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### UNIVERSITY OF SAN DIEGO

### Hahn School of Nursing and Health Science

## DOCTOR OF NURSING PRACTICE

Evaluation of Depression Screening Frequency in the Geriatric Population: A Pilot Project

by

Neha Bhagat BSN, RN

# A Doctor of Nursing Practice Portfolio presented to the

FACULTY OF THE HAHN SCHOOL OF NURSING AND HEALTH SCIENCE UNIVERSITY OF SAN DIEGO

In partial fulfillment of the

requirements for the degree

### DOCTOR OF NURSING PRACTICE

May 2023

Dr. Rachel Gerard-Buonomo DNP, FNP-BC, AGPCNP-BC Faculty Advisor

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Lastly, I would like to dedicate this DNP project to my late grandfather. It was him who inspired me to research evidence-based guidelines about depression in the elderly. Unfortunately, my grandfather suffered a massive heart attack in 2019, but that is not what ultimately took him. Following his three-year recovery, I saw a rapid decline in his mood and belief in himself. He was not able to physically do the things he loved anymore. He was not able to go for his walks around the neighborhood, he couldn't stand for hours cooking his grandchildren a meal, and he couldn't stay up a night to tell us stories of his childhood because all he wanted to do was sleep. My grandfather was depressed, but not a single provider acknowledged this. Even worse, my grandfather didn't acknowledge it. In honor of him, I will continue the significance of this project into my daily practice as a nurse practitioner. And to my Dada, I love you.

**Documentation of Mastery of DNP Program Outcomes** 

# **Final Manuscript**

Evaluation of Depression Screening Frequency in the Geriatric Population: A Pilot Project

Neha Bhagat, BSN, RN

Dr. Rachel Gerard-Buonomo DNP, FNP-BC, AGPCNP-BC Faculty Advisor

University of San Diego Doctor of Nursing Practice Program

#### Abstract

**Introduction:** The purpose of this evidence-based practice Doctor of Nursing Practice (DNP) project was to emphasize the importance and address the frequency of depression screenings for patients 65 years and older who reside at a nursing home. The first goal was to conduct a retrospective chart review of 18 patients residing at an assisted living facility (ALF) to determine whether a depression screening was completed two-four weeks after admission. The second goal was to educate ALF staff on evidenced-based practice of the importance and frequency of depression screenings for the elderly. The third goal was to increase ALF staff knowledge on how to conduct a depression screening and what specific depression screenings were appropriate for their clientele.

**Background:** Depression in older adults often goes undiagnosed and untreated because it is often unscreened and characterized as a normal part of aging. Depression affects more than 6.5 million Americans aged 65 and older. Geriatric patients who reside at nursing homes (NH) are at high-risk to develop depression. The American Geriatric Society recommends depression screening two to four weeks after admission to a nursing home and then repeated screening at least every six months after admission. Determining the presence of depression in NHs is difficult due to other concurrent neurological diagnoses, but it is important to differentiate depression symptoms and begin appropriate treatment to support improved patient outcomes. **Methods**: The IOWA model was used to guide implementation of this pilot project. A questionnaire composed of five multiple choice questions was provided before and after a fifteen-minute educational in-service to determine whether staff understood how to administer the specified depression screening tool and appropriately decide what tool was appropriate for each patient.

**Results:** After chart review, there were zero charts that showed any depression screenings from time of admission. However, after the educational in-service, there was a significant increase in depression screening knowledge. The average pre-test score was 28% and the post-test average was 92%, reflecting an overall 228.57% increase in depression screening understanding. After said education, the staff was asked if they were willing to commit to incorporate appropriate screening tools in their practice moving forward and a resounding 100% were affirmative. **Evaluation:** In keeping with the recommendations of the USPSTF, screening is of clear benefit only in settings that have the means to offer accurate diagnosis, effective treatment, and monitoring over time. Healthcare staff working in primary care should have access and knowledge in appropriate screening tools. Additional research is needed to expand awareness of depression screening frequency within nursing homes utilizing tools over an appropriate span of time.

