population

- Intense pain.
- Poor physical health.
- Prior institutionalization (Almomani & Bani-Issa, 2017).
- Increased anxiety.
- Mobility problems.
- Self-care issues (Rasmieh et al. 2019).

(Kumar, 2017)

The elderly population in nursing homes are exposed to significant challenges than their counterparts at home, especially immediately following their placement. Therefore, Almomani and Bani-Issa (2017) found that many older adults in nursing homes suffered depression in the first year following their settlement. The common causes of depression in this elderly nursing home population they list are: “pain, poor physical health, and prior institutionalization” before placement (p.1646). Besides, Rasmieh et al. (2019) found that anxiety, mobility problems, and self-care issues were also a common complaint and cause of depression for those in nursing homes. All these issues increase the stress level for older people in nursing homes, ultimately leading to depression.

Slide 9



Pramesona & Taneepanichskul (2018) found the risk factors for depression among the elderly in nursing homes are: gender, loneliness, chronic illnesses, and perceived lack of care. While depression occurs across both genders, the study found that females were more prone to depressive tendencies. Loneliness resulting from social isolation is also a significant cause of depression in the elderly at nursing homes. Loneliness was associated with the length of stay in the nursing home and the psychological support from family members. Having three or more chronic illnesses is also a significant risk factor for depression in the nursing home population, as is apparent care inadequacy. Care inadequacy occurred in the univariate and multivariate analysis of the depression risk factors.

Slide 10

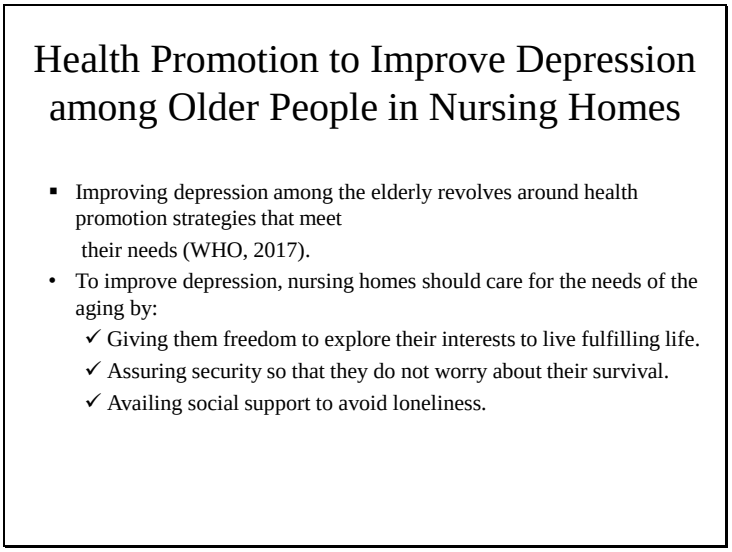
Consequences of Depression in Older Adults in Nursing Homes

- High mortality.
- Increased medical problems.
- Sleep disruptions.
- Physical pain.
- Diminished physical exercise.
- Poor eating which may result in malnutrition or obesity.
- Self neglect.

(Human Rights Watch, 2018)

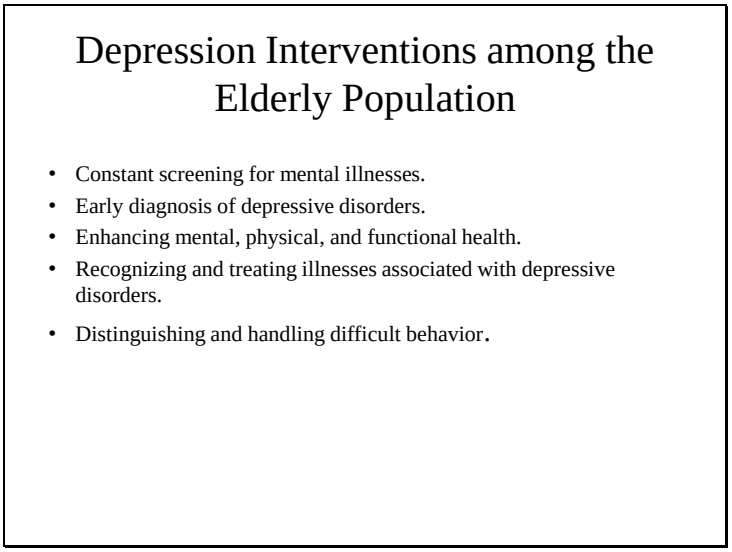
When left untreated, depression can have severe consequences for the elderly nursing home populations. Almomani and Bani-Issa (2017) explain that untreated depression can cause sleep disruptions, reduce physical activities, encourage poor eating habits and self-neglect. These factors have short-term and long-term consequences, such as malnutrition or obesity. The depressed older person may also suffer from increased medical problems, especially chronic illnesses. Overall, untreated depression increases the chance of death for older people.

Slide 11



WHO (2017) notes that improving depression among older people revolves around health promotion strategies that meet their needs. As a result, nursing homes can promote health among older people by reducing depression causes and risk factors. Doing so necessitates giving the more senior person autonomy over their lives. Nursing homes have to allow older people to do things that they make them appreciate their lives. Also, nursing homes should provide and assure security. Security revolves around many things, including shelter and food. Besides, social support is critical in the mental health of not just the elderly but everyone. Providing avenues that prevent isolation can help reduce depressive disorders among this population.

Slide 12



Nursing homes can accomplish different goals to provide interventions for depression in their aging populations. Since depression often occurs without being detected, nursing homes should continuously screen their residents for mental illnesses, diagnose depression early and begin treatment. They can also enhance mental, physical, and functional health, recognize and treat illnesses associated with depressive disorders, and distinguish and manage problematic behavior.

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Treatment Modalities for Depression in Older People in Nursing Homes

- The following are some of the treatment modalities that can be used instead of or alongside medication:
  - ✓ Cognitive-behavioral therapy.
  - ✓ Problem-solving therapy.
  - ✓ Physical exercise.
  - ✓ Behavioral activation.

(National Institute on Aging, n.d.)

Holvast et al. (2017) "non-pharmacological treatments" are better and more useful among older people as antidepressants add to polypharmacy and potential drug interactions. They found that cognitive behavioral therapy and problem-solving therapy helped in short-term follow-up of depressive disorders. Psychotherapy treatments help patients in identifying, avoiding, and overcoming destructive behaviors. When used in treatment of depression, psychotherapy helps in countering symptoms of depressive disorders, with the overall possibility of increasing the wellbeing of the patient and resulting in a much more fulfilling life. Behavioral activation and physical exercise allows the patient to take active role in treating and preventing reoccurrence of depressive symptoms by managing the causes and risk factors.

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