#### Keywords: Depression Screening, Assisted Living Facility, and Nursing Homes

According to the National Alliance on Mental Illness (NAMI), depression affects more than 6.5 million of Americans aged 65 years and older (NAMI, 2020). Studies show that depression is the second most common psychiatric illness within the geriatric population. Up to 30% of nursing home residents have minor or major depression (Tesky et. al., 2019). Although depressive disorders in old age can be improved and even cured with adequate therapy, they often go unnoticed in nursing home residents and remain untreated (Tesky et. al., 2019).

The World Health Organization defines health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" (Saracci, 1997). Because mental health is essential to overall health and well-being, it must be recognized and treated in all Americans, including older adults, with the same urgency as physical health (CDC, 2008). Compared to depression in community-dwelling older adults, depression in nursing home residents is more prevalent with estimates ranging widely from 11% to 78% (Simning & Simons, 2017). While depression screening in primary care has the potential to improve depression recognition and decrease existing depression care disparities, screening rates in primary care are low (Garcia et. al., 2022). Nursing home residents receive their health care by a primary care medical provider who visits their facility once a month. Nursing home residents' livelihood and healthy living is dependent on their providers who visit, family, nursing home staff and the environment in which they live in.

Despite these staggering facts, and the United States Preventative Services Task Force (USPSTF) recommendation to screen for depression in all adult populations, recent studies show that only 4.2% of primary care patients are being properly screened (Tesky et. al., 2019). Like mentioned previously, health care providers make their visits as legally required by the state. In the meantime, this population is being attended to by nursing staff employed at the nursing

home. There are the individuals with whom they interact with twenty-four hours, seven days a week. If anyone is going to be able to notice a difference in mood or feeling, it would be the nursing staff members. Depression assessments can be done by nursing staff. Nursing home facilities, including assisted living facilities, should train all staff to be alert for changes in a resident's mood (Stefanacci 2008). In Medicare-certified agencies, homecare nurses provide the vast majority (85%) of skilled care and are mandated to perform patient assessment periodically, including assessment for depression symptoms, yet homecare nurses do not feel adequately prepared and often fail to identify depression (Brown et. al., 2010). Educating nursing home staff on the different screening tools available and how to identify what tool is best for their individual resident can truly close the gap between identification and appropriate treatment of depression for the elderly.

#### Methods

#### **Evidenced Based Practice Model**

The IOWA Model was selected to guide this project because of its advocation for change based on a trigger problem or new evidence-based knowledge development to improve patient outcomes using an easy-to-follow, but detailed, seven-step approach (Camargo et al., 2017). This model melds quality improvement with research utilization in an algorithm that might looks disheveled, but instead is intuitively understandable. Once the problem is identified, a team of leaders is formed (Duff et al., 2020). This EBP project was guided by a DNP student, school faculty advisor, assisted living facility director and the assisted living facility nursing staff. It is the nursing staff team that is vitally important to carry this pilot EBP project through to eventually creating a standardized depression screening tool program. The IOWA model emphasizes pilot testing driven by an internal problem, which aligned coincidentally with this evidence-based pilot project (Melnyk & Fineout-Overholt, 2015).

### **Literature Review**

The review of the literature was completed using the following search engines: CINAHL, PubMed, and Cochrane. An initial search was completed using the keywords: "depression screening", "assisted living facility", "nursing homes", and "primary care depression in elderly", as well as combinations of these terms. Through this search over a thousand relevant articles were found. The search was then limited to articles containing the terms "depression in the elderly", "depression screening in nursing homes" or "primary care and depression". A total of thirty articles were considered for selection and five were chosen for review with this project. These articles were chosen based on the relevance to the evidence-based pilot project at hand. *Synthesis of Study Results* 

Unfortunately, the answer to the question of how big an issue depression is in assisted living is enough to get one depression (Stefanacci, 2008). Depression all too often comes hand in hand with chronic conditions. This presents difficulties in not only making the diagnosis, but also in managing depression (Stefanacci, 2008). This article emphasizes the prevalence, diagnostic barriers, and diagnostic tools of depression within the elderly residing at an assisted living facility. Older adults undergo various life changes, such as relocating from a long-time residence, experiencing the loss of loved ones or friends, and facing declining health. Research conducted on depression in assisted living facilities reveals that around 20% to 24% of residents in such facilities exhibit depressive symptoms (Stefanacci, 2008). This means that in a typical facility with 100 beds, 20 to 24 residents may experience depression. Depression is frequently linked to higher levels of functional impairment, poorer self-perceived health, a reduced sense of control, less religious involvement, and a less optimistic view of aging.

This article also highlights diagnostic barriers in depression within an assisted living. Currently there is no mandated oversight for the screening and treatment of depression or other mental disorders in assisted living settings (Stefanacci, 2008). Most of the assisted living staff is not even trained in mental health disorders, screenings or otherwise. Beyond the lack of regulatory requirements, there is the stigma that still surrounds the elderly population about admitting to disorders of mental health. Elderly persons sometimes dismiss depression symptoms as an acceptable and normal response to aging. With that being said, assisted living staff can proactively assess for symptoms of depression by observation rather than relying solely on the resident to report changes in mood. Lastly, this article described three screening tools available that can be utilized in the elderly population with ease. The three tools described are the PHQ2/9, the geriatric depression screening tool (GDS) and the Cornell Scale for Depression in Dementia (CSDD).

Several recent studies suggest that the PHQ-9 is an effective tool for depression screening and monitoring because of its usefulness in diagnosing major depressive disorder, based on the DSM-IV-TR criteria, and for quantifying severity (Snowden et. al., 2009). The PHQ-9 depression screening tool has been translated into forty-nine languages. The GDS and the PHQ-2 were also among the strongest recommended for use to screen for depression in communitybased older adults. There are several considerations to consider when screening the elderly population for depression. Some of the considerations include time required to screen, language and cultural barriers, and cognitively impaired individuals. Depression and dementia are the two most frequent psychiatric syndromes in the older adult population (Brown et. al., 2015). The purpose of this evidence-based guideline was to improve detection of depression in older adults with dementia. As recommended by the American Geriatrics Society (AGS), any individual over the age of sixty should be screened for depression periodically. The AGS recommends depression screening two to four weeks after admission to a nursing home and then repeated screening at least every six months after admission (Snowden et. al., 2003). This article implemented the utilization of the Mini-Mental State Exam (MMSE) and the GDS or CSDD screening tool depending on the level of cognitive functioning for the individual. If a patient scores fifteen to twenty-three on the MMSE, the GSD short form screening tool can be utilized. However, if the patient scored below a fifteen on the MMSE, the CSDD is administered (Brown et. al., 2015). Because many patients with dementia may be unable to self-report symptoms of depression, the CSDD derives information from both the patient and the observer/informant, which, in this case, would be assisted living staff members.

Richard Smith PhD and Suzanne Meeks PhD both investigated screening older adults for depression and the barriers across clinical discipline training. The aim of this study was to examine the influence of barriers on clinical trainee's decisions to screen for depression in older adults (Smith & Meeks, 2019). Previous research indicated that older adults are likely to visit primary care for both mental and physical health needs, but that physicians often did not adequately identify or screen for mental illness such as depression (Mitchell et. al., 2010). Clinical trainees should be educated and trained to screen on first contact with a patient, during times of admission to a nursing home or assisted living. Trainees should also be aware that depressed older adults may present with more agitation or somatic symptoms as a result of a comorbid illness (Smith & Meeks, 2019). Awareness of how clinical practice barriers affect one's decision to screen is crucial in making education and training more effective. Understanding these barriers can help healthcare providers and organizations develop targeted strategies to overcome them and improve screening rates.

#### **Project Plan and Implementation Process**

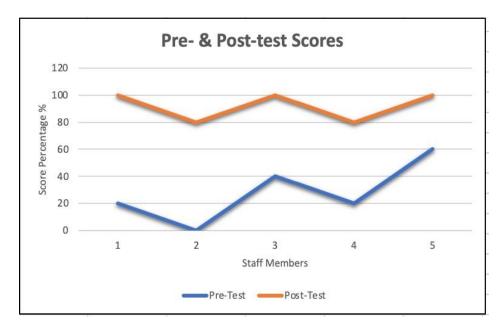
This project was implemented in collaboration with an assisted living facility and their staff, along with Dr. Rachel Gerard-Buonomo DNP, my faculty advisor. The purpose of this evidence-based practice DNP project is to emphasize the importance and address the frequency of depression screenings for patients 65 years and older who reside at a nursing home. Firstly, a clinical question was developed followed by a discussion with assisted living facility staff and administrative director. Next, IRB approval was given by the University of San Diego. It was then that a retrospective chart review was completed on 18 eligible residents of an assisted living facility located in West Hills, CA. After gathering retrospective data, a DNP-led educational inservice was rendered to assisted living facility staff regarding the different types of depression screening tools available and which screening tool was appropriate for which resident.

A questionnaire composed of five multiple choice questions was provided before and after a fifteen-minute educational in-service to determine whether staff understood how to administer the specified depression screening tool and appropriately decide what tool was appropriate for each patient (*Appendix B*). The intention of this questionnaire was to gather whether educating clinical staff made a difference to preparing them to conducting depression screening with their assisted living facility residents. Preparing the staff that spend a significant time with residents can help depict an accurate description of a resident's mood changes or behavior regarding a diagnosis of depression.

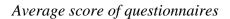
# Results

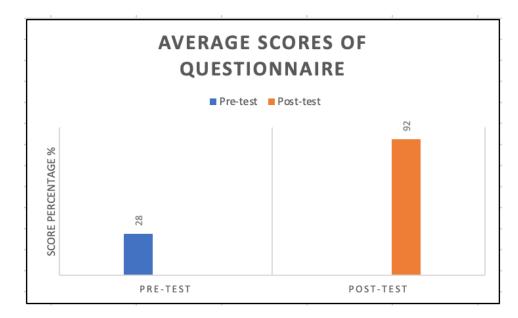
# Figure 1

Pre- & Post- test scores



# Figure 2





After my initial retrospective chart review, but before the education, there were zero charts that showed any depression screenings from time of admission. However, after the educational in-service, there was a significant increase in depression screening knowledge. As seen in both *Figure 1* and *Figure 2*, the average pre-test score was 28% and the post-test average was 92%, reflecting an overall 228.57% increase in depression screening understanding. After said education, the staff was asked if they were willing to commit to incorporate appropriate screening tools in their practice moving forward and a resounding 100% were affirmative. Since this was a pilot project, a follow up on improvement in chart documentation was not available as the assisted living facility is still deciding whether to commit to including a standard depression screening within their facility. This would be a great project to investigate further for a second DNP student.

#### Discussion

Depression screening in the elderly population is incredibly important for several reasons. Depression is a common mental health condition among older adults, with estimates suggesting that up to 20% of older adults experience depressive symptoms (Phelan et. al., 2010). Despite this high prevalence, depression in older adults often goes undiagnosed and untreated, which can have significant negative consequences for their physical and mental health. A few reasons why depression screening is particularly important for older adults include having increased risk, comorbidities, impaired quality of life, increased risk of suicide and potentially effective treatment.

Older adults are at increased risk of depression due to a range of factors, including chronic health conditions, social isolation, and loss of independence (Simning & Simmons, 2017). In relation to co- morbidities, depression in older adults is often comorbid with other medical conditions, such as heart disease, diabetes, and stroke, which can exacerbate symptoms and

increase the risk of negative health outcomes (Snow & Abrams, 2016). For impaired quality of life, depression can significantly impair an older adult's quality of life, leading to decreased socialization, decreased physical activity, and decreased ability to perform daily activities (Snow & Abrams, 2016). In relation to increased risk of suicide, older adults have a higher risk of suicide than any other age group, and depression is a significant risk factor for suicide (Stefanacci, 2008). And lastly, depression in older adults is treatable, and early diagnosis and treatment can significantly improve outcomes and quality of life (Snowden et. al., 2009).

Depression screening can help identify depression in older adults and ensure that they receive appropriate treatment and support. This can include counseling, medication, and lifestyle changes such as increased socialization and physical activity (Ulbricht et. al., 2019). Overall, depression screening is an essential component of comprehensive care for older adults and can improve their physical and mental health outcomes.

Educating nursing home staff about depression screening for the elderly is incredibly important for several reasons. As is known, depression is a common mental health condition among older adults, but nursing home/assisted living residents are particularly vulnerable to depression due to a range of factors including social isolation, loss of independence and chronic health conditions (Ulbricht, 2019). Nursing home staff are often the first to notice changes in residents' mental health, making them well-positioned to identify potential signs of depression. By educating nursing home staff about depression screening, they can become more attuned to the signs and symptoms of depression, leading to earlier detection and treatment. Enhanced communication between residents, staff, families, and primary care providers can help reduce the stigma associated with depression and encourage residents to seek help if they are experiencing symptoms.

#### **Cost-Benefit Analysis**

This educational in-service was the first step in what could be a multifaceted evidencebased project. While the cost of this project was very little, the impact it has on the health of persons sixty-five and older is priceless.

Depressive symptoms and DSM-IV depression disorders in elderly patients are associated with significantly higher health care costs, even after adjustment for chronic medical illness (Katon et. al., 2003). Katon and colleagues (2003) computed the excess costs of minor and major depression as at least \$1045 per person per half year which they called a conservative estimate. Preventing 1785 onsets of depression diagnosis would thus result in a cost saving of at least \$1.9 million for every million elderly people in the population. By identifying and treating depression early through screening and within primary care provider visits, health care costs can be reduced. In intangible costs, nursing home residents can improve their quality and productivity of life.

Primary care providers have had a hard time receiving payment for providing mental health services in their offices. However, now, screening for depression is covered under the ACA by both CMS and private payers (Savoy & O'Gurek, 2016). For Medicare, annual depression is a fifteen-minute time-based code that is covered using ICD-10 code Z13.89, "Encounter for screening for other disorder" (Savoy & O'Gurek, 2016). Another example includes the insurance company Aetna. Aetna will reimburse for PHQ-9 if a provider submits a CPT 99420, "Administration and interpretation of a health risk assessment instrument", in conjunction with diagnosis code Z13.89 (Savoy & O'Gurek, 2016). Overall, the availability of payment for depression screening services through CMS and private payers is an important step forward in the recognition of the importance of mental health in primary care settings. It provides a financial incentive for primary care physicians to offer depression screening and other mental health services to their patients, which can help to improve outcomes and reduce the burden of depression on individuals and society as a whole.

### Conclusion

In conclusion, the USPSTF states that treatment of adults and older adults with depression identified through screening in primary care settings with antidepressants, psychotherapy, or both decreases clinical morbidity (Siu et. al., 2016). In keeping with the recommendations of the USPSTF, screening is of clear benefit only in settings that have the means to offer accurate diagnosis, effective treatment, and monitoring over time. Healthcare staff working in primary care should have access and knowledge in appropriate screening tools. Giving NH staff access to and education on depression screening tools will help primary care providers better address their individual patient's needs. Additional research is needed to expand awareness of depression screening frequency within nursing homes utilizing tools over an appropriate span of time.

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### **Appendix A: Pre-/Post- Questionnaire**

Pre-test and Post-test Survey

Please answer the following questions to the best of your ability:

- 1. What individual would the Cornell Scale for Depression (CSDD) Screening tool be most appropriate for?
  - a. A patient diagnosed with moderate to severe dementia
  - b. A patient who is non-verbal
  - c. A patient who reports high levels of anxiety
  - d. A patient who can answer questions appropriately
- 2. What tool is often used as a "first-step" approach in screening for depression?
  - a. PHQ-5
  - b. PHQ-9
  - c. PHQ-2
  - d. PHQ-10
- 3. How often does the American Geriatric Society recommend to initially screen for depression for nursing home residents aged greater than 60 years old?
  - a. On the day of admission to nursing home
  - b. Two to four weeks after admission to nursing home
  - c. Six months after admission to nursing home
  - d. One year after admission to nursing home
- 4. How often should patients 65 years and older residing in nursing homes be screened for depression?
  - a. Every year
  - b. Every six months
  - c. Every three months
  - d. Every week
- 5. Which depression screening tool should be not self-reported?
  - a. Patient Heath Questionnaire 2 (PHQ-2)
  - b. Patient Health Questionnaire 9 (PHQ-9)
  - c. Geriatric Depression Scale (GDS)
  - d. Cornell Scale for Depression (CSDD)

#### **Appendix B: Poster Presentation**

